ICEF and New Scenario Explorer for IPCC SR1.5:
Initiatives showing the way towards net-zero CO_2 emissions
IIASA, NEDO and Carbon Trust's Side Event

Monday, 10 December 2018 at 16:45-18:15

Venue: Warmia

The event highlights two parts:

1) The IIASA presentation of the IAMC 1.5°C Scenario Explorer, an interactive tool for full access to the scenarios of the IPCC Special Report on Global Warming of 1.5°C .
2) ICEF features technological and business innovations (incl. direct air capture of carbon dioxide) for achieving net-zero CO2 emissions.

The **IAMC 1.5°C Scenario Explorer** hosted by International Institute for Applied Systems Analysis (IIASA) comprises the scenario ensemble of quantitative, model-based climate change mitigation pathways underpinning the assessment in the IPCC Special Report on Global Warming of 1.5°C. The scenario ensemble contains more than 400 emissions pathways, which focus on limiting temperature rise to below 1.5°C or 2°C above pre-industrial levels, and provide information on the underlying socio-economic development, energy system transformations and land use change until the end of the century, developed by over a dozen research teams from around the world. The Scenario Explorer, which was developed by IIASA on behalf of the Integrated Assessment Modeling Consortium (IAMC) and IPCC Working Group III, is equipped with a new interactive interface that allows policymakers and researchers in related fields such as climate finance easy access and analysis of the pathways. To further improve transparency and reproducibility of information, together with the Scenario Explorer, a set of scripts is made available that enable researchers to recreate tables and figures in the IPCC report from the underlying pathway data. The Scenario Explorer can be accessed at https://data.ene.iiasa.ac.at/iamc-1.5c-explorer.

Since 2014 the Government of Japan has hosted the **Innovation for Cool Earth Forum (ICEF)**, gathering international leading figures tackling climate change through technological innovation in Tokyo, Japan. Initiated by Japan's Prime Minister Shinzo Abe, ICEF brings the world's best minds together to solve the 21st century's greatest environmental challenges. ICEF's mission is to nurture discussion and collaboration among participants and to disseminate innovations in energy and environmental technology to participants and beyond. It is hosted by the Ministry of Economy, Trade and Industry, and New Energy and Industrial Technology Development Organization (NEDO).

In this side event, the activities and results of ICEF 2018 including a roadmap and "Top 10 Innovations." will be presented. And panelists will discuss on what we should do to achieve Net-Zero CO2 Emissions.

- Every year ICEF develops roadmap on how key innovative technologies can contribute to a transition toward net zero CO2 emissions. This year **ICEF releases an unprecidented Roadmap on Direct Air Capture of Carbon Dioxide** here in this side event**.** It explores the portfolio of Negative Emission Technologies (NETs), Direct Air Capture (DAC) technologies and their status, long-term goals for DAC (e.g. economic viability, ensuring net CO_2 removal from the use of DAC and CO_2 utilization, role of renewable electricity, RD&D targets) and policy support. Further information can be found here.
- "Top 10 Innovations", the most notable among recent innovative developments in energy and climate change mitigation were selected by the participants of ICEF 2018. "Top 10 Innovations" can be found here.

Program

16:45-16:50 Opening remarks

- **Kazushige Nobutani**, Deputy Director-General for Technology and Environment, Ministry of Economy, Trade and Industry (METI), Japan

16:50-17:10 – *Presentation on ICEF 2018 Roadmap on Direct Air Capture of Carbon dioxide*

- **David Sandalow**, Inaugural Fellow, Center on Global Energy Policy, Columbia University Columbia University
- **Julio Friedmann, Distinguished Associates, Energy Futures Initiative**

17:10-17:30 – *Presentation on New Scenario Explorer for IPCC SR1.5*

- **Volker Krey,** Energy Deputy Program Director, International Institute for Applied Systems Analysis (IIASA)

17:30-18:10 General Discussion of the Panelists and Questions from the Audience

What innovation do we need to achieve CO_2 Net Zero Emissions?

Moderator: David Sandalow, Inaugural Fellow, Center on Global Energy Policy, Columbia University

- **Volker Krey,** Energy Deputy Program Director, International Institute for Applied Systems Analysis (IIASA)
- **Youba Sokona**, Vice Chair of the Intergovernmental Panel on Climate Change (IPCC)
- **Tom Delay,** Chief Executive, The Carbon Trust
- **Eija-Riitta Korhola**, Delegate of the Consultative Commission on Industrial Change; Advisor in the EU Affairs

18:10-18:15 Closing Remarks

- **Takashi Omote**, Executive Director, New Energy and Industrial Technology Development Organization (NEDO)

Background information

The **International Institute for Applied Systems Analysis (IIASA)** is a non-governmental, multinational, independent organization devoted to interdisciplinary, policy-oriented research focusing on selected aspects of environmental, economic, technological and social issues in the context of global change. IIASA's research is organized around fields of policy importance rather than academic disciplines. IIASA investigators perform interdisciplinary research that combines methods and models from the natural and social sciences in addressing areas of concern for all societies. IIASA is well-known for: energy, forestry, population, climate change, risk and vulnerability, adaptation and mitigation, technology, air pollution, land use, and mathematical analysis.

New Energy and Industrial Technology Development Organization (NEDO) is one of the largest public research and development management organizations in Japan.

NEDO has two crucial missions to carry out. One is addressing energy and global environmental issues and the other is enhancing industrial technology. NEDO basically conducts project formation and management activities, and entrusts R&D activities to private companies, universities, and public research institutions. NEDO also plays a role as the secretariat of ICEF.

The Carbon Trust, established in 2001 works with businesses, governments and institutions around the world, helping them contribute to, and benefit from, a more sustainable future through carbon reduction, resource efficient strategies, and commercialising low carbon businesses, systems and technologies. Headquartered in London, the Carbon Trust has a global team of over 30 nationalities based across five continents.

The Carbon Trust:

- Works with corporates and governments, helping them to align their strategies with climate science and meet the goals of the Paris Agreement.
- Provides expert advice and assurance, giving investors and financial institutions the confidence that green finance will have genuinely green outcomes.
- Provides independent insight and support the development low carbon technologies and solutions, building the foundations for the energy system of the future.