

Info for shareholders
Risks of J-Power's Climate Policies

[Proposal] To shareholders and investors

This document is intended to inform J-Power's shareholders and investors that the coal-fired power projects that J-Power is pursuing pose significant risks from both an environmental and business perspective in light of international agreements. The international community has been emphasizing the importance of limiting the global temperature rise below 1.5°C as a necessary response to the climate crisis. J-Power operates coal-fired power plants that emit large amounts of greenhouse gases, and this acting as an obstacle to decarbonization could result in a significant reduction in the value of J-Power's shares.

We respectfully request the following from Representative Director President Kanno and his management team to ensure that their business is conducted in a manner that takes into consideration the global environment as well as the safety and security of local communities.

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- Re-examine the operation of coal-fired power plants.

Coal-fired power generation is a power source that emits large amounts of CO₂. Coal-fired power generated by J-Power accounts for a very large share, approximately 20% of Japan's coal power. The amount of CO₂ reduced through coal gasification and hydrogen/ammonia co-firing, which J-Power has proposed as decarbonization measures, is negligible, and the feasibility of CCS remains unclear. Furthermore, these technologies are prohibitively expensive. It is necessary to fundamentally re-examine these risky coal-fired power projects.

- Prepare a phase-out plan for coal-fired power plants that is consistent with the Paris Agreement and the 1.5°C target.

J-Power's current business strategy does not properly assess the risks associated with climate change.

The international community is exiting coal

In order to achieve the 1.5°C goal of the Paris Agreement, the international community has agreed that, in order to prevent the most serious damage caused by climate change, it is necessary to reduce greenhouse gas emissions by almost half by 2030 and to virtually zero by 2050. At the United Nations Framework Convention on Climate Change's COP28 conference in November-December 2023, the world's nations recognized the Intergovernmental Panel on Climate Change's recommended 43% reduction in greenhouse gas emissions by 2030 and 60% reduction by 2035 compared to 2019 levels. And at the G7 Summit in June 2024, the phase-out of "unabated coal power" was specified for the first time in a top-level agreement, with a deadline of the first half of the 2030s (referred to as "this critical decade").

Hydrogen and ammonia co-firing and CCS are not an "ace in the hole" for decarbonization

The Japanese government claims that hydrogen and ammonia co-firing for power generation is an "abatement" measure and thus is not necessary to phase-out, but this notion is not

acknowledged by the international community. "Unabated coal-fired power plants" refers to those without interventions to capture 90% or more of CO₂ (IPCC 6th Assessment Report). Current CCS projects are not at the level of practical implementation, with CO₂ capture at best only around 60-70%. J-Power's GENESIS Matsushima Project to install gasification facilities in aging coal-fired power plants, and the co-firing of hydrogen and ammonia in coal-fired power plants, have little effect on CO₂ reduction, and are completely different from the level of "abatement" indicated by the IPCC that is assumed by the international community to be consistent with the 1.5°C goal.

The GENESIS Matsushima Project will not meaningfully reduce emissions

In October 2023, J-Power announced a two-year postponement of the GENESIS Matsushima Project (construction to start in 2026 and operation in 2028). J-Power estimates that the GENESIS Matsushima project will reduce greenhouse gas emissions by only about 10%, which is about the same as the latest coal-fired power generation technology (ultra-supercritical) in terms of power generation efficiency. The timing and scale of the future co-firing of ammonia and biomass remain unclear. As for the capture of CO₂ from coal, as well as during hydrogen production and power generation, the current technology to capture the CO₂ made during production has only been demonstrated for a relatively small amount (17% of the gas produced by a coal gasification plant). Furthermore, the transportation methods and storage locations for the vast amount of CO₂ that would be captured have not yet been determined. These measures cannot be said to meet the internationally recognized standards for "abatement".

Emission reduction measures at other coal-fired power plants owned by J-Power will not be implemented in time

J-Power announced in its mid-term management plan the retirement of three units: Matsushima Power Station Unit 1 (started operation in 1981, to be retired at the end of FY2024) and Takasago Power Station Units 1 and 2 (started operation in 1968 and 1969, respectively). The Takehara Power Station Unit 3 (started operation in 1983) and Matsuura Power Station Unit 1 (started operation in 1990) are scheduled to be either retired or converted to reserve power sources. The remaining Isogo Power Station Units 1 and 2, Takehara Power Station Unit 1, Tachibana-wan J-Power Power Station Units 1 and 2, Matsushima Power Station Unit 2, Ishikawa Power Station Units 1 and 2, and Kashima Power Station Unit 2 operated by Kashima Power, a joint venture company, are subject to measures such as hydrogen/ammonia co-firing, biomass co-firing, addition of integrated coal gasification combined cycle (IGCC) facilities, and introduction of CCS. However, the planned implementation dates of these measures are after 2030, which is not consistent with international agreements. Coal-fired power plants that do not comply with international agreements will surely reduce the value of the company.

From a Regulating Power Source to a Stranded Asset

With the expansion of solar, wind, and other renewable energy sources, coal-fired thermal power plants are expected to be required to curtail operations even more in the future. Additionally, coal-fired thermal power plants have played a role as a regulating power source to supply electricity during the hours when renewable energy does not generate power, but this role is also shrinking due to LNG power plants and nuclear power. This is already

A phase-out plan for coal-fired power generation in line with international agreements is needed

The room for developed countries like Japan to depend on fossil fuel-based power generation and diverge from the international community's movement toward decarbonization is shrinking every year. Simply following the current policies of the Japanese government could also damage shareholder value, as investments made in coal-fired power generation may be wasted due to unforeseen changes in government policies and policies caused by changes in international conditions.

We ask shareholders and investors to speak up so that J-Power can continue to be a company that contributes to the global transition toward decarbonization.

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