

COVID-19 Impacts and Carbon Neutrality

Ken Koyama, PhD
Chief Economist, Managing Director
The Institute of Energy Economics, Japan

The year 2020 may be remembered as a key turning point for the global energy landscape. The international energy landscape always sees dramatic changes or events. Among them, last year's two great events – the COVID-19 pandemic and the wave of carbon neutrality pledges – have had great impacts that could transform the world.

The two independent events have rattled the world and the international energy landscape. The COVID-19 pandemic, as noted in many of my past reports, dramatically reduced oil and other global energy demand and triggered substantial oversupply and free falls and stagnation in energy prices immediately after the pandemic broke out. In response to the energy oversupply and price falls, the OPEC-plus group comprising the Organization of the Petroleum Exporting Countries and non-OPEC oil-producing countries implemented an unprecedented coordinated oil production cut as a strategic production adjustment, coinciding with U.S. shale oil and other high-cost suppliers' exit from the market. The dramatic supply decline led to later re-balancing of supply-demand in the market, but lower energy prices caused by the pandemic resulted in energy investment stagnation or cuts that could affect future production and supply.

The COVID-19 pandemic is likely to exert structural impacts on global energy supply and demand over a medium to long term through society and world transformation. "IEEJ Outlook 2021," published by the Institute of Energy Economics, Japan, last October, provided a scenario and quantitative analysis on energy market changes that the global transformation through the COVID-19 pandemic would bring about over a long term. For details, see Pages 109 to 126 of [IEEJ Outlook 2021](#) (English version). In summary, the world transformation is projected to lead to (1) a shift of priority from economic efficiency to energy security, (2) a potential of global energy demand decline, (3) supply chain reconstruction and changes in regional energy demand increases and decreases, (4) suppression of oil demand, (5) accelerated electrification and (6) intensifying competition for technological supremacy and innovation. (It must be noted that the quantitative analysis focuses on the impacts of world transformation through the COVID-19 pandemic without considering the impacts of enhanced climate change countermeasures.)

The abovementioned six changes have remained adequate and realistic in the world, indicating the uniqueness and values of the IEEJ analysis. In fact, however, the relationship between the COVID-19 pandemic and climate change policy in the scenario is deviating from the reality. In the abovementioned IEEJ scenario, the grave COVID-19 disaster would lead developing countries to give top priority to survival, health and safety and less priority to climate change countermeasures in contrast to European and other countries that focus on climate change countermeasures, resulting in patchy climate change measures in the world.

Actually, however, the wave of carbon neutrality pledges has swept the world since 2020. Although developing countries plagued with grave human, economic and social losses under the COVID-19 disaster might have given top priority to recovery from such losses, more than 120

countries in the world have vowed to seek carbon neutrality around 2050, indicating that carbon neutrality and decarbonization trends are accelerating unprecedentedly and panoramically in the world. Why? While various background reasons are conceivable, I would like to consider some reasons regarding the impacts of the COVID-19 pandemic.

Behind the rapid acceleration of decarbonization and carbon neutrality trends, people in the world have grown interested in a climate crisis in the face of frequent abnormal global climate events and their growing damage and recognized that it would be politically and socially important to tackle climate change. Supported by the strong political and social awareness and the rising sense of crisis, major international discussion platforms, such as the Group of Seven forum and the Conference of Parties to the United Nations Framework Convention on Climate Change, are gaining momentum to strongly promote decarbonization.

In observing such global developments, I pay particular attention to the European Union's strategy in regard to the relationship between COVID-19 impacts and carbon neutrality promotion. As is well known, the EU well before the COVID-19 pandemic announced the Green Deal strategy, concluding that clean energy investment for realizing carbon neutrality would hold the most important key to the EU's long-term growth strategy. The EU has contended that it would achieve long-term growth by making huge investment in renewable energy, hydrogen, clean mobility, energy efficiency and other clean energy technologies as key components to realize carbon neutrality through energy transition. Facing huge damage from the pandemic then, the EU positioned clean energy investment as important not only for the long-term growth strategy but also for recovery from the COVID-19 disaster. It thus set out an approach to integrate (1) clean energy investment for carbon neutrality, (2) recovery from the COVID-19 disaster and (3) the long-term growth strategy. I personally view the approach as strategically perfect from the viewpoint of the EU. This has become an extremely important approach for the EU to take global leadership in tackling climate change. This is because the message that clean energy investment for carbon neutrality is effective for recovery from the COVID-19 disaster and the long-term growth strategy has become too attractive to resist for a number of countries including those considering ambitious decarbonization. The integration approach has exerted great impacts on the world.

There have been many cases in which powerful government policies have been required for countries to recover from huge damage by the COVID-19 pandemic. "Big government" has become a common keyword for growing priority put on national security and rising geopolitical tensions under the COVID-19 pandemic and for powerful decarbonization promotion for carbon neutrality. Powerful government policies are indispensable for tackling these difficult challenges. In this sense, it is important that the integration approach has important government roles as an affinitive driver.

In terms of COVID-19 impacts, another point that I view as unignorable is a change in the United States. If the U.S. economy remained robust in the absence of the COVID-19 pandemic or huge human damage, Donald Trump might have won a reelection. This possibility is unignorable. If Trump were reelected as U.S. president, the U.S. climate change policy would have been far different from the current one. The dramatic change in the U.S. position on climate change has had a great impact on the global wave of carbon neutrality pledges.

In this way, COVID-19 impacts and the wave of carbon neutrality pledges seem to have some deep relationship. We may have to pay close attention to both the carbon neutrality policy and the COVID-19 impacts, and the implications and impacts of their reciprocal influence as a key driver for future energy transition facing the world in the future.