Consul-General of Japan in Sydney's Newsletter

No. 25　Australia's Energy Policy: Importance of Cooperation with Japan

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On 15 September, in the northern Newcastle suburb of Tomago, Prime Minister Scott Morrison gave a major speech about future energy policy as part of the JobMaker plan announced earlier in June this year. Two days later on 17 September, in the southern Wollongong suburb of Illawarra, Prime Minister Morrison and the Hon Angus Taylor MP, Minister for Energy and Emissions Reduction, announced a A$1.9 billion investment in future technologies to lower emissions. Then in the following week, in his address to the National Press Club on 22 September, Minister Taylor announced the Technology Investment Roadmap to reduce carbon dioxide (CO2) emissions.

For Australia, coal and natural gas are not only a major industry accounting for approximately one quarter of total exports, they are also an important source of affordable and reliable energy and this energy is essential for domestic economic growth. However, as the recent bushfires illustrate, the need to respond to climate change is an urgent problem not only for the world but for Australia itself. For this reason, energy and emissions reduction policies have great significance, affecting the very future of countries, and the recent series of policies could be understood in this context. These policies are already incorporated in the national budget by the Australian Government announced on 6 October and will probably be discussed on many occasions around the country.

In the field of energy, Japan and Australia have deep ties. In terms of both coal and natural gas items, the countries are not only each other's largest import and export destination, Japan and Australia are also promoting cooperation towards developing hydrogen as a clean, safe, affordable and sustainable source of energy.

In this issue of my Consul-General's newsletter, I would like to introduce the major points of Australia's new energy policies, and I invite you to consider with me these policies' importance to Japan as well as the future direction of Japan-Australia cooperation in the field of energy.

Prime Minister Morrison's National Energy Address
(15 September 2020, Prime Minister Morrison's Facebook)

● Prime Minister Morrison's National Energy Address

The Hunter region, which includes Newcastle, is known for producing wine and coal, and it also has major coal-fired power stations. Prime Minister Morrison chose the northern Newcastle suburb of Tomago, which has an aluminium smelter and a proposed natural-gas fired power station site, as the place to announce new energy policies on 15 September.

First the Prime Minister mentioned affordable, reliable and secure energy as a pillar of the JobMaker plan, noting that it contributes to developing business, increasing employment and improving livelihoods. He then presented goals in three areas – electricity, gas and fuel security.

Firstly, regarding electricity, the Prime Minister confirmed the important role that coal will continue to play in the Australian economy for decades to come. In addition, there is already large investment in renewables such as solar and wind (at more than three times the per capita rate of countries like Germany, China or France), and he emphasised that on top of that, coal, gas and pumped hydro batteries are indispensable to dispatchable power generation which complements renewables.

The closure of the Liddell Power Station due to ageing in the summer of 2023-24 would lead to a 1,000 MW shortage of electricity, causing a 30% increase in the price of electricity. In order to fill this gap, the Prime Minister stated that final investment decisions need to be made by April 2021 and that if the private sector does not commit to make the necessary investments, then the government would step in and build a gas fired power station by government-owned Snowy Hydro.

Secondly, regarding gas, Australian LNG (liquefied natural gas) exports now rival Qatar's, however, at the same time, the east coast gas market is not functioning well enough; not only are domestic industries having to pay higher prices than for overseas exports, there is a forecast of potential gas shortages in the east coast market by 2024.

The Prime Minister then referred to the explanation by Chief Scientist Adam Finkel, who said, "Gas is effectively the perfect complement to solar and wind." The Prime Minister also stated that LNG for domestic use and for export markets must co-exist, and he gave a long-term goal of establishing an "Australian Gas Hub" similar to the United States' "Henry Hub" system, which decides the LNG index price.

Prime Minister Morrison announced that to this end, the federal and state governments will promote efforts to develop new gas fields, including the Beetaloo Basin in the NT and in the Narrabri district in NSW, and to utilize existing gas fields in Queensland. The government will also unify the market around a common set of priorities for gas pipelines and other critical infrastructure through a National Gas Infrastructure Plan. In addition, the government will actively mediate between consumers and supplier of LNG.

(On 30 September, NSW's Independent Planning Commission (IPC) granted Santos approval for its natural gas exploration in Narrabri with conditions, and Santos accepted the conditions.)

Thirdly, regarding fuel security, the Prime Minister announced that, by setting minimum levels of fuel reserves for industry stockholding as obligations, and through constructing and operating additional liquid fuel storage facilities, 24 days of petrol and jet fuel and 28 days of diesel reserves would be secured, and that discussions have begun about a production payment to secure the capacity for domestic refinery capabilities.

Prime Minister Morrison and Minister for Energy and Emissions Reduction Taylor announcing investment in new technologies to lower CO2 emissions (17 September 2020, Prime Minister Morrison's Facebook)

● A$1.9 billion investment in new technologies to lower CO2 emissions

Two days later on 17 September, Prime Minister Morrison and Minister for Energy and Emissions Reduction Taylor, together with CSIRO Chief Scientist Dr Catherine Foley, visited the BlueScope steelworks at Port Kembla in Illawarra, a suburb in south Wollongong, and there they announced a A$1.9 billion investment in new technologies to lower carbon dioxide (CO2) emissions.

Prime Minister Morrison explained that the investment was part of the JobMaker plan and it would not only enable Australia to meet and beat its 2030 emissions reduction targets, the investment would also assist the process of setting up the technologies to rely on for the 20 or 30 years beyond 2030 and lead to the creation of 35,000 direct jobs and an additional 35,000 jobs through the flow on of these investments.

Minister Taylor explained that the investment is the next stage in the strategy to bring down emissions while creating jobs and a strong economy "through technology, not taxes". He also stated that electricity accounts for only about a third of emissions – the other two thirds are in industry, in agriculture, in transportation, and in manufacturing, and that we need to deploy the very best technologies and improve those technologies in order to increase employment, competitiveness and investment while reducing emissions.

To this end, the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC) are supporting new technologies to reduce emissions in addition to investing in existing renewable energies.

Technology Investment Roadmap - major points
(22 September 2020, Department of Industry, Science, Energy and Resources)

- **Technology Investment Roadmap**

In the following week on 22 September, Minister for Energy and Emissions Reduction Taylor delivered an address to the National Press Club titled “Energising the economy: The case for a technology-led approach”, and in this address, he announced the Technology Investment Roadmap.

Minister Taylor strongly conveyed his basic philosophy, that there are only two ways to reduce emissions - either by suppressing emissions-intensive economic activities through taxation or by improving such activities, and that the economy should not be damaged to reduce emissions. He also stated that when it comes to developing technologies, it is important that the public and private sectors cooperate, because the greatest results are achieved when the public sector supports high-risk R&D, while the private sector drives deployment, commercialisation and scale. He also

explained that the Roadmap was developed by a panel of seven experts - the Ministerial Reference Panel, which received some 500 submissions and secured the participation of and heard from more than 150 businesses and organisations.

The Roadmap outlines five priority low emissions technologies: (1) Clean hydrogen under A$2 per kilogram, (2) Energy storage – electricity from storage for firming under A$100 per MWh, (3) Low carbon materials – low emissions steel under A$900 per tonne and low emissions aluminium under A$2,700 per tonne, (4) Carbon capture and storage (CSS) – storage under A$20 per tonne of CO2, and (5) Soil carbon measurement under A$3 per hectare per year. While classifying various technologies into categories, five particularly promising technologies would be focussed on.

In order to realise the Roadmap, the government will use the following levers: (a) investment and incentives, (b) legislative and regulatory reform, (c) governance via the Technology Investment Advisory Council, and (d) international engagement and collaboration. Minister Taylor mentioned Japan as an international partner for engagement and collaboration.

Finally, Minister Taylor concluded his National Press Club address by emphasising that it is not ideology that is important for energy and emissions reduction, rather it is balance and outcomes, and the national energy policy would achieve international emissions reduction obligations and at the same time realise strong jobs growth and a strong economy.

Site visit to INPEX's Ichthys LNG Project
(20 February 2020)

● Japan and Australia's close ties in energy

Australia and Japan are deeply interdependent in the field of energy. According to 2019 statistics, Australia's largest export items were iron ore (19.8% of total exports), coal (13.2%) and natural gas (10%), and of this, Japan accounts for 26.5% of coal exports and 41% of natural gas exports, making Japan the largest export destination for both items (China is the second for both).

Seen from Japan, again according to 2019 statistics, the Australian share of Japanese imports for coal is 58.8% and for liquified natural gas (LNG) it is 40.4%, making Australia far and away the number one import source for both items (Indonesia is second for coal and Qatar is second for LNG).

When you consider the areas my jurisdiction covers, Japan is NSW's largest export destination and coal comprises approximately 65% of all NSW exports to Japan, and for the NT, Japan is also its largest export destination and LNG et al. comprise approximately 94% of all NT exports to Japan.

Australian coal is high-quality, has a low environmental impact and is used in Japan's highly efficient electricity generation and in the production of steel. Australian LNG is being used widely in electricity generation and industry. Both are essential to the Japanese economy.

In July this year, in order to realise a decarbonised society while maintaining full energy sufficiency, Japan began examining how to introduce new mechanisms to phase out inefficient coal-fired power generation and move to sustainable energy as the main power supply. The main issue from here on is how to secure a stable energy supply to achieve the phasing out of inefficient coal-fired power generation by 2030.

Given the interdependence of Japan and Australia in the field of energy and Australia's new energy policies as described above, I think the exchange of ideas and cooperation between the private and public sector will be even more important going forward.

Signing of the Joint Statement of Cooperation on Hydrogen and Fuel Cells by Minister of Economy, Trade and Industry Kajiyama Hiroshi and Minister for Resources and Northern Australia Matthew Canavan
(10 January 2020, Minister of Economy, Trade and Industry of Japan)

● Japan-Australia cooperation on hydrogen

In the area of hydrogen, cooperation between Japan and Australia is steadily progressing. In January this year, when Minister of Economy, Trade and Industry Kajiyama Hiroshi visited Melbourne to attend the 2nd Australia-Japan Ministerial Economic Dialogue, he signed a joint statement with Minister for Resources and Northern Australia Matthew Canavan regarding cooperation towards the deployment of hydrogen as a clean, secure, affordable and sustainable source of energy as well as the success of the Japan-Australia lignite Hydrogen Energy Supply Chain (HESC) project.

The Japan-Australia lignite Hydrogen Energy Supply Chain project turns Victorian low-quality coal (lignite or brown coal) into gas, and using carbon capture and storage (CSS) technology, it produces CO2-free hydrogen. The liquified hydrogen is transported to Japan and this demonstrates the international hydrogen supply change that has been operating between Japan and the Australia (federal and Victorian state governments) as a private-public partnership since 2018.

Japan's use for hydrogen is large, so too is Australia's hydrogen production and CCS potential, and both Japan and Australia possess state-of-the-art technologies. We can expect that both countries will take the lead in promoting the construction of the hydrogen supply chain and the expansion of hydrogen internationally, thus contributing to the realisation of low-emission societies.

Powerhouse Museum (MAAS)
(21 September 2020)

● Towards the development of closer cooperation on energy between Japan and Australia

Last month, I visited the Powerhouse Museum near Darling Harbour in Sydney for the first time. The venue is the former power station for trams, and the museum houses displays from various scientific and technological fields - from steam engines, through aviation and space displays, ergonomics and design, to exhibits on the environment and climate change.

Many early technologies were imported from England, but I was pleased to see that in the case of recent technologies, Japanese science and technology were present with a Walkman, Tamagotchi and Aibo among the displays. The lead design architect of Powerhouse Parramatta, the new museum planned for western Sydney, is the firm Moreau-Kusunoki Architects, which was founded in Paris by Nicolas Moreau and Kusunoki Hiroko - a new link has been created between Japan and the museum.

Japan and Australia have so far walked separate paths in the history of scientific and technological development. However, today the two countries cooperate closely, both in existing energy fields such as coal and gas, and in new energy fields such as hydrogen. Japan and Australia have built a “special strategic partnership” that encompasses wide-ranging areas, from security and trade frameworks, through to sport, and we are taking the lead in regional and international arenas. With Australia’s recent energy policy, we can expect even greater contributions towards a stable energy supply and emissions reduction across the world.

National Energy Address by Prime Minister Morrison (15 September)
https://www.pm.gov.au/media/national-energy-address-tomago-nsw

Announcements by Prime Minister Morrison and related Ministers regarding energy (14-15 September)
https://www.pm.gov.au/media/boosting-australias-fuel-security
https://www.pm.gov.au/media/gas-fired-recovery
https://www.pm.gov.au/media/ensuring-affordable-reliable-and-secure-electricity-supply

Doorstop media conference regarding investment in new energy technologies to lower emissions by Prime Minister Morrison and Minister for Energy and Emissions Reduction Taylor (17 September）
https://www.pm.gov.au/media/doorstop-illawarra-nsw

Media release by Prime Minister Morrison and Minister for Energy and Emissions Reduction Taylor announcing investment in new technologies to lower emissions (17 September)
https://www.pm.gov.au/media/investment-new-energy-technologies

National Press Club address by the Hon Angus Taylor MP, Minister for Energy and Emissions Reduction (22 September)
https://www.minister.industry.gov.au/ministers/taylor/speeches/national-press-club-address-energising-economy-case-technology-led

Media release by Minister for Energy and Emissions Reduction Angus Taylor announcing the Technology Investment Roadmap (22 September)
https://www.minister.industry.gov.au/ministers/taylor/media-releases/technology-led-plan-lower-emissions-lower-costs-and-support-jobs

Technology Investment Roadmap (22 September)
https://www.industry.gov.au/data-and-publications/technology-investment-roadmap-first-low-emissions-technology-statement-2020

Announcement regarding working towards the phasing out of inefficient coal-fired power generation (3 July 2020) [Japanese language]
https://www.meti.go.jp/speeches/kaiken/2020/20200703001.html

Situation regarding the phasing out of inefficient coal-fired power generation – METI document (August 2020) [Japanese language]
https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/sekitan_karyoku_wg/pdf/001_05_00.pdf

Joint Statement on Cooperation on Hydrogen and Fuel Cells between the Ministry of Economy, Trade and Industry of Japan and the Department of Industry, Innovation and Science of Australia (10 January 2020)
https://www.meti.go.jp/press/2019/01/20200110007/20200110007-3.pdf

Hydrogen Energy Supply Chain (HESC) Project
https://hydrogenenergysupplychain.com/

Powerhouse Museum (MAAS)
https://maas.museum/powerhouse-museum/

Architects of the new Powerhouse Parramatta
https://maas.museum/new-powerhouse/architects/

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