

The 7th IEEJ/APERC International Energy Symposium *Multiple Pathways to Carbon Neutrality* *~Reality, Innovation, and Resilience ~*

With more than 150 countries officially pledging to achieve carbon neutrality by around mid-century, the world is already on board a journey toward carbon neutrality. At the COP26 in November 2021, the participating countries reaffirmed their commitment to pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels, and it is inevitable that in a not-so-distant future and before 2030, the transitional year, countries and regions not only strengthen their climate change efforts but also face more international pressures against the future use of fossil fuels such as coal.

On the other hand, last year, energy security issues linked to the stability and affordability of energy supply were once again highlighted by soaring energy prices especially for natural gas in addition to tighter power supply and demand in Japan, Texas, Europe, and other regions. During the transition period to carbon neutrality by around mid-century, energy security must be taken into consideration along with industrial structure, social structure, and geographical condition of each country and region. To ensure a balanced price formation, steady upstream investment in oil and gas fields should be encouraged since especially developing economies including Asia which is already considered the future growth center for the world must quickly expand their generation capacity with fossil fuel power stations, including affordable gas-fired power plants.

In this symposium, from the perspectives of feasibility, innovation, and resilience, APERC and IEEJ will offer global stakeholders with viewpoints on multiple pathways to carbon neutrality by around mid-century that would be suitable for each country and region through discussions among prominent experts from various nationalities and backgrounds regarding the following topics:

- Decarbonization technology development and commercialization leading to carbon neutrality
- Asian developing countries' pathways to carbon neutrality
- Stabilization of energy prices and supply/demand balance during the transition period to carbon neutrality

In order to explore these questions, prominent foreign experts will discuss with IEEJ experts.

1. Date/Time: 28th April 2022 (Thursday) 9:00-10:25 and 15:00-18:25 (in Japan Standard Time (JST))

09:00-09:10	Opening Remarks
09:10-10:25	Session 1
15:00-15:30	Special Speech
15:30-16:45	Session 2
17:00-18:15	Session 3
18:15-18:25	Closing Remarks

2. Seminar type: Webinar (Virtual Seminar) through ZOOM

3. Theme of the Symposium : Multiple Pathways to Carbon Neutrality ~Reality, Innovation, and Resilience ~

Program (in Japan Standard Time)

9:00-9:10	Opening Remarks	Mr. Tatsuya Terazawa , Chairman and CEO, IEEJ
9:10-10:25	Session 1 “Decarbonization technology development and commercialization leading to carbon neutrality”	
	<ul style="list-style-type: none"> ➤ How can Hydrogen, Ammonia, Small Module Reactor, and other decarbonization technologies lead to carbon neutrality? ➤ What kinds of activities are being carried out to develop, commercialize and implement decarbonization technologies? 	
	Moderator	Mr. Toshiyuki Sakamoto , Board Member, Director, IEEJ
	Presenter and Panelist	Dr. Shigeru Niki , Director General, Sustainable Energy Unit, Technology Strategy Center (TSC) , New Energy and Technology Development Organization (NEDO) , Japan
		Mr. John Kotek , Senior Vice President, Policy Development & Public Affairs, Nuclear Energy Institute (NEI) , USA
Mr. Yoshikazu Kobayashi , Senior Economist, Manager, CCUS Group, Fossil Energies & International Cooperation Unit, IEEJ		
(9:10-09:40)	Presentation	(10min/person ×3 persons)
(09:40-10:25)	Panel Discussion & Q&A (45min)	

15:00-15:30	Special Speech: “Current status of the studies to develop the Clean Energy Strategy” Mr. Shin Hosaka , Commissioner, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry (METI) * Pre-recorded video will be broadcast.	
15:30-16:45	Session 2 “Asian developing countries’ pathways to carbon neutrality”	
	<ul style="list-style-type: none"> ➤ How can Asian developing countries realize carbon neutrality? ➤ What kind of supports do Asian developing countries need to accelerate their reach to carbon neutrality? 	
	Moderator	Ms. Yukari Yamashita , Managing Director, IEEJ
	Presenter and Panelist	Dr. Han Phoumin , Senior Energy Economist, Research Department, Energy Unit, Economic Research Institute for ASEAN and East Asia (ERIA)
		Dr. Leena Srivastava , Deputy Director General for Science, Directorate, International Institute for Applied Systems Analysis (IIASA)
Dr. Dina Azhgaliyeva , Research Fellow, Asian Development Bank Institute (ADBI)		
(15:30-16:00)	Presentation	(10min/person ×3persons)
(16:00-16:45)	Panel Discussion & Q&A (45min)	
16:45-17:00	Break	

17:00-18:15	Session 3 “Stabilization of energy prices and supply/demand balance during the transition period to carbon neutrality”	
	<ul style="list-style-type: none"> ➤ How should the world overcome the current energy prices spike as well as the tighter supply/demand that is occurring simultaneously around the globe? ➤ What should be the appropriate investment strategy during the energy transition? 	
	Moderator	Dr. Ken Koyama , Senior Managing Director, Chief Economist, IEEJ
	Presenter and Panelist	Prof. Jonathan Stern* , Distinguished Research Fellow, Natural Gas Research Programme, The Oxford Institute for Energy Studies (OIES), UK Dr. Kenneth Medlock III* , Senior Director, Center for Energy Studies, Rice University's Baker Institute Mr. Keisuke Sadamori , Director of Energy Markets and Security, International Energy Agency (IEA)
(17:00-17:30)	Presentation (10min/person ×3 persons)	
(17:30-18:15)	Panel Discussion (45min)	
18:15-18:25	Closing Remarks	Dr. Kazutomo Irie , President, APERC

* Distinguished Fellow of IEEJ