



CLEAN ENERGY MINISTERIAL (CEM)

ADVANCING CLEAN ENERGY TOGETHER



MARCH 2021

INTRODUCTION



This edition of the Clean Energy Ministerial (CEM) Brochure covers a period that has been disrupted by the global Covid pandemic (early-2020 to March-2021). In reviewing it, I will admit that I found myself filled with mixed emotions – pride for all that has been achieved; regret for all that might have been achieved under different circumstances.

While this report shows that the work of the CEM has not been immune from the impacts of the pandemic, it also shows that our members, our workstreams, and our community have continued to make important progress. I am deeply impressed, proud and grateful for the fact that our global clean energy community has achieved so much during such a challenging period.

Looking forward, clean energy transitions can help spur an economic recovery at a time when it is sorely needed. It is therefore encouraging to see that, despite the pandemic, impressive new clean energy commitments and actions have come forth from across our community, including net zero commitments. The CEM's mission to accelerate clean energy transitions remains as vital as ever, and we must harness the power of international collaboration to help our community achieve their clean energy goals.

This year has the potential to mark a major step-change in the pace and scale of clean energy action. I hope that it does.

DAN DORNER

Head of Secretariat

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CEM IN QUOTES

Vice Minister Baohua Liu, NEA, China

"China has been working very closely with the CEM. We have been leading initiatives like RGEI, and participating in 21CPP and others, which have produced positive results in advancing clean energy technologies."

Minister Arifin Tasrif, Indonesia

"Indonesia highly appreciates the long-standing cooperation with CEM members. The COVID19 outbreak adds momentum to promote cleaner fuels and energy efficiently."

Minister Anders Ygeman, Sweden

"Sweden is fully committed to the CEM's mission to accelerate the clean energy transition. We call upon the Secretariat to intensify effort on renewable energy, Electrification of industry, and an inclusive energy sector."

Minister Seamus O'Regan, Canada

"My call to action to everyone here today is to come together under the CEM umbrella to harness our combined expertise and financial resources so that we can rebuild our economies, continue to protect our planet, protect ourselves, and ensure that no one is left behind."

Minister Kwasi Kwarteng, United Kingdom

"The CEM is going from strength to strength. We value its input in our joint work on the energy transition. Only by working together can we make a real impact for our economies and the future of the planet. Global cooperation holds the key. This is central to the COP26 that we are co-hosting next year. The CEM has a key role to play in fostering global cooperation."

Minister Bento Albuquerque, Brazil

"We strongly support the new Biofuture Platform Initiative and we are happy to have hosted its launch event last week. Sustainable bioenergy must be an integral part of the CEM agenda."

Minister Shri Raj Kumar Singh, India

"At COP21 we had a goal of 40% of energy from non-fossil sources. I am happy to inform that we are already at 38%. We believe that by 2030 at least 65% of capacity will come from non-fossil sources."

Director-General Laurent Michel, France

"International collaboration plays a crucial role. That is why we are happy to participate in the CEM and MI. International cooperation can be key to boost development and strengthen initiatives to create momentum."

Francesco LaCamera, International Renewable Energy Agency

"IRENA has been the operating agent of the 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 pathway ahead of us."



1. CLEAN ENERGY MINISTERIAL (CEM)

CONTEXT

WHAT IS AT STAKE?

The world is undertaking the fastest and most far-reaching energy transition in history. Clean energy goals have been increasing around the world and many countries are now targeting net zero emissions explicitly. Three crucial clean energy shifts must be supercharged urgently:

- **Scale:** The pace of clean energy adoption this decade must far outpace the last, moving rapidly from niche- to mass- to massive-scale deployment across a wide range of technologies.
- **Sectors:** The power sector remains pivotal to clean energy transitions, but the focus will continue to shift from the power sector to every sector (and x-sector integration) and from energy ministries to every ministry.
- **Society:** A whole of society approach that looks beyond governments and companies to the role of consumers and citizens, and beyond just tackling technical challenges to also overcoming economic, social, and sustainability ones.

CEM'S MISSION

The CEM brings together a community of the world's largest and leading countries, companies, and international experts to achieve one mission – accelerate clean energy transitions.

The CEM is an international **clean energy leadership platform**, a convening platform, an action platform, and an acceleration platform.

It serves as:

- a **platform** where its members help shape the global clean energy agenda and advance the deployment of specific clean energy technologies and solutions.
- a **voluntary, bottom-up, government-owned forum** for exchanging knowledge and insights, building networks and partnership, and facilitating coordinated actions on clean energy.
- an **implementation vehicle** that helps its members to achieve specific domestic clean energy objectives.

HOW THE CEM WORKS?

The CEM builds global action coalitions to achieve clean energy goals and advance their transitions.

The CEM operates through 3 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:** The Secretariat consists of a small, flexible team (hosted by the IEA) that serves the ministerial, all workstreams and all members.

Through its work, it delivers:

- **Conversations** with a purpose,
- **Coordination** for the benefit of all, and
- **Collaboration** to increase the realm of what is possible.

MEMBERS

27 MEMBERS


-  Australia
-  Brazil
-  Canada
-  Chile
-  China
-  Denmark
-  European Commission
-  Finland
-  France
-  Germany
-  India
-  Indonesia
-  Italy
-  Japan
-  Korea
-  Mexico
-  Netherlands
-  New Zealand
-  Norway
-  Russia
-  Saudi Arabia

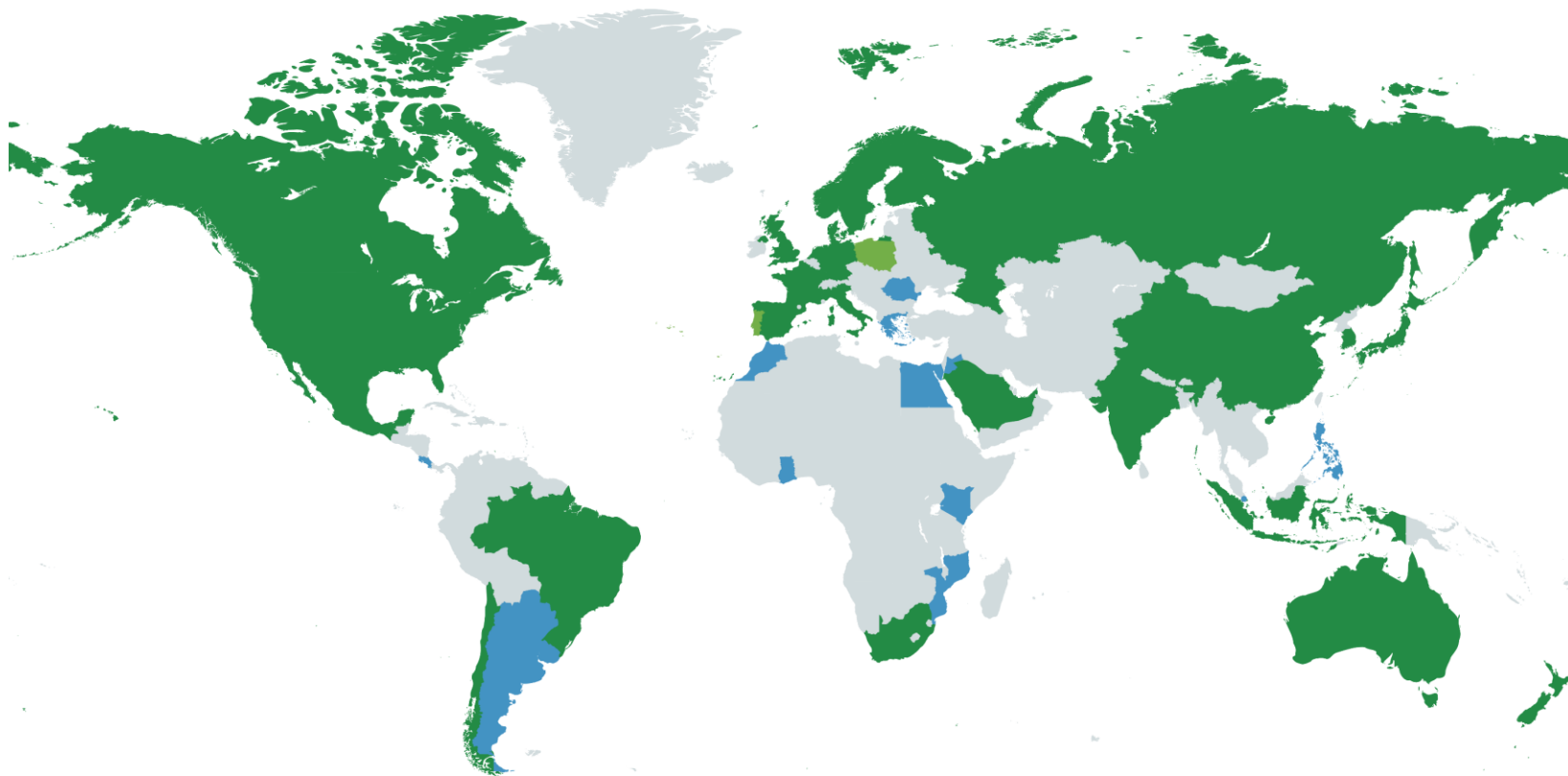
-  South Africa
-  Spain
-  Sweden
-  United Arab Emirates
-  United Kingdom
-  United States

2 OBSERVERS

-  Poland
-  Portugal

13 PARTICIPANTS

-  Argentina
-  Costa Rica
-  Egypt
-  Ghana
-  Greece
-  Jordan
-  Kenya
-  Morocco
-  Mozambique
-  Paraguay
-  Philippines
-  Romania
-  Uruguay



A powerful coalition of the world's most influential actors in clean energy working together to accelerate clean energy transitions

VALUE PROPOSITION



GLOBAL LEADERSHIP

CEM Members drive the clean energy agenda – they account for around 90% of installed clean power generation capacity, 80% of global clean energy investments, and the vast majority of public R&D in clean energy technologies.



SINGLE MISSION

The CEM has a simple, single mission – to advance clean energy transitions – through international collaboration.



FLEXIBLE APPROACH

The CEM's flexible approach allows members to form or join clean energy workstreams in line with their own priorities.



OPEN PLATFORM

The CEM is an open platform that is proud to have many leading international organisations, companies, think tanks, foundations, and others as active participants in its work programme.



ACTION COALITIONS

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

CEM COMMUNITY

Several of the world's best international organisations play a key role in the work of the CEM. CEM therefore represents a powerful coalition of the world's most influential actors in clean energy working together to accelerate clean energy transitions. The CEM also fully recognises the essential role of the private sector and welcomes company participation in its work. The private sector partners – chosen for their visionary work, innovative solutions, and ambitious approaches – are encouraged to provide high-level policy input as well as practical expertise and to participate directly in the technical work of the CEM.

OBSERVERS



PARTNERS



MINISTERIAL



CEM10 - 2019
Vancouver, Canada



CEM1 - 2010
Washington DC,
United States



CEM7 - 2016
San Francisco,
United States



CEM6 - 2015
Mérida, Mexico



CEM12 - 2021
Virtual, Chile

CEM9 - 2018
Copenhagen,
EC & Nordic countries



CEM3 - 2012
London,
United Kingdom

CEM2 - 2011
Abu Dhabi, UAE



CEM8 - 2017
Beijing, China



CEM5 - 2014
Seoul, South Korea



CEM4 - 2013
New Delhi, India



CEM11 - 2020
Virtual, Saudi Arabia



CEM1 was hosted by the United States in 2010.

CEM12 will be hosted virtually by Chile from 31 May – 6 June 2021.



MINISTERIAL

- Launch **11 Initiatives** under **3 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



CEM1

United States

- Publish 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



CEM2

UAE

- Launch of the Solar and Wind Resource Atlas
- Launch of UK’s £1 billion CCS Commercialisation Program supported in the CCUS Action Group
- Launch collaboration with Sustainable Energy for All (SE4All)



CEM3

United Kingdom

- High-Level Public-Private Roundtables on solar PV, clean vehicle adoption, power systems in emerging economies, renewables policy and finance, energy management systems, and mini-grid development
- Innovation showcase pavilion with over 40 industry booths
- 1st SEAD Global Efficiency Medal Competition awarded for energy-efficient flat-panel televisions



CEM4

India

- 1st Global LEAP Appliance Awards
- 1st ISGAN Award of Excellence
- SEAD’s Global Efficiency Medal awarded for energy-efficient computer monitors
- High-level dialogues on clean energy finance
- Model CEM program with university students selected to represent member governments
- Global LEAP hosted a “PlugFest” for off-grid appliance and energy systems



CEM5

Korea

- Launch of the Global Lighting Challenge, the Power System Challenge, and evolution of the Clean Energy Solutions Center
- SEAD Global Efficiency Medal on motors to Nanyang Explosion Protection Group
- ISGAN Award of Excellence for “Grid4EU”
- Launch of CEM 2.0 – the CEM’s 2nd phase



CEM6

Mexico

MINISTERIAL

- Announces over \$1.5 billion in commitments to accelerate clean energy deployment and access
- Launch Corporate Sourcing of Renewables, Energy Management Campaign, Advanced Cooling Challenge
- Keynote address from President Obama
- Public-Private Action Summit
- Startups and Technology Showcase with over 100 companies from 6 continents
- 1st C3E Symposium on Women in Clean Energy



CEM7
United States

- 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



CEM10
Canada

- Technology and Innovation theater showcases innovators, scientists, and entrepreneurs
- Launch:
 - Investment and Finance Initiative
 - Long-term Energy Scenarios Campaign
 - Equal by 30 Campaign
 - CCUS initiative
 - Power System Flexibility Campaign
 - Distributed Generation Campaign



CEM8
China

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



CEM11
Saudi Arabia

- Major Technology Exhibition and Innovation theater held
- 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 surpassed 4B high efficiency, affordable lighting products with over 14B sold
- Launch of NICE Futures Initiative



CEM9
EU Commission with Denmark, Sweden, Norway, Finland and Nordic Council

- Find out on 31 May 2021...



CEM12
Chile

MINISTERIAL

The 11th Clean Energy Ministerial (CEM11), hosted by the Kingdom of Saudi Arabia, convened at a critical moment to consider the role of clean energy in supporting a rapid, sustainable recovery, and the role of the CEM community in shaping the next clean energy decade.

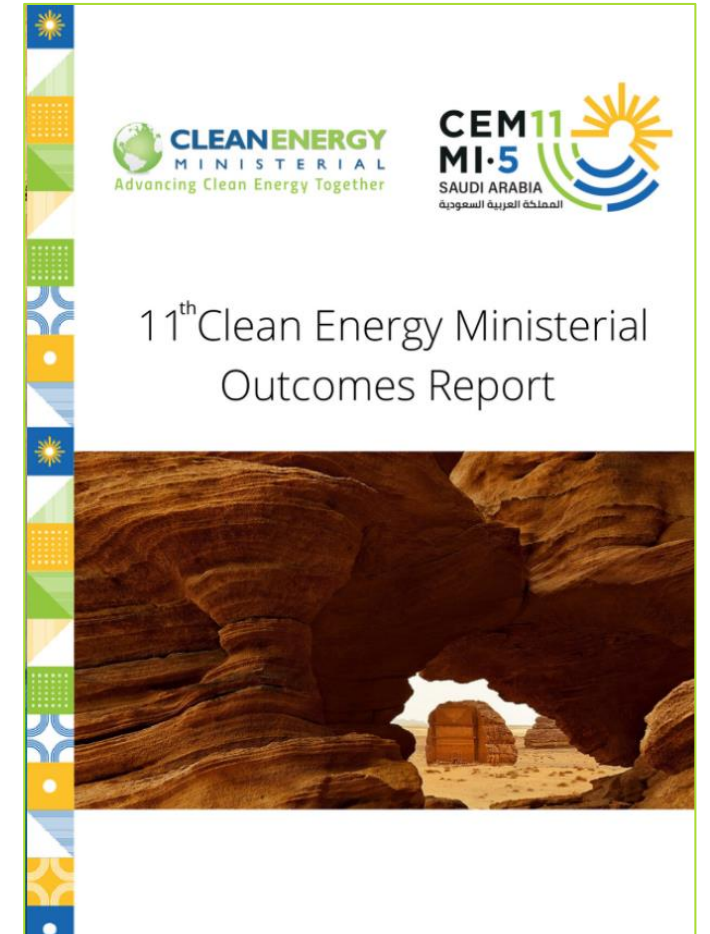
The theme of CEM11 was “Supporting the Recovery, Shaping the Future”. Its unofficial mantra was “bring actions not words”. The guiding principles for CEM11 were to have a positive and inclusive event that strengthened and showcased our community.

Co-located with the G20 Energy Ministerial for the first time, the CEM11 programme included 16 high-level pre-events and culminated with its Ministerial Plenary. CEM11 was all-virtual, all-live cast, and open to all viewers for the first time. It was also translated and re-broadcast for a Chinese audience for the first time. Such “firsts” provided a platform for all to demonstrate clean energy leadership to a global audience.

CEM11 hosted more ministers and clean energy leaders than ever before. Our global clean energy community continues to both grow and grow stronger.

The CEM11 Outcomes Report is available [on our CEM Website](#).

All aspects of CEM11 were virtual, live webcast, and open to all for the first time. They are available to watch/download at www.youtube.com/channel/UCxJe7euEishjxJglPvlgrCg/videos.



CAMPAIGNS AND INITIATIVES

INITIATIVE

CAMPAIGN

SEEKS TO...

Convene a coalition to collaborate on a work programme that helps accelerate clean energy deployment.

FOCUSES ON...

- **COALITION:** Building an international coalition of experts
- **COLLABORATION:** Designing and delivering a substantive work programme that seeks to accelerate clean energy deployment (such as by overcoming technical, economic, or social barriers to adoption)
- **CHANGE:** Timely delivery of work programme outputs that help change real-world outcomes
- **COMMUNICATION:** Communicating activities, outputs, and outcomes for the benefit of the CEM Community

LED BY...

Member leads (typically 2 or 3), Initiative Coordinator, CEM Secretariat

ENGAGES WITH...

The right coalition to best serve the goals of a specific initiative, typically including policymakers, regulators, companies, trade bodies, international organisations, researchers/academics, financial institutions

DURATION...

Typically 3 years or more

MEASURES SUCCESS BY...

- Engagement/activity metrics (active coalition participation, etc.)
- Delivery metrics (delivery of work programme outputs to time, cost, quality)
- Output and outcome metrics (expert meetings, analytical reports, project collaborations, regulatory alignment/coherence, etc.)

Inspire global action towards a specific ambitious clean energy goal

- **COMMUNICATION:** Having an extensive and impactful communications strategy
- **COMMUNITY:** Engaging, persuading, and energising a community
- **COMMITMENTS:** Securing new commitments towards an ambitious goal

Member leads, key stakeholder groups, Campaign Manager, CEM Secretariat

A broad audience. Campaigns are inclusive by nature, seeking to grow a powerful community that can generate impactful commitments

Typically 1-2 years

- Awareness metrics (events, viewers, participants, etc.)
- Engagement metrics (followers, subscribers, amplification, etc.)
- Impact metrics (signatories and commitments, etc.)

SECRETARIAT

The Secretariat is a small, flexible team hosted by the International Energy Agency (IEA) on behalf of all CEM Members. Its key functions are:

- Coordinate the work of the CEM – Connect the strategic direction from Ministers, the Sherpas’ Group, and the Steering Committee to day-to-day activities in the Initiatives and Campaigns.
- Work with the hosts to deliver an annual Ministerial Meeting that delivers insight, inspiration, and impact.
- Support the development, direction, and review of CEM Initiatives and Campaigns.
- Respond proactively to the priorities of our Members. Build and sustain clean energy partnerships that support the delivery of the CEM’s mission.
- Management and delivery of all CEM governance Facilitate and support meetings of the CEM Steering Committee and sub-groups.
- Manage communications: (a) Internally, to and among CEM Members; and (b) Externally, including outreach to publicize progress and outcomes, and disseminate resources developed through the work of the CEM.
- Manage funding mechanisms established to underpin CEM activities.

To learn more about the work of the CEM go to www.cleanenergyministerial.org or email Secretariat@CEMSecretariat.org.

DAN DORNER Head of Secretariat	VACANT Deputy Head of Secretariat	CASSIE ETTER-WENZEL Advisor	ELLINA LEVINA Manager of Partnerships	SARBOJIT PAL Manager of Partnerships	MELISANDE LIU Manager of Partnerships	DENISE GOWARD Ministerial Coordinator (Acting)	JANE BARBIERE Manager of Operations and Communications (Acting)	EVA STEPNIIEWSKA-WELLS (Temporary Leave)	RACHAEL BRIGGS (Temporary Leave)	SUSANNAH NASH (Temporary Leave)
										

CEM IN QUOTES

Commissioner Kadri Simson, European Commission

"We are committed to the green transition. Europe does not exist in a cocoon and it cannot succeed alone. A global green energy system will be built by each of us working together. I very much appreciate what CEM is doing to help this process, and will continue to support you in the years to come."

HRH Prince Abdulaziz bin Salman Al Saud, Kingdom of Saudi Arabia

"We are very encouraged to see the strong engagement from the Clean Energy Ministerial community and governments, with a record level of ministerial participation at the 11th Clean Energy Ministerial."

Minister Juan Carlos Jobet, Chile

"Chile is fully committed to CEM and its mission to accelerate clean energy transitions. We strongly believe that CEM has a central role to play to make sure that the international community works together."

Minister Tina Bru, Norway

"Norway welcomes more cooperation between the initiatives in CEM and not least the increasing involvement of the private sector. The private sector plays a key role as we move towards the next, cleaner, energy decade."

Dr Fatih Birol, International Energy Agency

"This CEM meeting, with all the contributions from ministers, government, and the private sector, will help us raise ambitions. I believe the CEM can play a very important role in helping governments in this very difficult year."

Dr Andrew Steer, World Resources Institute

"That is why we are so grateful to the CEM. It is a group of countries that are really committed to doing it better."

Minister Michal Kurtyka, Poland

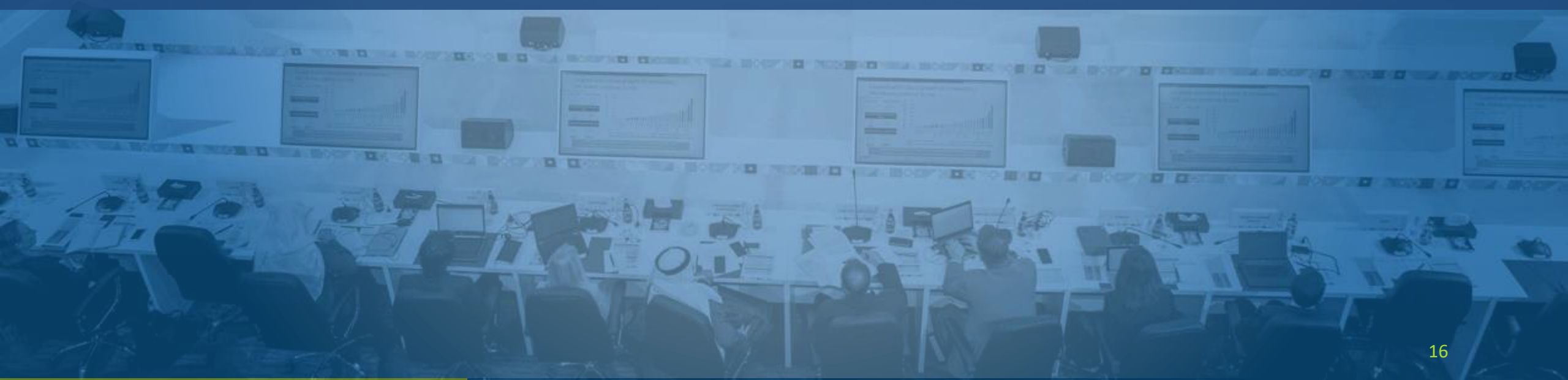
"We are fully committed to the Clean Energy Ministerial and its mission to accelerate clean energy transitions. We are proud to participate in the Nuclear initiative for two years. Now, we are pleased to announce that we have joined the Electric Vehicles Initiative. But more importantly, we are preparing to join CEM as a member."

Vice Minister Huang Wei, MOST, China

"My sincere thanks to the CEM secretariat for their outstanding support to China's clean energy development over the past years. China has been working very closely with CEM. We have been leading initiatives such as RGEI and have been participating in 21CPP and other initiatives and campaigns, which have produced positive results in advancing clean energy technologies. China will continue to stick to the path of clean-carbon safe and efficient development, and strengthen collaboration under CEM and other multinational mechanisms."



2. CEM WORK PROGRAMME



OVERVIEW

CLEAN POWER

 **21st CENTURY POWER PARTNERSHIP**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **POWER SYSTEM FLEXIBILITY**

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

 **NICE NUCLEAR INNOVATION: Future CLEAN ENERGY**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **FN/C FLEXIBLE NUCLEAR CAMPAIGN FOR NUCLEAR-RENEWABLES INTEGRATION**

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

CLEAN TRANSPORT

 **ELECTRIC VEHICLES INITIATIVE**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

EV30/30 INCREASING UPTAKE OF ELECTRIC VEHICLES

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

GLOBAL COMMERCIAL VEHICLE

 **DRIVE TO ZERO**

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

CLEAN BUILDINGS

 **SEAD SUPER-EFFICIENT EQUIPMENT & APPLIANCE DEPLOYMENT**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

CLEAN INDUSTRY

 **CARBON CAPTURE, UTILIZATION & STORAGE ACCELERATING CCUS TOGETHER**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

SECTORAL INTEGRATION

 **INTERNATIONAL SMART GRID ACTION NETWORK**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **REGIONAL & GLOBAL ENERGY INTERCONNECTION**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **HYDROGEN INITIATIVE**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **biofuture platform**
Kickstarting a global, advanced bioeconomy
AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

ENABLING ENVIRONMENT

 **LONG-TERM SCENARIOS FOR THE ENERGY TRANSITION**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **C3E INTERNATIONAL**
ADVANCING GENDER EQUALITY TOGETHER

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **EQUAL by 30 GENDER EQUALITY IN THE CLEAN ENERGY SECTOR**

A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

 **CLEAN ENERGY INVESTMENT AND FINANCE**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

 **CLEAN ENERGY SOLUTIONS CENTER**

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

NEW WORKSTREAMS IN DEVELOPMENT

Deep Decarbonisation in Industry (initial focus on steel); Empowering People (initial focus on skills), “High-ambition” EV Adoption, Bioenergy Campaign

OVERVIEW

As of March 2021

- Co-Lead/Co-leading Member
- Participating Member
- Workstream Observer, or have expressed interest to participate

	AUSTRALIA	BRAZIL	CANADA	CHILE	CHINA	DENMARK	EUROPEAN COMMISSION	FINLAND	FRANCE	GERMANY	INDIA	INDONESIA	ITALY	JAPAN	KOREA	MEXICO	NETHERLANDS	NEW ZEALAND	NORWAY	POLAND	PORTUGAL	RUSSIA	SAUDI ARABIA	SOUTH AFRICA	SPAIN	SWEDEN	UAE	UK	USA		
INITIATIVES	21st CENTURY POWER PARTNERSHIP		■		●	●		●		●	■					●			○					●	●			●	■	21CPP	
	INTERNATIONAL SMART GRID ACTION NETWORK	●	○	●		●	●	●	●	●	■		■	●	●	●	●		●				●		●	●			●	■	ISGAN
	REGIONAL & GLOBAL ENERGY INTERCONNECTION				●	■		●							●												●				RGEI
	NUCLEAR INNOVATION: CLEAN ENERGY FUTURE			■					●						■								●	●			●	■	■	NICE	
	ELECTRIC VEHICLE			■	●	■		●	●	●	●				●			●	●	●	●	●				●		●			EVI
	SUPER-EFFICIENT EQUIPMENT & APPLIANCE DEPLOYMENT	●	●	●	●	●		■			●	■	●			●	●						●	●	●		■		■		SEAD
	CARBON CAPTURE, UTILISATION AND STORAGE	●				●		○				●			●		●	●		■				■	●			●	■	■	CCUS
	HYDROGEN	●	●	■	●			■	●		●	●		○	■	●		■	●	●		●	●	●	●			●	●	■	H2I
	BIOFUTURE PLATFORM		■	■			●		●	●		■	●					■							●				■	■	BfPI
	CLEAN ENERGY EDUCATION & EMPOWERMENT	●		■	●			●	●	●		●														■		●	■		C3E
	CLEAN ENERGY SOLUTIONS CENTER	■		●		●						●	●	●			●									●	●			●	CESC
	CEM INVESTMENT AND FINANCE		●	●			■	●			■	●					●	●											●		CEM-IF
LONG-TERM ENERGY SCENARIOS		●	●	●		■		●		■	●			●		●	●						●			●	●			LTES	
CAMPAIGNS	POWER SYSTEM FLEXIBILITY		●	●	●	■	■	●		■	■		●	●										●		■	●	●		PSF	
	FLEXIBLE NUCLEAR			■					●					■								●	●				●	■	■	FNC	
	EV30@30			■	●	■		●	●	●	●			●			●	●	●							●		●		Ev30@30	
	DRIVE TO ZERO			■	●	■		●	●	●				○			●	●	●							●				D2Z	
	EQUAL BY 30 CAMPAIGN			■				●	●	●			●	●			●	●	●									●	●	EQUAL	



21ST CENTURY POWER PARTNERSHIP


Objective

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.

Lead Governments



Coordinator

US National Renewable Energy Laboratory 

Participants

Argentina, China, Denmark, Finland, Mexico, Norway, South Africa, Sweden

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)

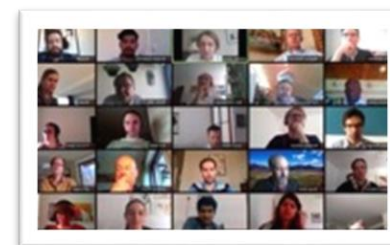
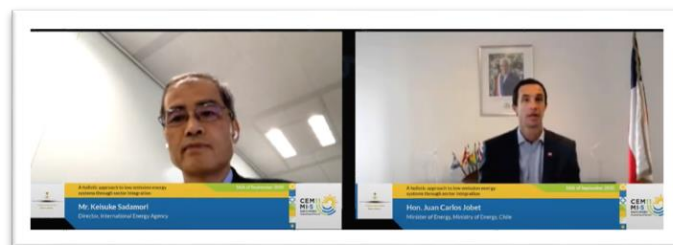
Recent Achievements

- Two-day virtual **Workshop** on [CEM's Horizontal Accelerator](#) for Power System Integration of Electric Vehicles.
- **Report** '[Electric Vehicle and Power System Integration: Key Insights and Policy Messages](#)' (joint with three other CEM workstreams).
- **Podcast Series** on '[Global Energy Dialogues: Solutions to Integrate Large Shares of Variable Renewable Energy](#)'.
- **CEM11 Event** on '[A Holistic Approach to Low Emission Energy Systems through System Integration](#)'.
- **Webinar** on '[Coronavirus and Global Energy: Shared lessons learned from how COVID-19 has impacted global jobs, fuel demand, and GHG emissions](#)'.
- **Technical exchange** between Brazil's *Empresa de Pesquisa Energética* (EPE) and NREL.

Website

www.21stcenturypower.org/

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/21st-century-power-partnership



POWER SYSTEM FLEXIBILITY


Objective

Build momentum among industry and governments to enhance power system flexibility through the coordinated deployment of advanced power plants, grids, demand-side response, and storage. Aim to (i) deepen understanding of available flexibility resources (ii) harness digitalization for flexibility and resilience in the power system (iii) highlight policy options for cost-effective flexibility deployment (iv) showcase innovative and scalable approaches.

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

Brazil, Canada, Chile, European Commission, Finland, Italy, Japan, South Africa, United Kingdom

Partners

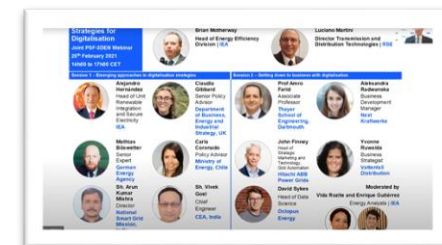
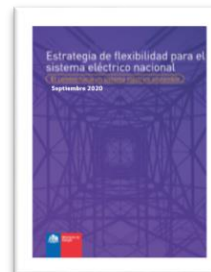
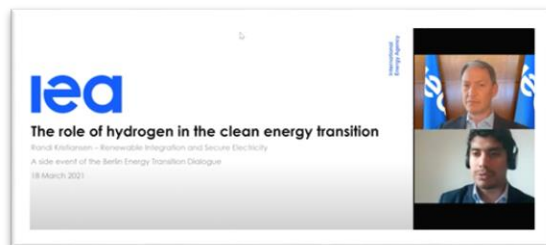
National Renewable Energy Laboratory (NREL), International Renewable Energy Agency (IRENA), International Smart Grid Action Network (ISGAN)

Recent Achievements

- **Technical expertise** to Chile on [Chile's Strategy on National Power System Flexibility](#)
- **Knowledge Exchange** between Sweden, Chile, and Japan on *Market Design and Regulatory Frameworks for Increasing Demand Side Flexibility*.
- **Event:** [Hydrogen and the role of synthetic fuels in power system flexibility](#) at the Berlin Energy Transitions Dialogue.
- **Webinar:** [Strategies for Digitalisation of Electricity Systems](#) joint with the IEA's Digital Demand-Driven Electricity Networks (3DEN) Initiative.
- **Report** '[Electric Vehicle and Power System Integration: Key Insights and Policy Messages](#)' (joint with three other CEM workstreams).
- **Workshops:** *Tariff Design and Data Collection Methodologies* with Latin American members to discuss.
- **CEM11 Event** on 'A Holistic Approach to Low Emission Energy Systems through System Integration' (together with 21CPP).

Website

www.cleanenergyministerial.org/campaign-clean-energy-ministerial/power-system-flexibility



NUCLEAR INNOVATION: CLEAN ENERGY FUTURE

Objective

Foster new collaborations and assist policymakers in considering the roles that nuclear energy could play in their clean energy future. Understand available technology options, provide information on technical feasibility, economics, and financing, and share perspectives from those involved.

Lead Governments



Coordinator

Joint Institute for Strategic Energy Analysis (JISEA), National Renewable Energy Laboratory (NREL)



Participants

Argentina, France, Jordan, Kenya, Poland, Poland, Romania (Puerto Rico), Russia, Saudi Arabia, United Arab Emirates

Partners

American Nuclear Society, ClearPath, Energy for Humanity, Energy Options Network, Generation IV International Forum, 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, Women in Nuclear Global, World Nuclear Association

Recent Achievements



- **New member:** France joins NICE Future Initiative.
- **Webinar series:**
 - *Country Spotlight: Russia – Shaping the Clean Energy Future*
 - *Clean Nuclear Energy for Industry: The Case for SMRs and Micro-reactors in Puerto Rico*
 - *The Roles of Nuclear Energy during COVID-19 and Beyond*
 - *Nuclear-Renewable Integrated Energy Systems: Prospects and Issues*
 - *Nuclear Energy in Clean Energy Planning in Latin America'* (in Spanish/Portuguese)
 - *Microreactors in the Near Horizon: Innovative Solutions for Clean Energy Systems*
- Sponsored [Inform and Inspire the Next Generation](#) series with the American Nuclear Society (ANS) and International Youth Nuclear Congress (IYNC)

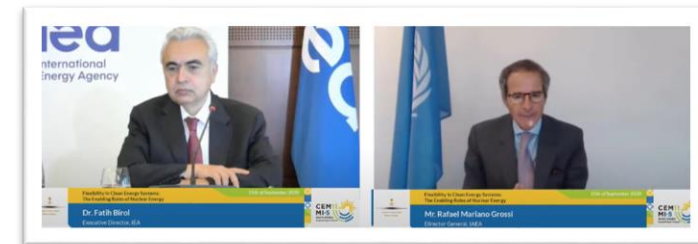
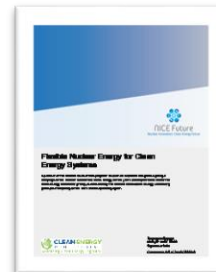
Website

www.nice-future.org



FLEXIBLE NUCLEAR: NUCLEAR-RENEWABLES INTEGRATION

Objective	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 reactors with highly flexible power output.
Lead Governments	
Coordinator	US National Renewable Energy Laboratory 
Participants	Argentina, France, Jordan, Kenya, Poland, Poland, Romania (Puerto Rico), Russia, Saudi Arabia, United Arab Emirates
Partners	ClearPath, Energy Options Network, 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, Energy for Humanity, Women in Nuclear Global, World Nuclear Association
Recent Achievements	<ul style="list-style-type: none"> • Signatories: 15+ international partner organizations and 6 member governments (<i>as of Mar 2020</i>). • Report: Flexible Nuclear Energy for Clean Energy Systems. • Events: <ul style="list-style-type: none"> • <i>CEM11: Flexibility in Clean Energy Systems – the Enabling Roles of Nuclear Energy</i> • <i>Flexible Nuclear Analysis and its Connection to Future Policy</i> • <i>Finding Common Ground between Variable and non-variable Generation</i> • Experts Meeting to discuss policy briefings, technical reports, and a new website portal
Website	www.cleanenergyministerial.org/campaign-clean-energy-ministerial/flexible-nuclear-campaign



ELECTRIC VEHICLES

Objective

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.

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

Chile, Finland, France, Germany, Ghana, Greece, India, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Sweden, United Kingdom

Partners

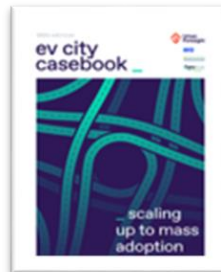
C40 Cities, ChargePoint, E.On, Enel X, Energías do Portugal (EDP), FIA Foundation, Fortum, Global Fuel Economy Initiative (GFEI), Hewlett Foundation, Iberdrola, International Zero Emission Vehicles Alliance (ZEV), Low-Carbon Transport (SLoCaT), Natural Resource Defense Council (NRDC), Partnership for Sustainable, Renault-Nissan Mitsubishi Alliance, Renewable Energy Policy Network for the 21st Century (REN21), Schneider Electric, The Climate Group, Tokyo Electric Power Company (TECPO), UN-Environment, UN-Habitat, Vattenfall, World Resources Institute (WRI)

Recent Achievements

- **Annual Flagship Report:** [Global EV Outlook 2020 \(GEVO\)](#).
- **Report** [EV City Casebook and Policy Guide 2021 Edition](#) in collaboration with the IEA’s Hybrid & Electric Vehicle Technology Collaboration Programme.
- **Collaboration** with [GEF-7 Global Programme on Electro-Mobility](#).
- **Report** [‘Electric Vehicle and Power System Integration: Key Insights and Policy Messages’](#).
- **Webinar** on “Off-street charging for plug-in electric vehicles in Nordic cities” with contributions from Public Housing Sweden, Copenhagen Electric and the City of Stockholm.

Website

www.iea.org/topics/transport/evi/
www.cleanenergyministerial.org/initiative-clean-energy-ministerial/electric-vehicles-initiative



EV30@30

Objective

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.

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

Chile, Finland, France, Germany, India, Japan, the Netherlands, Norway, Sweden, United Kingdom

Recent Achievements

- **Signatories:** 13 member countries and 23 companies/organisations (*as of Jan 2021*).
- Presentation of EV30@30 at [2nd World New Energy Vehicles Congress](#) (WNEVC).
- **Webinars:**
 - *Industrial Application and Practice under the Development of NEV*
 - *Big Data Integration, Research on the Integrated Development of EVs and Renewable Energy*
 - [Global EVI - Pilot City Program \(PCP\)](#) with IEA and Shanghai International Automobile City (SIAC). [EVI-PCP](#) aims to build a network of 100+ cities in 5-years that jointly promote electric mobility (*since 2018*)
- Discussions to increase the ambition levels of the EV30@30 campaign.

Website

www.iea.org/topics/transport/evi/

www.cleanenergyministerial.org/campaign-clean-energy-ministerial/ev3030-campaign



DRIVE TO ZERO

Objective

Promote greater deployment of zero- or 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.

Lead Governments



Coordinator

CALSTART

Participants

Chile, Finland, Germany, Japan, the Netherlands, Norway, Sweden

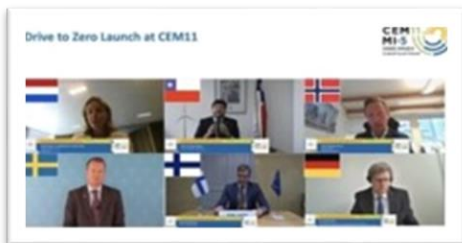
Recent Achievements

- **100+ Signatories**, including companies such as DHL, Scania, Volta Trucks (*as of Mar 2021*).
- Welcoming of **8 new member states** (China, Chile, Finland, Germany, Japan, Netherlands, Norway, and Sweden) (*2020*).
- Launch of new [Sales by 2050: Global Push to reach 100 percent new zero-emission truck and bus](#) (with an interim target of 30% sales by 2030), with potentially more ambitious targets.
- Initiation of New Global [Memorandum of Understanding](#) (MOU) in collaboration with the Transport Decarbonisation Alliance (TDA).
- [Analysis](#) and Webinar in collaboration with FIER Automotive for the International ZEV Alliance (*Dec 2020*) on ZE truck applications and their achievement of cost parity by 2030 (*Dec 2020*). The webinar showcased real-world examples from the Netherlands and California.
- Launched of [Zero-Emission Technology Inventory](#) (ZETI), a first-of-its-kind tool and platform for cataloguing current and forthcoming zero-emission commercial trucks, buses and off-road equipment (*Mar 2020*).

Website

www.globaldrivetozero.org

www.cleanenergyministerial.org/campaign-clean-energy-ministerial/global-commercial-vehicle-drive-zero-campaign



SUPER-EFFICIENT EQUIPMENT & APPLIANCE DEPLOYMENT

Objective

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

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

Australia, Argentina, Brazil, Canada, Chile, China, Germany, Indonesia, Korea, Mexico, Russia, Saudi Arabia, South Africa, United States

Partners

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

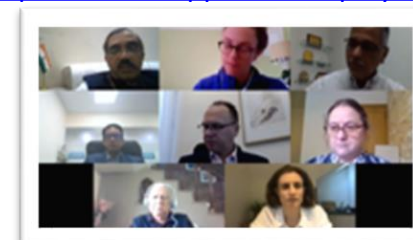
Recent Achievements

- [SEAD Global Efficiency Medal Competition Award](#).
- [SEAD workshop](#) in collaboration with IEA, India's Bureau of Energy Efficiency (BEE), UK government and with speakers from UK High Commission, IEA ELCOMA, EESL, and Blue Star.
- **Technical support to COP26 Presidency** in raising ambition levels on appliance energy efficiency in the lead up to COP26.
- **High-level event** on “Championing Product Efficiency in Support of Nationally Determined Contributions and Net Zero”.
- Workshops on “[Super-efficient Equipment Appliance Deployment Initiative for Southeast Asia](#)” and [Super-efficient Equipment Appliance Deployment Initiative Workshop for Sub-Saharan Africa](#).

Website

www.superefficient.org

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/super-efficient-equipment-and-appliance-deployment



CARBON CAPTURE UTILIZATION & STORAGE


Objective

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.

Lead governments



Coordinator

IEA Greenhouse Gas R&D Programme (IEAGHG) 

Participants

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

Partners

Asian Development Bank (ADB), Carbon Sequestration Leadership Forum (CSLF), Global CCS Institute, International Energy Agency (IEA), Oil and Gas Climate Initiative (OGCI), World Bank (WB)

Achievements since CEM11

- **New member:** India joins the CCUS Initiative.
- **Report:** [Key Financing Principles for Carbon Capture, Utilisation and Storage](#).
- **Webinar Series:**
 - *CCUS in Cement/Concrete Industry* (+700 attendees)
 - *Progress and Layout of Carbon Capture, Utilization and Storage in China*
 - *Key Financing Principles in CCUS*
 - *Carbon capture, utilisation and storage in the Netherlands*
 - *Carbon capture, utilisation and storage in Japan*
 - *Direct Air Capture of CO₂: Helping to Achieve Net-Zero Emissions* (+1000 registrations)
 - Session at 'Global CCSA2020 Conference' chaired by the UK Government, with participation from India, China, and Japan
- **Annual CCUS meeting** with policy round-table, information sharing among key CCUS organisations
- **Two-day event** on financing CCUS projects at the [2020 Asia Clean Energy Forum](#) in collaboration with the Asian Development Bank (ADB).
- **Workshop** on CCUS in hard-to-abate sectors in the Gulf Region, hosted by UAE Government.
- Participation in the Oil and Gas Climate Initiative's (OGCI) **Annual Stakeholder Dialogue** event in New York, during the New York Climate Week.



Website

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/carbon-captureutilization-and-storage-ccus-initiative
[Clean Energy Ministerial CCUS Initiative \[LinkedIn\]](#)
[CEM CCUS Initiative Webinars \[YouTube\]](#)

INTERNATIONAL SMART GRID ACTION NETWORK

ISGAN is also an IEA Technology Cooperation Programme (TCP).

Objective

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.

Lead Governments



Coordinator

Austrian Institute of Technology GmbH (AIT), Korea Smart Grid Institute



Participants

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

Recent Achievements

- **New member:** Brazil joins ISGAN and Israel has expressed interest in doing so.
- **ISGAN Award of Excellence** in partnership with the Global Smart Energy Federation (GSEF). [Award Ceremony](#) for **6th ISGAN Award of Excellence** at CEM11. Confirmed that 7th Award of Excellence will focus on the theme “*Future-Proofing the Grid Operation via Advanced Digitalisation & IoT*”.
- **Published Paper** ‘[Power Transmission & Distribution Systems Lessons learned from international projects on TSO- DSO interaction](#)’ as part of the [ISGAN Regulatory Sandbox](#), a tool to capture recent developments and to support countries in developing regulatory instruments to enable upscaling and deployment of smart grid and energy system innovation.
- Active International **Webinar Series:** www.iea-isgan.org/events/.
- 19th and 20th [Executive Committee Meeting](#)
- Installation of 1.7 million+ smart meters reported and work ongoing for nearly 10 million, with increased acceptance from utilities and regulators.

Website

www.iea-isgan.org

[Youtube channel](#); [Linkedin](#); [ISGAN Awards of Excellence promotional video](#)

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/international-smart-grid-action-network



REGIONAL & GLOBAL ENERGY INTERCONNECTION

Objective

To 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. It will facilitate the development of sustainable, secure, and affordable regional electricity systems while contributing to economic growth, climate change mitigation, and decarbonisation of energy systems.

Lead Governments



Coordinator

Global Energy Interconnection Development Cooperation Organisation (GEIDCO), Payne Institute of Public Policy at the Colorado School of Mines



Participants

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

Partners

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

Recent Achievements

- Technical **webinar series**:
 - US Energy Association and USAID programme on East Europe energy interconnection
 - UNESCAP on Northeast Asia electricity market integration
 - Keynote speech from Co-Founder and Chief Strategy Officer of [SunCable](#) on building the world's largest solar PV project based in Australia's Northern Territory, with an undersea cable providing renewable energy to Southeast Asia.
 - Cross-border power trade from a North American perspective
 - Electricity Trade in the GCC and Middle East: Potential of a Pan-Arab Electricity Market
 - Five ways to accelerate power interconnection in Asia
 - Asian Development Bank (ADB) and Japan on Asian grid infrastructure development and finance under Covid-19
 - Power Grid Connection and its Technical Issues
 - Building Consensus in Cross-Border Power Trade

Website

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/regional-and-global-energy-interconnection-rgei-initiative

HYDROGEN

Objective

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

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

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

Partners

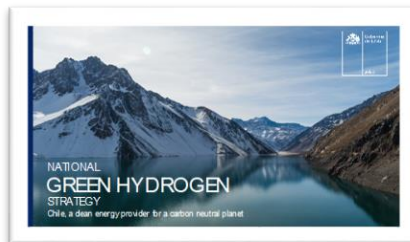
Advanced Fuel Cells Technology Collaboration Programme, Hydrogen Council, Hydrogen Technology Collaboration Programme, International Partnership for Hydrogen and Fuel Cells in the Economy, International Renewable Energy Agency, Mission Innovation, World Economic Forum

Recent Achievements

- Extensive engagement in the [Green Hydrogen Summit](#) in Chile, with participation by IPHE, IADB, World Bank, IRENA, and the German Ministry for the Environment, Nature Conservation and Nuclear Safety. During the event, Chile's launched its [Green Hydrogen Strategy](#).
- City of Bremen, Germany, in discussion to join the **Global Ports Coalition**.
- **Webinar** "[Hydrogen: Fuel For The Future?](#)" in collaboration with NICE Future initiative and the International Partnership for Hydrogen.
- Two Hydrogen Initiative Advisory Group Meetings (with participation from 20+ governments), as well as private sector.
- **CEM11 event** on "[Opportunities for clean hydrogen to drive the sustainable recovery and clean energy transitions in a post-COVID world](#)".
- **Regional Hydrogen Workshop** on the North Sea, highlighting international collaboration for hydrogen deployment.



Website

www.iea.org/programmes/cem-hydrogen-initiative
www.cleanenergyministerial.org/initiative-clean-energy-ministerial/hydrogen-initiative



BIOFUTURE PLATFORM



Objective	Raise the visibility of international bioenergy activities to energy ministers in the larger context of the clean energy discussions. Be a cornerstone of public/private collaboration for commercial-scale global bioenergy deployment as a key enabler for clean energy transition, across all sectors.
Lead Governments	
Coordinator	International Energy Agency (IEA) 
Participants	Finland, France, Indonesia, Portugal, South Africa
Partners	Global Bioenergy Partnership (GBEP), EU Joint Research Centre, IEA Bioenergy TCP, Food and Agriculture Organization (FAO), International Renewable Energy Agency (IRENA)
Recent Achievements	<ul style="list-style-type: none"> • Planning/launch of BBEST 2020-21/BIOFUTURE SUMMIT II Virtual Conference in collaboration with the Brazilian Bioenergy Science and Technology Conference and the 20-country Biofuture Platform multilateral initiative. • Webinar “The Impacts of COVID-19 on the advanced liquid biofuels sector”. • Preparation of Report “<i>2021 Policy Blueprint</i>” which will include a series of country profiles discussing and analysing the effectiveness of domestic bioenergy policies in selected countries. General lessons learned and recommendations will be drawn and presented. • <i>Bioeconomy Status Report 2021 Edition</i>, which provides an update on the status of bioenergy and bioeconomy deployment in Biofuture Platform countries, focusing on Covid-19 impacts and related policy and business responses. • Planning of High-level side event at UNFCCC COP26 to raise awareness about the Biofuture Platform Initiative, its work, and key messages among key high-level decision-makers.
Website	www.biofutureplatform.org



LONG-TERM SCENARIOS FOR THE ENERGY TRANSITION

Objective

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 cost-effective and sustainable transition.

Lead Governments



Coordinator

International Renewable Energy Agency (IRENA) 

Participants

Brazil, Canada, Chile, Finland, India, Italy, Japan, Mexico, the Netherlands, Kingdom of Saudi Arabia, United Arab Emirates, United Kingdom

Partners

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

Recent Achievements

- Conversion from a CEM Campaign to an **Initiative** to reflect member’s long-term commitment towards this topic.
- **3rd International Forum** on Long-Term Energy Scenarios for the Clean Energy Transition.
- **High-level policy dialogue** on *‘Planning with Net-Zero Scenarios: Moving from Political Ambition to Country-Level Pathways* co-hosted by IRENA and the United Nations Framework Convention on Climate Change (UNFCCC).
- **Report** *Scenarios for the Energy Transition: Global experience and best practices* which presents a collection of over 50 practices from over 20 governments/institutions, dedicated to improving the use and development of long-term energy scenarios to guide the clean energy transition.
- **Flagship Event** *“Second International Forum on Long-term Energy Scenarios (LTES) for the Clean Energy Transition”* with participants from 83 countries.
- **Policy Briefs** on *“The Role of Energy Scenarios in Guiding the Energy Transition”* in support of the High-Level Political Forum 2020.
- **International LTES network. 25+ Events** to exchange insights and compile best practices *(as of March 2021)*.

Website

www.irena.org/energytransition/Energy-Transition-Scenarios-Network/ETS-Net-Events
www.cleanenergyministerial.org/campaign-clean-energy-ministerial/scenarios-energy-transition



CLEAN ENERGY EDUCATION & EMPOWERMENT

C3E is also an IEA Technology Cooperation Programme (TCP).

Objective

Advance gender diversity in clean energy professions, recognizing that the transition to a clean energy future will only succeed if we harness all talent

Lead Governments



Coordinator

Austrian Society for Environment and Technology (AIT) 

Participants

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

Partners

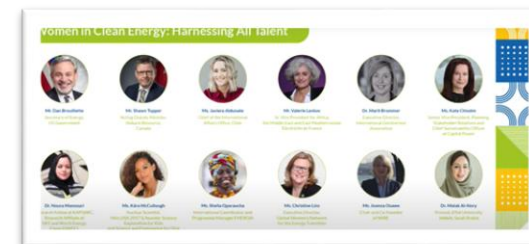
International Energy Agency (IEA)

Recent Achievements

- **C3E International Ambassador Programme** and C3E [International's Ambassador and Mentorship Webinar](#). It is made up of 60+ exceptional women from 11 countries who promote the initiative, build partnerships, mentor other women, and advocate for gender equality in the clean energy sector.
- [2020 C3E International Woman of Distinction Award](#) presented to Dr. Ibilola Amao from Engineering Technology and Innovations Solutions Company, and [2020 C3E International Organizational Leadership Award 2020](#) presented to the Chilean company *Cerro Dominador: Concentrated Solar Power*.
- **Webinar series** including '[Women in Clean Energy Wednesdays: International Spotlight on Rwanda](#)'.
- **New C3E Ambassadors** Joining from Austria, Chile, China, Finland, and the US and Kick-Off Meeting with the Austrian C3E Ambassadors
- AIT joins C3E International as the **new Operating Agent** and [UK joins C3E as an official member](#).
- [C3E Energy Breakfast](#). Prejudice, lack of recognition, and gender inequality are among the top challenges women face in energy-related studies.
- C3E international Ambassador presents C3E at [Job Fair Energy + Woman \(Feria Laboral Energía + Mujer\)](#).
- CEM11 event on '[Women in Energy: Harnessing All Talent](#)'.

Website

www.c3e-international.org
www.cleanenergyministerial.org/initiative-clean-energy-ministerial/clean-energy-education-and-empowerment-c3e



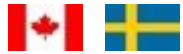
EQUAL BY 30

EQUAL^{by30} GENDER EQUALITY
IN THE CLEAN ENERGY SECTOR
 A CAMPAIGN OF THE CLEAN ENERGY MINISTERIAL

Objective

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. In doing so, the CEM campaign contributes to the UN Sustainable Development Goal 5, under which world leaders pledged to achieve gender equality and empower women and girls by 2030 and puts gender equality at the heart of the transition towards a clean energy future.

Lead Governments



Coordinator

Participants

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

Partners

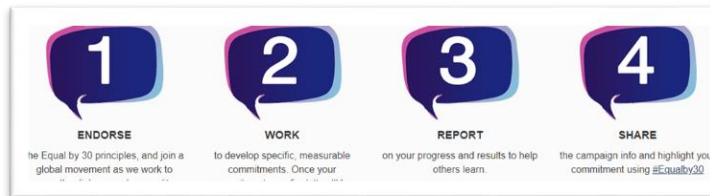
International Energy Agency (IEA), Electricity Human Resources Canada, Energy Council of Canada, Women in Renewable Energy (WiRE) Canada, POWERful Women, The Global Women's Network for the Energy Transition (GWNENET), Canadian Apprenticeship Forum, Canadian Coalition to Empower Women, Sustainable Energy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

Recent Achievements

- 130+ **Signatories** from governments and the private sector that pledge commitment towards equal pay, equal leadership, and equal opportunities (*up to March 2021*).
- **Diversio partners** with Equalby30 to [create the world's first industry benchmark for diversity & inclusion in Energy](#).
- Workshop '**Equal by 30 Reporting Framework**' with all Equalby30 signatories, detailing the establishment of a voluntary reporting framework and benchmarking data for gender representation and the systemic barriers experienced by women in the energy sector.

Website

www.equalby30.org/en



CLEAN ENERGY: INVESTMENT AND FINANCE

Objective

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.

Lead Governments



Coordinator

International Energy Agency (IEA) 

Participants

Brazil, Canada, European Commission, Mexico, the Netherlands, United Kingdom

Partners

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

Recent Achievements

- Panel Discussion “Mobilising investors to finance clean energy transitions” at London Climate Action Week 2020.
- Investment Coalition Event planned at [2021 London Climate Action Week](#).
- Report and Launch Event on “Financial performance of clean energy companies and the capital allocation considerations for institutional investors” in collaboration with the Imperial College Business School Centre for Climate Finance.
- Contribution to IEA Special Report on “Financing Clean Energy Transitions in Emerging Market and Developing Economies”.
- Report and Launch Event on “Financial performance of investing in unlisted clean energy assets and capital allocation considerations for institutional investors”.
- CEM11 event “Mobilising investors to finance clean energy transitions: how can private capital boost a sustainable recovery?” with support from the [Clean Energy Transitions in Emerging Economies programme](#) and the European Union’s Horizon 2020 research and innovation programme.

Website

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/cem-investment-and-finance-initiative-cem-if



CLEAN ENERGY SOLUTIONS CENTER

Objective

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.

Lead Governments



Coordinator

US National Renewable Energy Laboratory (NREL) 

Participants

Canada, China, France, India, Indonesia, Italy, Mexico, Sweden, United Arab Emirates

Partners

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

Recent Achievements

- **Webinar** with [OpenExp](#) on “Modernization of the Energy Charter Treaty (ECT) to discuss foreign investments in energy supply” and launch of the Report “Modernisation of the Energy Charter Treaty (ECT): A Global Tragedy at a High Cost for Taxpayers” (Feb 2021).
- CESC has trained **15,000+ policymakers, regulators, and other stakeholders** through remote webinars and in-person workshops (as of Mar 2021)
- **455+ Requests** for CESC Policy Assistance on Energy Efficiency, Grid Integration, Renewable Energy, Finance, Energy Access and Clean Transport from 90+ Countries, Municipalities and Regional Organisations (as of Mar 2021).
- **Utilises 60+ world class policy and finance experts from 15+ countries** (as of Mar 2021).
- Collaboration with national, and subnational governments, as well as regional organizations, provision of up to 120 hours of timely and high-quality support at no cost.

Website

www.cleanenergysolutions.org

www.cleanenergyministerial.org/initiative-clean-energy-ministerial/clean-energy-solutions-centre

CEM AWARD WINNERS 2020



2020 ISGAN Award of Excellence Ceremony



- Project Title
Smart Grids and Smart Communities Demonstration Project
- Project Location
Slovenia
- Lead Organization
New Energy and Industrial Technology Development Organization (NEDO)
- Partner Organization



Runner-Up

Future Flow



Winner

Smart Grids and Smart Communities Demonstration Project



Honorable Mention

Digitizing the Customer Experience with Real-Time Control



EXCELLENCE IN ENERGY MANAGEMENT WINNERS

1. CTBC Financial Holding Co., Ltd. of Taiwan, China
2. JK Tyre & Industries Ltd., Vikrant Tyre Plant, Mysuru of India;
3. PT Indofood CBP Sukses Makmur Tbk. Noodle Division of Indonesia
4. Tipperary Co-Operative Creamery Limited of Ireland.

2020 CEM Award of Excellence in Energy Management

CTBC Financial Holding Co., Ltd. 194 sites: headquarters, bank branches, and subsidiary sites	JK Tyre & Industries Ltd. 1 site: Vikrant Tyre Plant	PT Indofood CBP Sukses Makmur Tbk. Noodle Division 3 sites: Bandung, Purusari, Semarang	Tipperary Co-Operative Creamery Limited 1 site: Tipperary Co-Operative Creamery

Another 42 organisations were recognized with the distinguished *Energy Management Insight Award*.



INTERNATIONAL WOMAN OF DISTINCTION



Dr. Ibilola Amao
Principal Consultant of Lonadek Inc.
Award Finalists were:
Ruba Al-Zu'bi, Senior Green Economy Consultant and Co-founder of Jordan Green Building Council
Jane Kearns, Vice President, Growth Services at MaRS Discovery District

ORGANIZATIONAL LEADERSHIP AWARD



Award finalists included:



GRADUATED WORKSTREAMS

- Advanced Cooling Challenge (ACC) Campaign (see [Website](#))
- Advanced Power Plant Flexibility (see [Website](#))
- Corporate Procurement Of Renewable Energy Sources (see [Website](#))
- Distributed Generation in Strategic Regions Campaign (see [Website](#))
- Global Lighting and Energy Access Partnership (LEAP) (see [Website](#))
- Energy Management Campaign (see [Website](#))
- Energy Management Working Group (see [Website](#))
- Global Lighting Campaign (see [Website](#))
- Multilateral Solar and Wind Working Group (see [Website](#))
- Nearly Zero Energy Buildings (see [Website](#))
- Sustainable Cities and Eco-Energy Towns (see [Website](#))



CEM IN QUOTES

Minister Mika Lintilä, Finland

“CEM has been and will be, the key platform for Finland to advance clean energy in cooperation with other countries and stakeholders. We need to be ambitious in developing CEM together. We need to take steps to make the clean energy decade a successful one. We need CEM’s mission for the next ten years, which will inspire us to take the giant leap in developing clean energy globally.”

Director-General Wooseok Choi, South Korea

“Korea plans to make stronger efforts in its existing CEM workstreams, including smart grids and hydrogen initiatives. I look forward to sharing Korea’s lessons in implementing the Green New Deal with CEM Members and workstreams. We hope to further strengthen our cooperation with CEM Members.”

Minister Megan Woods, New Zealand

“For the sake of those alive now and all those that will follow us, I call on all of us here today to move towards a low emissions future”

Director-General Li Yong, UNIDO

“Building a better future that supports sustainable development will require resources and political will, but most importantly, it requires global solidarity and cooperation. UNIDO is proud to partner with CEM and will continue to engage proactively to accelerate clean energy transitions during and beyond this current crisis. Our goals are very much aligned.”

Minister Dan Jørgensen, Denmark

“Denmark wishes to confirm its strong commitment to the Clean Energy Ministerial and its mission to accelerate clean energy transitions. We are co-leading and participating in several campaigns and initiatives.”

Minister Angus Taylor, Australia

“Australia will be expanding its existing cooperation with bilateral partners through platforms like the Clean Energy Ministerial and Mission Innovation, and we want these partnerships to focus on technology solutions that will deliver good economic and emissions outcomes. Australia remains committed to the CEM through our participation in the new Hydrogen initiative. I am pleased to be able to support CEM as it moves into its next phase.”

Director-General Yota Ono, Japan

“Japan will continue to contribute to the CEM activities and promote clean energy around the world”

Energy Envoy Bert Roukens, The Netherlands

“Meetings like these underline the commitment of countries to work on energy transition and achieve the goals of the Paris Agreement. Cooperation through the different CEM work streams also contributes to achieving our target. Collaboration is crucial to bring this further. Tangible results and outcomes contribute to the added value of CEM’s existence. A clear linkage between CEM, MI, and other organizations such as the IEA is important. We are looking forward to the start of the discussion about CEM3.0.”



Thank you