South Korea

South Korean business executives say a renewables-based power system will help create jobs (50%) and increase energy security (59%), with over three-quarters (76%) pushing to shift from fossil fuels for such a scenario by 2035.

The prolonged dominance of coal (33%) and fossil gas (27%) in South Korea's electricity mix runs contrary to the transition from fossil fuels to renewables desired by virtually all business executives (99%).[1] The current structure of the power system leaves the country not only with the second highest rate of coal-related per capita emissions,[2] but also vulnerable to the volatility of fossil fuel import markets. With few domestic fossil fuel reserves of its own, an unsustainably high 98% of South Korea's fossil fuel consumption derives from imports.[3] Moreover, the country's lack of international oil or gas pipelines means it has to rely on shipments of crude oil and liquefied natural gas, which is both costly and polluting.

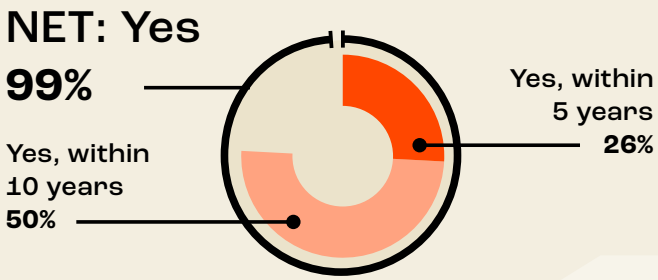
Nearly three-fifths (59%) of business leaders agree that a rapid shift to renewables would increase South Korea's energy security.

This conviction is based on the country's subsequent capacity to generate electricity from its own domestic sources. At the same time, the transition would reduce the country's dependency on costly imports. Further, it would help bring South Korea in line with its regional peers: at 5%, the proportion of solar and wind in its electricity grid lags neighbours such as Japan (11%) and China (16%).[4]

Electricity policy

The South Korean government could unlock more renewable deployment by setting clear timelines. At present, more than four in ten (42%) of those polled maintain that a lack of clear transition timelines is hampering the deployment of renewables infrastructure. Insufficient policy support is also flagged by

Do you think your government should transition away from fossil fuels to a renewables-based electricity system?



1 https://ember-energy.org/data/electricity-data-explorer/
2 https://bloombergcoalcountdown.com/countries/KR
3 https://www.eia.gov/international/analysis/country/KOR
4 https://www.iea.org/regions/asia-pacific

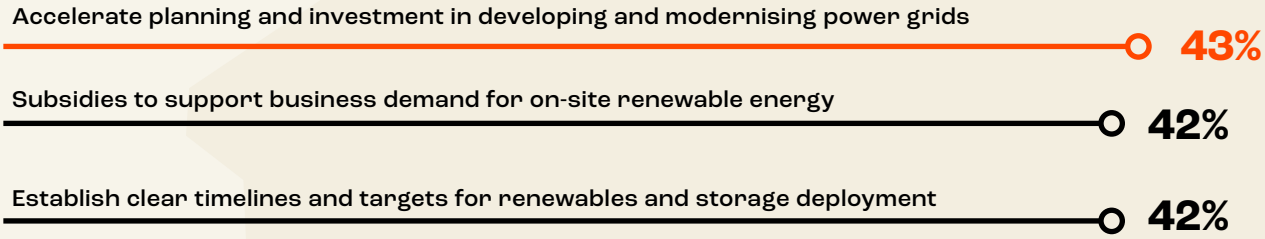
two-fifths (40%) of respondents as a barrier to the transition. One area where this manifests itself is in the procurement of renewables-based electricity, which is complicated by the monopolistic position of the majority state-owned electricity utility KEPCO and the national grid's System Marginal Price mechanism, among other factors.

The main political sticking point is South Korea's long-standing attachment to coal, which nearly two-thirds (63%) of business executives want to see replaced with a direct transition to new renewables, grids, and storage, without an interim reliance on fossil gas. Business opinion is even stronger among those who want their government to prioritise new investment in renewables, with 92% supporting a phase-out of coal within a decade. The country's current coal phase-out date of 2050 signals a far longer transition period. This is echoed by the decision to reduce its 2030 goal for renewables-generated electricity from 30% of total electricity to 22%.[5] Were South Korea to phase out coal and other fossil fuels, one of the chief benefits identified by business leaders (68%) would be to mitigate the risk of climate change.

Business 'asks'

When presented with a list of benefits for the transition to renewables, almost half of senior executives specified economic growth (47%) and competitiveness (48%). Companies are now looking to the government for support to make good the potential of a renewables-generated electricity grid as a conduit for greater economic productivity.[6] One quick win would be to facilitate on-site renewable electricity facilities on business premises through tailored subsidies, say more than two-fifths (42%) of business executives. A substantial proportion (43%) of business leaders want to see the government accelerate planning and investment into modernising the electricity grid. This could include reforms to the above-mentioned structural barriers to procuring renewables-based electricity. Above all, however, companies want greater access to renewable electricity financing and investment opportunities, which nearly two-thirds (63%) of executives identify as a top benefit of the transition. Another leading benefit for many (50%) is the availability of subsidies and other financial incentives.[7]

Top 3 requested actions that your government should take to accelerate the transition from fossil fuels (% who chose the following)



5 The 22% goal is part of the 10th Basic Plan for Long-Term Electricity Supply and Demand, published by the Ministry for Trade, Industry and Energy in late 2022. See: https://energytracker.asia/south-koreas-energy-mix-and-its-10th-basic-energy-plan/

6 GDP growth is projected at 2% for 2025, below the fast-paced standards of recent decades. https://www.kdi.re.kr/eng/research/economy

7 The South Korean government recently announced that subsidies for co-firing power plants that use a mix of coal and wood pellets would be withdrawn. Meanwhile, recent research suggests that reaching the country's 2030 target of 22% of its electricity coming from renewable sources via a feed-in tariff system would require subsidies of no more than 54% of the final electricity price. https://apnews.com/article/biomass-energy-south-korea-deforestation-40bd1ca250562f5dcaa2231cdc628a9f#; https://journals.sagepub.com/doi/full/10.1177/21582440241242554