## **Questions for the 2nd Round-Table for Studying Energy Situations**

-Resources, Geopolitics, and National Strategies-

## 1. Outlook for Crude Oil, Gas, and Coal Prices and the Causes

IEA World Energy Outlook estimates the outlook for the crude oil price in 2040 between USD 78 (scenario in which the temperature rise is limited to less than 2 °C under the Paris Agreement) and USD 146 (case where no new policies are implemented).

- ⇒Q1. How do you forecast future changes in supply and demand and consider long-term price trends from a long-term perspective stretching out to 2050 for crude oil, gas, and coal? What are the important factors in this respect?
  - \* Notable factors on the supply side (examples)
    - : Sustainability of the shale revolution, LNG market, reserve trends, development costs, CCS trends, etc.
  - \* Notable factors on the demand side (examples)
    - : Mass adoption of EVs and PHVs, demand in emerging economies, potential for replacement of bunker and aircraft fuels and petrochemical feedstock, etc.

## 2. Geopolitics (Middle East, China and Russia)

The geopolitical structure impacting the energy situation used to be defined by the relationship between the developed countries and the Middle East. However, given the growing presence of emerging economies, it is necessary going forward to take into consideration the state of affairs in the developed countries (United States, Europe, and Japan), the emerging economies (China, India, and Russia), and the Middle East.

- ⇒Q2. In considering geopolitical structural change over the long-term, factors such as (macro) economic power (ex. share of global GDP) and (micro) industrial competitivity (ex. position of a country's businesses in global supply chains) appear to be important in addition to military power (ex. military expenditures). What is your evaluation of this point?
- ⇒Q3. In the Middle East, factors such as declining demand for oil, growing conflict between Sunnis and Shiites, change in the Middle East strategy of the United States (reduced military commitment), and economic reform in Saudi Arabia (led by Crown Prince Mohammed bin Salman (MBS)) appear to be important as factors leading to geopolitical structural change. What is your evaluation of this point?
- ⇒Q4. In considering worldwide, geopolitical structural change, not only the Middle East but the China-Russia relationship also appears to be important. What is your view of the seriousness and sustainability of the reinforcement of the energy relationship, given the potential for growing geopolitical tension (ex. conflict regarding the Arctic Sea route) between China and Russia?
  - \* Examples: Chinese investment in the development of the Yamal Peninsula, 40-year contract for natural gas, and pipeline development, etc.

## 3. Evaluation of National Long-term Strategies and Current Situations

Our understanding is that the global shift away from CO<sub>2</sub> is in fact accelerating since the U.S. withdrawal from the Paris Agreement, resulting in an international competition for low-carbon energy response.

- ⇒Q5. What is your view of the U.S. energy and environment strategy after the Trump administration leaves the Paris Agreement? In an environment where the international "low-carbon" competition remains unchanged even after the U.S. exit, what is your evaluation of the low-carbon strategies of the other developed countries (Germany, Canada, France) and emerging economies (China, India)?
- $\Rightarrow$ Q6. What are the keys to the achievement of high CO<sub>2</sub> reduction goals (technology, infrastructure, regulation and other social institutions, etc.)?