# CLEAN ENERGY MINISTERIAL

Advancing Clean Energy Together



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## **CEM IN QUOTES**

H.E. Joe Biden, President, United States

"We will closely align our efforts with the work of forums like the CEM and the MI— both of which I am proud to say the United States will chair next year."





H.E. Wang Zhigang, Minister of Science and Technology, China

"We will deepen cooperation and exchanges with other CEM members in the fields of new energy vehicles, smart grids, hydrogen, etc. and draw on best practices to jointly promote global clean energy development and build a cleaner, better planet."



H.E. Alok Kumar, Secretary, Ministry of Power, India

"Our association with CEM has been very old. We have been CEM's founding member and we intend to strengthen the CEM furthermore. I am also pleased to announce that we will be hosting the CEM14 in India."



H.E. Teresa Ribera Rodríguez, Deputy Prime Minister and Minister of Ecological Transition, Spain

"This is a very important initiative that works on how far and fast we can improve our cooperation, the learning processes, and how we can achieve this very important goal with all its challenges."



H.E. Kadri Simson, Commissioner for Energy, European Commission

"I welcome the decision to extend the mandate and raise the ambition of the CEM. I was pleased to take part in the launch of the Global Hydrogen Ports Coalition and to join and lead together with Canada and the US a new Initiative on Empowering People. These and other CEM workstreams will make a difference in this decade. We must all use the next more ambitious phase of CEM for turning our goals into real action and tangible results."



lea

H.E. Dr Fatih Birol, Executive Director, International Energy Agency

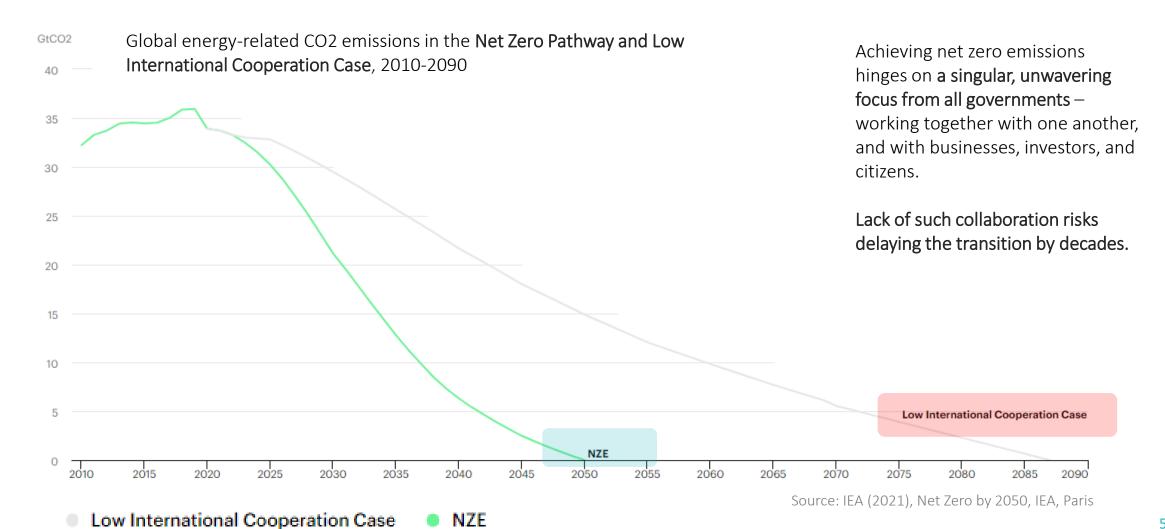
"The IEA is proud to both host and be a key partner of the CEM. The CEM is a proven and popular forum for important practical work that accelerates our clean energy adoption and we work closely together to build impactful global coalitions of countries companies and our international experts to accelerate clean energy transitions around the world."



## CLEAN ENERGY MINISTERIAL (CEM)



## NET ZERO REQUIRES STRONG INTERNATIONAL COLLABORATION



## **CEM MISSION**

The world is undertaking the fastest and most far-reaching energy transition in history.

The CEM brings together a powerful **COMMUNITY** of the world's largest and leading countries, companies, and international experts to achieve one mission – **ACCELERATE CLEAN ENERGY TRANSITIONS**.

CEM members have agreed that it should work to supercharge THREE CRUCIAL SHIFTS this decade:

#### SCALE

Clean energy adoption this decade must far outpace the last, moving from niche- to mass- to massive-scale deployment.

#### **SECTORS**

Clean energy action must grow from the power sector to every sector, and from energy ministries to every ministry.

#### SOCIETY

An inclusive, whole-ofsociety approach must look from governments and companies to consumers and citizens.

## **CEM VALUE PROPOSITION**



#### **GLOBAL LEADERSHIP**

CEM Members represent 90% of installed RE power generation capacity, 80% of global RE investments & the majority of public R&D.



#### SINGLE MISSION

Accelerate clean energy transitions around the world.



#### FLEXIBLE APPROACH

Members can form or join clean energy workstreams in line with their priorities.



#### **OPEN PLATFORM**

Many leading international organisations, companies, think tanks, foundations.



#### **ACTION COALITIONS**

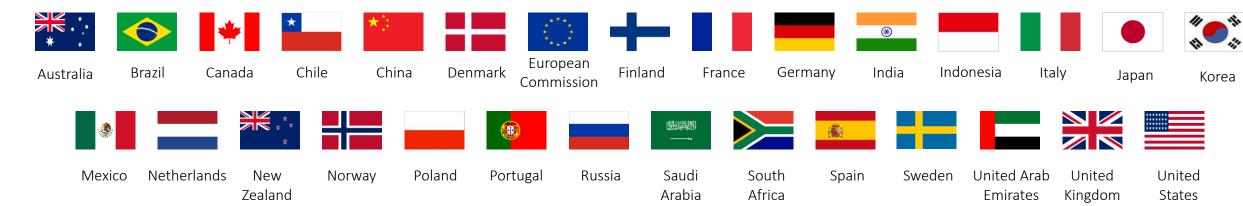
Activities are in a state of constant renewal, with action coalitions coming together to design and deliver new workstreams.



#### **CEM COMMUNITY**

The CEM community consists of the world's best international organisations and most influential actors.

## **CEM'S 29 MEMBERS**



## 19 PARTICIPANTS



Austria Argentina Costa Rica Czech Egypt Ghana Greece Hungary Israel Jordan Kenya Morocco Mozambique Nigeria Paraguay Philippines Romania Switzerland Uruguay Republic

## **KEY PARTNERS**





## **HOW DOES THE CEM WORK?**

The CEM builds **Global Action Coalitions** to achieve clean energy goals and advance their transitions. The CEM operates through **three key pillars:** 

- **CEM Ministerial:** An annual meeting of its ministers, partners and community.
- CEM Work Programme: A combination of international campaigns and initiatives spanning the clean energy spectrum.
- **CEM Secretariat:** a small, flexible team that serves the ministerial, all workstreams and members.

## **CEM MINISTERIAL**



















#### **NEXT MINISTERIAL MEETING**

21-23 Sep 2022 - CEM13-MI7 (GCEAF) will take place in Pittsburgh, Pennsylvania, US.





## **CEM MINISTERIALS 2010-2015**

#### CEM<sub>1</sub>

#### **United States**

- Launch of 11 Initiatives under three themes:
- Global Energy
   Efficiency Challenge
   – Appliances,
   Buildings and
   Industry, Smart
   Grids, Electric
   Vehicles, and
   Capacity Building
- Clean Energy Supply

   Carbon Capture,
   Use and Storage,

   Solar and Wind,
   Hydropower,
   Bioenergy
- Clean Energy Access

   Off-Grid
   Appliances, Women
   in Energy

#### CEM<sub>2</sub>

#### United Arab Emirates

- Publication of CCUS Action Group Recommendations
- Forum on women's contribution to clean energy
- High-Level Public-Private Roundtables on
  - Renewable Energy Scale-Up
  - Sustainable Cities
  - Technologies and Business Models for Energy Efficiency
  - Utility-Scale
     Energy Efficiency

#### CEM3

#### United Kingdom

- Launch of Solar and Wind Resource Atlas
- Launch collaboration with Sustainable Energy for All (SE4All)

## CEM4

India

#### High-Level Public-Private Roundtables on solar PV, clean vehicle adoption, power systems in emerging economies, renewables policy and finance, energy management systems, and minigrid development

- Innovation showcase pavilion with 40+ industry booths
- 1<sup>st</sup> SEAD Global Efficiency Medal Competition for energy-efficient flatpanel televisions

#### CEM5

#### South Korea

- 1<sup>st</sup> Global LEAP Appliance Awards
- 1st ISGAN Award of Excellence
- SEAD's Global Efficiency Medal for energy-efficient computer monitors
- High-level dialogues on clean energy finance
- Model CEM program with university students represent delegates from member governments
- Global LEAP host "PlugFest" for offgrid appliance and energy systems

## CEM6

## Mexico

- Launch of Global Lighting Challenge
- Launch of Power System Challenge
- Evolution of the Clean Energy Solutions Center
- SEAD Global Efficiency Medal Award
- ISGAN Award of Excellence for "Grid4EU"
- Launch of CEM 2.0 the CEM's 2<sup>nd</sup> phase

## CEM MINISTERIALS 2016-2021

#### CEM7

#### **United States**

- Launch of: Corporate Sourcing of Renewables, Energy Management Campaign, Advanced Cooling Challenge
- Keynote address from US-President Obama
- Public-Private Action
   Summit
- Startups and Technology Showcase with 100+ companies from 6 continents
- 1st C3E Symposium on Women in Clean Energy

#### CEM8

#### China

- Technology and Innovation theater showcases innovators, scientists, and entrepreneurs
- Launch of:

   Investment and
   Finance Initiative;
   Long-term Energy
   Scenarios
   Campaign; Equal by
   Campaign; CCUS
   Initiative; Power
   System Flexibility
   Campaign;
   Distributed
   Generation
   Campaign

#### CEM9

#### EC, Denmark, Sweden, Norway, Finland, Nordic Council

- Major Technology Exhibition and Innovation Theater
- Corporate Sourcing of Renewables Report
- Canadian G7
   Presidency sees all countries sign up to CEM's Equal by 30
   Campaign
- Graduation of Global Lighting Challenge, which far surpasses USD 4 bn high efficiency, affordable lighting products with over USD 14 billion sold
- Launch of NICE Futures Initiative

#### CEM10

#### Canada

- Launch Hydrogen Initiative and Flexible Nuclear Campaign
- Equal by 30
   Campaign exceeds
   100 signatories and gender principles
   tabled
- First Youth Forum held at CEM
- Nearly 850
   exhibitors at
   Innovation
   Showcase and
   participation from
   nearly 1,200
   companies
- First CEM-MI joint event on accelerating market uptake of smart grids

#### CEM11

#### Saudi Arabia

- Launch of Biofuture Platform Initiative and
- Drive to Zero Campaign
- Energy Management Campaign achieves the goal of 50,0001 ISO50001 certifications
- C3E international ambassador program
- 2<sup>nd</sup> LTES International forum convenes 700+ virtual participants from 83 countries
- 9 awards announced;4 major new reports launched
- 7,400 delegate registrations

#### CEM12

#### Chile

- CEM members reaffirm CEM's ambitious, next phase (CEM3.0)
- Launch of 4 new work streams: Industry
   Deep Decarbonisation Initiative, Ports
   Coalition,
   Empowering People Initiative and
   Biofuture Campaign
- 40+ Clean Energy Side Events (featuring 250+ high-level speakers from 40+ nations)
- Launch of 10 major clean energy reports
- 150,000 participants from 100+ countries
- <u>CEM12 Outcomes</u> <u>Report / CEM12</u> YouTube channel

## **CEM MINISTERIAL 2022**

#### **CEM13**

#### **United States**

- Date and Venue: 21-23 Sep 2022, Pittsburgh, Pennsylvania, US
- *Theme and Subthemes*: Year of Implementation: Jobs and Community, Technology Transformation, Unprecedented Deployment
- Attendees: over 3,500 attendees from governments, media, industry, and academia from around the world.
- Expected Outcomes:
  - Position CEM13/MI-7 as defining moment for international clean energy leadership
  - Focus on **actions** that deliver a **low-cost, zero-emissions energy future** providing opportunities, including high-paying jobs, to everyone.
  - Demonstrate progress in moving along the innovation-to-deployment continuum at an unprecedented pace and scale to meet climate goals
  - Reunite, strengthen, and energise CEM/MI global community and harnesses momentum for CEM3.0 to turn ambition into action.
  - Create **positive hybrid event** that deeply embeds both **net-zero goals** and clean energy transitions as a **whole-of-government**, **whole-of-society**, **whole-of-economy endeavour**, inclusive of national and local public entities, the private sector, NGOs, and academic institutions.
  - Demonstrate progress through clear updates on CEM workstreams, briefings to Ministers. including reports on progress toward goals and tipping points
  - Increase geographic diversity of membership to ensure global progress.
- Link: <a href="https://gceaf.org/">https://gceaf.org/</a>



## **CEM WORKSTREAMS**

#### INITIATIVE



- Convene a Coalition to collaborate and accelerate clean energy deployment.
- Focuses on Coalition, Collaboration, Change, Communication.
- Consists of Member leads (2-3), Coordinator, and CEM Secretariat.
- Engages with the **right Coalition** to best serve the goals.
- Last 3+ years.
- Success Metrics: Engagement/Activity metrics (active coalition participation.); Delivery metrics (delivery of work programme outputs to time, cost, quality); Output and Outcome metrics (expert meetings, analytical reports, project collaborations, regulatory alignment/coherence).

#### CAMPAIGN



- Inspire Global Action towards a specific ambitious clean energy goal.
- Focuses on Communication, Community, Commitments.
- Consists of Member leads, Campaign Manager, and CEM Secretariat.
- Engages with a broad audience and seeks to grow a powerful community that can generate impactful commitments.
- Lasts 1-2 years.
- Success Metrics: Awareness metrics (events, viewers, participants); Engagement metrics (followers, subscribers, amplification); Impact metrics (signatories and commitments).

## **CEM WORKSTREAMS**



#### **POWER**

- 21<sup>st</sup> Century Power Partnership
- Power System
   Flexibility Campaign
- Nuclear Innovation
- Flexible Nuclear Campaign
- International Smart Grid Action Network
- Regional & Global Interconnection



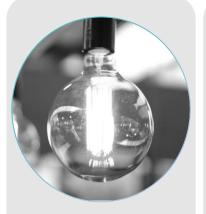
#### **TRANSPORT**

- Electric
   Vehicles Initiative
- EV30@30 Campaign
- Commercial Vehicles Drive to Zero Campaign



#### **INDUSTRY**

- Carbon Capture, Utilization, & Storage
- Industrial Deep Decarbonisation
- Green Public Procurement Campaign



#### **BUILDINGS**

 Super-Efficient Appliance & Equipment Deployment



#### **CROSS-SECTORAL**

- Hydrogen Initiative
- Global PortsHydrogen Coalition
- Biofuture Platform
- Biofuture Campaign



#### ENABLING ENVIRONMENT

- Empowering People
- Equality In Energy Transitions
- Equal by 30 Campaign
- Long-Term Energy Scenarios
- Investment & Finance
- Clean Energy Solutions Center

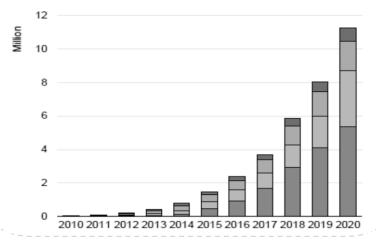
## **Example:** CEM Transport Activities

# **ACTORS** Foresight Argonne wbcsd @Fortum @.on **IBERDROLA** enel x RENAULT NISSAN MITSUBISH



#### **OUTCOMES**

- Government Fleet Declaration
- EV Pilot City Programme and Forum
- EVI Call to Action on Closing the Gap
- COP26 Global MoU on Zero Emission Trucks
- Support the GEF7 Global E-Mobility Programme
- Global EV sales are taking off...

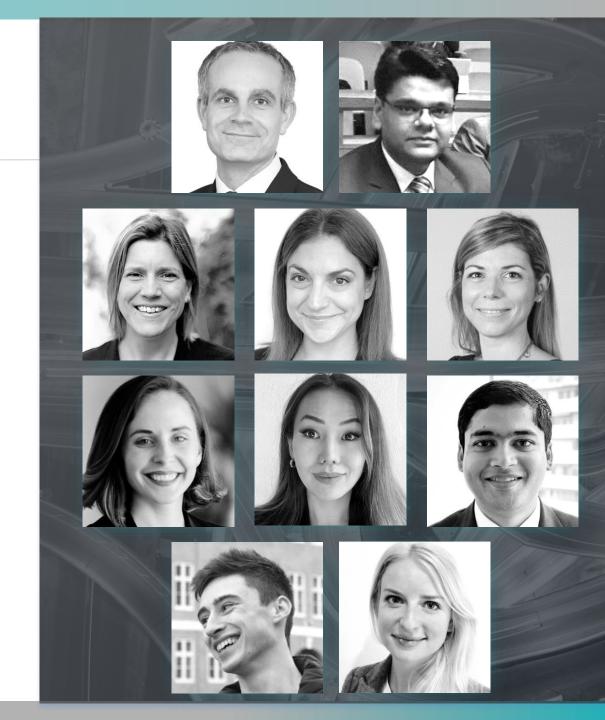


## **CEM SECRETARIAT**

A small, flexible team whose key functions include:

- Support the delivery of Ministerial Meetings, CEM Initiatives and Campaigns, partnerships and engagement.
- Coordinate CEM work and connect the strategic direction.
- Respond to the priorities of Members.
- Facilitate CEM Steering Committee and sub-group meetings.
- Manage communications and disseminate CEM insights.
- Manage governance and funding mechanisms.

Website: <a href="www.cleanenergyministerial.org">www.cleanenergyministerial.org</a> Email: <a href="mailto:Secretariat@CEMSecretariat.org">Secretariat@CEMSecretariat.org</a>



## **CEM IN QUOTES**



H.E. John Kerry, US Special Presidential Envoy for Climate, USA

"I am excited to kick off the launch of CFM 3.0 and MI 2.0 this week. They will be critical as we accelerate net zero. Limiting global warming to 1.5 degrees Celsius will be difficult, but international collaboration through the CEM Secretariat will help drive progress."



H.E. LI Yong, Director General, United Nations **Industrial Development Organization** 

"UNIDO is proud to join forces with member countries of the CEM and the broad CEM community to launch the new IDDI under the co-leadership of India and the UK. The initiative will occupy a unique spot in the global arena – it will leverage the political will to take actions, and generate the knowledge and tools needed to make a step-change towards industrial decarbonisation"



HRH Prince Abdulaziz bin Salman Al Saud, Minister of Energy, Saudi Arabia

"We have the most critical players in the green energy field gathered around the virtual table. This represents what the CEM is all about. We are a committed community of governments, international organizations, private sector players coming together to make a difference. We believe that the CEM is an essential platform for international collaboration."



H.E. Michael Bloomberg, UN Special **Envoy for Climate Ambition and** Solutions. Founder and CEO of Bloomberg L.P

"The work CEM does is critical to driving the global transition to clean energy. That is why so many of the world's major economies are represented here. CEM has an opportunity to advance the fight against climate change while at the same time spurring economic growth and innovation."

Inger Anderson, UN Undersecretary and Director General of UNEP

"I think we all know that unless we transform our energy systems we are heading for that major climate crisis with all the massive negative impacts for human health, for major major nature, for biodiversity and for poverty reduction."





Cross-Sectoral



#### **MISSION**

Advance power system transformation by facilitating collaborative research, information-sharing, and capacity-building among power system practitioners. Promote integrated policy, regulatory, financial, and technical solutions for the deployment of clean energy in combination with large-scale energy efficiency and smart grid deployment.

#### **GOALS**

The 21st Century Power Partnership conducts activities in four focus areas, which each represent an opportunity to achieve better global coordination along the path to clean, reliable, cost-effective energy systems:

- Develop and share knowledge on key topics related to the transformation of the electricity sector
- Strengthen and disseminate technical tools to accelerate the transition to a more modern electricity sector
- Bolster the capacity of experts needed to advance the policies, programs, and practices required to transition toward a clean and efficient power sector
- Apply the knowledge, tools, and capacity developed through this effort to improve national and subnational policies and regulations

#### **LEAD GOVERNMENTS**







COORDINATOR



#### **PARTICIPANTS**

Argentina, China, Denmark, Finland, Mexico, South Africa, Spain

#### **PARTNERS**

CSIR (South Africa), Danish Energy Agency, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ GmbH), Edison Electric Institute, ENERGINET, International Energy Agency (IEA), International Renewable Energy Agency (IRENA), Regulatory Assistance Project, The Nature Conservancy, USAID, World Bank (WB), World Resources Institute (WRI)

21 CPP CEM Website



Build momentum among industry and governments to enhance power system flexibility through the coordinated deployment of advanced power plants, smart electricity grids, demand-side management, and storage.

#### GOALS

- Coordinate high-level policy forums that aim to deploy, harness and consolidate public-private momentum on strategies for system flexibility.
- Deepen understanding of available flexibility resources through deep-dive events and workshops on grids and storage; demand-side management and digitalisation; and power plants and future markets. These provide a platform for operational experts from industry, ministries, regulators, and utilities to exchange experiences and devise concrete actions. The findings are passed to policy-makers and wider audiences through policy briefs.
- Publish policy briefs that summarize deep dive events and maximise visibility throughout the campaign.

# LEAD GOVERNMENTS COORDINATOR

#### **PARTICIPANTS**

Brazil, Canada, Chile, Finland, Germany, India, Italy, Japan, Saudi Arabia, South Africa, United Arab Emirates

#### **PARTNERS**

Agora Energiewende, Chargepoint, COWI, EDF, EpexSpot, ENEL, Energinet, Envision, First Solar, Fraunhofer ISIT, Nord-Deutsche Energiewende, GE, GIZ, J-Power, Kyushu Electric Power, MHPS, Next Kraftwerke, Ørsted, Restore, RSE, Siemens, UK Power Networks, Vestas, VBG Powertech, World Bank ESMAP



#### AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

#### **MISSION**

Foster new collaborations to explore the potential for nuclear energy's uses, innovations, and clean energy systems integration to bring rapid solutions to today's climate and energy security imperatives. Inform decision-making on technical options, investment, research, financing, and valuation. Enable clean energy solutions that will uplift global economies and quality of life in local communities

#### **GOALS**

- Include nuclear energy in holistic discussions on clean, integrated, flexible, and reliable energy options at both the ministerial and working levels.
- Support just energy transitions planning, clean energy systems design, nuclear-renewables integration, and research and investment decisions involving nuclear energy.
- Pool the experiences of leading experts on nuclear innovation, potential nearterm deployments, and electric and non-electric applications. Share technical, analytical, and communications tools and approaches.
- Advance social equity and economic empowerment.

#### **LEAD GOVERNMENTS**







#### **COORDINATOR**





#### **PARTICIPANTS**

Argentina, Brazil, France, Jordan, Kenya, Poland, Romania, Russia, United Arab Emirates, United Kingdom

#### **PARTNERS**

American Nuclear Society, ClearPath, Électricité de France (EDF), Energy for Humanity, Energy Options Network, Fastest Path to Zero (University of Michigan), Generation IV International Forum, Good Energy Collective, International Atomic Energy Agency (IAEA), IEA, International Framework for Nuclear Energy Cooperation (IFNEC), International Youth Nuclear Congress, Nuclear Energy Institute, Nuclear Industry Council, OECD Nuclear Energy Agency (NEA), Third Way, TerraPraxis, Women in Nuclear Global, World Nuclear Association



#### A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

#### MISSION

To provide an understanding of the economic benefits of advanced nuclear technologies to a wide spectrum of participating countries, including the qualitative and quantitative benefits of nuclear plants with highly flexible and reliable power output; strengthen nuclear-renewables integration; and expand electric and non-electric applications of nuclear energy.

#### **GOALS**

Model revenue opportunities for flexible nuclear power stations in various parts of the world and communicate the cost and technical performance requirements back to government stakeholders, advanced reactors design teams, and investors. Advance nuclear-renewables integration and clean energy-enabling opportunities.



#### **LEAD GOVERNMENTS**













#### **PARTICIPANTS**

Argentina, France, Jordan, Kenya, Russia, United Arab Emirates

#### **PARTNERS**

ClearPath, Energy Options Network, Électricité de France (EDF), Generation IV International Forum, International Atomic Energy Agency (IAEA), IEA, International Framework for Nuclear Energy Cooperation (IFNEC), International Youth Nuclear Congress, American Nuclear Society, Nuclear Energy Institute, Nuclear Industry Council, OECD Nuclear Energy Agency (NEA), Third Way, TerraPraxis, Energy for Humanity, Women in Nuclear Global, World Nuclear Association

Cross-Sectoral



#### **MISSION**

Accelerate the development and deployment of smarter electricity grids worldwide, enabling increased demand response and energy efficiency. It focuses on five principal areas: policy standards and regulation, finance and business models, technology system development, workforce skills and knowledge, user and consumer engagement.

#### **GOALS**

ISGAN is an international platform for the development and exchange of knowledge and expertise on smarter, cleaner, and more flexible and resilient electricity grids ("Smart Grids"). ISGAN provides an important channel for the communication of experience, trends, lessons learned, and visions in support of global, national and regional clean energy objectives as well as new flexible and resilient solutions for Smart Grids.

#### **LEAD GOVERNMENTS**







#### **COORDINATOR**





#### **PARTICIPANTS**

Australia, Austria,
Belgium, Canada, China,
Denmark, European
Commission, Finland, France,
Germany, Ireland, Israel, Japan,
Mexico, Netherlands, Norway,
Russia, Singapore, South Africa,
South Korea, Spain, Sweden,
Switzerland, United Kingdom

#### **PARTNERS**

European Technology and Innovation Platform Smart Networks for Energy Transition (ETIP SNET), Global Smart Energy Federation (GSEF), International Energy Agency (IEA), India Smart Grid Forum (ISGF), Mission Innovation (MI)



**Buildings** 



AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

#### MISSION

Accelerate the regional electricity grid and power market integration in order to maximise the use of cost-efficient clean energy sources available at the country level and regionally. Facilitate the development of sustainable, secure, and affordable regional electricity systems while contributing to economic growth, climate change mitigation, and decarbonisation of energy systems.

#### **GOALS**

- Facilitate the transition of energy systems to more interconnected, and electrified modern energy systems, and maximise the use of renewable energy. Facilitate policy discussions on the regulatory and market frameworks for electricity system integration.
- Support the development of sustainable, secure and affordable regional electricity systems to contribute to climate change mitigation and decarbonisation of energy systems.
- Increase the understanding of policy and regulatory issues regarding regional electricity interconnection. Address concerns on the security and reliability of large-scale interconnection.

#### **LEAD GOVERNMENTS**



#### COORDINATOR





#### **PARTICIPANTS**

Chile, Finland, South Africa, South Korea, United Arab Emirates

#### **PARTNERS**

China Southern Power Grid, ESKOM, Korea Electric Power Corporation (KEPCO), State Grid Corporation of China (SGCC)











#### CO SENETRIC VEHICLES

#### MISSION

Accelerate the global deployment of electric vehicles worldwide through analytical reports, policy recommendations, technical workshops and study tours, multilateral dialogues and technical assistance to regions or member countries.

#### **GOALS**

- Strengthen the understanding of the opportunities offered by electric mobility to meet multiple policy goals.
- Improve awareness of the drivers of EV deployment, supporting country-level policy and regulatory implementation.
- Outline a vision for the future of electric mobility, building consensus on policy goals (e.g. EV30@30) and benchmarking success.
- Bolster policy action and improve the visibility of national policy efforts in publications, such as the Global **EV Outlook**
- Mobilize targeted policy action and strengthening the impact of specific measures.
- Accelerate the geographical coverage of policy deployment on electric mobility through capacity building and sharing knowledge and experiences, accelerating learning, and specific activities such as the EVI Global Pilot Cities Program.

#### **LEAD GOVERNMENTS**





COORDINATOR



#### **PARTICIPANTS**

Chile, Finland, France, Germany, India, Japan, Netherlands, New Zealand, Norway, Poland, Portugal, Sweden, UK, US

#### **PARTNERS**

CALSTART, C40 Cities, ChargePoint, E.On, Enel X, Energías do Portugal, FIA Foundation, Fortum, Global Fuel Economy Initiative (GFEI), Hewlett Foundation, Iberdrola, International Council on Clean Transportation, International Zero Emission Vehicles Alliance, Low-Carbon Transport, Natural Resource Defense Council, Renault-Nissan Mitsubishi Alliance, REN21, Schneider Electric, The Climate Group, Tokyo Electric Power Company, UN-Environment, UN-Habitat, Vattenfall, WRI, WBCSD





Raise ambition, build awareness, and garner commitments on electric vehicle deployment from member countries and public and private participants. Member countries pledge to increase their share of EVs to 30% by 2030, thereby promoting innovation, economic and industrial development, energy security, and reduction of local air pollution.

#### **GOALS**

- Lower GHG emissions and help to achieve climate goals by driving the global EV agenda.
- Reduce air pollution, especially in urban areas. Air pollution is a major public health issue in cities via efforts such as the EVI Global Pilot City Programme.
- Increase energy efficiency: an electric powertrain uses significantly less energy per kilometre travelled compared with conventional powertrains. Enhance energy security: a shift to using electricity as a fuel helps to reduce dependence on fossil fuels.
- Help bring together and enhance collaboration among public and private sector stakeholders working on EV deployment.
- Solicit commitments from both government and nongovernment stakeholders for EV deployment expanded membership to 11 member countries and 29 supporting companies and organisations

#### **LEAD GOVERNMENTS**





**COORDINATOR** 



#### **PARTICIPANTS**

Chile, Finland, France, Germany, India, Japan, Netherlands, Mexico, New Zealand, Norway, Poland, Portugal, Sweden, UK

#### PARTNERS

C40, FIA Foundation, Global Fuel Economy Initiative (GFEI), Hewlett, Natural Resources Defence Council (NRDC), REN21, Partnership on Sustainable, Low Carbon Transport (SLoCaT), the Climate Group, UN Environment, UN-Habitat, World Resources Institute, ZEV Alliance, Chargepoint, Chargeup Europe, Energias de Portugal, Enel X, E.On, Fastned, Fortum, Iberdrola, Renault-Nissan-Mitsubishi Alliance, TEPCO, Vattenfall



Promote greater deployment of zeroor near-zero emission levels for commercial, medium and heavy-duty vehicles (MHDVs) – including mass global transit – and bring together governments and leading stakeholders to work collaboratively on requirements, policies, and programs that support the electrification of commercial vehicles.

#### **GOALS**

- By 2025, near- and zero-emission MHDVs are commercially viable and cost-competitive in first-success applications (also referred to as "beachhead" applications) in target global markets. By 2040, zeroemission MHDVs dominate in their segments.
- Gather commitments and pledges from EVI member and non-member governments, stakeholders and industry while encouraging, supporting and informing those that are undecided.
- Entities who take the pledge commit to taking actions that support achieving the aspirational target(s) within the identified timelines and sharing their experience and progress.
- Member and non-member countries would have an opportunity to work directly with CALSTART to build their own domestic Drive to Zero Programs. More info MoU: https://globaldrivetozero.org/mounations/

## **LEAD GOVERNMENTS** COORDINATOR



#### **PARTICIPANTS**

Austria, Chile, Denmark, Finland, Germany, Japan, Luxembourg, Netherlands, New Zealand, Norway, Sweden, Switzerland, Turkey, UK, Uruguay







#### AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

#### MISSION

To increase momentum on the deployment of CCUS as a viable CO2 mitigation option in a suite of clean energy technologies. It fosters strategic partnerships to accelerate both near and longer-term investment in CCUS and to advance deployment by making CCUS more competitive.

#### **GOALS**

- Ensure the spectrum of clean energy technologies under CEM includes CCUS.
- Create a platform for governments, the private sector, and investment community to engage and accelerate CCUS deployment.
- Facilitate identification of both near and longer-term investment opportunities.
- Disseminate emerging best practice in CCUS policy, regulatory frameworks and project development

#### **LEAD GOVERNMENTS**









**COORDINATOR** 



#### **PARTICIPANTS**

Australia, Canada, China, European Commission, Japan, Mexico, Netherlands, Nigeria, South Africa, United Arab Emirates

#### **PARTNERS**

Asian Development Bank, Carbon
Sequestration Leadership Forum, Global
CCS Institute, International Energy
Agency, Oil and Gas Climate Initiative,
World Bank, IEAGHG (operating agent),
Global Cement and Concrete
Association



A global coalition designed to stimulate global demand for low carbon industrial materials. In collaboration with national governments, IDDI works to standardise carbon assessments, establish ambitious public and private sector procurement targets, incentivise investment into low-carbon product development and design industry guidelines.

#### **GOALS**

- Encourage governments and private sector to buy low carbon steel and cement: IDDI
  advocates for governments to set procurement targets for the purchasing of
  decarbonised steel and cement.
- Source and share data for common standards and targets. Develop key definitions, tools, guidelines and publicly accessible data, enable industry to conduct rigorous reporting and industry benchmarking comparisons, define common methods and understandings of what constitutes decarbonised steel and cement products.

#### **LEAD GOVERNMENTS**





#### **COORDINATOR**



#### **PARTICIPANTS**

Canada, Germany, United Arab Emirates

#### **PARTNERS**

Mission Possible Platform,
Steel Zero Campaign, The
Climate Group, The
Leadership Group for the
Industry Transition (LeadIT),
IRENA, The World Bank





Public procurement of steel and cement represent very high shares of domestic markets for such materials across most major economies. The Green Public Procurement Campaign is an effort by participating members to drive the global decarbonisation of heavy industries such as steel and concrete by creating a market demand for near-zero carbon concrete and steel through public procurement.

#### **LEAD GOVERNMENTS**









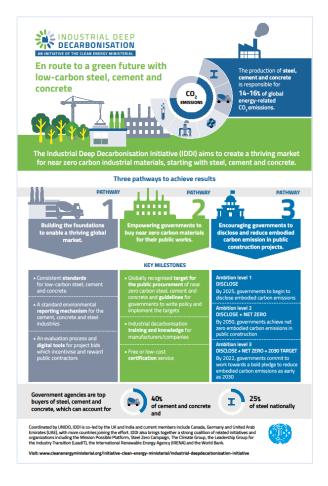
#### COORDINATOR



#### **PARTNERS**

The Green Public Procurement Campaign brings together a strong coalition of over 60 related initiatives and organizations across the private sector, civil society, intergovernmental organizations, trade associations, and leading experts from academia and think tanks to tackle carbon intensive construction materials such as steel and cement.

These organizations include the Mission
Possible Partnership of the World
Economic Forum, the Rocky Mountain
Institute, the Climate Group, the
Leadership Group for the Industry
Transition (LeadIT), Building Transparency,
and Agora Energiewende.





AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

#### MISSION

To address urgent global energy challenges and promote the manufacture, purchase, and use of energy-efficient appliances, lighting, equipment in buildings worldwide. The SEAD Initiative fosters information exchange on policies and activities, driving increased ambition and action, allowing participants to take advantage of best practices and lessons learned by other countries, and identifying opportunities for bilateral and multilateral cooperation.

#### **GOALS**

- Increase partner participation and engagement by providing the knowledge and tools needed to help impact standards and labelling, procurement, and incentives policy change
- Highlight the benefits and urgency of energy-efficient equipment and appliance policies among participating governments through technical analysis
- Increase awareness among manufacturers of the value of producing superefficient appliances and among retailers of the value of stocking such appliances through regional and global awards competitions

#### **LEAD GOVERNMENTS**









**COORDINATOR** 



#### **PARTICIPANTS**

Argentina, Australia, Brazil,
Canada, Chile, China,
Colombia, Denmark, Germany,
Ghana, Indonesia, Japan,
Mexico, Nigeria, Russia, Saudi
Arabia, South Africa, South
Korea

#### **PARTNERS**

Asia-Pacific Economic Cooperation, CLASP, ECOWAS
Centre for Renewable Energy and Energy Efficiency,
Kigali Cooling Efficiency Program, UN Environment
Programme, IEA Technology Collaboration Programme
on Energy Efficient End-Use Equipment (4E), Lawrence
Berkeley National Laboratory, United For Efficiency





Raise international ambition and advance longterm, commercial-scale clean hydrogen and fuel cell-related deployment globally, across all sectors. Achieve this via analysis, policies, programs, and projects that would make hydrogen a key enabler in the clean energy transition.

#### GOALS

- Help ensure successful deployment of hydrogen within current industrial applications.
- Enable deployment of hydrogen technologies in transport (e.g. freight, mass transit, light-rail, marine).
- Explore the role of hydrogen in meeting the energy needs of communities.



#### **LEAD GOVERNMENTS**











#### COORDINATOR



#### **PARTICIPANTS**

Australia, Brazil, Chile, Finland, Germany, India, Italy, New Zealand, Norway, Portugal, Russia, Saudi Arabia, South Africa, South Korea, Spain, Sweden, United Arab Emirates, United Kingdom

#### **PARTNERS**

Advanced Fuel Cells Technology Collaboration Programme, Hydrogen Council, Hydrogen Technology Collaboration Programme, International Partnership for Hydrogen and Fuel Cells in the Economy, International Renewable Energy Agency, Mission Innovation, World **Economic Forum** 



The Hydrogen Ports Coalition gathers a global coalition of relevant actors to accelerate the scale-up of clean hydrogen production and demand in ports and coastal industrial clusters.

#### GOALS

- Raise awareness on the role of ports and coastal industrial clusters
- Share information on clean hydrogen production and demand; bunkering of ships with hydrogen and/or derivates; best practices etc.;
- Policy dialogue, with the aim to share policy challenges, opportunities and recommendations to H2I members, partners and other stakeholders for scaling up clean hydrogen production and demand in ports and coastal industrial clusters.

#### COALITION MEMBERS (as of 6 August 2021)

Ballard Power Systems, Brunsbüttel Ports, Dock Sud Port, Côtes-d'Armor Chamber of Commerce (Ports of Le Légué, St Quay Portrieux, Erquy), Ennshafen Port, European Sea Ports Organisation (ESPO), Haropa Ports (Le Havre, Rouen, Paris), International Association of Ports and Harbors (IAPH), Free Hanseatic City of Bremen, Fremantle Ports, Flam Port, Hydrogen Council, Neltume Ports, New Energy Coalition, North Queensland Bulk Ports, Pecém Port Complex, Port of Antwerp, Port of Auckland, Port Authority of Valencia, Port of Bahia Blanca, Port of Bécancour, Port of Berlevåg, Port of Bordeaux, Port of Brisbane, Port of Duqm, Port of Farsund, Ports of Finistere, Port of Gothenburg, Port of Hamburg, Port of Halifax, Port of Houston, Port of Mejillones, Port of Montreal, Port of Rotterdam Authority, Port of Saguenay, Port of Trois-Rivières, Port of Vienna, Ports Australia, Portuguese Ports Association, Southern Ports, Vancouver Fraser Port Authority, Woodside Energy

**Buildings** 



#### MISSION

To lead global actions to accelerate development, scale-up, and deployment of sustainable bio-based alternatives to fossil-based fuels, chemicals, and materials.

#### **GOALS**

- Foster consensus on biomass sustainability, availability, and governance
- Promote policy best practices and convergence
- Enable supportive financing mechanisms
- Promote cooperation on policy, regulations, and technologies.

# LEAD GOVERNMENTS

#### **COORDINATOR**



#### **PARTICIPANTS**

Argentina, China, Denmark,
Egypt, Finland, France,
Hungary, Indonesia,
Morocco, Mozambique,
Paraguay, Philippines,
Portugal, South Africa,
United Kingdom, Uruguay

#### **PARTNERS**

IEA, IEA Bioenergy TCP, International Renewable Energy Agency, Food and Agriculture Organization, Global Bioenergy Partnership, United Nations Conference on Trade and Development, United Nations Industrial Development Organization, Sustainable Energy for All



Enable the reduction of GHG emissions and foster a circular economy by showcasing pathways by which countries, companies, and consumers can substitute sustainable bio- and waste-based Fuels, Chemicals, and Materials for their fossil equivalents

#### SUBSTIUTION CHALLENGE

To foster ambition and catalyse action, the Biofuture Campaign will develop and implement the Bio-based Substitution Challenge, whose signatories aspire to substitute bio- and waste-based Fuels, Chemicals, and Materials for 10% of their fossil carbon equivalent in relevant sectors and products by 2030, relative to a 2019 baseline.

#### **LEADGOVERNMENTS**











#### COORDINATOR

Biofuture Workshop &



#### **PARTICIPANTS**

Finland, United Kingdom

#### **PARTICIPANTS**

IEA Bioenergy TCP, FAO, Global Bioenergy Partnership, IRENA, Braskem, Rainzen, Canadian Fuels Association, Enerkem, Maersk, Novozymes, Staraenso, Praj, Low Carbon Fuels Coalition, Studio Gear Up





Convene the right people and partners – including those from underrepresented and marginalized voices – to bring forward the novel approaches and diverse perspectives needed to move the needle on achieving a just and equitable transition for a clean energy future.

#### **GOALS**

- Share lessons on needed and successful policies that support just clean energy transitions;
- Highlight different policy mixes to support workers and communities with models that meet the unique needs and circumstances of different member countries, industrial sectors and stakeholder communities;
- Advocate for diversity and inclusiveness in HR policies, working conditions and corporate governance; address the needs of youth, gender equality, including pay equity, retention of diverse staff, the promotion of inclusive culture, among other measures that would serve to marshal and develop all available talent to strengthen the global energy sector.

#### **LEAD GOVERNMENT**







#### **COORDINATOR**



#### **PARTICIPANTS**

Chile, Denmark

#### **PARTICIPANTS**

International Energy Agency (IEA), International Labour Organization (ILO), SDG7 Youth Constituency, the World Bank, UNIDO, World Energy Council



#### AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

#### **MISSION**

Develop energy policies and regulatory frameworks that help mobilise investment and financing to the clean energy sector at scale, particularly from private sources. It aims to create a unique partnership, bringing together energy ministers, other government agencies, private companies, and financial institutions.

#### **GOALS**

- Create a forum for peer-to-peer exchange of lessons learned and best practice across the clean energy investment and finance value chain;
- Conduct robust analysis and monitoring that advance understanding of investment and financing trends in clean energy and provide a benchmark for policy development;
- Build and/or disseminate state-of-the-art analytical tools and resources that support policy design, and investment facilitation within and across countries;
- Synthesize international experiences and best practice for creating the enabling conditions to support investment and innovative solutions to stimulate financing;
- Respond to requests from CEM member countries on specific investment-related cooperation. Acting as an agent for country-level engagement, including by "connecting the dots" and brokering support provided by a range of partners for policy design, technical assistance and capacity building.

#### **LEAD GOVERNMENTS**



#### PARTICIPANTS

Brazil, Canada, India, Netherlands, New Zealand, United Kingdom

#### **PARTICIPANTS**

Imperial College London, World Bank Energy Sector Management Assistance Programme (ESMAP), Climate Investment Funds Technical Assistance Facility for Clean Energy Investment and Finance (CIF-TAF).



**CEM IF Website** 

Contact: Secretariat@CEMSecretariat.org



Promote wider adoption and improved use of energy planning models and scenarios to help countries accelerate their transition to clean energy. Long-term energy scenarios are important tools that can identify options, assess risks, evaluate the roles of different energy technologies in energy systems, and help governments adopt the best policies for a costeffective and sustainable transition.

#### **GOALS**

- Integrating scenarios into decision making: Demonstrating how governments can use energy planning scenarios to ensure better policy making. And exploring how scenarios can be made more relevant to private investors.
- Improving scenarios for the clean energy transition: Examining how long-term energy scenarios can be strengthened to better account for potentially transformational changes to the energy system.
- Identifying capacity building requirements: Analysing where long-term energy scenario development can be improved, and how "best practices" can be shared to enhance institutional scenario planning capacity.

#### **LEAD GOVERNMENTS**





#### **COORDINATOR**



#### **PARTICIPANTS**

Brazil, Canada, Chile, Finland, Japan, Mexico, Netherlands, Saudi Arabia, United Arab Emirates, United Kingdom

#### **PARTICIPANTS**

China National Renewable Energy Centre, International Energy Agency, IEA Energy Technology Assistance Programme (IEA– ETSAP), Joint Institute for Strategic Energy Analysis, National Renewable Energy Laboratory, European Commission Joint Research Centre (JRC), State Grid Energy Research Institute, World Energy Council





Advance gender diversity in clean energy professions, recognizing that the transition to a clean energy future will only succeed if we harness all talent. The Equality In Energy Transitions Initiative is also an IEA Technology Collaboration Programme (TCP).

#### **GOALS**

The Equality In Energy Transitions Initiative (formerly C3E Initiative) aims to advance women's participation in clean energy by creating opportunities and closing the gender gap across four focus areas:

- Data Collection, Knowledge Building and Policies
- Awards and recognition
- Career development/mentorship, including the International Ambassadors Programme
- Dialogue and communications

#### **LEAD GOVERNMENTS**



**COORDINATOR** 



#### **PARTICIPANTS**

Australia, Austria, Chile, Czech Republic, European Commission, Finland, Germany, Italy, Sweden, United Kingdom

#### **PARTICIPANTS**

International Energy Agency (IEA)

Power Transport

Industry

Buildings

Cross-Sectoral



A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

#### MISSION

Close the gender gap in the energy sector by encouraging public and private sector organizations to work towards equal pay, equal leadership, and equal opportunities for women in the energy sector by 2030. It seeks to encourage governments, the private sector, and other organizations to sign up to a common set of high-level principles and to showcase how they intend to contribute to the Campaign's goals.

#### **GOALS**

Bring together leadership from across the energy sector to endorse overarching principles that galvanize action, and help all players – from private sector companies to governments at all levels – find common ground for action. Equal by 30 asks companies and governments to endorse principles, then take concrete action to increase the participation of women in the clean energy sector, and close the gender gap.

#### **LEAD GOVERNMENTS**



COORDINATOR

#### **PARTICIPANTS**

Australia, Austria, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, United Kingdom, United States

#### SIGNATORIES

International Energy Agency (IEA), Electricity Human Resources Canada, Energy Council of Canada, Women in Renewable Energy (WiRE) Canada, POWERful Women, The Global Women's Network for the Energy Transition (GWNET), Canadian Apprenticeship Forum, Canadian Coalition to Empower Women, Sustainable Energy for All, Women of Powerline Technicians, Global Wind Energy Council, StepUp



Equal by 30 Website

Contact: Secretariat@CEMSecretariat.org



Provide policymakers with free resources and advisory support on clean energy policies, regulations, and financing mechanisms to help governments reach their clean energy and development objectives quickly and cost-effectively. A source of high-quality clean energy policy and deployment information, providing expert assistance, peer forums, and training, bringing together a network of policymakers to work on clean energy solutions.

#### **GOALS**

Serve as a clearinghouse of high-quality clean energy policy and deployment information and to provide in-depth expert assistance, peer forums, and trainings through a virtual platform, bringing a broad network of policy makers together remotely to work on clean energy solutions.

#### **LEAD GOVERNMENTS**





#### **COORDINATOR**



#### **PARTICIPANTS**

Canada, China, European Commission, Germany, India, Indonesia, Italy, Mexico, Sweden, United Arab Emirates

#### **PARTICIPANTS**

IRENA, REN21, GWNET, CTC-N, Clean Power Hub

## **CEM AWARDS 2022**



#### 2022 Hydrogen Award of Excellence

• The Hydrogen TCP Award of Excellence aims to leverage innovation in hydrogen technologies and applications. The Award of Excellence is a joint action of the IEA Hydrogen TCP and the Clean energy Ministerial Hydrogen Initiative (CEM-H2I) to recognize excellence in hydrogen technology projects around the world and provide a platform to show-case the winning projects. This year's theme is "Integrating electrolysis with wind, solar and/or nuclear energy". For more information, click here.



#### 8<sup>th</sup> ISGAN Awards of Excellence

• Sponsored by the International Smart Grid Action Network (ISGAN), in partnership with the Global Smart Energy Federation (GSEF) and the CEM Empowering People Initiative (EPI). The awards recognize excellence in innovation, integration, and transformation of smart grid systems and policy. This year's themes are "Excellence in EV Integration in Smart Grid" and "Smart Grid Workforce Development for an All-inclusive Energy Transition". For more information, click here.



#### 2022 Equality Initiative Awards

• These awards recognise and celebrate commitment to advancing the role of women in clean energy in three distinct categories: the *Woman of Distinction award* for a professional woman working in the energy sector who goes beyond business as usual, an *organisational award* to recognise a public, private or non-profit organisation taking action to recruit, develop and retain women in the energy sector and a *new emerging leader in renewable energy award* for an individual who has shown outstanding promise in this area. For more information, <u>click here</u>.



#### 2022 Energy Management Leadership Awards

This prestigious award raises global awareness of ISO 50001-certified energy management systems and the many benefits they provide. Now in its seventh year, the competition has recognized achievements by over 230 organizations with certified systems in 105 countries or economies and across 50 sectors—such as cement, iron and steel, and chemical manufacturing, municipalities, retailers, healthcare systems, hospitality companies, and water/wastewater treatment facilities. For more information, click here.

## **GRADUATED WORKSTREAMS**

- Advanced Cooling Challenge (ACC) Campaign (see <u>Website</u>)
- 2. Advanced Power Plant Flexibility (see Website)
- 3. Corporate Procurement Of Renewable Energy Sources (see Website)
- 4. Distributed Generation in Strategic Regions Campaign (see Website)
- 5. Energy Management Campaign (see <u>Website</u>)
- 6. Energy Management Working Group (see Website)
- 7. Global Lighting and Energy Access Partnership (LEAP) (see Website)
- 8. Global Lighting Campaign (see Website)
- 9. Multilateral Solar and Wind Working Group (see Website)
- 10. Nearly Zero Energy Buildings (see Website)
- 11. Sustainable Cities and Eco-Energy Towns (see Website)









AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL



AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL







A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL







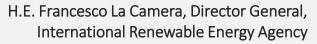
A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

## **CEM IN QUOTES**



H.E. Jennifer Granholm, Secretary of Energy, United States

"We believe CEM 3.0 is going to be this forum's most consequential era because not only are we working together to drive innovation forward, we are endeavouring to make this clean energy transition an inclusive one which benefits all communities."



"IRENA is the operating agent of the CEM's
Long-Term Energy Scenario Campaign,
working with the co-leads Denmark and
Germany. We are leveraging our global
membership to create a network of experts to
tackle the challenges of the 1.5 degree
pathway ahead of us."







H.E. Dan Jørgensen, Minister of Climate, Energy and Utilities, Denmark

"Denmark wishes to confirm its strong commitment to the CEM. We welcome the increased level of ambition of the next phase."



Eng Suhail Mohamed Al Mazrouei, Minister for Energy and Infrastructure, United Arab Emirates

"We're looking forward CEM12 where the CCUS Initiative will be presented. We confirm UAE's commitment to support CCUS with collaboration in the Clean Energy Ministerial."



Damilola Ogunbiyi, CEO,
Sustainable Energy For All
I plead to include the energy access story, as it is a key part. The energy transition must take place in an equitable, just and inclusive manner. And as we talk about the energy transition, we truly cannot forget about the global South and leaving no-one behind.

