



Investor update

Chubu Electric Power (TSE9502)

Shareholder Proposal for Improved Climate Governance



Disclaimer

Informational purposes only – This communication is provided solely for informational purposes only and is not, and should not be construed as, investment advice or investment recommendations for the purposes of the Financial Instrument Exchange Act of Japan.

No joint-exercise of voting rights – Nothing in this written communication, nor in any related oral discussion, is intended to be, nor should it be construed as, an offer, an acceptance or a consent, to enter into an agreement for the joint exercise of voting rights or any other shareholder' rights for the purposes of the Financial Instrument Exchange Act and Foreign Exchange and Foreign Trade Act of Japan. If needs be, it is hereby emphasised that each shareholder exercises its shareholder's rights independently based upon its own decision and shall not be held liable for its exercise of its shareholder's rights in any event or in any result, as a breach of any discussion between the shareholders.

No proxy solicitation – Nothing in this written communication, nor in any related oral discussion, is intended to be, nor should it be construed as, a "solicitation for proxies" for the purposes of the Financial Instrument Exchange Act of Japan. The shareholder is not soliciting or seeking any authorization by any other shareholders to exercise their voting rights or any other shareholders' rights on their behalf or as their agent at the annual shareholders' meeting. This is a non-commercial product for public dissemination only. Not for sale.



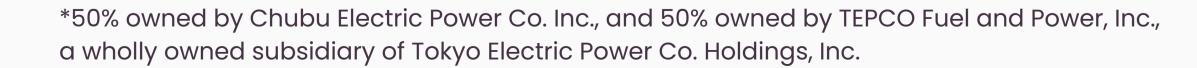
Contents

- Executive summary
- Chubu's board does not appear to exhibit expertise needed to manage climate risk
 - o Climate competence critical to manage climate risks and opportunities
 - o Board climate competence required by legal frameworks
 - o Climate competence not covered by Chubu's board skills matrix
 - o Board climate competence demanded by investors
- <u>Chubu is failing to adequately manage the climate-related financial risks from its carbon intensive investment in its joint venture, JERA</u>
 - o As Japan's largest carbon emitter, JERA faces massive transition risk
 - JERA is actually exacerbating transition risk exposure with massive up- and down-stream fossil fuel infrastructure plans
 - Chubu and JERA have no genuine transition plans
 - o Ineffective 'transition' endeavours have already cost hundreds of millions
- Conclusion



Executive summary

- The board of Chubu Electric Power Co (Chubu) requires directors with climate expertise to manage climate risks and opportunities.
- Chubu's current board **does not appear to exhibit this expertise**, meaning it cannot properly monitor Chubu's decarbonisation pathways and evaluate its transition strategy.
- Chubu is failing to manage climate-related financial risks, **particularly facing its joint venture JERA.*** JERA was liable for a penalty for failing to meet the carbon capture and storage (CCS) target in recent years AND its emissions trajectory is misaligned with a 1.5°C pathway.
- In order for effective reform, we propose improved disclosure to ensure the board is equipped with climate competent directors.
- A successful proposal will **increase the corporate value of Chubu** by enhancing management of climate-related financial risks and opportunities. It will also increase energy security in Japan and beyond through self-sufficiency.





Chubu's board does not appear to exhibit expertise needed to manage climate risk



Climate competency is critical to manage climate risks and opportunities



The Chubu board is responsible for the company's failure to transition. Further delays will damage Chubu's business strategy and potentially harm its long-term corporate value. The board must be equipped with climate competent directors to change course.



Japan's legal frameworks <u>require</u> board climate competence

Japanese <u>Corporate Governance Code</u> (CGC) Principle 4 requires the board to disclose: 1) the policies and procedures for director nomination; 2) the evaluation of board effectiveness; 3) board training policy, among others.

<u>CGC Principle 4.11.1</u> sets out 'The board should establish policies and procedures for nominating directors and disclose them along with the combination of skills, etc. that each director possesses in an appropriate form according to the business environment and business characteristics, etc., such as what is known as a "skills matrix." When doing so, independent director(s) with management experience in other companies should be included.'

Although Chubu has disclosed a skills matrix, there is **no description of the board's competency to address climate change risks**, other than a broad description of "technologies... and environment" with no clear assessment criteria (skills matrix, see p.79).



Chubu's <u>directors skills matrix</u> fails to account for climate competence

			Directors' and auditors' outstanding expertise, experience							
	Name	Position	Corporate management	Finance/Acco unting	Legal	Risk Management	Technologies contributing to Electric Power Supply and Environment	DX (Digital Transformation) / Business Development	Marketing	Internationality / Diversity
	Katsuno Satoru	Chairman of the Board of Directors								
	Hayashi Kingo	President & Director								
	Mizutani Hitoshi	Director, Executive Vice President								
	Ito Hisanori	Director, Executive Vice President								
ב מ	Ihara Ichiro	Director, Senior Managing Executive Officer								
ב ב ב	Hashimoto Takayuki	Director (External)								
	Shimao Tadashi	Director (External)								
	Kurihara Mitsue	Director (External)								
	Kudo Yoko	Director (External)								
	Kataoka Akinori	Senior Corporate Auditor (full-time)								
מ	Sawayanagi Tomoyuki	Corporate Auditor (full-time)								
	Nagatomi Fumiko	Corporate Auditor (external)								
Au	Takada Hiroshi	Corporate Auditor (external)								
	Nakagawa Seimei	Corporate Auditor (external)								



Investors demand board climate competence

<u>Climate Action 100+ (CA100+)</u> Indicator 8 Climate Governance

- Assessments and disclosure of directors' competencies with respect to managing climate risks
- Disclosure of details on the criteria used for the assessments and/or the measures taken to enhance these competences

<u>IFRS Sustainability 2 Climate-</u> <u>related disclosures</u>

Governance Paragraph 6 a)

 An entity shall disclose information about: ii) How the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities

Investor Group on Climate Change (IGCC)

- Independent assessment, or audit, of company director skills
- Utility company board skill set should include: "Dealing with strategic disruption", i.e., demonstrated experience in successfully guiding a company through a disruption that is fundamentally challenging the company's business model



Chubu is failing to meet investor expectations

PEER UTILITIES

CA100+ Indicator 8 Climate Governance	EDF*	National Grid	Chilbii	
Metric 8.1.a The company discloses evidence of Board or Board committee oversight of the management of climate change risks.				Set up "Zero Emissions Committee".
Metric 8.1.b The company has named a position at the Board level with responsibility for climate change. Body				President chairs the "Zero Emissions Committee".
Metric 8.3.a The company has assessed its board competencies with respect to managing climate risks and discloses the results of the assessment.				Failed. No evidence of assessment.
Metric 8.3.b The company provides details on the criteria it uses to assess its Board's competencies with respect to managing climate risks and opportunities, and the measures it is taking to enhance these competencies.				Failed. Criteria not publicly disclosed.



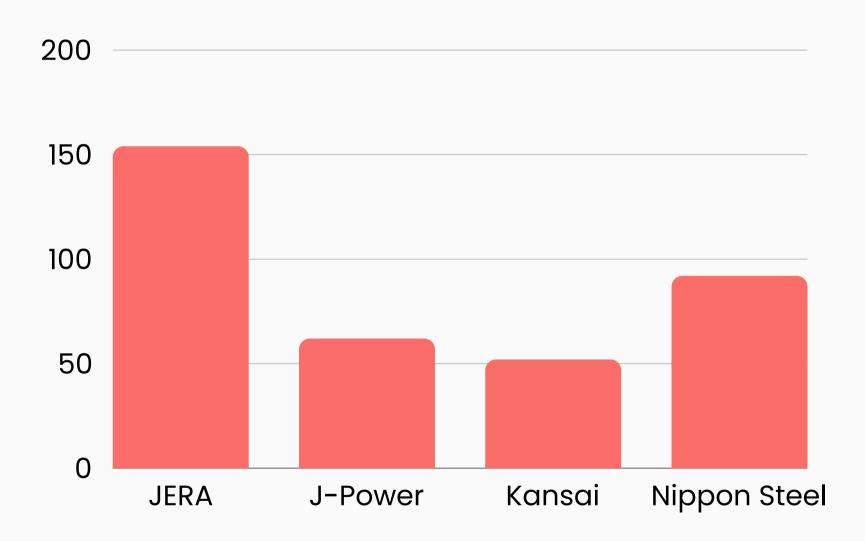


Chubu is failing to adequately manage the climate-related financial risks from its carbon intensive investment in its joint venture, JERA



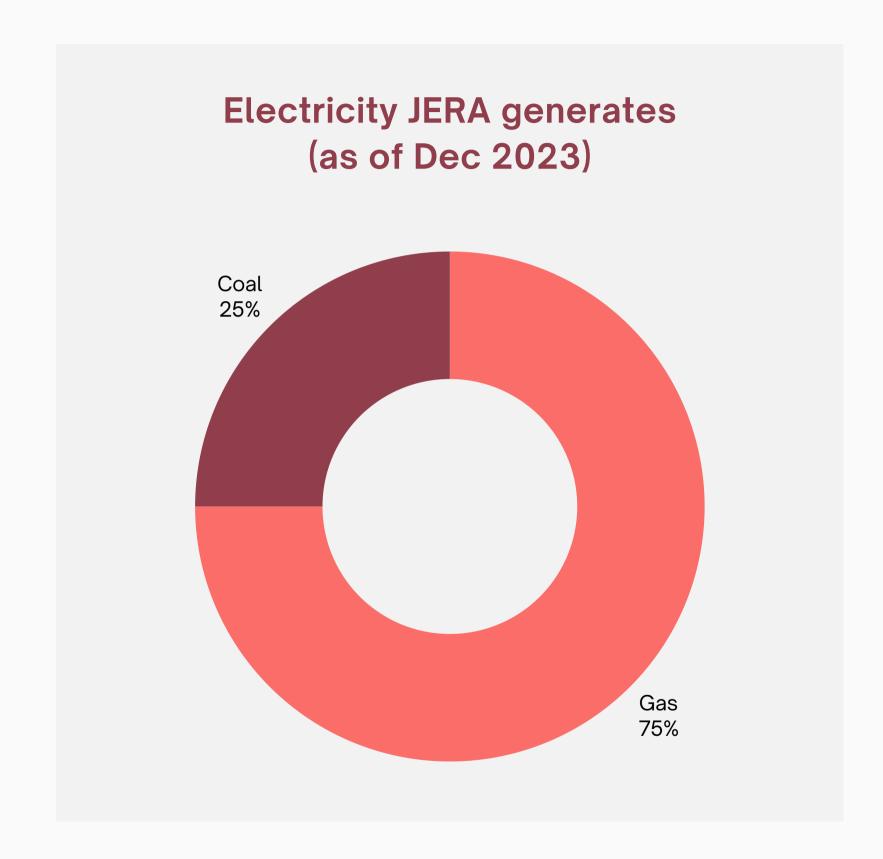
As Japan's largest carbon emitter, JERA faces massive transition risk

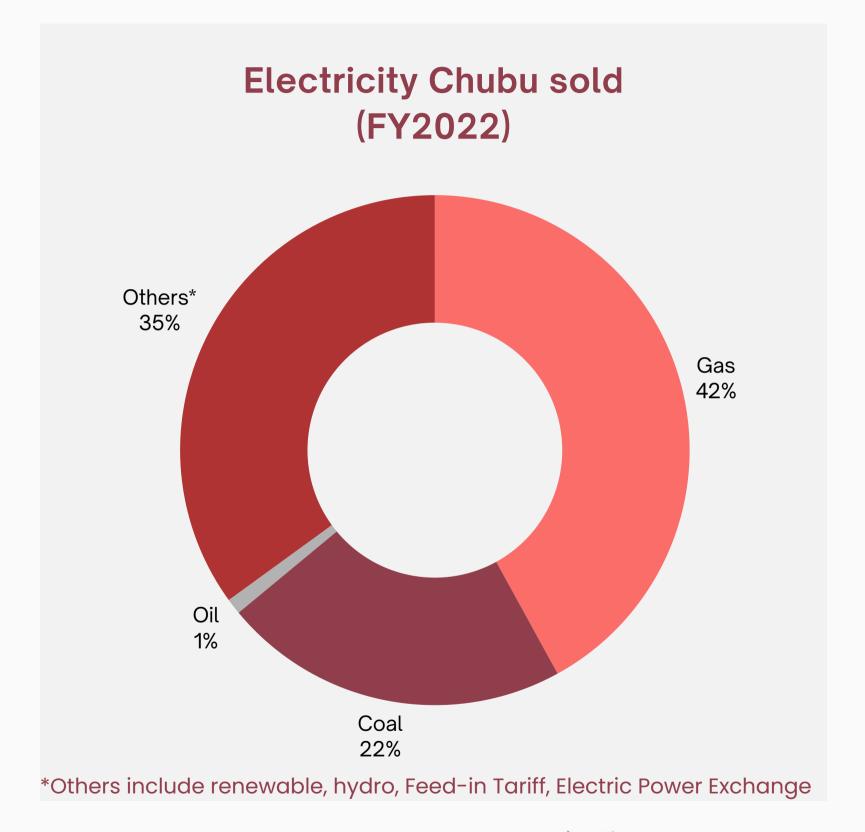
- JERA is the largest carbon emitter in Japan, emitting <u>154 Mt-CO</u>2 (FY2022)
- JERA <u>currently</u> generates 100% of its electricity from fossil fuels (75% gas, 25% coal)
- At least 65% of the electricity Chubu sold in <u>FY2022</u> was from gas, coal and oil



Emitted MT CO2 (FY2022): JERA is the largest carbon emitter in Japan





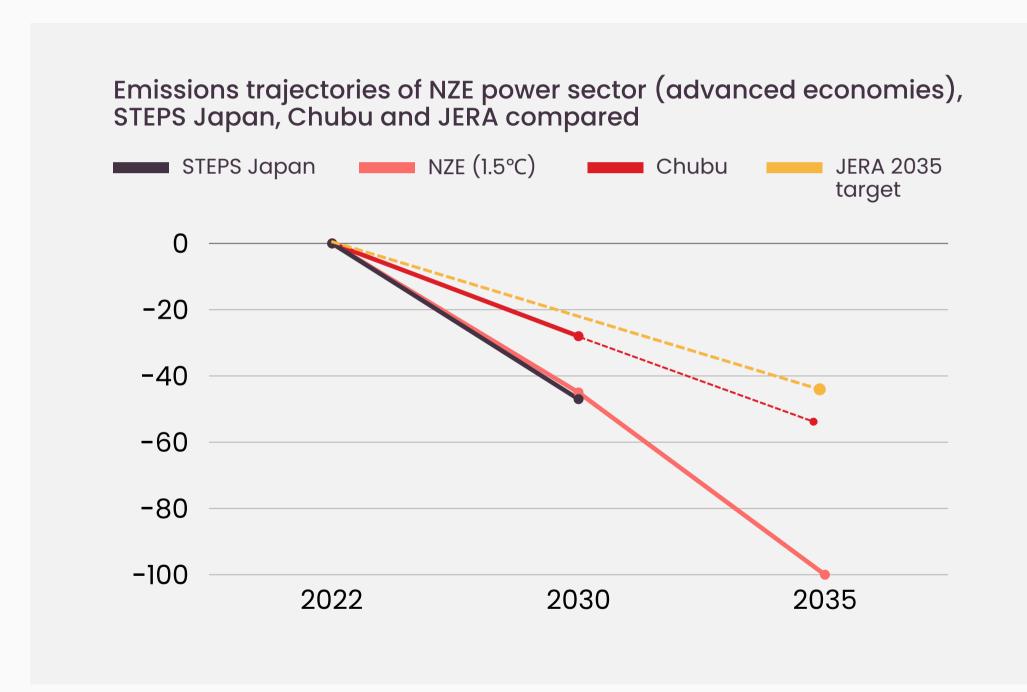




This risk is not being managed and targets are insufficient

Incompatible with 1.5°C Paris goal, even fall short of STEPS Japan, or 2.4°C warming scenario

- NZE2023 (p.128) requires 45% reduction from 2022 by 2030; net zero by 2035 in the power sector in advanced economies
- Stated Policy Scenario (STEPS) Japan
 requires 47% reduction from 2022 by 2030;
 83% reduction by 2050
- Chubu (p.40) aims to reduce emissions by 50% by 2030 compared to 2013, which is equivalent to 28% reduction from 2022; aims for net zero emissions by 2050
- JERA (p.48) aims to reduce emissions by 60% by 2035 compared to 2013, which is equivalent to 44% reduction from 2022; aims for net zero emissions by 2050





No target to phase out coal and gas, delaying a transition to fossil-free power system, bears a huge financial risk

IEA NZE conclusions	Chubu & JERA policies	Chubu & JERA practice		
Power sector must be decarbonised by 2035 in advanced economies	No target to phase out coal and gas power generation - neither Chubu nor JERA	JERA's thermal power plants will likely burn 50% coal and 70% gas in 2035		
No room for new oil and gas fields. "A global [LNG] supply glut forms in the mid-2020s and under construction projects are no longer necessary."	No policies to rule out investing and developing new oil and gas fields	Upstream gas expansion includes gas fields such as Barossa and Scarborough in Australia, Freeport LNG facility in the US		

<u>IEA:</u> "The volatility of fossil fuel prices means that revenues could fluctuate from year to year – but the bottom line is that oil and gas becomes a less profitable and a riskier business as net zero transitions accelerate. [...] If all national energy and climate goals are reached, this [oil and gas companies] value is lower by 25%, and by 60% if the world gets on track to limit global warming to 1.5 °C."



JERA is actually *exacerbating* transition risk exposure with massive downstream fossil fuel infrastructure in Asia

IPCC (AR6) conclusions	Chubu & JERA policies	Chubu & JERA practice		
Emissions from existing fossil fuel infrastructure without additional abatement would exceed the total limit of emissions in 1.5°C pathways with no or limited overshoot	No policies to rule new out coal and gas infrastructure - neither Chubu nor JERA	Downstream gas expansion includes 5 LNG import terminals and LNG to power projects with nameplate capacity of 11.6GW in Bangladesh and Vietnam. JERA is also aggressively building up fossil-based hydrogen and ammonia supply chain, including Indonesia, Malaysia, the Philippines, and Thailand.		

Planned renewables development dwarfed by current fossil fuel fleet and planned fossil fuel growth.

- Chubu aims to add marginal <u>2.4 GW of renewable power</u> by FY2030 from Sep 2023 levels.
- JERA aims to add marginal <u>2.5 GW of renewable power</u> by FY2025 from FY2022 levels.



Chubu and JERA have no genuine transition plans

Chubu's success in its transition plan "Zero Emissions Challenge 2050" depends* on JERA's transition plan "Zero CO2 Emissions 2050," both of which are riddled with problems.

Problems with Chubu and JERA's transition plans:

- They are **<u>carbon intensive</u>** and <u>misaligned</u> with Paris climate goals
- Gas (including gas-derived hydrogen and ammonia) is **expensive** and **locks the companies** into dependency on volatile international energy markets
- Chubu and JERA <u>assume</u> subsidies for commercialising hydrogen & ammonia-based power generation technologies
- Renewable energy is cheap and becoming cheaper each year. It is increasingly outcompeting baseload gas power

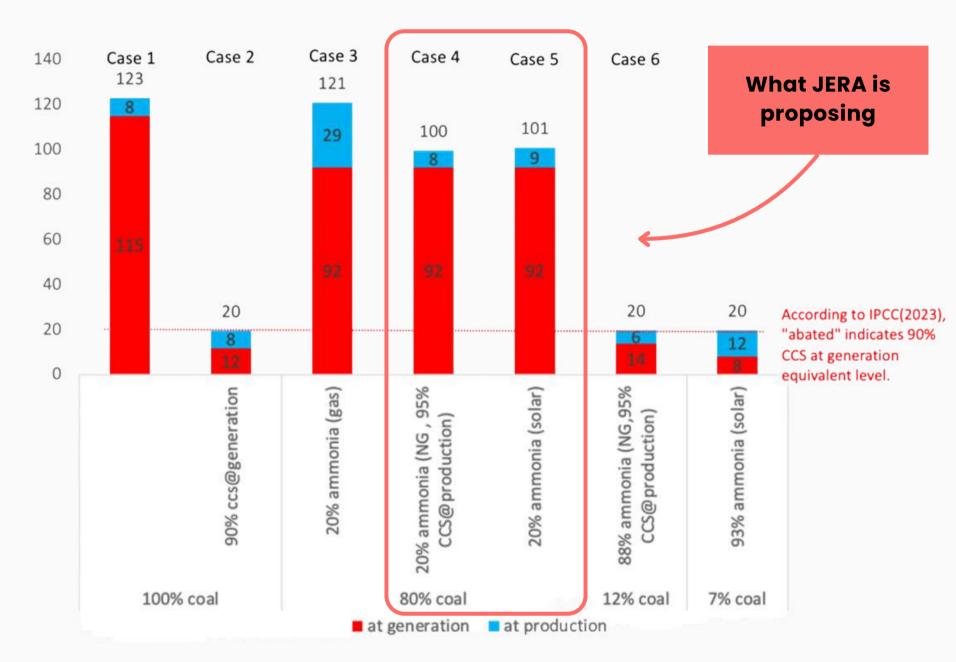


Chubu and JERA have no genuine transition plans – their plans are carbon intensive

The development timelines and emissions trajectories for JERA's ammonia and hydrogen technology <u>are misaligned with Paris climate</u> <u>goals</u>:

- **Coal:** JERA plans to start operating 80% coal 20% ammonia combustion by late 2020s; 50% coal 50% ammonia by early 2030s.
- Gas: JERA plans to start operating 70% gas 30% hydrogen combustion by the mid 2030s (<u>JERA</u>, 2024, p.25).

This means JERA leaves its emissions from coal and gas power plants **barely addressed** by 2035, when the emissions from the power sector must reach net zero in Japan.



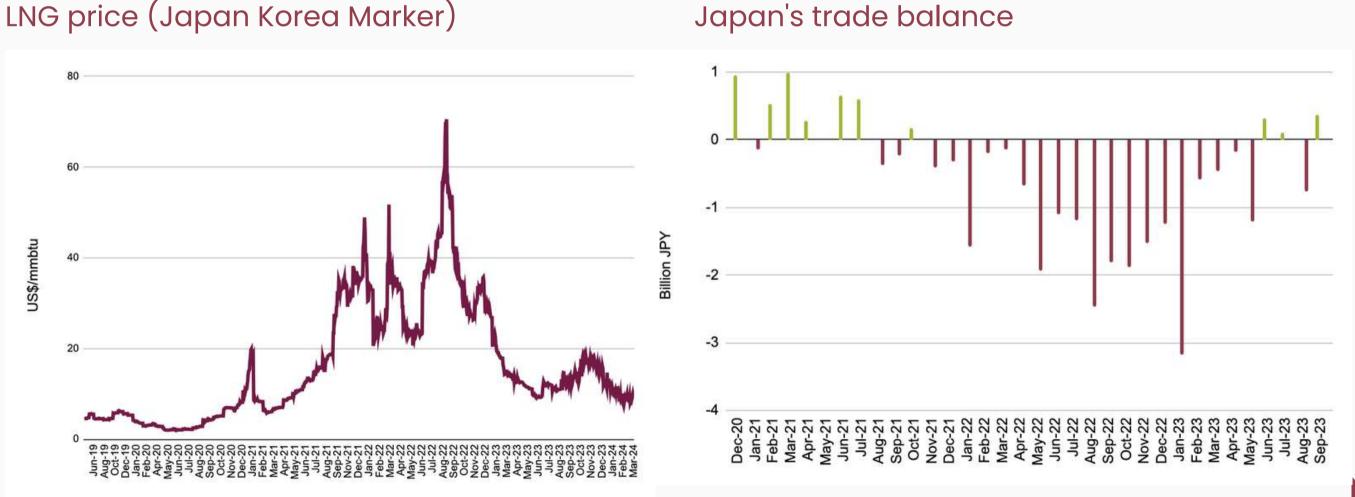
Comparison of lifecycle emissions from coal-fired power plants and various type of co-firing with various ammonia (unit: gCO2-eq/MJ(LHV)).

Source: Renewable Energy Institute



Chubu and JERA have no genuine transition plans - their plans are expensive and volatile

LNG is expensive and <u>relying on imports</u> leaves energy systems <u>susceptible</u> to price fluctuations. Switching to imported <u>hydrogen and ammonia</u> made from fossil fuels will not solve the vulnerability of energy systems.



"Japan runs the risk of worsening its long-term energy security" (BNEF 2022, p.18).



Defective transition plan – it is expensive and volatile

Hydrogen and ammonia myth: "We can use existing assets" is not quite true

An energy economics analysis (BNEF 2022, p.9 and p.20) points out:

- Burning 20% ammonia "would be more expensive than the running costs... of CCGT plants in 2024-2030."
- Retrofitting coal plants "to burn ammonia is **economically unviable**." Higher co-firing ratio will likely require higher capex for **major upgrades and replacements of the burners**, also bigger fuel storage tanks and more advanced equipment to capture NOx will be needed.

Chubu and JERA <u>assume</u> subsidies for commercialising these technologies

- It is a **risky bet** to base strategy on government handouts.
- These technologies have **only marginal emissions reduction** potential (see previous slide, see also <u>BNEF 2022</u>, p.11; <u>REI 2023</u>; <u>Trencher et al., 2024</u>, p.15).



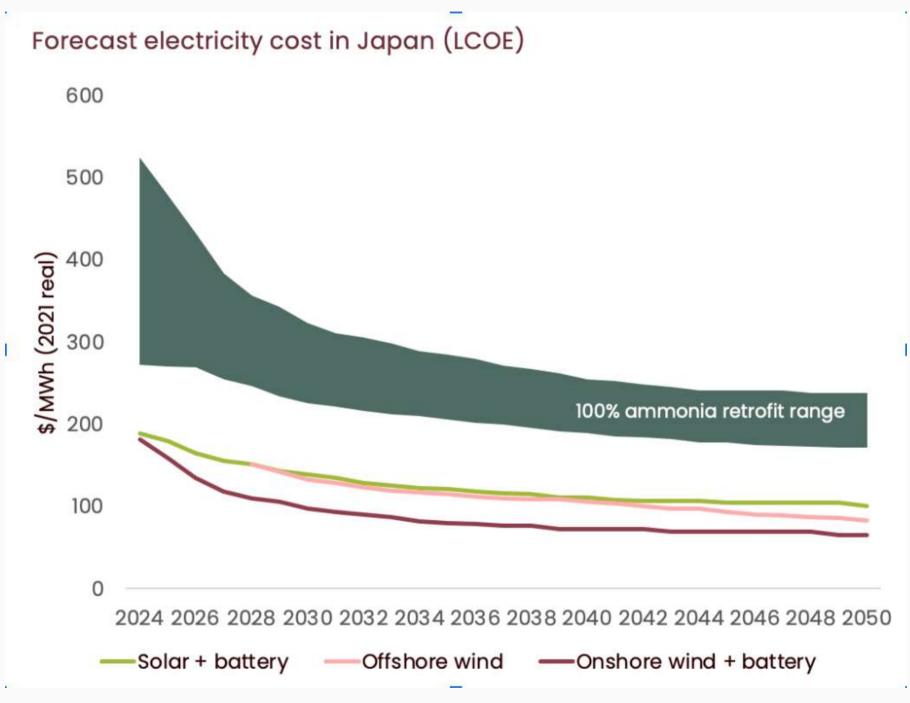
Chubu and JERA have no genuine transition plans – their

plans expensive and volatile

 Renewable energy is cheap and becoming cheaper.

- Basing Japan's electricity system on renewable energy is both <u>technically</u> <u>achievable</u> and <u>economically feasible</u>.
- Ammonia retrofit will never be competitive in Japan.

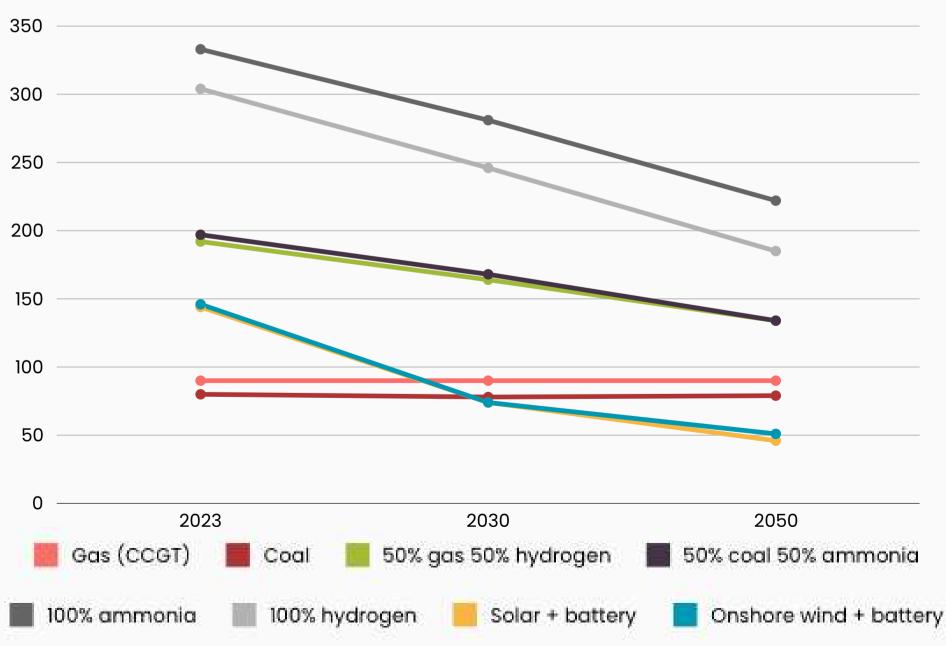
Companies like Chubu and JERA should use their influence to enable energy systems based on renewable energy for **energy self sufficiency.**



<u>Adapted from Bloomberg New Energy Finance reports on Japan</u>

Chubu and JERA have no genuine transition plans – their plans expensive and volatile

Forecast electricity cost in Vietnam (LCOE \$/MWh 2022 real) Adapted from <u>Bloomberg New Energy Finance reports on Vietnam</u>



- In Vietnam, both gas (CCGT) and coal will soon be more expensive than solar and onshore wind even with storage.
- Ammonia and hydrogen retrofit will never be competitive in Vietnam.



Ineffective 'transition' endeavours have already cost hundreds of millions

The Chubu board has failed to supervise and monitor the Group's transition, and intends to pour shareholder capital into expensive and unproven technologies discussed previously.



NOVEMBER 2021

Chevron, partners to fork out for carbon offsets for Gorgon LNG carbon capture shortfall*
*collectively liable to pay US\$ 184 million

Bloomberg

2024年2月1日

バイオマス発電所で相次ぐ火災、JERA武豊火力は



Conclusion: Shareholders urged to vote for "Director Competancy" shareholder proposal

- As discussed, Chubu is failing to properly manage the climate risks from its carbon intensive investment in JERA. To address these risks and seize the opportunities, the Chubu board must have expertise in overseeing and monitoring climate-related risks and opportunities.
- The outcome of our proposal will increase the corporate value of the Group by enhancing management of climate-related financial risks and opportunities. It will also increase energy security in Japan and the world through increased energy self sufficiency.
- See the bottom of the slides for the full proposal text.
- For the full proposal text along with the supporting statement, visit <u>here</u>.



Engagement timeline

DECEMBER 2021

Market Forces
began engaging
with Chubu & JERA
(& TEPCO),
subsequently joined
by Kiko Network

POST 2022 AGM

Co-filers continued engaging with Chubu and JERA*

JULY 2023

Requested a meeting with Chubu (Chubu requested us to wait until the release of its 2023 Group Report)

NOVEMBER 2023

Meeting held

Chubu explained its directors' climate competence verbally and in writing without addressing the concerns raised in this briefing

MARCH 2024

Meeting held without board members.

Chubu didn't provide adequate response to concerns raised in this briefing

2022 AGM

Item 9: Partial amendment to the articles of incorporation (disclosure of asset resilience in line with a net zero by 2050 Pathway) received strong 19.9% support from shareholders

2023 AGM

Item 10: Partial amendment to the articles of incorporation (disclosure of a policy to align with a net zero by 2050 pathway) received similar strong 19.6% support from shareholders

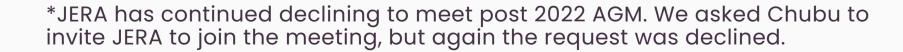
SEPTEMBER 2023

Chubu released its 2023 Group Report and informed us of the release

Market Forces requested a meeting with Chubu in October (Chubu requested to push it back to November)

FEBRUARY 2024

Requested a meeting with Chubu board members





Amendment to the articles of incorporation is the only pathway

- The proposal to amend the company's articles of incorporation in part is the most commonly used approach to make shareholder proposals in Japan, and the approach taken in this proposal. The majority of the <u>shareholder proposals filed in 2023 took this form</u>.
- Under <u>Japanese corporate law</u>, the <u>sole legal pathway</u> for a **shareholder proposal on climate change** is via an amendment to a company's articles of incorporation.
- The legal effect of such shareholder proposals is the same as the "special resolutions" on climate change filed and passed at UK companies including Barclays, BP, Royal Dutch Shell, Rio Tinto and Anglo American, which take binding effect as part of the companies' constitutions. Client Earth



Proposal text

Partial amendment to the Articles of Incorporation (Director competencies for the effective management of climate-related business risks and opportunities)

The following clause shall be added to the Articles of Incorporation:

Chapter 4: "Directors and Board of Directors"

Clause: "Director Nomination (Director competencies for the effective management of climate-related business risks and opportunities)"

To promote the long-term success of the Company, given the risks and opportunities associated with climate change, the Company shall establish and disclose policies and processes for nominating directors and evaluating the board's effectiveness that ensure the management of climate-related business risks and opportunities is embedded in the Company's core management strategy, noting the appropriate balance and diversity of knowledge, experience and skills of the board as a whole.

Thank you for your attention

Asia Shareholder Action https://shareholderaction.asia/

