

軒云閣



Global coal phase-out raises difficult questions for nuclear-averse post-Fukushima Japan

Concern about climate change has led to a global shift away from using carbon-emitting coal for electricity, but in post-Fukushima Japan, where nuclear remains a dirty word, coal has become king.

When it accepted the Paris Climate Accord in late 2016, Japan — the world's fifth-largest emitter of greenhouse gases — pledged that no effort would be spared in fighting climate change. The government committed to a 26 percent reduction in emissions by fiscal 2030.

But the reduction was viewed as insufficient by environmental activists, as it only represents an 18 percent cut when compared with levels under the 1997 Kyoto Protocol's base year of 1990.

In spite of Japan's commitment to the Paris agreement, public sentiment against nuclear energy since the 2011 triple core meltdown in Fukushima has made it politically unpalatable to restart nuclear power plants.

To make up for the lost output, the government has shifted to coal. Since 2012, plans have been launched to build 50 new coal-fired power stations across the country.

Electricity generation accounts for about 40 percent of Japan's greenhouse gas emissions, according to a report by environmental NGO Climate Analytics, and in 2016 more than half of the emissions, or about 20 percent, came from coal, "making it a major contributor to climate change."

"To be in line with the Paris Agreement, developed countries need to phase out coal from their energy systems by 2030, yet Japan appears to be going in the opposite direction," said Paola Yanguas Parra, the report's lead author.

Despite renewable energy sources such as solar and wind — combined with storage technology — emerging as viable alternatives, Japan has continued to pursue coal, which is believed to emit twice as much carbon dioxide than a natural gas-fired plant.

Despite pushback from the Environment Ministry, the Ministry of Economy Trade and Industry has doubled-down on coal. It is pushing to export next-generation, coal-fueled power technology considered cleaner than older systems.

One such plant is run by Tokyo-based J-Power, formally known as Electric Power Development Co. It operates what it describes as a low-carbon, high-efficiency operation at its Isogo coal-fired thermal power station in Yokohama.

The plant's "ultra-supercritical pressure" technology generates steam to rotate turbines and releases a relatively low amount of carbon dioxide, the utility said.

J-Power spokesman Yasuhiro Sugishita said the coal-fired plant is also equipped with activated carbon adsorption equipment, which collects sulfur oxides in the exhaust gas, "achieving environmental countermeasures and power generation efficiency" that he claims is among the best in the world.

With the help of METI, the Isogo power station has drawn frequent visits from overseas observers. Among the 5,300 who visited in fiscal 2017 ended in March 2018, about 800 were from abroad. Many are government and power company officials from Asian countries, including China, Indonesia and Thailand.

Yet even as such technology gathers attention abroad, the coal-fired plants in Japan have begun to face headwinds. Of the 50 domestic projects launched since 2012, nine have foundered, and more are running into challenges.

A coal-fired plant sponsored by Tokyo Electric Power Company Holdings Inc. and Chubu Electric Power Co. in Yokosuka, Kanagawa Prefecture, is one such project facing local opposition.

"There are concerns like air pollution by contaminants like sulfur oxides," said Rikuro Suzuki, a 76-year-old leader of a group opposing the plan. "The environment and public health should be given overriding priority," he said.

The opposition extends even into the government and the business community.

Last year, the Environment Ministry warned METI that its environmental assessments of coal-fired power plants planned in Ehime and Akita prefectures may need to be reassessed if there is no clear road map for carbon reduction.

Kansai Electric Power Co. ditched a plan to convert an existing facility in Ako, Hyogo Prefecture, to coal in early 2017 after acknowledging the need to drive down carbon emissions.

Reflecting worldwide trends, investment in coal-fired plants in Japan has begun to dry up.

Institutional investors, including Sumitomo Mitsui Trust Bank and Nippon Life Insurance Co., have said they will stop making new investments in or providing financing for coal-burning plants.

But according to Climate Analytics, the trend is not prevalent enough.

“If Japan’s emissions trajectory from its current energy and investment plans for coal were to continue, it would overshoot its Paris Agreement emissions budget for coal in the electricity sector by 292 percent by 2050.”

Hajime Yamamoto, a 32-year-old researcher at Kiko Network, a nonprofit environmental organization, said, “Construction of new coal-fired power generation plants will be a heavy drag on long-term efforts to fight global warming.

“The government should quickly switch to a policy of promoting a coal phaseout,” he said.

Why are Japanese teens so glum?