Net-Zero 2050: Transformation, Integration and Innovation
타소중립 2050 : 에너지전환, 변화와 혁신
Korea Energy Transition Conference 2021
2021 대한민국 에너지전환 컨퍼런스
Program Book
Overview

Title: Korea Energy Transition Conference 2021

Theme: Net-Zero 2050: Transformation, Integration and Innovation

Date: 22-23 November, 2021, 13:00-18:00 (KST)

Venue: On-site | Coex Grand Ballroom, Seoul
       On-line | MOTIE Youtube

Host: Ministry of Trade, Industry and Energy

Language: English
           (Simultaneous interpretation between Korea and English will be provided.)

Program at a Glance

22 November

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<td>Opening Ceremony</td>
<td>Welcoming Remarks</td>
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23 November

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<td>Keynote Speeches</td>
<td>Net-Zero 2050: Integration and Innovations</td>
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<td>Session I</td>
<td>Net-Zero 2050 Implementation Strategies</td>
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<td>Session III</td>
<td>Clean Energy Technology Innovation: Investment and Cooperation</td>
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<td>Net-Zero era, the future of oil and gas, and how to respond to it</td>
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## Schedule

### DAY 1 | 22 November

**Time** | **Program**
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**[KST] 13:00-14:30** | **Welcome Remarks**
| | **Opening & Keynote**
| | **Keynote Speech**
| | Moon Sung Wook
| | Minister of Trade, Industry and Energy, Republic of Korea
| | Yun Sun-Jin
| | Chairperson, 2050 Korea Carbon Neutrality Commission
| | Kadri Simson
| | Commissioner for Energy, European Commission
| | Michael R. Bloomberg
| | Founder, Bloomberg LP & Bloomberg Philanthropies
| | Faith Birol
| | Executive Director, International Energy Agency
| | Elizabeth Urbanas
| | Deputy Assistant Secretary for Asia and the Americas, Office of International Affairs, Department of Energy, United States of America
| | Lee Hyunghee
| | President, Social Value Committee, SK SUPEX Council

### Session I | 2050 Net-Zero Implementation Strategies

**Power Talk**
- **Moderator**
  - Kim Hee Jip
  - CEO, Eneridea
- **Presentation & Panel**
  - Pyun Kwang Hyeon
  - Vice President, Strategy & Finance Division, Business Strategy Sub-Division, Business Strategy Group I, Hyundai Motor Company
  - Joe Nai
  - General Manager, Asia Offshore Wind, Shell
  - Park Hyeon
  - Head of Environmental Planning Office, Executive Vice President, POSCO
  - Matthias Bausenwein
  - President of Asia Pacific, Ørsted
  - Prakash Sharma
  - Head of Markets & Transitions, Asia Pacific, Energy Transition Practice, Wood Mackenzie
  - Paul McConnell
  - Executive Director, Climate and Sustainability, IHS Markit

### Session II | Hydrogen as Essential Player in Net-Zero Energy Sector

**Moderator**
- Moon Jaedo
- Chairman, H2KOREA

**Presentation & Panel**
- Fiona Simon
- CEO, Australian Hydrogen Council
- Jon André Løkke
- President, Hydrogen Europe
- Celia Greaves
- CEO & Founder, UK Hydrogen and Fuel Cell Association
- Jeff Grant
- Vice-Chair, Hydrogen BC

### DAY 2 | 23 November

**Time** | **Special Session** | **Program**
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**[KST] 13:00-15:00** | **Keynote Speech** | Humanizing Net-Zero: Employment, Equity and Justice
| | **Moderator** | Angela Wilkinson
| | Andreas Kuhlmann
| | Lee Jae-Seung
| | Naomi Hirose
| | Sun Xiansheng
| | Jimmy Khoo
| | Kim Hobin

**Session III | Clean Energy Technology Innovation: Investment and Cooperation

**Moderator**
- Jennie Dodson
- Head of Secretariat, Mission Innovation

**Presentation & Panel**
- Alan Finkel
- Special advisor, Office of the special Adviser to the Australia Government on Low Emissions Technology
- Dolf Gielen
- Director, Innovation and Technology Centre, International Renewable Energy Agency (IRENA)
- Vinod Philip
- Chief Strategy & Technology Officer, Siemens Energy AG
- Lee Seong Jun
- Head, Institute of Environmental Science & Technology, SK Innovation
- Sohn Jeong Lak
- Energy Industry Managing Director, Office of R&D Strategic Planning

**Session IV | Net-Zero era, the future of oil and gas, and how to respond to it

**Moderator**
- Heo Eunnyeong
- Professor, Seoul National University

**Presentation & Panel**
- Angus Rodger
- Upstream Research Director, Wood Mackenzie
- Andrew Barry
- Vice President, Global LNG Marketing, ExxonMobil
- Tatsuya Terazawa
- Chairman & CEO of the Institute of Energy Economics, Japan (IEEJ)
- Park Soon-kee
- Vice Chairman, Energy & Mineral Resources Development Association of Korea (EMRD)
For the purpose of strengthening the response to global climate crisis, countries in the world have established the clean energy system to respond to climate change and set up more specific, more ambitious and long-term Zero CO2 Emission goals. However, given the fact that each country is able to achieve its goals in the energy sector through implementation strategies and interaction aiming at minimizing social costs while considering its own different social and economic conditions, global cooperation strategies should be prepared.

It is asked to have a lot of interest in and attention on ‘Korea Energy Transition Conference 2021’ where you can share the various vision related to carbon neutrality such as Net-Zero implementation strategies and the cooperation direction for global energy transition pursued by major countries including Korea, company development strategies for Net-Zero implementation at the energy industry level, the prospect for the changes in global energy market and investment caused by Net-Zero, etc.
2050 Net-Zero Declaration requires community members as energy consumers of making lots of changes in their lifestyle and brings about a new challenge to energy producers and suppliers.

A lot of companies, facing the need to change or reduce their business areas, make efforts to minimize relevant shocks gradually and transform such crisis into opportunities of growth.

In this session, we’d like to talk about global Net-Zero cooperation strategies including what are the challenges and opportunities faced by companies in the middle of the global trend of Net-Zero implementation, what kinds of crisis management and growth strategies they would take, etc.
Each and every country has voluntarily set up the goals of reducing greenhouse gas (GHG) emissions since 2016 including Long-term Low Emissions Development Strategies (LT-LEDS) and Nationally Determined Contributions (NDC). Major economic players such as EU, UK, France, Canada and Japan have aggressively responded to climate change by, for example, adopting low-carbon policies and Korea, as well, came up with ‘2050 Carbon Neutrality Strategy’ last December.

As such, lots of countries have expanded clean, renewable energy to reduce GHG emissions and become Net-Zero society. And to produce clean hydrogen by using renewable energy, they have set up and implemented challenging goals and various policies.

In this session, we’d like to recognize the importance of hydrogen in the field of achieving Net-Zero through GHG emission reduction, discuss the results of global energy transition and the roles of hydrogen by sharing relevant policy model and effect of each country and find effective value chain strategies for the promotion of hydrogen economy and the direction of energy transition that the world needs to pursue.
Special Session
Humanizing Net-Zero: Employment, Equity and Justice

The world has made efforts to achieve Net-Zero, but there is a quite big gap between Net-Zero policies currently developed and the burden that community members are willing to assume.

The genuine Net-Zero society requires community members to actively empathize with each other and participate in a fair, economic and justifiable way.

In Asia, unlike Europe already having social consensus in most parts, Net-Zero needs to be handled from the humanizing perspective. To this end, the World Energy Council (WEC) and the Korea Energy Foundation plan to share the various interpretation and perspectives on what Humanizing Net-Zero means to each country in Asia Pacific and talk about the specific methods of implementing such new visions with the examples of Net-Zero strategies established by using each country’s own strength from the perspectives of citizens, industries and policies.
Many countries including Korea have declared Net-Zero and proposed various strategies for carbon neutrality.

According to Roadmap to Net-Zero 2050 of the IEA, as technologies uncommercialized yet are required to reduce about half of carbon emissions to achieve global Net-Zero goals, unprecedented clean energy technology innovation by 2030 should be realized. To this end, governments should establish the cooperation system to attract continuous and broad investment and low-carbon economic activities for energy technology innovation.

In this session, we’d like to discuss the direction of global clean energy technology innovation by figuring out the efforts of global clean energy technology cooperation for Net-Zero and finding technology cooperation strategies and investment strategies of countries, governments and the private sector.
Session IV

Net-Zero era, the future of oil and gas, and how to respond to it

According to the global trend of energy transition, the importance of fossil fuels like oil and gas, which have been major energy sources and traditional resources over centuries, has decreased. No one doubts the need for energy transition given environmental issues such as climate change and fine dust, but we also need to carefully consider how much the future demand for fossil fuels would be reduced and what policy efforts to reduce the use of fossil fuel but increase that of renewable energy would be needed in Korea, who highly depends on energy import.

In this session, we’d like to discuss Korea’s response strategies by analyzing the survival strategies of global major companies, leaders in the global energy market, and Japan, a net energy importer, while predicting what roles fossil fuels will play amid the current trend of energy transition.