MEDIA STATEMENT IEA recommends rehauling Korea's electricity market to achieve net-zero emissions

The IEA and Korea Energy Economics Institute have released a joint report recommending reforms to Korea's electricity market to achieve net-zero emissions. Climate groups react to the findings of the analysis with Seoulbased Solutions for Our Climate pointing out the major obstacle to needed reforms is the majority state-owned utility KEPCO.

December 9, 2021 - On Thursday, the International Energy Agency and the Korea Energy Economics Institute launched the joint report "Reforming Korea's Electricity Market for Net Zero" commissioned by Korea's Ministry of Trade Industry and Energy.

The study, which analyzes market design improvements to achieve net zero in Korea's power sector, had the following key findings and recommendations:

- Korea's current electricity market structure works against its long-term climate ambitions, not properly reflecting carbon costs, leading to higher profits for carbon-intensive and <u>highly unpopular</u> technologies like coal-fired generation.
- High shares of variable renewable energy generation will be the main building block for success in achieving Korea's power sector decarbonization target, and a flexible power system, in addition to a strong carbon pricing signal, will increase renewables' impact in decarbonization.
- Power system services will increasingly need to be provided by a more diverse range of assets, which will need to be rewarded and incentivized for their contributions to stability, flexibility, and capacity.

On the study, **Joojin Kim, Managing Director of Seoul-based Solutions for Our Climate**, said: "As laid out in the latest IEA report, South Korea will need to rehaul its outdated electricity market to trade in real time, and incentivize battery systems and other flexible resources to integrate more renewables and achieve net-zero emissions. We cannot reach a clean energy future with a 20th century market scheme designed for fossil fuel-based power."

Kim added: "A significant obstacle to these recommended reforms, however, is the majority state-owned utility KEPCO, which has vested interests in keeping the system in its current state for as long as possible. We're seeing on Jeju Island increasing cases of wind curtailment, and a growing call for a genuinely independent system operator and improvements in grid governance to tackle this issue. With its current vertically integrated monopoly over the power sector and unless the Korean system operator can govern the grid independently, KEPCO will remain a major hindrance to Korea's ability to enhance its climate action."

Dave Jones, Global Program Lead at UK-based climate and energy thinktank Ember, said: "The IEA analysis is a damning assessment of Korea's socalled 'liberalized electricity market.' The IEA shows cards are unfairly stacked in favor of coal power plants, and that is slowing Korea's electricity transition. We agree with the two changes that the IEA proposes. First, to add a carbon price, so coal pays for the damage it entails. And second to properly price 'flexibility' so that new technologies like batteries can compete with coal generation, helping to contribute to security of supply."

Chris Littlecott, Associate Director for Fossil Fuel Transition at climate and energy think tank E3G said: "At COP 26 President Moon reconfirmed South Korea's commitment to achieving Net Zero emissions by 2050, including a phase out of coal power generation by that date. But this IEA analysis shows that to achieve this, the power sector decarbonization must accelerate. Instead of holding back progress, the national electricity company, KEPCO, must become an enabler of innovation and investment. A failure to act now will put at risk South Korea's manufacturing leadership, as other governments look to restrict the import of high carbon products."



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Solutions for Our Climate (SFOC) is a South Korea-based group that advocates for stronger climate change policies and transition towards a fossil-free society. SFOC is led by legal, economic, financial, and environmental experts with experience in energy and climate policy and works closely with policymakers.

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