

## 3rd Stage Summary

# Japan-Russia Energy and Environment Dialogue: the Paris Agreement and Energy Security in Northeast Asia

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At this stage, energy experts and government officials from Northeast Asian (NEA) countries discussed policies, achievements, and potential regional cooperation to realize energy security and meet the Paris Agreement targets.

Dr. TAMURA Kentaro gave a keynote address, “The Paris Agreement and Energy Security in Northeast Asia.” He highlighted that global greenhouse gas emissions (GHG) need to peak as soon as possible, and we must move to “decarbonized societies” with net-zero GHG by 2050 for the 1.5-degree goal and by 2075 for the 2-degree goal of the Paris Agreement. In this regard, the NEA region faces a huge challenge because almost 90% of its primary energy comes from fossil fuels. He emphasized the importance of enhanced regional cooperation, but improved regional security is its precondition, where US-China relations have a great impact.

Following the keynote address, six panelists gave presentations.

Mr. GAO Shixian described “China’s Energy Policies and Cooperation in Northeast Asia.” As the world’s largest energy consumer and producer, and GHG emitter, China is moving toward clean, low carbon, and secure energy and aims to become a carbon-neutral society by 2060. He noted that China is willing to cooperate with NEA countries in various energy cooperation fields, such as connecting energy infrastructures, hydrogen, carbon capture, utilization and storage (CCUS) and renewable energy equipment technologies. He pointed out that acceleration of a global energy governance system is essential to foster cooperation.

Dr. BATJARGAL Zamba overviewed “Mongolia’s Nationally Determined Contributions (NDC) to the Paris Agreement and Energy Sector.” Mongolia is among the world’s top 10 per capita GHG emitters despite its modest total national emissions. Mongolia aims to unconditionally reduce business-as-usual (BAU) GHG emissions by 22.7% by 2030, where renewable energy and energy efficiency improvements would account for half of the reductions. He added that Mongolia has set the National Long-term Development Vision-2050 with a net-zero emission target and climate resilience for 2050 and beyond.

Dr. YANG Euy-Seok spoke on “Korea’s National Policy Concept for Energy Transition and Energy Security in a Perspective of Regional Cooperation towards Achieving the Paris Agreement Goals.” He introduced Korea’s Energy Master Plan, which is the basis of the country’s energy transition policy that supports sustainable growth and improved quality of life. He highlighted the country’s plans to replace the existing centralized energy system into a distributed one and build up a hydrogen

economy. The Korean Green New Deal is another policy package that focuses on clean energy. He put forward hydrogen energy and supply chain building as a new cooperation area in NEA.

Dr. PODKOVALNIKOV Sergei presented “Russia’s Policy in View of Country’s Energy Security, Achievement of Climate Change Targets under The Paris Agreement and Energy Cooperation in Northeast Asia.” Noting the country’s long-term development strategy with a low-carbon orientation to 2050 is under formulation, he explained details of Russia’s Energy Strategy up to 2035, which has already been adopted. Russia hopes that carbon-free hydrogen energy with considerable export potential and the use of CCUS will play a significant role in low-carbon development in the long run. He highlighted that Russia is significantly contributing to global energy/environmental security and international energy cooperation, particularly in NEA. Also, he paid attention to the feasible and economically beneficial power systems interconnection in the region.

Mr. HARADA Daisuke reported “Increasing Arctic Resource Development and Associated Challenges: The Background and Significance of Arctic LNG-2 and Japan’s Participation.” NEA countries participate in LNG development projects in the Arctic, and especially Russia promotes project development for ensuring its continued supply. He stated that some projects are successes, and others are failures, confronting us with both opportunities and challenges related to economics, politics, and environmental considerations. He pointed out that the global trend toward net-zero adds uncertainties for project developers, but to ensure energy security fossil fuels will still be a part of the energy mix of net-zero scenarios, as in the EU’s baseline scenario.

Mr. TANAKA Kento from Niigata Prefecture introduced “Policy on Renewable and Next Generation Energy of Niigata Prefecture.” Last autumn, Japan’s prime minister declared carbon neutrality by 2050 and a similar declaration was made earlier by the Niigata Prefecture governor. In line with Japan’s “Green Growth Strategy,” the prefecture set its net-zero targets, while keeping its leading role as an energy supply hub in Japan utilizing its infrastructure used for domestic and imported LNG supply and distribution in the Kanto and Tohoku regions. Also, Niigata holds a great potential for renewable energy, promotes hydrogen as next-generation energy and is forming a hydrogen supply chain vision. The prefecture investigates the possibility of shifting to clean energy sources on its island regions as well.

The presentations clearly indicated that each country is making concerted efforts to meet the PA goals. However, as

reported by UNEP, a considerable gap exists between the nationally determined contributions and the Paris Agreement goals. The panelists underlined that international and regional cooperation, technology transfers among countries, and mutually beneficial options could fill this gap. The NEA Power System

Interconnection (NAPSI) project that the ADB and UNESCAP currently promote is a potential example. Moreover, panelists shared a view that the region can promote hydrogen as a next-generation clean energy source.

## 3rd Stage Keynote Address

# Paris Agreement and Energy Security in Northeast Asia

**TAMURA Kentaro**

Director of Climate and Energy Area, Institute for Global Environment Strategies

Firstly, I would like to introduce what the Paris Agreement is aiming for, then discuss the need to achieve its long-term goals by overhauling the energy structure within the next 30 to 40 years, which is a relatively short period of time in the energy field, and by realizing net zero emissions/decarbonization. Finally, I will outline the potential impacts that such a major shift will have on energy security in Northeast Asia, a region so dependent on fossil fuels.

The term energy security is generally defined as ensuring sufficient energy at a reasonable price, but today I would like to provide a broader description, one including the implication that a transformation of the energy structure itself will both have a significant socio-economic impact and suppress that socio-economic impact. In the face of great challenges, I will also touch on the kinds of initiatives and cooperation that are possible within the region.

The Paris Agreement aims to pursue efforts to hold global temperature rises well below 2°C and even 1.5°C above pre-industrial levels. Currently, our earth's temperature sits about 1°C higher than before the Industrial Revolution, and if it continues at this pace, it will have risen 1.5°C by around 2040 (Figure 1). Science has confirmed this data, so if we are really going to limit this rise to 1.5°C, we must reach a global peak in

greenhouse gas (GHG) emissions as soon as possible, after which we can achieve a balance between anthropogenic emissions and removals in the latter half of this century. Achieving net zero emissions by reducing emissions is also included in the Paris Agreement.

The important point here is that only net zero emissions will halt global warming. This was clearly spelled out in a sure conclusion by the Inter-Government Panel on Climate Change (IPCC). Since the temperature rise due to global warming is proportional to the cumulative emissions of carbon dioxide that human beings have emitted previously, additional emissions must be reduced to net zero to stop a further rise in temperatures. In short, emissions and absorption must be balanced.

However, as for when it will be net zero, the Paris Agreement pinpoints the second half of this century. Thus, the next important point is when we can achieve it. As mentioned above, the level of global warming is proportional to the total emissions we have emitted thus far, that is, cumulative emissions, so on the contrary, in order to stabilize temperature rise in a suppressed state, we must reach net zero in the earliest possible timeframe.

In that sense, the IPCC's 1.5°C special report concludes that carbon dioxide emissions must be net zero by around 2050 if 1.5°C is to be achieved. If the target is 2°C, then net zero will

Figure 1 Goals of the Paris Agreement

