Will South Korea’s Progress on Climate Change Survive the End of the Moon Administration?

A look at the factors that will shape the next president’s climate policies.

By Troy Stangarone

South Korea has placed a greater emphasis on addressing climate change and reducing its carbon emissions under the administration of President Moon Jae-in.

With Moon at the helm, South Korea has pledged to become carbon neutral by 2050, and at the Glasgow climate conference in 2021...
Seoul submitted a new nationally determined contribution that calls for emissions reductions of 40 percent below 2018 levels by 2030. Under the administration’s Green New Deal initiative, South Korea is set to invest over $62 billion in climate friendly technologies by 2025.

South Korea also has worked to adjust its energy mix. The Moon administration put in place plans to close 10 coal power plants by the end of this year and an additional 20 by 2034. It also plans to more than triple South Korea’s wind and solar facilities by 2025, while investing in the technology and infrastructure needed to develop hydrogen as a potential fuel source.

Whether South Korea is able to achieve carbon neutrality by 2050 will depend on its ability to meet its 2030 emissions reductions targets. With the next president’s term set to last until 2027, the policies of either Lee Jae-myung of the progressive Democratic Party of Korea or Yoon Suk-yeol of the conservative People Power Party will likely determine whether South Korea is able to achieve its 2030 emissions reduction targets.

The Candidates’ Views on Climate Change

While much of the campaign has focused on the scandals plaguing the two candidates and their families, Lee and Yoon have each laid out a vision for addressing climate change should they win the Blue House.

To an extent there are more areas of commonality than differences between both candidates on climate policy. Both support the goal of carbon neutrality by 2050 and the Moon administration’s pledge to reduce emissions by 40 percent below 2018 levels by 2030, though Yoon has been critical of the Moon administration’s planning in reaching the target. They also support the hydrogen economy roadmap and some reconsideration of the Moon administration’s decision to phase out nuclear power.

Another area of commonality is a focus on electric vehicles. Lee has called for phasing out of the sale of combustion engine vehicles by 2040. He would support the sale of new electric vehicles by increasing subsidies for the purchase of electric vehicles, while adjusting South Korea’s emissions tax system to take into account...
both a vehicle's emissions and price to encourage a transition to more small vehicles, electric vehicles, and hydrogen vehicles. He would also focus on increasing the number of electric taxis, buses, and charging stations.

Yoon would focus his efforts on changing safety regulations to allow charging stations to be installed at LNG and gas stations to promote their development at existing fuel stations.

There are also areas where the candidates diverge, even when they agree in principle. While both agree on the need to reconsider nuclear power, Lee sees only a limited role for nuclear power among a more diverse power mix. Under a Yoon administration, however, South Korea would look to increase the use of nuclear power, along with renewables, to reduce power generation from fossil fuels from its current 60 percent of the total energy mix to 40 percent.

On the issue of South Korea's goal to achieve carbon neutrality by 2050, Lee would like to bring that date forward to 2040, while Yoon wants to overhaul South Korea's 2030 planned emissions cuts.

More broadly Lee has tried to align himself with the climate policies of the Moon administration and supports its carbon neutrality efforts. He has proposed creating a new ministry of climate and energy, while calling for an investment of nearly $8.5 billion to build the infrastructure to promote renewable energy around the country.

**Internal and External Factors for Maintaining Climate Policies**

While Yoon and Lee's climate policies may still be taking form, there are domestic and external factors that will shape the next administration's policies on climate change.

The strongest incentive for either Lee or Yoon to continue to place an emphasis on climate change is domestic air pollution. A combination of domestic air pollution and fine dust particles from China have left South Korea with poor air quality that has become a perennial issue for the public.

This past November, the air quality over much of South Korea varied from very bad to bad, something that is not a rare
occurrence. According to the Air Quality Life Index at the University of Chicago, particulate pollution in South Korea is twice that of the OECD average and South Koreans can expect a decline of 1.4 years to their life expectancy due to air pollution.

Beyond public pressure to improve air quality, the next South Korean administration will also face legal requirements to maintain climate policies. Last year, the National Assembly passed a law requiring national carbon neutrality by 2050, making South Korea only the 14th country at the time to put its pledge for carbon neutrality into law. Under the legislation, South Korea will have to cut its greenhouse gas emissions 35 percent below their 2018 levels by 2030. The National Assembly also passed legislation for regulating the hydrogen economy, a first of its kind.

While South Korea’s carbon neutrality law requires a reduction in emissions, it does leave open the prospect of changing the energy mix the country uses to achieve those goals. Yoon has already hinted at this with his suggestion that South Korea should reverse its decision to phase out nuclear power. The law is also less stringent than Seoul’s pledge in Glasgow to reduce emissions by 40 percent from 2018 levels by 2030.

External factors will also play a role. Both Yoon and Lee have suggested that they support the joint statement on the South Korea-U.S. alliance agreed to at the May 2021 summit, where climate change was a key topic of discussion. The United States and South Korea agreed to cooperate on climate change by working together to end new international financing for coal plants overseas, promote climate friendly finance, share information on nature based solutions to climate change, and form a new high level Energy Policy Dialogue. The Biden administration also strongly encouraged South Korea to announce deeper emissions cuts at COP26 in Glasgow. Lessening South Korea’s commitments in these areas could create tensions in the alliance.

In addition to the South Korea-U.S. alliance, the next Korean administration will face external economic pressures to continue to address climate change. The automotive industry globally is rapidly transitioning to electric vehicles, incentivizing a domestic
transition to ensure Korean automakers are competitive. South Korea is also playing a prominent role in the U.S. auto industry’s transition, further ensuring continued emphasis in this area.

Other manufacturing sectors are also likely to face pressures to become more climate friendly. The U.S. and the EU are collaborating on efforts to reduce emissions from steel, while the EU is expected to move forward with at least a limited carbon border adjustment mechanism.

While the exact composition of South Korea’s climate policies will change under either Yoon or Lee, the broader course toward continued emissions reductions will likely continue during the next administration due to legal requirements and the need to address domestic concerns related to air pollution, as well as the continued pressure and incentives South Korea is likely to face for reforms from abroad.

The Author

Troy Stangarone is senior director and fellow at the Korea Economic Institute of America (KEI).