

Asia builds momentum on the race to net-zero as China, Japan and South Korea take the lead

November 2020

Overview

Since September three of Asia's biggest economies have set ambitious deadlines for rapidly decarbonizing their economies broadly in line with the Paris Agreement goal of limiting temperature rise well below 2 degrees while making efforts to aim for 1.5 degrees.

China led the raft of recent announcements by committing to carbon neutrality by 2060, quickly followed by both Japan and South Korea who upped the ante with net-zero emissions goals by 2050.

Accounting for nearly one quarter of global GDP and one-third of total global greenhouse gas emissions, Asia's leading economies are now committed to taking decisive action on climate change.

The implications of this shift will be felt acutely in the region as meeting these pledges will mean rapid structural changes in energy production, manufacturing, transportation and infrastructure development. Many of these sectors will need to meet new standards on emissions, which will have a knock-on effect on the suppliers of the fossil fuels, raw materials and technologies that will move towards net-zero carbon solutions. As AIGCC has previously reported, Asia has the most to gain from the opportunities the transition can bring, and investors are shifting capital to finance this.

Notwithstanding the optimism with which these announcements were greeted, there is the need for greater detail from each country to give confidence that these longer term goals will be implemented in the short-to-medium term.

We will highlight some of the major policy details that will make or break these pledges and point to the accelerating momentum further afield in Southeast Asia, with emerging economies now joining the race towards decarbonizing their economies.

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China

President Xi Jinping, in a speech to the UN General Assembly on September 23 2020:

“China will scale up its Intended Nationally Determined Contributions by adopting more vigorous policies and measures. We aim to have CO2 emissions peak before 2030 and achieve carbon neutrality before 2060.”

In late October, China’s ministries followed up President Xi’s statement with guidelines for specific sectors, including:

1. Green finance - where five government ministries have issued a set of guiding opinions to encourage private investment and foreign capital to back green bonds and fund climate-friendly projects; and
2. Electric vehicles - where the Ministry of Industry and Information Technology (MIIT) has released the Technical Roadmap 2.0 which calls for electric vehicles to account for 50% of new sales by 2035.
3. China has also released the broad outlines of the 14th Five-Year Plan, re-affirming its commitment towards improving the ecological environment however further detail is expected
4. China’s power sector is likely to be one of the most affected sectors as coal-fired power plants account for two-thirds of China’s electricity output, and policymakers will need to reverse course from their previous position of supporting new coal-fired power plants as a means of driving an economic recovery that had resulted in a project pipeline of 300GW. Government researchers have recommended China needs to stop building and financing all new coal-fired power plants, cap emissions and double wind and solar capacity to 500GW each by 2050.

Hong Kong

Hong Kong announced in late November that it will aim to achieve carbon neutrality before 2050. The government plans to update the “Hong Kong Climate Action Plan” in the middle of 2021 to set out more proactive strategies and measures to reduce carbon emissions.”

The Council for Sustainable Development has just submitted a report to the government on long-term decarbonisation strategy.

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Japan

Japan's Prime Minister Yoshihide Suga declared that Japan will aim to become carbon neutral by 2050 in his first policy address to the National Diet on October 26, and said:

“Responding to climate change should no longer be seen as a constraint on economic growth...We need to change our thinking to the view that taking assertive measures against climate change will lead to changes in industrial structure and the economy that will bring about great growth.”

Central to Japan's transition to net-zero will be concrete measures in the near-term to transform the nation's heavy reliance on imported fossil fuels, with energy-related emissions accounting for 85% of GHG emissions. Japan's current energy policy envisages a modest 22-24% of electricity from renewable sources by 2030, together with 26% from coal and 27% from LNG. These targets are currently under review, with Japan's 2030 energy mix likely to be revised in favour of renewable energy. AIGCC's analysis of climate transition scenarios published by central banks and regulators as part of the Network for Greening the Financial System (NGFS), suggests that renewable energy supply will need to more than double to cater for 50% of electricity generation while both coal and gas usage decrease by almost three quarters (coal reduces to 8% and gas to 13%) by 2030, in order for Japan to achieve an orderly transition in line with the net-zero goal.

A detailed roadmap for energy is due by the end of December for approval in 2021 and the Prime Minister has instructed senior ministers to break down administrative silos that are barriers to reform. Offshore wind is being further promoted while more favorable electricity market rules for renewable energy are being considered. Enhanced access to public lands in favour of renewable energy development and tax breaks for zero carbon technology development may also be part of the package.

In addition to earlier commitments to phase out inefficient coal plants by 2030, a key enabler will be upgrades to electricity distribution networks throughout the country to cater for new renewable energy access to the market, which has been resisted by incumbent regional power companies. With 17 new coal-fired power plants in the planning or early construction stages and significant emissions intensive assets on balance sheets, negotiations with the major power companies and heavy industry will be crucial in securing bold reforms to unlock new investment, stimulate new demand for zero carbon energy and adequately incentivize the structural shifts required.

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South Korea

President Moon Jae-in declared that Korea will achieve Net-Zero by 2050 reaffirming the government's commitment to the Green New Deal adopted in July. During the 2021 fiscal budget policy speech at the National Assembly on October 28 2020, President Moon said:

"We will go toward carbon neutral by 2050, taking action on climate change. We will replace coal power with renewable energy creating new markets and industries as well as new jobs."

The Green New Deal aims to transition the nation to green infrastructure, to expand low carbon decentralized energy and to establish a green industry innovation ecosystem, for which the Moon administration has pledged USD \$65 billion over the next five years. From the 2021 fiscal budget plan, USD 7 billion is allocated for the Green New Deal. USD 2 billion will be invested in the green transition for public infrastructures, and USD 3.7 billion on the construction of charging stations along with expansion of electric and hydrogen vehicles. The government will also build low carbon & green industrial complexes and expand financial support to regional renewable energy businesses.

Considering that 40% of its electricity is generated from coal power and less than 6% from renewables, South Korea will have to drastically curtail coal-fired power plants and increase renewable energy generation to become carbon neutral by 2050. With seven coal power plants still under construction, the Moon administration earlier announced that it would halve the total of 60 coal-fired power plants by 2034. On renewable energy, the Green New Deal policy plans to triple solar and wind power facilities to 42.7 GW by 2025 compared to last year of 12.7GW. This would make a significant contribution to achieving the Renewable Energy 3020 Plan which aims for 20% renewable energy by 2030 (or 63.8GW of supply).

These measures will likely be insufficient, however. Climate Analytics suggests that South Korea needs to steeply decrease coal power plant emissions by 58% below 2017 levels by 2025 with complete phaseout by 2029. Moreover, renewable energy needs to provide more than half of power generation by 2030 to align its transition pathway with the Paris Agreement goal of keeping warming within 1.5°C above pre-industrial levels.

Legislation on green finance facilitation, net zero society transition, green pricing, and the introduction of Power Purchase Agreement (PPA) are currently under review by the National Assembly committees. Especially the revision to the Electric Utility Act, which includes the introduction of PPA, will enable Korean firms to freely purchase renewable energy from energy producers and voluntarily participate in the global RE100 initiative. Until now, KEPCO (Korea Electric Power Corporation) has been the sole supplier of electricity in Korea. Thus, the legislations, once implemented, will pave the way for renewable energy market expansion creating a virtuous cycle for the energy transition away from coal power.

President Moon recently announced a plan to establish a government-private organization, tentatively named '2050 Carbon Neutrality Committee' to facilitate and boost carbon neutral policy implementation. Also, the administration plans to submit a revised 2030 Nationally Determined Contribution (NDC) and Long-term low greenhouse gas Emission Development Strategies (LEDS) to the United Nations by the year-end. With the new presidential body on carbon neutral, to-be submitted plans are expected to show a clearer roadmap to coal phase out and achieve carbon neutrality by 2050.

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Taiwan

Momentum in the corporate sector in Asia is highlighted by a new commitment to achieve net zero emissions by 2050 from global electronics manufacturer Hon Hai Precision Industry Co. (Foxconn) of Taiwan. This has been welcomed by institutional investors engaging with the company through the Climate Action 100+ initiative.

Significantly, Hon Hai has committed to: Ensure its greenhouse gas emissions policies across the value chain are consistent with the goals of the Paris Agreement and aim to achieve the goal of net zero greenhouse gas emissions by 2050; and take actions to fulfill the headline goals of Climate Action 100+ including to strengthen climate change governance and provide disclosures in accordance with the Task Force on Climate-related Financial Disclosure recommendations (TCFD)

The Taiwanese Legislative Yuan (Council) has commenced evaluation processes to expedite Taiwan's commitment to net zero by 2050. Work is now underway by the Environmental Protection Agency to collaborate with other departments overseeing energy, transportation, infrastructure and industries respectively to identify a net zero roadmap, including its methodology and timeline. Carbon reduction is no longer perceived as an environmental issue, but are measures required to manage potential economic impacts to Taiwan, including possibility of carbon tax sanctions from other countries.

Taiwan's Financial Supervisory Commission announced a collaboration with the Environmental Protection Agency to develop Taiwan's Green and Sustainable definitions before the end of 2021. This implies that the FSC intends to benchmark countries with taxonomies and develop a taxonomy for listed Taiwan companies. Through existing mandates such as the Green Finance Action Plan 2.0 and Corporate Governance 3.0, Taiwan aims to strengthen corporates and financial institutions' capability to implement ESG and sustainable finance.

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South East Asia

1. Philippines: moratorium on coal power

The Philippines has placed a moratorium on new endorsements for greenfield coal power plants, under the latest policy announced by the government on October 27. Energy Secretary Cusi said the government will push for “the transition from fossil fuel-based technology utilization to cleaner energy sources to ensure more sustainable growth for the country”. Relaxation of foreign ownership rules for large-scale geothermal projects is part of the effort, however details on how many coal plants will be impacted, and what will be done with the existing coal fleet remain to be provided.

2. Malaysia: Petronas aims for net-zero emissions by 2050

On 28 October, Malaysia’s state owned oil and gas company Petronas declared its aspiration to achieve net zero carbon emissions by 2050. While the exact scope of emissions covered by the new goal is unclear, the company states it will achieve this goal by delivering clean energy and low carbon solutions to people globally, reduce hydrocarbon flaring and venting, capture methane emissions and optimise production and in operations, mitigate GHG emissions from operations through energy efficiency improvement and use of low carbon or renewable energy, and develop low and zero carbon fuels, products and solutions such as advanced emission reduction technologies such as carbon capture, utilisation and sequestration (CCUS) in high CO₂ fields. As the first major Asian oil and gas company after PetroChina who declared a new goal to achieve “near-zero emissions by 2050” - this is a major shift in Malaysia’s stance as a significant oil and gas producer.

3. Vietnam: power plans on track to double renewable energy by 2030

Vietnam aims to double use of renewable energy by 2030, comprising up to 20% of the power supply within a decade, up from roughly 10% now. The expansion of renewables is aided by multiple measures to promote the industry by reducing barriers to investment in renewable power and the upcoming Power Development Plan 8 is likely to reinforce this focus.

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US election and net zero Asia re-shape the 2021 policy agenda

The election of a Biden-Harris presidency, with its own net zero emissions target by 2050, will only further solidify net zero emissions by 2050 as the global benchmark by which to judge the credibility of long-term commitments to address climate change.

While domestic implementation of clean energy standards and emissions reduction measures may face legislative hurdles, the international conversation over the next 12 months will now shift to more explicitly focus on increasing the ambition of national 2030 targets before the next UN climate change conference to be hosted by the UK in Glasgow. Irrespective of US action, Asia now appears primed to benefit from the significant commitments from governments, companies and investors at large to accelerate the transition towards a zero carbon economy.