

# Lobbying hampers Japan's energy transition

Many utilities providers have been turning away from coal generation in favor of renewables.

Amongst G7 nations, Japan seems to be distinctive in a way that it is adding to its domestic coal power generation capacity counter to the global coal phase out trend, according to a report from London-based InfluenceMap. The country is said to have roughly 45 new coal plants in the pipeline. In parallel with this, its public finance assistance of power projects overseas is primarily directed at coal-power with a pipeline of 30GWs of coal projects, mostly in Southeast Asia.

Even as Japan's power sector is striving to move away from coal, a business lobby group has hampered the country's efforts to align its clean energy transition consistent with the Paris Agreement targets. In spite of this issue, new renewable sources are gradually emerging, with large-scale offshore wind projects in particular gaining ground.

The research also finds that the Japanese government's pursuit of coal power generation over more accelerated renewable power is misaligned with the business interests of the majority of large Japanese companies. More than half of the Nikkei top 100 companies (53%), representing almost JP¥140t of market value and employing over 3.5 million, have business models that would prefer proliferation of renewable electricity generation, both in Japan and globally, compared to coal.

InfluenceMap's report says that "very few" have any preference for the coal value chain with a range of Japanese companies having interests in renewable electricity related markets. Construction and real estate firms have interests in construction and operation of wind, biomass and solar facilities as well as 'zero carbon' buildings that integrate renewable generation.

Japanese materials and technology firms such as Asahi Kasei, Toray, Panasonic, have global strengths in lithium-ion batteries, materials for solar cells, and carbon fiber products for use in wind turbines. Japanese automotive makers are global leaders

**Large-scale offshore wind projects have been gaining ground within Japan's energy mix.**



in EV technologies that may benefit in many markets where convergence with renewable electricity becomes apparent. Conversely there are very few leading Japanese companies with the coal value chain key to their business models.

### METI-Keidanren-Cabinet's policy

In March, Japan announced its updated Nationally Determined Contribution (NDC), which laid out its commitment to the Paris Agreement, as part of the United Nations Framework Convention on Climate Change (UNFCCC) process. Its submission targeted 22-24% renewables, with less than 2% of this being wind power, and 26% coal in the electric power generation mix by 2030.

This drew sharp criticism from the Japan Climate Initiative (JCI)—a coalition which includes many blue-chip corporations from retail, finance, construction and homebuilding and technology—commenting that the government "did not listen to these voices at all," added InfluenceMap. Another cross-sector group, the Japan Climate Leaders' Partnership (JCLP) representing corporations including AEON, Fujitsu, Ricoh and Mitsubishi Real Estate, has called to aim for a 50% renewables target by 2030.

InfluenceMap's research found that the energy and climate policy in Japan is formulated mainly by the Japan Business Federation (Keidanren), the Ministry of Economics, Trade and Industry (METI) and the Cabinet Office of the ruling LDP party. Keidanren is a federation with over 200 staff and over 100 key industry associations across the economy as members. All three of them are said to be in support for the development of large-coal power generation by the existing regional power companies over rapid scaling up of solar and wind power in a more liberalized electricity generation market place.



JP Fukushima offshore wind farm

## Country policies weakened by lobbying



Source: InfluenceMap

On climate change, Keidanren argued for a voluntary, sector-specific approach. However, InfluenceMap found that only seven sectors showed intensive policy engagement on climate and energy issues through their respective industry association, namely: iron/steel, electric power, automotive production, cement, electrical machinery, oil/petrochemicals and the coal value chain. These only represent 10% of the nation's GDP.

Thus, the report recommended that reforms in transparency and governance will likely be needed in how industry associations interact with the government on policy issues, along with greater engagement in climate-motivated policy by non-fossil fuel sectors.

"Importantly, industry associations representing key economic sectors like healthcare, retail, financial services, logistics, construction, and real estate should be more actively engaged on a range of climate-related policy streams to express their positions and climate goals more clearly," the report stated.

## Utilities ditch coal

However, with the potential of greener energy in Japan, as well as the pandemic, utilities have turned their attention from coal-based generation to renewables. According to a statement from GlobalData, Japan has been using this opportunity through decade-long plans to terminate about 90% of the nation's 114 coal-fired power generation units noted to show poor performance and low efficiency. This is said to assist the nation to reduce its carbon emissions and shift towards renewable energy, says data and analytics company GlobalData.

Japan is considered to be a resource-scarce country that relies on coal for about a third of its energy needs, with almost 30-33% of its electricity generation coming from the fuel in the past two years, according to GlobalData's senior power analyst **Somik Das**.

As the country plans to continue using its high-efficiency coal plants, 100 low-efficiency plants are being planned to be phased out. Furthermore, Japan's latest Strategic Energy Plan aimed to ramp up the share of renewables and nuclear in electricity generation to 22-24% and 20-22%, respectively, over the decade.

The country also aims to support other developing nations with its coal power technologies. With the country's inability to build up clean nuclear-based generation, Japan has maintained a target to scale down emission by 26% over the decade, compared to 2013, which might be seen by global environmental authorities as less ambitious.

Meanwhile, nuclear-based generation has been struggling following the 2011 Fukushima crisis, and in 2019 it formed just 2.1% of the total generation. It is expected to only take up 2.5% of the total generation by 2020. "The inability to fully generate from its nuclear sources and the renewables forming an expected 15-20% of the generation for the following few years, the nation is likely to have gone more conservative on its emission reduction target," Das said.



Somik Das

In this backdrop, the pandemic has compelled the nation to focus on renewables. Das noted that the total solar and wind capacity in the country is expected to grow by over 8%. "The country is eagerly looking into developing utility-scale Solar PV, Floating renewable projects, and energy storage to further develop the renewable landscape," he said.

## Offshore wind boost

The offshore wind sector is also kicking off in Japan. According to data from the Mizuho Bank revealed in a conference during the World Smart Energy Week, the installed offshore wind capacity is around 65MW as of 2017, and no large-scale projects have yet to be installed. However, there has been a dramatic rise in offshore wind projects undergoing environmental impact assessment (EIA), which is at 15.41GW as of 24 January.

Government support has contributed to this growth. In April 2019, a bidding system was introduced for offshore wind power provision in designated areas, which offers support for offshore wind projects outside port areas. The government has set the key performance indicator (KPI) of having these projects start operation in five areas by 2030.

Mizuho Bank's senior manager **Tae Tamura** noted that the potential of offshore wind generation in Japan is much bigger than that of onshore wind, which is estimated at around 613GW vs. 169GW, given its geography as a small island country. Of these, the potential for floating offshore wind, which is better suited for deep sea areas, is about 519GW.

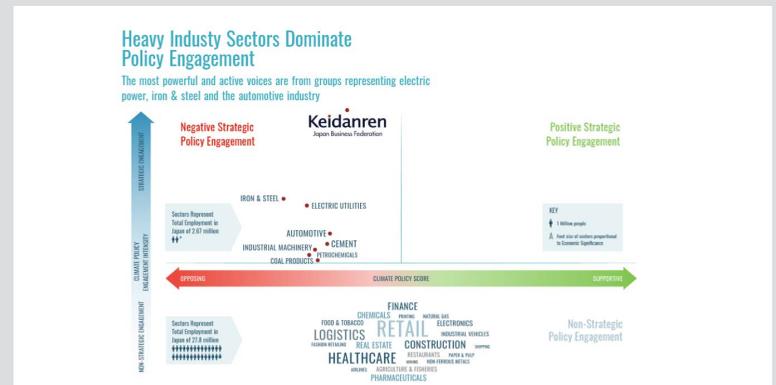
However, Japanese companies struggle to enter the original equipment manufacturer (OEM) market on their own, which are primarily engaged in designing the turbine, component procurement, turbine assembly, testing and shipping. Just in Japan, over 70% of wind turbines installed are made by overseas players, and there are local firms who have either withdrawn from manufacturing or stopped receiving orders.

With this, Tamura found it necessary for global wind turbine OEMs to promote local production from the viewpoint of cost reduction. But with the large number of procured parts, a supply chain will have to be constructed that includes assembly, manufacture, test, transport and installation.

"In order to expand the use of floating offshore wind power generation in Japan, it is important for foreign companies and Japanese companies to establish a win-win cooperative structure at an early stage to enjoy the advantages of being the first mover in Japan," Tamura said.

Furthermore, Japanese companies would also be required to respond to the needs for cost reduction and performance improvement for wind turbine OEMs in order for them to enter the supply chain. Tamura is counting for a possibility that global OEMs and Japanese firms will be able to jointly develop wind turbine components.

## Heavy industry sectors dominate policy engagement



Source: InfluenceMap