

Press Release

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Nuclear Power to be included in the K-taxonomy

- Nuclear power will be included in three segments in the K-taxonomy: R&D, new construction, and continuing operation –
☐ Research and Development for nuclear energy will be included in the green sector, and building new nuclear power plants and continuing the operation of the existing ones will be included in the transition sector.
☐ For nuclear power to be considered green, nuclear power plants must use accident tolerant fuels (ATFs), and detailed plans on the safe storage and disposal of high-level radioactive waste must be provided.
\square It is expected to promote the safety and minimize environmental impact of nuclear power and contribute to achieving carbon neutrality by 2050.
Sejong, September 23 – On September 20, the Ministry of Environment (Minister Han Wha-jin) announced that nuclear energy would be included in its first draft of the green classification, K-taxonomy. Economic activities related to nuclear power will be included in three segments in the K-taxonomy: R&D, new construction, and continuing operation.
The K-taxonomy refers to the classification of environmentally sustainable economic activities contributing to six environmental goals ¹ . It provides principles and standards on what types of economic activities are considered green activities. It consists of the 'green sector' and 'transition sector.'
¹ ① greenhouse gas reduction ② adaptation to climate change ③ sustainable water conservation ④ recycling

⑤ pollution prevention and management ⑥ biodiversity

On December 30, 2021, the Ministry of Environment announced the "K-Taxonomy Guideline," consisting of sixty-nine green economic activities. Of the sixty-nine activities, the "green sector" consists of sixty-four green economic activities necessary to achieve carbon neutrality and improve the environment, such as renewables. The "transition sector" consists of five economic activities necessary as an intermediary step towards carbon neutrality.

When the K-taxonomy Guideline was announced, the Ministry of Environment said it would decide later if nuclear energy to be included in the K-taxonomy, considering market trends such as the EU Taxonomy. Recently, new light has been shed on the role of nuclear power worldwide in achieving carbon neutrality by 2050, and the energy crisis revives nuclear power plants globally. The European Union included nuclear energy in the EU taxonomy, recognizing its role in tackling climate change and energy security.

Reflecting the global trend, the government recently announced new energy policies. The government highlighted that it is necessary to reestablish the country's energy mix more feasible and reasonable way to attain the goals of NDC by 2030 and carbon neutrality by 2050. Accordingly, the government needed to revisit its taxonomy to include nuclear energy.

Economic activities related to nuclear energy is three-fold in the K-taxonomy. The Ministry of Environment drafted the K-taxonomy by referring to the EU taxonomy and by amassing ideas from consultative bodies, departments from universities, experts, civil society, and industries. Research and development for nuclear energy will be included in the green sector, and building new nuclear power plants and continuing the operation of the existing ones will be included in the transition sector.

Research, development, and demonstration of nuclear power include core technology required research and development in the mid-to-long term to improve nuclear safety and secure the country's competitive edge in technology. The ministry drafted the K-taxonomy to secure future nuclear power technologies, such as small module reactors (SMR), next-generation nuclear power, and nuclear convergence. In addition, the draft includes technologies to improve the safety of nuclear power, such as using accident tolerant fuels (ATFs) and managing high-level radioactive waste.

"Building new nuclear power plants" and "continuing the operation of the existing nuclear power

plants" only include the ones approved for construction or operation until 2045, provided that they secure safety and cause no environmental harm. To "build new nuclear power plants" or "continue to operate the existing nuclear power plants," the environment ministry attached certain conditions. Nuclear plants must prepare a detailed, documented plan for the safe storage and handling of high-level radioactive waste, and laws and regulations should be enacted to ensure the plan's implementation. In December 2021, the government announced the second basic plan for high-level radioactive waste management. Therefore, the draft of the K-taxonomy does not indicate a deadline for securing disposal facilities for high-level radioactive wastes. Rather, enacting laws and regulations to execute the detailed plan has been incorporated into the draft to ensure the facilities' timely setup. It is also required for nuclear plants to retain disposal facilities for medium to low-level radioactive waste and have enough funds for radioactive waste and costs for decommissioning nuclear power plants. Building new nuclear power plants must apply up-to-date technology standards and use accident tolerant fuels (ATFs). On the other hand, continuing the operation of existing nuclear power plants must use ATFs starting in 2031. The Ministry of Environment set 2031 as the year to initiate the use of ATFs, given that it is the earliest possible year for commercialization, according to the domestic R&D schedule.

The ministry plans to finalize the draft after collecting opinions from experts, civil societies, industries, and relevant departments. Accordingly, public hearings will take place in Seoul at 2 PM on October 6. Anyone interested in the issue can attend the hearings. Detailed information on how to participate in the hearings can be found on the environment ministry's website.

Environment Minister Han Wha-jin said, "the inclusion of nuclear power in the K-Taxonomy will serve as an opportunity to improve nuclear safety and minimize environmental impact. I expect that including nuclear power would contribute to achieving carbon neutrality by 2050 by utilizing nuclear power and renewables in balance."