

Results of Tokyo "Beyond-Zero" Week 2021

- On October 8th 12th, the Japanese Government (METI) held <u>Tokyo "Beyond-Zero" Week2021</u> which consisted of eight energy and environment-related conferences to demonstrate Japan's commitment to accelerating the transition to global carbon neutrality and stock-based CO2 reduction by utilizing a wide range of technologies and energy sources to implement innovative technologies for society. A total of approximately 17,000 participants registered for the events.
- Ministers and experts from various countries were invited to discuss the challenges they faced to realize Beyond Zero, as well as paths and methods to overcome these challenges in society. They also discussed how to disseminate information to the world to realize a "virtuous cycle of economy and environment" focused on the concepts of "pathways," "innovation," and "engagement with developing countries".

Paths and methods to realize a carbon neutral society

Asia Green Growth Partnership Ministerial Meeting



Ministers from Asian countries consider the realities of the region's diverse energy transitions toward carbon neutrality.

TCFD Summit



Leaders from industry and finance sector discuss how to accelerate mutual efforts to achieve carbon neutrality.

ICEF (Innovation for Cool Earth Forum)



Industry, government, and academia discuss the pathways, actions, and innovations required to achieve carbon neutrality.

RD20 (Research and Development 20)



Research organizations representing the G20 talk about the progress of efforts to organize and implement international joint research among research organizations.

Individual challenges

International Conference on Fuel Ammonia



Conversation between ministers and industry experts to expand the use of ammonia as a fuel which emits no CO2 when burned.

<u>International Conference on Carbon Recycling</u> <u>Industry-Academia-Government</u>



Discussion among industry, academia and government on technology development and demonstration for future social implementation of carbon recycling.

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<u>Hydrogen Energy Ministerial Meeting</u>

Ministers consider how to foster large-scale demand and to establish an international supply chain to promote the use of hydrogen on a global scale.

LNG Producer-Consumer Conference



Ministers discuss collaboration between producing and consuming countries for cleaner use of LNG.

Tokyo "Beyond-Zero" Week in Glasgow

- The results and momentum of the Tokyo "Beyond-Zero" Week 2021 held in October (including (1) pathways, (2) innovation, and (3) engagement) will be shared as Tokyo "Beyond-Zero" Week in Glasgow at COP26.
- As part of the "Carbon Neutral Policy Japan Initiatives", discussions will focus on the acceleration of energy transition toward carbon neutrality in Asia. The results of ICEF and RD20 will be disseminated within the crosssectoral discussions on promoting global innovation. In addition, international cooperation in hydrogen as a next generation technology will also be shared.



Tokyo"Beyond-Zero"Week in Glasgow



Carbon Neutral Policy Japan Initiatives, METI Date: 12 November

Time: 1030-12am "Tokyo "Beyond-Zero" Week2021", an international conference consisting of 8 themes was held in October 2021. In addition to cross-cutting areas such as the acceleration of energy transition in Asia, innovation, and promotion of finance, international cooperation in the field of next-generation technologies such as hydrogen and fuel ammonia were discussed and disseminated. The conference highlighted Japan's role, knowledge, and technologies as a leader in Asia, with the aim of promoting diverse and realistic energy transitions and realizing net zero and green growth worldwide



official event

Transitioning towards low-carbon and climate resilient pathways by 2050, IIASA, NEDO, TERI & RIVN Date: 5 November

Time: 530-645pm

Discussion about Transitioning towards low-carbon and climate resilient pathways by 2050 among research institutes in Austria, India, Netherlands & Japan.

The role of hydrogen in the transition to net-zero, IEA&METI



Date: 3 November Time: 5-630pm

Hydrogen plays an important role in the transition to a net-zero energy system. Representatives from governments, IEA, the "Hydrogen Council," and the "International Hydrogen and Fuel Cell Partnership" that have been leading the introduction of hydrogen gathered to discuss the role of hydrogen in the transition to net zero emissions. Provided an opportunity to discuss the wide variety of perspectives on hydrogen technologies required for net-zero emissions and clean energy transition, and to explore the best options.

Challenge of Aist toward realizing carbon neutrality, AIST



Date: 9 November Time: 5-630pm

In order to realize a carbon-neutral society, the Global Zero Emission Research Center (GZR) and the Fukushima Renewable Energy Institute (FREA) worked together to conduct research focused on developing cuttingedge technologies. They also shared the progress of efforts to organize and implement international joint research among research institutes.



ICEF2021 "Pathways to Carbon Neutrality by 2050" with Roadmap Launching Event, NEDO&METI

Date: 9 November Time: 3-430pm

The Innovation for Cool Earth Forum (ICEF), held as part of Tokyo Beyond Zero Week, discussed initiatives and technologies required to achieve carbon neutrality in 2030 and 2050 under the theme of "Pathways to Carbon Neutrality". The panel discussion focused on the roadmap for carbon mineralization technology, which is one of the outputs of ICEF.

NEDO · ICEF Secretariat also sends out the results of Tokyo Beyond-Zero Week 2021 and ICEF. In addition, ICEF road map, which is the outcome of ICEF, is also released.

(Reference) Results of Tokyo "Beyond-Zero" Week2021

- This year's Tokyo "Beyond-Zero" Week 2021 confirmed that "various pathways" for effective
 energy transitions exist and discussed that individual challenges to stimulate "innovation", which
 is indispensable for carbon neutrality, as well as comprehensive measures to tackle these
 challenges are needed. In addition, the concept of "engagement", accomplished through nurturing
 innovation in Asia and in other countries (and the related challenges and solutions) was brought to
 light.
- At the first "Asia Green Growth Partnership Ministerial Meeting", the Chair's Summary was issued to
 accelerate diverse and realistic energy transitions in Asia. It clarified Japan's motivation to
 lead decarbonization in Asia. The countries' strong leadership in the field of climate change
 mitigation and research was also demonstrated to the world.
- Japanese leadership in the fields of hydrogen and ammonium consisted of creating new innovations and implementing them in society by issuing reports that updated existing perceptions in collaboration with the IEA, and shared technical issues and directions for international collaboration among participating countries.
- In the RD20, Japan proactively set up an international "task force" to collaborate on joint research. The outcome was the establishment of a platform for accelerating the implementation of individual fields into society in order to realize a "virtuous cycle between the economy and the environment" using the response to climate change as an opportunity.