

## CEM10 side event

# Planning the clean energy transition: How long-term energy scenarios can support decision makers

Part of IRENA's CEM campaign "Long-term Energy Scenarios for the Clean Energy Transition"

**Wednesday, 29 May 2019, 8:00-9:00**  
**Room MR 208/209 , CEM10 Vancouver**

A light breakfast will be provided.

*This CEM focus session organised by IRENA is for policy and decision makers in governments and companies interested in making fuller use of long-term energy planning.*

This session will highlight the insights gathered in the first year of the CEM campaign on [Long-term Energy Scenarios \(LTES\) for the Clean Energy Transition](#). Senior decision makers from participating countries will share their experiences with effective scenario-based planning, and national experts in scenario development will discuss the different roles of scenarios, how they can be communicated effectively and the scope to enhance and broaden their use.

### **Programme**

**8:00 Welcome and introductory remarks from Francesco La Camera, IRENA Director-General**

**8:05 Panel discussion with high-level government users and developers of LTES for clean energy transition**

*Moderator: Dr Jill Engel-Cox, Director, Joint Institute for Strategic Energy Analysis  
National Renewable Energy Laboratory (NREL)*

- » LTES use and development for long-term policy making (5 -minute interventions):
  - *User's perspective:*
    - Anders Hoffmann**, Deputy Permanent Secretary, Danish Ministry of Energy, Utilities and Climate, Denmark
    - Thorsten Herdan [TBC]**, Director General, Federal Ministry of Economic Affairs and Energy, Germany
  - *Developer's perspective:*
    - Thiago Barral**, Executive President, Energy Research Office, Brazil
    - Abha Bhargava**, Director, Energy Outlook, Integrated Energy Information and Analysis, National Energy Board, Canada
- » How the clean energy transition demands new approaches for LTES to be relevant for policy making (20-minute moderated discussion)

**8:45 Invited interventions from LTES members and distinguished attendees**

**8:55 Brief summary of the discussion from the moderator**

**9:00 End of session**

For further information and to register, please contact: [ltres@irena.org](mailto:ltres@irena.org)



CEM 10 Side-Event  
**Tracking SDG7 2019 Report Launch**  
Wednesday 29<sup>th</sup> May, 8:00 to 9:00 am, Room MR 201

**Concept Note**

- **Context**

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development — adopted by world leaders in September 2015 at an historic UN Summit — officially came into force. For the first time energy has been included as one of the goal, SDG 7, formulated as “to ensure access to affordable, reliable, sustainable and modern energy”.

*Tracking SDG7: The Energy Progress Report* annually reviews progress toward Sustainable Development Goal (SDG) 7 at the global, regional, and country levels, for all adopted targets. It is a joint effort of the UN appointed custodian agencies, namely the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), the United Nations Statistics Division (UNSD), the World Bank, and the World Health Organization (WHO). The preparation of the *Tracking SDG7 2019* report was chaired by the IEA.

The 2019 report will be released in New York in mid-May, just ahead of CEM-10. Its findings suggest that the world is making progress towards SDG 7 targets, but will fall short of meeting them by 2030. Ensuring affordable, reliable, sustainable and modern energy for all by 2030 remains possible but will require more sustained efforts particularly to reach some of the world’s poorest populations and to improve energy sustainability.

The report identifies best practices that have proven successful in recent years, as well as key approaches that policy makers may deploy in coming years. Maintaining and extending the past pace of progress in all regions and sectors will require political commitment, long-term energy planning, stepped-up private financing, and adequate fiscal incentives to motivate faster deployment of existing technology options.

- **The event**

The session will be a panel discussion to showcase and discuss the main findings of the 2019 edition of the *Tracking SDG7: The Energy Progress Report*. IEA’s Executive Director, **Dr. Fatih Birol**, and IRENA’s Director-General, **Francesco la Camera**, will provide keynote interventions, alongside with high-level representatives from IEA, World Bank, and IRENA who will present the key findings of the report; the French Ministry for the Ecological and Inclusive Transition will finally explain France’s perspective and support towards SDG 7.

Will be discussed the role of political commitment and long-term energy planning, the evolving role of the private sector, and adequate incentives for deployment of clean technology options, in achieving all the targets under SDG 7.

*An event organized by the UN-appointed SDG7 Custodian Agencies*



## Official CEM/MI Side Event

### **First CEM ISGAN | MI IC1 Forum to Facilitate Cooperation to Accelerate the Market Uptake of Smart Grids**

**Date:** Wednesday, May 29<sup>th</sup>, 2019

**Time:** 09:00 – 17:30 hrs.

**Organizers :** CEM ISGAN TCP and MI Innovation Challenge #1 on Smart Grids

**Location:** Vancouver Convention Center, Vancouver, British Columbia, Canada

#### Clean Energy Ministerial (CEM)

Focuses on the development of Clean Energy technologies and solutions that are available today.

#### Mission Innovation (MI)

Supports breakthrough research and development to accelerate global clean energy innovation

#### About ISGAN

ISGAN is the short name for the International Energy Agency (IEA) Technology Collaboration Programme (TCP) for a Co-operative Programme on Smart Grids (ISGAN – International Smart Grids Action Network). It is also an initiative of the Clean Energy Ministerial (CEM) and was formally established at CEM2 in Abu Dhabi, in 2011 as an Implementing Agreement under a framework of the International Energy Agency (IEA).

ISGAN is a strategic platform, currently consisting of 25 Contracting Parties / members country from the 5 continents, to support high-level government attention and action for the accelerated development and deployment of smarter, cleaner electricity grids around the world. ISGAN's work streams focus on Flexibility, Resiliency, and Digitilisation of the power system and its activities are organized into eight Annexes that are standing working groups continuously dealing with certain topics and updating annually their plans and objectives.

#### About Innovation Challenge #1 (IC1)

The Smart Grids Innovation Challenge (IC1) is the first of eight ICs under MI. The main objective of IC1 is to accelerate development and demonstration of smart grids technologies in a variety of grid applications, including the robust, efficient, and reliable operation of regional and distribution grids as well as micro-grids in diverse geographic conditions, to facilitate cost effective uptake of renewable energy. IC1 is co-led by China, India and Italy.

Participant countries include Australia, Austria, Brazil, Canada, China, Denmark, Finland, France, Germany, India, Indonesia, Italy, Mexico, Norway, Saudi Arabia, South Korea, Sweden, The Netherlands, United Kingdom, USA and the European Union represented by the European Commission.

IC1 R&D Program of Work covers the following six R&D joint Tasks: 'Storage integration', 'Demand response', 'Regional electricity highways', 'Flexibility options', 'New grid control architectures' and 'Power electronics'. The power of IC1 resides on a balanced mix of expertise and the adequate combination of different stakeholders joining forces to accelerate the implementation of Smart Grids projects and initiatives.

#### Event Description:

ISGAN and IC1 are collaborating to accelerate the development and demonstration of smart grids technologies in a variety of grid applications and improve the uptake of electricity generation by renewable resources. Through reciprocal support, they are advancing the understanding of smart electricity systems, address, gaps in knowledge and tools, improve peer-to-peer exchange and showcase excellence. This first joint CEM-MI forum on smart grids, aims to is gather a variety of stakeholders in a collaborative environment to express their thoughts, opinions, and perspectives for advancing the emerging power systems of tomorrow.

## PROGRAM

0830 – 0900	<b>Registration and welcome coffee</b>
0900 – 0905	<b>Call to Order</b> <i>(Forum Convenor, TBC)</i>
0905 – 0915	<b>Welcoming Remarks</b> <i>Frank des Rosier, Assistant Deputy Minister, NRCan, Canada (tbc) / HoD from CEM-MI</i>
0915 – 0940	<b>ISGAN – IC1 Joint Collaboration: Synergies to accelerate Smart Grids deployment</b> <i>Presentation by ISGAN Chair and MI IC1 co-Leads</i>
0940 – 1010	<b>CEM – MI High Level Statements</b> <i>CEM / MI level reps (tbd)</i>
1010 – 1035	<b>Joint Messages and Announcements to policy</b> <i>SGIA announcement and video, IC1 Country Report 2019 Release, Regulatory sandboxes IC1 co-leads, ISGAN Chair, Regulator and Industry reps</i>
1035 – 1050	<b>Joint Fact Sheets on Flexibility and Energy Storage Announcements</b> <i>First practical examples of joint collaboration</i>
1050 – 1115	<b>ISGAN Awards Of Excellence Ceremony (including GSGF Award)</b> <i>Presentation of ISGAN Awards of Excellence winners</i>

1115 – 1125	<b>Group Photo</b>
1125 – 1145	<b>Break</b>
1145 – 1215	<b>Keynote: The Future of Electricity Markets in a Low Carbon Economy – Regulatory and Industry Perspectives (tbd)</b>
1215 – 1330	<b>Networking Lunch</b>
1330 – 1340	<b>Accelerating Smart Grids Market Uptake</b> <i>IC1 / ISGAN Setting the stage for the afternoon sessions</i>
1340 – 1430	<b>Scan of Success Stories Worldwide</b> <i>6 x 7 minutes ISGAN Awards of Excellence Finalist presentations</i>
1440 – 1525	<b>Regulatory and market innovations for advancing smart grids</b> <b>Chair:</b> <i>Senja Nordström, Swedish Energy Agency</i> <ul style="list-style-type: none"> <li>➤ <i>ISGAN Case Book on experimental regulatory sandboxes, Magnus Olofsson, Swedish Energy institute, Sweden</i></li> <li>➤ <i>Regulatory experiences towards power system innovation in Italy, Luca Lo Schiavo, Italian Regulatory Authority (ARERA)</i></li> <li>➤ <i>The role of Regulators in developing a functioning and interoperated Mediterranean energy market, Hasan Ozkoc, Mediterranean Energy Regulators (MEDREG)</i></li> <li>➤ <i>Canada (tbc)</i></li> </ul>
1525 – 1610	<b>The Smart Grids Innovation Accelerator (SGIA) and Industry Success stories</b> <b>Chair:</b> <i>Business leader and/or one of the co-leads</i>  <i>The SGIA platform as an useful tool to foster Public-Private Collaboration, Luciano Martini, RSE</i> <i>UK and/or India and/or China</i> <i>Research and innovation strategy and digital twins, ENEL (tbd)</i> <i>Canada (tbd)</i>
1610 – 1720	<b>Panel: Discussion on Public-Private Collaborations on Smart Grids and the Way Forward</b> <i>(Special focus on the required policy to advance regulatory measures and industry needs)</i> <b>Chair:</b> <i>LM</i>  <i>The discussion will focus on regulatory framework evolution to facilitate the development of smart grids and on strategies and approaches to be developed to promote effective and long-term Public-Private Collaborations.</i>
1720 – 1730	<b>Closing Remarks: Wrap up &amp; Next Steps</b>

## **ACCELERATING CCUS TOGETHER – Financing a key piece of the clean energy puzzle**

Official side-event at the 10<sup>th</sup> Clean Energy Ministerial meeting  
Wednesday 29 May, 11:00 – 12:00  
Vancouver Convention Centre West Building, MR 211  
Vancouver, Canada

The November 2018 CCUS Summit hosted by the UK Government and the International Energy Agency in Edinburgh brought together 50 top-level global energy leaders to stress the need to accelerate global progress in CCUS. The Summit concluded that new business models, supportive policies and global partnerships can deliver a rapid scale-up of CCUS investment. The Chairs' Summary explicitly mentioned the role of the CEM CCUS Initiative to drive progress forward.

This CEM Focus Session, based on interactive and moderated discussion, will progress the outcomes from the Edinburgh CCUS Summit, promoting ministerial, industry and finance sector focus on accelerating global progress of CCUS. The session will have a particular focus on the key conditions for CCUS to attract financing for the next wave of CCUS projects.

### **Agenda**

*Event moderator: Mr. John Mingé, Former Chairman and President, BP America*

#### **Ministerial welcome**

- *Rick Perry, Secretary of Energy, the US*

#### **Opening remarks: Accelerating CCUS investment**

- *Fatih Birol, Executive Director of International Energy Agency*

#### **Part 1: Positive business models driven by well-tuned government policy**

- *Richard Jackson, President of Occidental Low Carbon Ventures and SVP of Operations*
- *Gordon Salahor, CEO, Wolf Midstream*
- *Rick Perry, Secretary of Energy, the US*
- *Khalid Abuleif, Chief Climate Negotiator, Saudi Arabia*
- *John Loughhead, Chief Scientist, Dept. for Business, Energy and Industrial Strategy, the UK*

#### **Part 2: Increasing investment**

- *Yoshihiko Isozaki, State Minister, METI, Japan*
- *Ajay Kumar Bhalla, Secretary, Ministry of Power, India*
- *Liv Lønnum, State Secretary, Ministry of Petroleum and Energy, Norway*
- *Amy Pincu, Managing Director, Bank of America Merrill Lynch*
- *Ashok Bhargava, Director of Energy, Central and West Asia, Asian Development Bank*
- *Jérôme Schmitt, Chairman of Executive Committee, Oil and Gas Climate Initiative*

#### **Wrap-up and close**



# Leading the Way to a Cleaner and “Smarter” Energy Future

## A Co-Hosted CEM10 Side Event

Our fireside chat with technology and regulatory leaders bridging the energy and transportation domains will explore opportunities for smarter grid management, advancing e-mobility, and supporting clean generation. This unique and interactive session provides a key focus on market trends and the interconnected nature of the global transition to a cleaner economy.

Date: May 29, 2019, 11 AM – 12 PM

Agenda: Opening Remarks and Session Introduction  
Facilitated Panel Discussion  
Questions from the Audience  
Final Remarks – Future Trends and Developments

Panel: **Colleen Jansen** Chief Marketing Officer and Senior Vice President, North America Policy, ChargePoint  
**Gene Hinkle** Managing Director, GE Energy Consulting  
**David Hochschild** Chair, California Energy Commission

Location: Vancouver Convention Centre West





## Global Energy Management Leadership and Impact

### Energy Management Leadership Awards Ceremony & Energy Management Campaign

**29 May 2019**  
11:10-11:50 AM

- **Welcome**, Phillipe Scholtes, Managing Director, UNIDO
- **Opening remarks**, Joyce Henry, Director General, Office of Energy Efficiency, Natural Resources Canada
- **Recipients of the CEM Awards of Excellence in Energy Management:**
  - **3M Company**
  - **Areej Vegetable Oil & Derivatives**
  - **JK Tyre & Industries Ltd.**
  - **PT Pupuk Kalimantan Timur**
- **Closing remarks**, Phillipe Scholtes, Managing Director, UNIDO

Global, national, and local leaders from government, business, and advocacy organizations are promoting the use of a proven framework to accelerate the achievement of energy and climate goals: the ISO 50001 international energy management system standard.

With over 50 countries contributing experts and national best practices to the standard's development, ISO 50001 is not only a global best practice model for comprehensive and strategic energy management, but also serves as a global benchmark for climate and clean energy action. Energy management systems based on ISO 50001 best practices, or ISO 50001 certification, are often key elements of energy efficiency policies around the world for large energy users, as well as small to medium enterprises.

Join this event to hear from leading organizations about their energy management achievements.

Organized by the **CEM Energy Management Working Group**

*Learn more:*

[www.cleanenergyministerial.org/EnergyManagement](http://www.cleanenergyministerial.org/EnergyManagement)  
[www.cleanenergyministerial.org/EMAwards](http://www.cleanenergyministerial.org/EMAwards)  
[www.Driveto50001.org](http://www.Driveto50001.org)

## Market Design for Flexibility

*State of Play and Ways Forward*

29<sup>th</sup> May 13:00 to 15:00

Vancouver Convention Centre, MR 118/120

### 13:00 **Welcome and opening**

#### **Welcome and Introductions**

Paolo Frankl, Renewable Energy Division Head, IEA

#### **Opening Remarks by campaign co-leads**

China, Denmark and Germany

### **Expert Presentations**

#### 13:15 **PSF Campaign: Presentation of activities and key policy messages**

*Key policy messages from the Power System Flexibility Campaign*

Paolo Frankl, Renewable Energy Division Head, IEA

#### 13:30 **The price is right: Identifying and creating revenue sources for system flexibility**

*Market design for flexibility in power systems in transition*

Francois Dassa – Head of Global Prospective and International Relations, EDF

#### 13:40 **Opening the market: Regulatory priorities to enable new stakeholders and technologies**

*Addressing regulatory barriers for new market entry and new system services.*

Maria Sandqvist – Head of Swedish Smart Grid Forum

#### 13:50 **Future-proofing power systems: Proactive planning for system transformation**

*Anticipating the needs of the system for a changing energy mix*

Clarissa Forecchi – Ministry of Foreign Affairs Brazil

#### 14:00 **Beyond electricity: Opportunities for digitalization accelerating system transformation**

*Solutions for improved grid operations through digitalization*

Ron Ambrosio – Co-founder and Chief Scientist, Utopus Insights

#### 14:10 **Panel discussion: *Incentivizing flexibility – opportunities in market design***

*Moderated by Douglas Arent (NREL) and Paolo Frankl (IEA)*

The discussion will highlight the experiences from a range of stakeholders and their priority areas addressing power system transformation. This will range from the strategies available to utilities; synergies with power market reform; the introduction of new flexibility products and potential for sector coupling.

14:55

#### **Closing remarks:**

Moderator will summarize salient points, areas of interest, and follow-up actions

**Note:** For more information and registration please contact [Enrique.gutierrez@iea.org](mailto:Enrique.gutierrez@iea.org)

**Global Case Studies of Innovative Utility Offerings**  
**taking place at the Tenth Clean Energy Ministerial (CEM 10)**  
**on 29 May 2019 from 15:15 – 16:15**

This event is being organized and produced by the 21<sup>st</sup> Century Power Partnership ([www.21stcenturypower.org](http://www.21stcenturypower.org)) and the Edison Electric Institute ([www.eei.org](http://www.eei.org)), in coordination with the CEM Secretariat.

This side event will highlight innovative offerings that utilities are providing to electricity customers in a time of significant change in technical, social, and business operations. The side event will highlight efforts from utilities in Canada, the United States, and China operating across the electricity value chain. A separate report with case studies from 6 continents will also be available at the side event.

**Agenda**

- Introduction by Moderator, Lawrence Jones, Vice President for International Programs, Edison Electric Institute
- Examples of Innovative Utility Service Offerings
  - Daniel Jurijew, Vice-President, Government & External Relations, Capital Power (Canada)
  - David Mills, Senior Vice President of Policy and Energy Supply, Puget Sound Energy (United States)
  - Mengrong Cheng, Senior Representative, State Grid Corporation of China (China)
- Q&A
- Synthesis, Doug Arent, 21CPP

# Sustainable bioenergy and biofuels: the road to low-carbon transitions

## Biofuture Side Event at CEM10:

### CONCEPT NOTE AND AGENDA

The Clean Energy Ministerial (CEM) is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy. CEM brings together 25 countries, plus the European Commission.

The 10th Clean Energy Ministerial (**CEM10**) will take place in **Vancouver, Canada, on 27-29 May**, alongside the 4th Mission Innovation Ministerial (MI-4).

Brazil, as CEM Member Country and Biofuture Platform CEM country, in collaboration with the International Energy Agency and the Biofuture Platform Core Group (Brazil, Canada, India, Netherlands, United Kingdom) is hosting a bioenergy-related **CEM10 side event in the format of a 'CEM Focus Session'**. Focus sessions last **one hour** and are meant to focus on strategic discussions that include multiple **Heads of Delegation or senior officials** on advancing the work of CEM.

The side event is entitled '**Sustainable bioenergy and biofuels: the road to low-carbon transitions**' and it is scheduled for **Wednesday 29 May from 5 to 6 pm** at the CEM venue, i.e. the **Vancouver Convention Centre**. The event is related to the following three CEM 10 thematic areas:

- Building the Energy Systems of Tomorrow;
- Enabling Investment; and
- Empowering People and Communities.

This side event aims to **increase awareness among key policy and decision makers** about the benefits, opportunities and priorities to scale up sustainable bioenergy worldwide and to accelerate the transition to bioeconomy through a concerted effort. It also provides an opportunity to **consider how a new possible workstrand on bioenergy would advance the CEM mission**, including through **synergies** with other multi-lateral efforts such as under the **Biofuture Platform**, Mission Innovation, and IEA's work.

The event will be structured as a closed-door (i.e. by invitation only), **moderated roundtable discussion**, designed as an unscripted and free-flowing conversation that allows for a candid exchange of information and ideas. In terms of configuration, the meeting room will consist of a roundtable with around **15 front seats and around 20 back benches**. In line with CEM's gender policy, at least one third of non-government invitees should be women.

## Sustainable bioenergy and biofuels: the road to low-carbon transitions – *Biofuture Side Event at CEM10*

### AGENDA

17:00 – 17:10 Welcome and scene-setting presentation (tentative title: ‘Sustainable Bioenergy: the Giant Opportunity’)

Dr. Paolo Frankl, Head of Renewable Energy Division, IEA

17:10 – 18:00 Roundtable discussion

Moderator: Dave Turk, Head of Strategic Initiatives Office, IEA

#### Discussants:

- Heads of delegations of the 5 Core Group members, i.e.: Brazil, Canada, India, the Netherlands and the United Kingdom (all tbc)
- Heads of delegations of the other 8 countries that participate in both the BfP and CEM, i.e.: China, Denmark, Finland, France, Indonesia, Italy, Sweden and the US
- Selected representatives from the private sector (e.g. Canadian Industry Association, Brazilian Industry Association, etc.) and from IGOs and NGOs attending CEM (e.g. IRENA, WEF, WBCSD).

18:00 Wrap-up and concluding remarks

#### List of guiding questions for roundtable discussion:

1. **Country status and trends.** As we have seen, bioenergy accounts for a bigger share of the global energy mix than all other renewables combined. But in order to achieve the commitments under the Paris Agreement and keep the increase in global average temperatures below 2 degrees, modern bioenergy production and use need to further expand, and the uptake of advanced biofuel technologies needs to accelerate significantly. How do you see the bioenergy sector evolving in your country and region over the coming decade? Which opportunities and challenges do you foresee?
2. **Policies and technologies.** In order to enable the widespread deployment of modern bioenergy technologies, measures should be taken to address existing barriers, e.g.: developing stable, long-term policy frameworks; ensuring policy harmonization and alignment; mobilizing green/climate financing for investments; supporting innovative technologies (in a diversified and flexible manner); and assess, manage and communicate well opportunities and risks for sustainability. What is your view on these actions? Which ones are particularly important to unlock the full potential of modern bioenergy? How could we work together to enable and support these actions?
3. **Looking ahead.** How do you view the possibility of the Biofuture Platform becoming also a CEM initiative? Could this initiative in the CEM context (and in synergy with related initiatives) foster the international dialogue and cooperation that are needed in order to create an enabling environment for the widespread deployment of sustainable, modern bioenergy? Which concrete actions should be prioritized under such an initiative? How can we strengthen private sector’s engagement?