Petition for Recommendation to Cease and Desist Unjustified Advertising by JERA Corporation (Summary)

On October 5, 2023, Kiko Network, a non-profit organization, and the Japan Environmental Lawyers Federation (JELF) filed a petition to the Japan Advertising Review Organization, to recommend that JERA Co., Inc. cease and desist from advertising its ammonia-mixed coal-fired generation as a "CO₂-free fire" and other such advertising. The following is a summary of the filed petition.

1 Purpose of Petition

JERA Co., Inc. (hereinafter referred to as "JERA") advertises coal-fired power generation with 20% ammonia-mixed combustion, labeling it as power generation from "CO₂-free fire."

However, this expensive ammonia co-firing process has almost no CO_2 emission reduction effect compared to standard coal-fired power, and therefore it is not " CO_2 -free". For consumers concerned about climate change, this electricity produced in this process is undesirable.

By overemphasizing the CO₂ reduction effect without concrete evidence while using ambiguous expressions, JERA misleads consumers into believing that thermal power generation using ammonia co-firing (especially coal-fired thermal power generation) is CO₂ emission free power generation, and the electricity generated by such method is environmentally friendly. In addition, JERA's advertisements give consumers the false impression that JERA is a company that is making groundbreaking emission reductions to prevent global warming (i.e., JERA's advertisements are a clear example of "greenwashing").

Therefore, Kiko Network (hereinafter referred to as "Kiko Network") and the Japan Environmental Lawyers Federation (JELF) (hereinafter referred to as "JELF") hereby petition to the Japan Advertising Review Organization (hereinafter referred to as "JARO") to recommend to JERA that, as JERA's advertisements are in violation of the Law Concerning Unjustifiable Premiums and Misleading Representations and the Environmental Labeling Guidelines, JERA ceases and desists from advertising in this manner and that JERA refrain from similar advertising in the future.

2 Reason for Petition

1 JERA's Advertisements Pertaining to this Petition

- (1) Advertisements and Displays See Appendix.
- (2) Coal-Fired Power Generation by Ammonia Mixed Combustion
 A method of generating coal mixed with ammonia at a coal-fired power plant.

2 CO2 Emission Reduction Measures in Japan and Abroad

- (1) International Framework
 - a Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5)(2013-2014) and Six Assessment Report (AR6)(2021-2023)
 - b The Paris Agreement (entered into force in 2016): aims to pursue efforts to keeping a global temperature rise this century well below 2°C above preindustrial levels and to pursue efforts to limit the temperature increase even further to 1.5 °C
 - c Glasgow Climate Pact (adopted at COP26, November 2021): confirms the world's determination to achieve the 1.5 °C goal and the need to reduce global

CO₂ emissions by almost half by 2030 and achieve carbon neutrality by 2050.

- d IPCC AR6 Synthesis Report (April 2023): clearly states that to achieve the 1.5 °C goal, emissions must be reduced by 65% by 2035.
- (2) Legal Obligation of States and Large Emitters

As climate change threatens human rights, as stated in the December 21, 2019 Dutch Supreme Court decision, emission reductions by state and large emitters at the level required by science to prevent climate change have been made a legal obligation (https://www.kikonet.org/info/publication/Urgenda-climate-case et.al.)

- (3) Emission Reduction Targets of the Japanese Government
 - a Declaration of "Carbon Neutrality by 2050" (October 2020)
 - b Global Warming Prevention Plan (amendment of a, October 2021): (1) Aim for a 46% reduction of greenhouse gas emissions in 2030 (compared to 2013) and (2) For CO₂ from energy use, a 45% reduction of greenhouse gas emission in 2030 (compared to 2013)

3 Issues with JERA's Coal-Fired Power Generation by Ammonia Mixed Combustion

(1) Large Amount of CO₂ is Generated in the Ammonia Production Process and other related processes

While the use of ammonia in the power generation sector does not produce CO_2 during combustion, such use emits large amounts of CO_2 throughout the entire generation cycle, including the generation of ammonia using fossil fuel-derived hydrogen and the Haber-Bosch process (about 1.9 tons of CO_2 are generated per ton of ammonia produced in the ammonia production process).

(2) Inadequate Explanation by JERA

JERA has not clarified which power plants are subject to ammonia co-firing by 2030, when co-firing will begin, and the scale of such co-firing.

(3) High Cost of CO₂ recovery

Even if carbon capture and storage (CCS) technology is assumed to be used in the hydrogen and ammonia production process, its timing is unknown. Furthermore, while the IPCC calls for a 90% CO₂ recovery rate, the CO₂ recovery rate of current CCS technology is 60-70%, and CCS is expensive (currently, only one 100,000kW power plant in Canada has installed CCS).

(4) Inconsistent with Global 1.5 Degrees Celsius Target Reduction Pathway

As ammonia co-firing thermal power generation is based on technology under development, JERA's "zero-emission thermal power" is only a plan to co-fire 20% at some of the power plants around 2030. Even in such cases, these power plants will maintain 80% coal use, which is inconsistent with the 1.5 °C target and therefore not an appropriate measure to combat climate change.

(5) Criticism from the International Community

"Ammonia co-firing is not a viable option for the world." (IPCC Chairman Jim Skea, from an interview in the Mainichi Shimbun, August 8, 2023),

"As for Japan's concept of co-firing ammonia and hydrogen with fossil fuels, it would 'postpone' the energy transition by maintaining existing thermal power generation." (John Kerry, U.S. Special Envoy for Climate, from Mainichi Shimbun, April 19, 2023).

4 Greenwashing and Climate Ad Monitoring

(1) On Greenwashing

Greenwashing refers to "a pretense of environmental consideration which is inconsistent with the facts," where a company, product or activity is portrayed as more environmentally friendly than its actuality.

- (2) Legislation on Climate-Related Advertising in Japan
 - a Consumer Contract Act (Article 2, Para. 5 and Article 7, Para. 2)
 - b Act against Unjustifiable Premiums and Misleading Representations (Article 5, Para.1, Item 1)
 - c Environmental Labeling Guidelines
- (3) Role of Greenwashing Advertising Monitoring by JARO

JARO works to "foster good advertising by ridding society of lies, exaggerations and misleading advertisements that cause trouble or harm to consumers (JARO website).

Criteria in monitoring of advertising: 1) Must be fair and truthful, 2) Must not be harmful to consumers, 3) Must be in compliance with relevant laws and regulations, as well as public policy.

5 Issues with JERA's Advertisements

- (1) Violation of the Act against Unjustifiable Premiums and Misleading Representations, and Environmental Labeling Guidelines
 - a "CO₂-free fire" and "zero-emission thermal power" are factually incorrect, and the timing and other essential details are ambiguous; thus, the material facts are not being told.
 - b Lack of reference to CO₂ emissions during ammonia production, transportation, etc.
 - c Vague expressions mislead consumers into believing that sufficient measures are being taken to combat climate change, even though JERA only has plans inconsistent with international targets.
- (2) As a result of a lack of explanation of the environmental risks if ammonia-fueled zero-emission thermal power cannot be achieved, consumers:
 - a Mistake JERA's electricity for environmentally-friendly electricity and continue to use electricity generated by JERA which emits large amounts of CO₂.
 - b Lose the opportunity to change contracts to electric power companies that retail mainly renewable energy and thus have s smaller environmental impact.
 - c Allow massive CO₂ emissions from JERA's coal-fired power generation to continue, further advancing global warming.

(Appendix)

List of key messages and visuals of advertisements and displays pertaining to this Petition

Subject 1 2021 Commercial (30 sec.)

https://www.jera.co.jp/news/notice/20210409 661

"Changing the Norms of Power Generation" (30 sec.)

Posted on JERA website (Same content for TV and Internet Ads)



Narration:

"Absolutely unattainable.

Absolutely unreachable.

Absolutely unrealizable.

Absolutely unachievable.

Who created absolutes?

Creating a fire that does not produce CO₂.

JERA will work to achieve zero CO₂ emissions in 2050 with zero-emission thermal power and renewable energy.

(JERA) will change the norms of power generation."

■Subject 2 2023 Brand Movie https://www.jera.co.jp/news/notice/20230330 1399

■NEW WORLD. NEW ENERGY. Brand Movie (113 sec.)

Narration :

"The world has changed. Energy is changing. Change is more vivid than ever. The era of relying solely on fossil fuels is over. Gone are the days when only the big countries consume large amounts of energy. The era of thinking of energy as an extension of the conventional is over.

We are already on the move. Toward a new world.

<u>Fire that emits no CO₂ when burned</u>. Working to achieve <u>zero emissions of thermal power generation with a new energy source that replaces fossil fuels</u>. Providing the best clean energy option for rapidly growing countries, especially in Asia.

Now, in an age when the future is becoming increasingly difficult to see, we will continue to protect people's irreplaceable lifestyles by mobilizing the power we have spread throughout the world. We will continue to take on challenges.

To create a world where no one is left behind and everyone has access to clean energy. Now is the time we must do it."

■NEW WORLD. NEW ENERGY. "The Challenge of Zero Emission Thermal Power (30 sec.)

Narration:

"If it runs on electricity, it does not emit CO₂. CO₂ is emitted when that electricity is produced.

The challenge of zero-emission thermal power -starting from ammonia, a new energy source that replaces fossil fuels and does not emit CO₂ when burned-begins.

The world has changed. Energy will change.

Now is the time we must do it."

■Subject 3 Media (225) "Coal-Fired Power and Ammonia" - YouTube

(Explanatory Video: "Challenge to achieve Zero CO₂ emissions in 2050")

Narration:

"On a global scale, coal-fired power generation is still the mainstay of thermal power generation, which is capable of stable power generation.

Coal-fired power generation uses the heat from burning finely ground coal to produce steam, which turns a machine called a turbine to generate electricity. In the past, soot, dust and other toxic substances generated when burning coal were an issue, but these have now been removed. However, CO₂, which is a cause of global warming, is still emitted.

In order to reduce CO₂ emissions, a method called mixed combustion, in which ammonia is mixed and burned, has been attracting attention. Ammonia does not emit CO₂ when burned. In addition, as ammonia is compatible with coal, mixing and burning ammonia and coal can reduce CO₂ emissions while maintaining the same amount of electricity generated.

Furthermore, one of the positives is that we can proceed with the mixing and burning while using our current facilities, which will not cost us a large amount of funds. We will gradually increase the amount of ammonia to be mixed, and eventually aim to generate power using only ammonia. As ammonia currently is mainly used across the world as a fertilizer and for other means, even more ammonia will be needed for power generation usage. JERA is committed to utilizing its technology and know-how to produce large quantities of ammonia at a low cost and in a stable manner."