

October 5, 2017

## ICEF 2017 Statement from the Steering Committee

### 1. Introduction

The Innovation for Cool Earth Forum (ICEF) was established in 2014 through the initiative of Shinzo Abe, the Prime Minister of Japan. The fourth annual ICEF was held on October 4-5, 2017 in Tokyo. More than 1,000 experts from government, the business sector and academia representing about 80 countries and regions attended and discussed a variety of topics in plenary and concurrent sessions. The Steering Committee of the ICEF is pleased to announce the following statement.

### 2. Ultimate necessity of net zero CO<sub>2</sub> emissions

We emphasize that innovation and its diffusion for reducing greenhouse gas emissions is becoming increasingly important considering current and future unpredictability of a political will directed toward climate change mitigation. Consequently, significant progress in reducing GHG emissions will require a coalition of willing national and local governments, the private sector as well as all people. We reaffirm the absolute necessity of the goal to achieve at least global *net zero anthropogenic CO<sub>2</sub> emissions* over the long term in order to stabilize global temperature levels, including holding the increase in the global average temperature to well below 2°C above pre-industrial levels as adopted under the Paris Agreement at COP21. "Net zero" means that while most areas should seek zero emission, some areas could be permitted positive emission only in case they should be offset by negative emissions. In order to achieve this goal, CO<sub>2</sub> emissions must peak as soon as possible. The global community should pursue this goal together with other goals described in SDGs (Sustainable Development Goals), such as poverty alleviation, economic growth and energy access, as articulated in the UN 2030 Agenda for Sustainable Development.

### 3. Importance of technology innovation

Technological innovation is crucial not only to achieve our goals but also to allow us to enhance our goal to be more ambitious while ensuring multiple benefits for the economy. Innovation can contribute to job creation and economic development. With this in mind, all countries should endeavor to achieve the goal of net zero emissions in the following ways: first, through reducing energy demand by deploying new technologies such as the Internet of Things; second, through expanding use of zero emission technologies such as renewables and nuclear

power; third, by accelerating the diffusion of advanced low carbon products and promoting the use of infrastructure utilizing low carbon technologies; and fourth, by supporting financial and social innovation as well as international cooperation. In view of the enormous demand for energy in developing countries, it is important for developed countries to promote worldwide dissemination of the technologies mentioned above.

#### 4. Promotion of social innovation

Use of the Internet of Things, the Artificial Intelligence and the Big Data affects energy systems as well as social behavior. Emerging new technologies are expected to be widely used in the future to reduce energy use and to reform social systems. At ICEF 2017, emerging technologies and the need for social system innovation which may have significant effects on society and human behavior were discussed in sessions such as “Social System Innovation in the Energy Sector” and “Managing Energy Demand and Supply.” ICEF 2017 also included a session on the role of diversity in promoting innovative approaches to deal with climate change, such as empowerment of youth and women.

#### 5. Role of the industrial sector

The industrial sector is key for innovation and its diffusion. We should recognize that the role of the industrial sector in reducing CO<sub>2</sub> emissions is not limited to production processes but also includes transboundary diffusion of eco-products. It is therefore important to accelerate industrial sector actions which contribute to reducing CO<sub>2</sub> emissions and to also announce their contributions to encourage stakeholders’ supports such as investments by the financial sector.

#### 6. Strategy to accelerate innovation in a holistic system

Due to significant efforts by both the private and public sectors, innovation in the energy sector is accelerating along with rapid diffusion of many market-ready technologies such as wind and solar power. To further accelerate dissemination of these technologies, a systems approach, especially with regard to appropriate market design, is necessary in order to mobilize finance, technology transfer and international cooperation. In addition to research and development activities, human resource development and investment are also required. It should be emphasized that a large-scale transformation of the energy sector will also contribute to promoting sustainable development, including creation of employment opportunities and other multiple benefits for Sustainable Development Goals.