


# **Asia Investor Group on Climate Change (AIGCC)**

## **Position Paper on Japan's Strategic Energy Plan**

Published October 2024

Submitted July 2024

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## Executive Summary

1. The Asia Investor Group on Climate Change (AIGCC) welcomes the opportunity to make a submission to the Basic Policy Subcommittee of the Advisory Committee for Natural Resources and Energy. AIGCC's 70+ members include global and domestic financial institutions, including asset owners and asset managers, that manage over 28 trillion USD in AUM globally and are invested across Asia.
2. More diversity of stakeholder views, including those of investors, in the policy formulation process for the 7<sup>th</sup> Strategic Energy Plan would be valuable in ensuring that the targets and plans that Japan sets are ambitious and realistic. Investors are dedicated stakeholders, committed to help protect and grow the wealth of their beneficiaries and clients, and intrinsically, the future of the public. Their expertise and long-term perspective would be invaluable for the consultative bodies involved in developing the 7<sup>th</sup> Strategic Energy Plan.
3. Investors support the inclusion of **multiple scenarios, including a “high ambition” scenario that is aligned with a 1.5 degree pathway**. National targets and economic strategies that are aligned to 1.5 degree pathway will deliver the best long-term returns to investors and the retirement savings of millions of beneficiaries.
4. Swift expansion and integration of renewable energy in the short- to medium-term would be crucial for companies in Japan to maintain competitiveness in terms of emission reductions. It would also enhance Japan's position in being a global supplier of green/sustainable products while also ensuring effective reduction of national-level emissions.
5. Investors are seeking investment opportunities in a broad range of emission reduction technologies and options. For all transition fuels/ technologies that Japan is considering, such as hydrogen, ammonia, carbon capture and others, these **factors of emission reductions, competitive advantages for Japan, technical and commercial feasibility must be considered to avoid the risks of stranded assets and increased cost of transition** for Japan

6. **Clear targets for the phaseout of fossil fuels** are important to better inform company transition plans and investment decisions. Companies need to factor in these considerations into their transition plans and therefore provide investors with certainty as to the long-term value of the company.
7. **An expedited rollout of carbon pricing, at an effective price level**, would boost the development of decarbonization technologies and better position the country to reach its net zero target. This should be clearly prioritized in the 7<sup>th</sup> Strategic Energy Plan as it will affect transition pathways for industries.
8. **Clear linkages between GX-related investment, Japan's Energy Plan and sectoral transition pathways are essential.** Increased transparency on how GX Economic Transition Bond proceeds will enable Japan to achieve its decarbonization targets will increase market confidence in the instrument. Furthermore, public funds and policy mechanisms can create opportunities for the private sector to deliver the bulk of required capital.
9. Japan has an opportunity to be bold in its emission reduction ambitions and attract immense capital flows that would otherwise be directed to other markets with more established national economic policies and strategies for transition. The purpose behind a target is not just to meet it, it is to drive ambition and innovation. **AIGCC would urge Japan to set ambitious energy transition targets through the 7<sup>th</sup> Strategic Energy Plan.**

## Background

Institutional investors, both domestic and international, with net zero goals expect to see clearer alignment with the Paris Agreement targets from key policy documents in Japan that are being discussed this year, such as the 7<sup>th</sup> Strategic Energy Plan. This is important for investors as it will result in systemic risk reduction, protection of long-term returns and creation of new opportunities associated with the shift to a net zero economy.

Investors have increased their understanding of the risks and opportunities associated with the impacts of climate change through initiative such as the AIGCC and are prepared to allocate capital in line with net zero investing principles. Investors are engaging with high emission companies and industries in Japan through initiatives like Climate Action 100+<sup>1</sup> and AIGCC's Asian Utilities Engagement Program,<sup>2</sup> asking for clearer oversight and integration of climate-related factors to ensure that global climate goals are achieved and to maintain the companies' competitiveness globally. Companies in Japan are voluntarily committing to climate action (249 JCLP member companies; 58 RE100 affiliated companies), and investors are keen to support them in facilitating a faster transition in Japan through more capital deployment.

National policy on climate, energy and finance plays a crucial role in helping companies achieve climate transition objectives. Japan has made commitments relating to transition through its 2050 net zero target, and internationally, through pledges and commitments to decarbonize Japan's electricity sector by 2035 and recent COP28 commitments on tripling renewable energy and transitioning away from fossil fuels. These commitments need to be supplemented by clear short-, medium- and long-term plans and policies domestically to enable required economic and market shifts. The Strategic Energy Plan is a foundational policy document that will provide clarity on mechanisms to achieve these targets and investors are keen to provide their feedback and perspectives on the development of the plan which are outlined below.

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<sup>1</sup> Includes Daikin Industries, Ltd.; ENEOS Holdings Inc.; Hitachi, Ltd.; Honda Motor Co.; Mitsubishi Heavy Industries, Ltd.; Nippon Steel Corp.; Nissan Motor Co. Ltd.; Panasonic Holdings Corp.; Suzuki Motor Corp.; Toray Industries, Inc.; and Toyota Motor Corp.

<sup>2</sup> Includes Electric Power Development Co., Ltd. (J-POWER) and Chubu Electric Power Co., Inc.

# Recommendations for the 7<sup>th</sup> Strategic Energy Plan

## 1. Include Investor Voices in the Policymaking Process

Investors are dedicated stakeholders, committed to help protect and grow the wealth of their beneficiaries and clients, and intrinsically, the future of the public. Their expertise and long-term perspective would be invaluable for the consultative bodies involved in developing the 7<sup>th</sup> Strategic Energy Plan. We request for more diversity of stakeholders, including investors, to be consulted in the policy formulation process for the plan.

The financial risks of unchecked climate change are clear. For investors, these risks pose an existential threat to assets and business activities of their investee companies and therefore impact returns. Domestic Japanese investors' assessment of climate risk impacts were lower in an orderly 1.5° scenario as per the MSCI Climate Value-at Risk model.<sup>3</sup> Due to the risks posed by climate change, numerous domestic and international investors (more than 400 representing over USD \$66 trillion)<sup>4</sup> have committed to transitioning their investment portfolios to net-zero GHG emissions by 2050, in line with limiting temperature rise to 1.5°C above pre-industrial levels by the end of the century.

Investors have a fiduciary duty to integrate financially material factors, which includes environmental and climate matters. To understand and respond to these risks better, investors have developed a holistic approach that includes active and constructive engagement with companies to understand transition pathways and participation in public policy debates to shape robust frameworks and support transition across all sectors. This is to ensure, as much as possible, that an ambitious and coordinated approach on tackling climate-related risks is adopted globally. As such, investors are keen to provide direct, detailed feedback to the formulation process of the 7<sup>th</sup> Strategic Energy Plan.

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<sup>3</sup> [Climate Change Initiatives: Response to TCFD](#), Dai-ichi Life Holdings

<sup>4</sup> Referring to the number of investors in the Net Zero Asset Managers initiative and the Net-Zero Asset Owner Alliance

However, there appears to be a lack of representation from the investment community within the consultative bodies associated with the 7<sup>th</sup> Strategic Energy Plan in addition to imbalances of representation on age, gender, and stance towards fossil fuels among these consultative bodies.<sup>5</sup> We request that these imbalances be considered and remedied to ensure a holistic approach to policy development.

## **2. Incorporate High Ambition Scenarios Supported by Financing Plans**

Japan's Sixth Strategic Energy Plan emphasized having multiple scenarios leading to the achievement of Japan's decarbonization and energy mix targets. Investors support the inclusion of multiple scenarios, including a "high ambition" scenario that is aligned with a 1.5 degree pathway.

It would be pivotal to include a scenario that allows for higher levels of decarbonization in the short and medium term, especially as the costs for renewable energy deployment are decreasing globally and there is expanding investor interest to support the development of renewable energy. This "high ambition" scenario should be displayed for Japan's energy mix and emission reduction targets. Investors are supportive of comprehensive scenarios that factor in the potential for significant emission reductions such the Institute for Global Environmental Strategies' (IGES) 1.5°C roadmap<sup>6</sup> and would like to see more discussions around the support required for actualizing such scenarios.

"High ambition" scenarios should also consider recent GX policies, showing linkages to how investment in GX Economic Transition Bonds will unlock higher potential for emission reductions in sectors. Scenarios should also provide more clarity regarding the quantum of investment required for higher ambition decarbonization outcomes.

## **3. Elevate Renewable Energy Targets and Policy Incentives**

Swift expansion and integration of renewable energy in the short- to medium-term would be crucial for companies to maintain competitiveness in terms of

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<sup>5</sup> [Policy Making Process in Japan: Strategic Energy Plan as a Case Study](#), Climate Integrate, April 2024

<sup>6</sup> [IGES 1.5 °C Roadmap: An action plan to balance raising Japan's ambition in reducing emissions with maintaining a prosperous society](#), IGES, December 2023

scope 2 emissions. This will also enhance Japan's position as a global supplier of green/sustainable products while also ensuring effective reduction of national-level emissions.

Approximately half of global investors believe that the best medium-term investment opportunities are in renewables and infrastructure.<sup>7</sup> As Japan considers permitting data centers and semiconductor manufacturing plants, it has the potential to pair these facilities with sustainable electricity.

We welcome further research on Japan's potential for renewable energy deployment. Opportunities in offshore wind, grid integration, hydropower, and geothermal should be clearly highlighted. Emphasis should be placed on the policies required for investment into less-developed technologies that have immense potential in Japan, like geothermal.

Increased ambition on renewable energy targets would help bring energy self-sufficiency to Japan and it would also be the most cost-efficient way for Japan to reach its emission reduction targets.<sup>8</sup> In addition to creating new opportunities for investment, it will also help investors avoid placing capital into less efficient alternatives that result in stranded assets.

Investors welcome government efforts to stimulate the demand side of the energy transition. Investors are particularly supportive of initiatives such as the Decarbonization Leading Areas<sup>9</sup> that aim to accelerate decarbonization as proposed by the Ministry of the Environment. These initiatives have tremendous potential to attract further investment.

To support Japan's overall decarbonization, public policies should support the growth of the electric vehicle (EV) market. However, for EVs to effectively decarbonize, the electricity from the grid must come from decarbonized sources like renewables.

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<sup>7</sup> [Schroders Institutional Investors Study 2023: Investors target sustainability and private assets amid energy transition opportunities as inflation concerns remain](#), Schroders, 4 October 2023

<sup>8</sup> [Wind, solar and EVs offer Japan cheapest net zero climate path](#), The Japan Times, 25 July 2023

<sup>9</sup> [Leading regions for decarbonization](#), Ministry of the Environment

Overall, essential steps to unlocking clean power deployment in Japan include improving grid connection timelines and permitting processes, arranging auctions that assist developers with land and grid connection risks, establishing a clearer and longer-term auction calendar and directing more support to less-developed technologies like geothermal.

### **i) Wind**

In consideration of the recent auctions for offshore wind development, the plan should assess progress made on Japan's wind power targets. As floating offshore wind has become a more viable option for Japan, investors would appreciate clarity on the government's plans to support the growth of the offshore wind industry in the country.

With Japan's potential for floating offshore wind projects, enabling policy measures can facilitate substantial capital flows.<sup>10</sup> Policymakers should consider increasing the amount of auction sites, frequency of auctions and providing further incentives to encourage firms to expand their offshore wind manufacturing. The deployment of renewable energy projects in rural areas could bolster local economies and bring jobs to places in Japan where depopulation remains a serious challenge.<sup>11</sup>

Japan is making progress on launching consortiums and building international partnerships around key technologies. It is promising for Japan to commit to boosting floating offshore wind power technology through the U.S.-led Floating Offshore Wind Shot initiative. Japan has immense potential to export its technological innovations abroad, particularly around floating offshore wind power. To take full advantage of this potential, continued deliberation among

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<sup>10</sup> In 2022, Scotland attracted [\\$54.8 billion in FDI](#) for its wind energy projects, nearly matching that of all other countries combined. Policy has played a substantial role as the government held an offshore wind leasing program for seabed rights, [ScotWind, that allowed for developers to bid for 20 sites to construct offshore wind projects](#), which are expected to generate 27.6 GW. Of these, 65% will be floating offshore wind projects. ScotWind also places an emphasis on [requiring developers to consider supply chain development](#). In Scotland, the development of the offshore wind industry is also helping combat depopulation in rural areas by [generating local jobs](#).

<sup>11</sup> [Just Transitions in Japan: Just Transitions to Decarbonisation in the Asia-Pacific](#), The British Academy, June 2022



stakeholders and local communities is crucial to ensure that projects are aligned with local expectations.

## ii) Solar

Japan has potential for rooftop solar PV to support its electricity needs. Residential solar PV installations currently account for only 10% of the total installed capacity in Japan.<sup>12</sup> As many of the Japan's renewable energy sources are in places far from some of its urban areas, rooftop PV and the development of microgrids could create suitable solutions to allow for more convenient and secure generation and distribution of variable renewable energy without the requirement for long transmission lines.

To promote rapid deployment of rooftop PV, research organizations have proposed that policy measures be urgently introduced to require the installment of PV on new buildings, provide adequate financial incentives, ensure effective local distribution of excess electricity generation, encourage businesses to install proper equipment and enable deliberation in local communities.<sup>13</sup> It is expected that the dual-use of rooftop solar with perovskite and silicon solar cells will allow for increased electrical production in the long term.<sup>14</sup> There remains much capacity for further solar PV development.

## iii) Storage

Storage for Japan's developing grid is crucial, especially as grid developers seek to construct new transmission lines across regions and enhance the frequency conversion across the two systems. Battery storage has an important role in reducing Japan's curtailment of renewable energy, congestion relief and frequency regulation, particularly as Japan has limitations on its regional transmission lines and frequency converters.

Japanese companies are developing new technologies for manufacturing more affordable energy storage system components. As the cost of battery projects

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<sup>12</sup> [Energy Transition Scenarios for Decarbonization Based on 80% Renewables Electricity by 2035](#), Renewable Energy Institute, June 2024

<sup>13</sup> [IGES 1.5 °C Roadmap: An action plan to balance raising Japan's ambition in reducing emissions with maintaining a prosperous society](#), IGES, December 2023

<sup>14</sup> [IGES 1.5 °C Roadmap: An action plan to balance raising Japan's ambition in reducing emissions with maintaining a prosperous society](#), IGES, December 2023

are set to decrease significantly by 2030,<sup>15</sup> the Strategic Energy Plan should consider an enhanced role for grid-integrated storage, bringing alignment with global needs to increase storage six-fold.<sup>16</sup>

Policy mandates and targeted subsidies are being implemented in other markets to facilitate investment in storage.<sup>17</sup> These measures include solar and wind co-location mandates in China, the Inflation Reduction Act and other state-level policies in the United States.<sup>18</sup> Investment for storage can be increased by lowering the risk and reducing the cost of capital, including through alternative financing models.<sup>19</sup>

As Japan recently held its first round of auctions to promote the growth of the energy storage market,<sup>20</sup> additional auctions may be effective to support grid development and variable renewable energy integration.

#### **4. Enhance the Grid**

As the 6<sup>th</sup> Strategic Energy Plan outlined intentions to enhance the grid, progress should be highlighted to clarify where further investment is needed.

Japan is uniquely positioned with 10 regional power companies. Although this liberalization allows for more flexibility, it requires enhanced coordination for system operations and grid development. METI stated that it is necessary to expand wide-area grid operations and utilize power plants on a national rather than regional level.<sup>21</sup> While the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) allows for more harmonization, comprehensive grid development remains a challenge.

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<sup>15</sup> [Batteries and Secure Energy Transitions](#), IEA, April 2024

<sup>16</sup> [Batteries and Secure Energy Transitions](#), IEA, April 2024

<sup>17</sup> [Battery Storage to Efficiently Achieve Renewable Energy Integration](#), Renewable Energy Institute, January 2023, see page 40

<sup>18</sup> [Global Energy Storage Market Records Biggest Jump Yet](#), BloombergNEF, 25 April 2024

<sup>19</sup> [How to finance battery energy storage and ensure constant clean energy](#), World Economic Forum, May 10, 2024

<sup>20</sup> [Japan: 1.67GW of energy storage winners in inaugural low carbon capacity market auction](#), [Energy Storage News](#), 8 May 2024

<sup>21</sup> [Verification of the Electricity System Reform](#), METI, 7 March 2024

Many Japanese companies are prepared to lead on grid development to integrate renewables. They are playing a role in enhancing the power grids, renewable energy solutions, transmission and distribution lines to develop smarter and more efficient grids in Europe. Japanese companies have enough resources and skilled professionals to deploy renewables effectively if provided enough government direction.

Japan should work towards improving grid connection timelines and permitting processes, arranging auctions that assist developers with land and grid connection risks, a clearer and longer-term auction calendar.

A holistic approach to grid development and renewable energy integration is necessary to ensure adequate policy guidance, planning, financing, and implementation. Italy, Germany, and the United Kingdom are reforming their grid planning frameworks, opting for more centralized coordination.<sup>22</sup> The Inflation Reduction Act (IRA) allows for a broad range of investments into clean energy technologies to support the clean energy ecosystem while prioritizing domestically manufacturing.<sup>23</sup> These approaches may benefit Japan by prompting the simultaneous improvement of clean power generation, transmission, distribution and domestic supply chains.

## **5. Align With Global Commitments on Coal**

Coal continues to be a leading source of carbon emissions globally, particularly coal consumed in Asia. It is vital to swiftly decrease the consumption of unabated coal power to achieve global goals on decarbonization. The IEA's Net Zero Emissions by 2050 Scenario requires that all unabated coal generation ceases by 2040.<sup>24</sup>

As part of the G7, Japan has agreed to end new direct government support for unabated, international thermal coal power generation<sup>25</sup> and “phase out existing unabated coal power generation...during the first half of 2030s”<sup>26</sup> to address

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<sup>22</sup> [Electricity grids: Key policy actions](#), Ember, 30 October 2023

<sup>23</sup> [The US Inflation Reduction Act is Driving Clean-Energy Investment One Year In](#), Goldman Sachs, 31 October 2023

<sup>24</sup> [Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach](#), IEA, September 2023

<sup>25</sup> [G7 Leaders' Communiqué](#), G7 Germany, 28 June 2022

<sup>26</sup> [Climate, Energy and Environment Ministers' Meeting Communiqué](#), G7 Italia, April 2024

this urgent issue. It is important for Japan to have a clear timeline and strategy on the phaseout of unabated coal power generation. Considering that a third of Japan's electricity production is from coal-fired power plants, a clear timeline and strategy for phaseout is necessary to ensure that companies factor in these considerations into their transition plans, and therefore, provide investors with certainty as to the long-term value of the company.

The G7 commitment to phase out unabated coal power generation is crucial, and the Strategic Energy Plan must ensure alignment with the G7 commitment.

Investors are also concerned about the technical and economic feasibility of approaches to abate emissions from coal-fired power plants. Japan has been pursuing ammonia co-firing and carbon capture and storage solutions as forms of abatement measures.

#### **i) Ammonia Co-Firing**

The technical and commercial feasibility of co-firing to reduce emissions effectively requires more research and clarity on factors such as:

- What percentage of ammonia co-firing would ensure emission reductions at a level that is comparable to, or more effective than, unabated gas power generation. Based on this parameter, the technical feasibility of ammonia co-firing and its viability to support Japan in achieving decarbonization goals must be assessed. For example, current research indicates that a coal plant with 20% ammonia co-firing would emit substantially more GHG emissions than unabated gas power.<sup>27</sup>
- The cost comparison with other available technology, such as renewables, and whether it makes an economic case to invest limited capital available for transition into renewable energy versus ammonia co-firing must be considered. Research indicates that ammonia co-firing would be cost-inefficient compared with renewables leading up to 2050.<sup>28</sup>

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<sup>27</sup> [Japan's toxic narrative on ammonia](#), TransitionZero, 13 April 2023

<sup>28</sup> [Japan's Costly Coal Co-Firing Strategy](#), BloombergNEF, 22 September 2022

The feasibility of ammonia co-firing resulting in abatement by 2035 must be realistically assessed to protect Japan from 1.5-misalignment and investors from stranded assets.

Japan should prioritise the utilisation of green or other low-emission forms of ammonia to help effectively lower global emissions.

## **ii) Carbon Capture**

In another approach to abate fossil fuel energy sources, Japan has been promoting investment into carbon capture and storage (CCS) development.

Japan is planning to store approximately 120 to 240 million tons of carbon dioxide annually by 2050 and prepare the business environment for CCS operations to begin by 2030. The government published its CCS Long-term Roadmap<sup>29</sup> and passed the Carbon Capture and Storage (CCS) Business Bill to expedite the development and commercialization of CCS technologies. Japan is positioned to lead on regional coordination through its Asia CCUS Network.

The Strategic Energy Plan should inform investors, corporates, and regulators about the status of this technology and the feasibility for it to be utilized to achieve Japan's decarbonization targets. For CCS to be a reliable technology that can attract investment, it must result in sufficient levels of abatement by 2035. To reach sufficient levels of investment for CCS, Japan will need a higher carbon price.<sup>30</sup>

The 7<sup>th</sup> Strategic Energy Plan should maintain the central objective of pursuing the maximum introduction of renewable energy while outlining plans for the realistic implementation of CCS as stated in the 6<sup>th</sup> Strategic Energy Plan. Likewise, research has found that maximizing the deployment of renewable energy while supplementing emissions reduction through energy storage, nuclear power, and CCS is the most cost-effective way for Japan to decarbonize.<sup>31</sup>

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<sup>29</sup> [Final Report of the CCS Long-Term Roadmap Study Group](#), January 2023

<sup>30</sup> [Japan Can Meet Net-Zero Goal With Minimal Reliance on Hydrogen](#), BloombergNEF, 25 July 2023

<sup>31</sup> [Japan Can Meet Net-Zero Goal With Minimal Reliance on Hydrogen](#), Report Shows, BloombergNEF, 25 July 2023

The government must also consider factors such as the availability of storage sites, related transportation costs to sites, carbon leakage issues and building more accountability on these elements to raise investor confidence around the costs and feasibility of Japan's CCS strategy.

## **6. Specify Sectors Most Suited for Hydrogen**

Hydrogen can play an important role in Japan's decarbonization. However, it is necessary to provide clarity, both in the Strategic Energy Plan and in GX issuances on the prioritization of development and usage of types of hydrogen that results in zero or lower greenhouse gas emissions in production keeping in mind climate-related outcomes.

The 7<sup>th</sup> Strategic Energy Plan should specify the sectors where hydrogen and its derivatives for transition will be most effectively utilized, such as its application in heavy industry, manufacturing (including steel and fertilizer production), shipping, and others,<sup>3233</sup> taking into account the availability of alternative, cheaper technologies for transition.

Japan would also benefit by observing the development of hydrogen markets, such as Germany's recent efforts to increase the demand for hydrogen domestically.

## **7. Evaluate the Resilience Needs and Innovation Potential for Nuclear Power**

As highlighted in the 6<sup>th</sup> Strategic Energy Plan, ensuring the safe operation of nuclear facilities is crucial in consideration of Japan's vulnerability to natural disaster risks. As these may be magnified by climate change, which is likely to also increase acute and chronic physical climate risks, investing in adaptation and resilience is necessary. The safety standards and resilience of nuclear facilities and the connecting grid infrastructure should be strengthened in expectation of a worsened climate crisis and intensified weather conditions.

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<sup>32</sup> [New Energy Outlook Japan](#), BloombergNEF, 25 July 2023

<sup>33</sup> [Annual Lecture 2024 – Michael Liebreich. Global Energy Transition Trends and Hydrogen, Energy Futures Lab](#), 14 June 2024

The 7<sup>th</sup> Strategic Energy Plan should highlight the status of nuclear power innovations. While there is much interest in the potential of Small Modular Reactors, recent analysis has found that they are expensive and time-consuming to build, making them high-risk investment options.<sup>34</sup> The Plan could provide clarity by assessing the viability of this technology.

While we understand the sensitivity of discussions around nuclear energy, this highlights the importance of pursuing dialogue with stakeholders and local communities to match expectations.

## **8. Outline the Supply Needs and Emission Reduction Requirements for LNG**

As METI shared at a recent meeting, concerns remain over the economic and security risks connected with fossil fuels sourced from abroad, including LNG, which are vulnerable to geopolitically-linked price hikes and disruptions.<sup>35</sup> Many investors are increasingly concerned with how geopolitical risks threaten their portfolios.<sup>36</sup> The Strategic Energy Plan should emphasize energy self-sufficiency.

As Japan remains reliant on fossil fuel imports, this keeps the country's electricity prices sensitive to global commodity markets, especially for LNG.<sup>37</sup> There also remains a risk that the supply of LNG will outmatch demand in Japan.<sup>38</sup> More reliance on renewable energy could help provide energy self-sufficiency and protect Japan from price shocks.

## **9. Expedite the Implementation of Carbon Pricing Mechanisms**

Japan's targeted introduction of the carbon pricing levy in 2028 and the emission trading scheme with emissions permits for the power sector from 2033 may be too late to keep the Japanese market globally competitive and the country 1.5-

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<sup>34</sup> [Small Modular Reactors: Still too expensive, too slow and too risky](#), IEEFA, 29 May 2024

<sup>35</sup> [Verification of the Electricity System Reform](#), METI, 7 March 2024

<sup>36</sup> [Schroders Institutional Investors Study 2023: Investors target sustainability and private assets amid energy transition opportunities as inflation concerns remain](#), Schroders, 4 October 2023

<sup>37</sup> [Power Market Outlook: East Meets West as Japan Prices Cool](#), BloombergNEF, 28 May 2024

<sup>38</sup> [Power Market Outlook: East Meets West as Japan Prices Cool](#), BloombergNEF, 28 May 2024

aligned. Instead, Japan’s carbon pricing could emulate that of other markets like Singapore with a gradually increasing carbon price starting as early as possible.<sup>39</sup>

The wide range of potential carbon prices along with ambiguity around future expectations of pricing is seen as “macroeconomic inefficiency,” intervening with government efforts to achieve decarbonization goals and a hindrance to investment in the Japanese economy.<sup>40</sup> This opaqueness is disrupting investors’ ability to determine the current value of companies that seek to contribute to Japan’s decarbonization.<sup>41</sup> The FSA can help alleviate these issues by providing more details on upcoming policy plans around carbon pricing.

Japan’s carbon price will need to be high enough to support the development of decarbonization technologies by making them economically competitive against higher emission alternatives.<sup>42</sup>

The 7<sup>th</sup> Strategic Energy Plan should consider how an expedited rollout of carbon pricing, at an effective price level, would impact its scenarios, boosting the development of decarbonization technologies and keeping the country better positioned to reach its net zero target.

## **10. Integrate GX Policies and Initiatives**

As the GX Promotion Act was released after the 6<sup>th</sup> Strategic Energy Plan, it will be crucial for the 7<sup>th</sup> Strategic Energy Plan to integrate the GX investment expectations and outline financing targets to quantify the investment needs associated with Japan’s overall energy plan. The government should provide transparency on how GX-related policies and investments will feed into targets, scenarios and subsequent sectoral transition pathways.

GX Economic Transition Bonds can become a world-leading mechanism, and there is immense potential to attract global investors through transparency around the use of proceeds. With the first issuance of the GX Economic Transition Bond in February 2024, it was evident that investors are interested in supporting this approach to transition finance.

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<sup>39</sup> [New Energy Outlook Japan](#), BloombergNEF, 25 July 2023

<sup>40</sup> [Equilibrium carbon price for future carbon pricing in Japan](#), NRI, 15 May 2024

<sup>41</sup> [Equilibrium carbon price for future carbon pricing in Japan](#), NRI, 15 May 2024

<sup>42</sup> [New Energy Outlook Japan](#), BloombergNEF, 25 July 2023



Investors are concerned with how the Japanese government plans to use the proceeds from the issuances, and the emissions-related impacts from such usage. To address this, we recommend that the government prioritizes alignment with global standards on transition finance supplemented by certification where possible, as was done initially in the first round of issuance. This would help provide assurance to investors as they remain cautious around the activities funded by the bond's proceeds.

We also recommend the issuance of regular reports that highlight the impact of each round of bond issuance in terms of resulting emission reductions and progress in the development of transition technologies as proceeds are used to fund research for technology that is not yet commercially or technically viable.

To enhance clarity around transition financing, Japan could consider building on its instructive Climate Transition Bond Framework<sup>43</sup> to establish a transition taxonomy for investors to better understand how specific business activities can qualify for GX-related finance. Japan could refer to other markets for examples of clear policy direction - Australia plans to publish a report on its transition roadmap, including its green and transition taxonomy. This builds upon its Sustainable Finance Roadmap, which provides a comprehensive overview of related policies to improve transparency on climate initiatives, capabilities of the financial system and government leadership.<sup>44</sup> Such policy planning transparency for green and transition finance would serve to better inform investors in Japan also.

## Conclusion

Japan has an opportunity to be bold in its emission reduction ambitions and attract immense capital flows that would otherwise be directed to other markets with more established national economic policies and strategies for transition. The purpose behind a target is not just to meet it, it is to drive ambition and innovation. AIGCC would urge Japan to set ambitious energy transition targets through the 7th Strategic Energy Plan.

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<sup>43</sup>[Japan Climate Transition Bond Framework](#), Cabinet Secretariat, FSA, MOF, METI, MOE, November 2023

<sup>44</sup> [Sustainable Finance Roadmap](#), Australian Treasury, 19 June 2024



The government's targets should extend beyond marginal decreases in carbon emissions from established industries, and instead consider new approaches for innovation and disruption, capable of creating new, clean industries capable of realizing Japan's ambitions by harnessing its economic strengths for these opportunities.

## About AIGCC

The Asia Investor Group on Climate Change (AIGCC) is an initiative to create awareness and encourage action among Asia's asset owners and asset managers about the risks and opportunities associated with climate change and low-carbon investing. AIGCC provides capacity for investors to share best practice and peer-to-peer learning on sustainable investment, risk management, corporate engagement and policy advocacy. With a strong international profile and significant network, AIGCC represents the Asian investor perspective in the evolving global discussions on climate change and the transition to a greener economy. AIGCC has over 70 members from 11 markets and with over USD 28 trillion in assets under management.

## Contact Us

Please do contact us for any further clarification or assistance that we can provide.

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