President Yoon Suk-yeol, who took office on May 10, already announced that he will revise the previous government’s “nuclear phase-out” policy during the election, signaling a major change in national energy policy over the past five years. Overcoming the last government's political rhetoric of “nuclear phase-out” cannot solve all the issues we have in our economy's energy mix strategy or energy transition. The new government must consider energy security and our economy’s reality, not political propaganda, in formulating and implementing new energy policies. If energy policies have traditionally been aimed at securing energy supply, managing energy demand, and increasing accessibility, energy policies in the twenty-first century should reflect the national commitment of climate crisis response and carbon neutrality.

The Yoon Suk-yeol administration’s vision for energy policy, which appeared in its election pledge, can be summarized as abolishing the “nuclear phase-out” policy, harmonizing nuclear power and renewable energy, and accelerating national decarbonization to respond to the climate crisis and promote carbon neutrality. The vision can be interpreted as a willingness to correct the previous government’s politicized energy policies that strained the nation’s economy by leaning toward the political idea of “nuclear phase-out” beyond the reality of our national energy economy. The new government will inherit the national goal of greenhouse gas reduction and carbon neutrality, but to achieve the goal, its energy policy is expected to change significantly from the past five years.

At a Cabinet meeting on July 5, the “New Energy Policy Directions” were deliberated and approved, which include raising the proportion of nuclear power generation, which is currently 27.4%, to more than 30% by 2030, and resuming construction of Shin-Hanul Nuclear Power Plants Units 3 and 4. Detailed policy contents and tasks are expected to be announced later through the 10th Basic Plan for Electricity Supply and Demand and National Carbon Neutral Green Growth Plan, and the following five recommendations need to be considered. In determining and implementing the detailed energy policies, the following five recommendations should be considered.

First, away from the unrealistic “nuclear phase-out” dogma, the new government's energy policy should begin by establishing a new energy mix strategy that considers the nation’s energy economy that fits the reality. However, the new governments’ policy stance on
“terminating the nuclear phase-out” should not be construed as a “pro-nuclear energy” that considers the use of nuclear power as the best option. To ensure that nuclear power is recognized as our important source of energy and that the reality of our economy and industry is not politically marginalized in the nation’s energy policy, the establishment of a new energy mix strategy should be the basis for correcting the errors of the previous government’s “nuclear phase-out” policy. In addition to the realistic perception of the current energy economy, sound and reasonable consideration of energy mix strategy that reflects carbon neutrality as a long-term national goal in response to the climate crisis should be prioritized in the policy-making process.

Second, while returning from the “nuclear phase-out” to a normalized and competitive energy policy, “coal phase-out” policy should be planned and implemented more strategically. As seen at the last COP26 United Nations Climate Change Conference in 2021 where the 197 parties agreed to phase down unabated coal and to end inefficient fossil fuel subsidies, “coal phase-out” is gaining consent as an official collaboration agenda for the international community. In order to reduce greenhouse gas emissions and achieve our national goal of carbon neutrality, to set a basis for solving the micro dust problem, and to make a leap toward an advanced energy economy, the breakaway from coal energy should be further established as part of our national long-term energy strategy.

Third, the government should make sincere efforts to reach, or persuade, national consensus on appropriate energy prices including energy transition costs. Cheap and stable energy supply to secure price competitiveness during the industrialization of the Korean economy had long been the core of the energy policy. As a result, it was a long-standing task for the Korean economy to normalize energy prices that eventually led to the government’s financial burden, with various subsidies and price stabilization policies making it difficult to form natural market prices. Furthermore, the cost of switching from fossil fuel energy to clean/renewable energy, i.e., “energy transition costs,” which is essential for mitigation policy in response to the climate crisis of the twenty-first century, has become a necessary and additional factor in rising energy prices. However, due to factors such as the economic pressure of inflation and political pressure of policy approval ratings, successive Korean governments have been reluctant and delaying the normalization of energy prices represented by electricity bills. The new government must not give in to the economic and political pressures and persuade the public that normalizing the national energy mix strategy will only eliminate the additional costs of the “nuclear phase-out” drive, and still require energy transition costs. President Yoon should exercise his political leadership to persuade the people and industry to share the costs, freeing himself from the political temptation to pass all economic burdens on future generations. To do so, sincere efforts are needed to ask the people to understand the current reality of the energy economy and policy goals while ensuring transparency and professionalism in the policy-making process.

Fourth, whereas the previous government focused on increasing the capacity of renewable energy generation facilities, the Yoon Suk-yeol government should invest in green technology R&D and implement policy support to increase the efficiency of renewable energy generation. Since the economic feasibility of green energy is still less than traditional energy resources
such as coal and nuclear power, technological innovation and industrialization that can maximize the economic efficiency of renewable energy will enhance not only the energy economy but also the national industrial competitiveness. And, national investment and support for better nuclear technology to regain its reputation as a traditional nuclear power developer and exporter need to continue. Since the European Parliament decided to include nuclear power plants in the Green Taxonomy last month, the economic and industrial utility for nuclear power generation is expected to increase. Therefore, the development of upgraded technologies and solutions for the classic problems of nuclear power, namely radiation safety and waste disposal, will not only create new industrial opportunity for our national economy but will also enable it to be recognized as a future energy equivalent to renewable energy. With regard to green/renewable energy and nuclear energy, it should be recognized that qualitative investment has become more important than quantitative investment for our advanced economy and industrial competitiveness.

Fifth and lastly, the national policy control-tower that integrates climate-energy policies should be reorganized. Most bureaucratic organizations in modern government system have limitations in coordinating policies for conflicting purposes for their own, especially between energy/industrial policies and environmental protection/climate change policies. To solve the bureaucratic constraints and to coordinate and review all policies related to energy and climate change, the Korean government established the Presidential Committee on Green Growth (PCGG) in 2008. The last Moon Jae-in government abolished the PCGG and established the 2050 Carbon Neutrality and Green Growth Commission (CNGGC) in 2021 with one year left in office. The establishment of the CNGGC was a typical waste of administrative power as an example of leaving a tangible policy legacy at the end of its term. The CNGGC is little different from the former PCGG in its character or role, but increased the small number of committee members who used to be mostly experts in their own specialties to 100 people in the name of public participation. But the participation of non-experts in the CNGGC is making the institution’s purpose of policy coordination rather meaningless, in that it is not an advisory body but a policy review institution. Despite its raison d’être as the last body to deliberate on national energy policy, the fact that not a single civilian expert in nuclear energy, which generates about 30% of Korea’s electricity, has been involved in the CNGGC since its establishment proves that the CNGGC must be reorganized. A recent internal poll in which 71.9 percent of CNGGC members raised a question about the inefficiency and unprofessionalism in its policy deliberations shows that reorganization is necessary to properly perform the legal roles and functions of the CNGGC. In addition, the establishment of the “Climate Crisis Response Organization,” which President Yoon Suk-yeol promised during the presidential election process, must be reconsidered. “Climate Crisis Response” is included in the role of the CNGGC, which is currently stipulated by the law, and the establishment of a new organization will be redundant. Successful response to the climate crisis depends on the government’s policy will and national capacities, creating a new government body that will show off its policy legacy, just as the last government did, will result in another waste of administrative power and national resources.
A sustainable energy policy, which integrates economic prosperity and climate crisis response, should be based on a national strategy that allows our society to face the reality of our energy economy, while driving our country to achieve the national goal of carbon neutrality and to increase national competitiveness in the future. The Yoon Suk-yeol government should calmly evaluate the errors in the previous government’s energy policy planning and implementation over the past five years, and lay the foundation for new energy policies and strategies thereafter. The energy policy of the past five years has brought many issues and problems because it has ignored the reality of the nation’s energy economy by placing the ideal and political goal of “nuclear phase-out” at the center of the policy.

Energy is called the artery of the national economy. Since the supply and demand of energy affects all sectors of society, energy policies need to be integrated by a national strategy. Moreover, the supply and demand of energy is also related to national security and geopolitics issues that cannot be solved only by domestic policies, because South Korea imports most of energy resources from abroad.

In a narrow sense “energy security” means ensuring stable supply and demand of energy with higher affordability, but in a broader sense it includes securing national competitiveness in energy supply and demand to stabilize the overall national economy as well as ensuring sustainability of energy use through energy transition from carbon-based to clean energy resources. This definition of energy security allows us to distinguish between short-term and long-term goals of energy policies. The recently inaugurated Yoon Suk-yeol government should not choose between the short and long-term goals of energy policy but should incorporate wisdom to lead the energy economy stably and reduce the burden on future generations.

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