



ASIA

## KOREA

In the Republic of Korea, COVID-19 in 2021 has severely influenced the political response to energy policy and relationships with energy suppliers. The region has heavily relied upon international energy providers. Imports make up 84% of the overall energy supply in Korea (See International Energy Agency Korea 2020 Energy Policy Review). Therefore Korea is sensitive to changes in commodity prices alongside energy market conditions (Moon and Jung, 2020). More than elsewhere, the debate is intensifying on how to create better regional integration.

Moreover, the economic structure of Korea still has shown strong ties with large corporations and conglomerates. It appears to be the enabler of the early economic boom of Korea, and economic growth has remained a top priority for decades. This has resulted in inflexible energy policies and complicated structure of the renewables and energy markets, that has made energy supplies highly subject to industrial purposes. Despite the movement of conglomerates to the 'green' policy and the gradual introduction of Environmental, Social, and Governance considerations (ESG) to business operations, there is a challenge to shift governance to obtain 'green' power and 'green' management (that includes Climate Change Management).

The issue of cyber security is felt across the globe, in Korea, the handling of Cyber Security Risk is also very likely to impact the development and adoption of new technologies in the future energy sector.

Korea has collected a relatively fair amount of responses to the Issues Survey, therefore the findings are perceived as well-supported. However, respondents appear to represent public energy sectors, which lays a limitation to the interpretation. The Issues Monitor Survey also notes that the factors for Action Priorities have shaped unique trajectories in the region. In response, Quality Energy Access reveals the need for transition to renewable energy and carbon neutrality. After an announcement of net-zero 2050, the Asia region reached a consensus on the procurement of renewable energy sources through sustainable supply channels.

At the heart of how to best achieve action priorities, the survey response indicates that the enhancement of existing energy Market Design and Regulation is required to provide adequate commercial incentives to the energy investors in various sectors. However, it is still challenging for Asian countries to work on establishing a better functioning market due to uncertain regulations and fewer incentives for commercial investors (see World Energy Issues Monitoring 2021).

The Demographic Patterns and Demand-Pull are also shown as enablers and key priorities in Korean. The study found that there is a long-run positive relationship between electricity prices and coal prices, also natural gas prices are a good indicator for predicting changes in electricity prices (Moon and Jung, 2020). According to the Maeil Business Newspaper (2021), the consumer price index is expected to rise by 2.2% next year after rising 2.4% this year. Next year's inflation is 0.8 percentage points higher than the previous government's forecast, far exceeding the central bank's medium-term price stabilisation target (2%). The Ministry of Strategy and Finance reports that the increase in electricity and gas rates was included in the inflation rate of 2.2% next year. It suggests that fluctuations in global energy prices are likely to raise the risk of renewable investment.

Regarding Digitalisation, Digital technologies, such as onshore winds, solar panels, smart grids, smart meters, and energy management systems, as well as blockchain and 'big data,' are critical components of an efficient, decentralised energy system. Nonetheless it is worth pointing out that greater usage of such technology in the region brings with it some risks.

To summarise, in comparison to other countries, securing stable commodity prices, raising the share of renewable energies, and enhancing energy policies & regulatory framework in Korea are required for mitigating risks in future energy strategies.

## TESTING PERSPECTIVES WITH THE WEC KOREA MEMBER COMMUNITY

The results of the World Energy Issues Survey were discussed within the Korea Member Committee in February 2022. The workshop supported the emerging findings while drawing out three key highlights to summarise the country's current energy landscape:

### 1. The rapid changing renewable energy landscape and a shifted focus to the ESG

The current commercial investors are more and more encouraged to apply the ESG framework to their business and decision-making of investment. Korea used to be nominated as a 'non-green' country among International Energy Agency member countries due to its coal-powered energy generation (See International Energy Agency Korea 2020 Energy Policy Review). However, in recent years, Korea has experienced significant change by increasing the share of renewable energies in the overall energy mix. The region has shown greater interest in renewable energies' potential and the long-run impact of sustainable business.

### 2. The impact on fluctuating commodity prices during COVID-19

The conventional power mix would be phased out under Korea's Green New Deal as part of the COVID-19 recovery and energy transition plan. This is expected to impact the political and economic relationship between energy suppliers, industries, and the government. There are divergent political actions on stabilizing commodity prices and alleviating the burden of the socio-economic cost of importing a large share of the commodities is actively discussed in the region.

### 3. The march to carbon neutrality and decarbonization

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