

NGO Joint Statement

**Co-firing of Biomass in Coal Plants or Conversion of Coal Power Plants to
Dedicated Biomass Power Plants is Greenwashing**

Biomass accelerates climate change and destroys forest ecosystems

In Japan, the co-firing of biomass in coal power plants and conversion of coal-fired power plants to biomass are currently taking place at a rapid pace. Already 31 coal-fired units, or about half of the coal-fired power plants of major power utilities, are co-firing with biomass.¹ At least 40 of the renewable energy feed-in-tariff (FIT) approved biomass power projects are at coal power plants, and 35 of these plants are designated as “inefficient” (sub-critical or super-critical).² Biomass co-firing for industrial self-generation at in-house coal-fired power plants and other power plants is also part of Japan’s “Green Transformation” (GX) policy.³

Wood pellets are one of the primary biomass fuels used for biomass co-firing at coal plants. With the increase in biomass power generation under the FIT program, imports of wood pellets have increased 61-fold over the past decade to approximately 4.41 million tons in 2022.⁴ As the power generation capacity of coal-fired power plants is generally much larger than that of dedicated biomass power plants, further increases in wood pellet imports are expected as biomass co-firing is promoted at coal-fired power plants.⁵ This increase in demand for wood pellets is nothing short of an additional burden on forests, whether directly or indirectly.

The undersigned environmental NGOs working on climate change and forest issues, oppose biomass co-firing and the conversion of coal power plants to dedicated biomass power plants for the following reasons:

1. Accelerates climate change

1) Burning biomass emits CO₂

Biomass power generation is thermal power generation, and the combustion of biomass fuels emits large amounts of CO₂ into the atmosphere. Even though the carbon emission coefficient of wood is greater than that of coal,⁶ the Japanese government considers it to be “carbon neutral” and does not account for CO₂ emissions from combustion.⁷ Moreover, when forests are cleared to produce biomass fuels, the carbon that the forests have stored in the trees and soil over a long period of time is released into the atmosphere. There is no guarantee that cleared forests will recover to their original state, and even if they do, it will take decades to centuries to completely restore the CO₂ released into the atmosphere. In addition to this, CO₂ derived from fossil fuel use is generated at each stage of harvesting, processing, and transportation. Japan relies on imports for most of its wood pellets,⁸ which emits large amounts of GHGs during transportation. To regard biomass power generation as “carbon neutral,” ignoring the CO₂ emissions throughout its lifecycle, the years required for forests recovery and the possibility that forests will not recover, is a great risk that will accelerate climate change.

2) Prolonging the life of coal-fired power stations

In order to meet the Paris Agreement’s 1.5 °C target, OECD countries need to phase out coal-fired power by 2030. However, Japan’s Ministry of Economy, Trade and Industry (METI) uses a formula that deducts the biomass inputs for co-firing from coal inputs, which enables inefficient coal power plants to appear efficient and thereby extend their lives.⁹

An expert has estimated that the CO₂ emission coefficient for a coal-fired power plant without biomass co-firing is 0.84kg-CO₂/kWh, while it increases to 0.85kg-CO₂/kWh when a coal-fired plant with 38% power generation efficiency co-fires 5% biomass.¹⁰ In addition, the conversion or retrofitting of coal-fired power plants to dedicated biomass combustion is being considered,¹¹ in which case the CO₂ emission coefficient would be 1.03 kg-CO₂/kWh.

2. Destroys forest ecosystems

Most of the woody biomass fuel used for large-scale biomass power generation as well as biomass co-firing coal-fired power generation is imported from Southeast Asia and North America.¹² Future attempts to supply large quantities of biomass fuels will increase pressure for deforestation. The impacts caused by biomass fuels production on ecosystems, such as deforestation, forest degradation, and biodiversity loss, is immeasurable. Cases have been reported of natural forests, including primary forests in North America, being cleared to produce woody biomass fuels. It is not easy for destroyed forest ecosystems to restore their function, and it is impossible for them to recover to a qualitatively equivalent ecosystem. The guidelines for developing project plans under the FIT subsidy program do not have clear standards for the sustainability of woody biomass fuels, and any such standards are not applied to non-FIT biomass power generation. Biomass power generation threatens ecosystems and biodiversity, and undermines the very concept of renewable energy, which is intended to reduce the burden on the environment.

Hereby, we urge the Japanese government to take following measures:

- Achieve a coal exit as soon as possible, regardless of biomass co-firing.
- Do not support biomass co-firing or dedicated biomass power plants.
- Exclude biomass power generation that uses fuels other than waste from the definition of renewable energy. and do not provide subsidies or other support.
- Require that CO₂ emissions from biomass combustion be accounted for at the power plant level.
- Count CO₂ emissions from biomass combustion by the consuming country and incorporate this into their carbon accounting.

Signatories (90 organizations)

Friends of the Earth Japan	Japan
Greenpeace Japan	Japan
HUTAN Group	Japan
Kiko Network	Japan
Global Environmental Forum	Japan
Japan Tropical Forest Action Network	Japan
Istitute for Sustainable Energy Policies	Japan
Japan Center for a Sustainable Environment and Society	Japan
Climate Action Network Japan (CAN-Japan)	Japan
Citizens Alliance for Saving the Atmosphere and the Earth (CASA)	Japan
A SEED JAPAN	Japan
350.org Japan	Japan
Fridays For Future Sendai	Japan
Forests, Climate and Biomass Working Group - Environmental Paper Network	International
Mighty Earth	USA
350 Eugene	USA
350 Triangle	USA
AbibiNsroma Foundation	Ghana
Australian Forests and Climate Alliance	Australia
Biofuelwatch	UK/USA
Blue Dalian	China
Castlemaine Residents Against Biomass	Australia
Center for Biological Diversity	USA
Central California Environmental Justice Network	USA
Coast Range Association	USA
Coastal Plain Conservation Group	USA
Comite Schone Lucht Clean Air Committee NL	Netherlands
Community Partners Across the South	USA
Conservation North	Canada
Consumers' Association of Penang	Malaysia
De Bomenbond	Netherlands
De Klimaatcoalitie	Netherlands
Doctors and Scientists Against Wood Smoke Pollution (DSAWSP)	USA
Dogwood Alliance	USA
Earth Action, Inc.	USA

Earth Neighborhood Productions	USA
EARTHDAY.ORG	USA
EDSP ECO	Netherlands
Endangered Species Coalition	USA
Environment East Gippsland inc	Australia
EPIC- Environmental Protection Information Center	USA
Federatie tegen Biomassacentrales	Netherlands
Fern	EU
FIAN Sri Lanka	Sri Lanka
Forest Watch Indonesia	Indonesia
Forum Ökologie & Papier	Germany
Friends of the Clearwater	USA
Friends of the Earth US	USA
Gippsland Environment Group	Australia
Global Justice Ecology Project	USA
Great Old Broads for Wilderness, Cascade-Volcanoes Chapter	United States
Green Cove Defense Committee	USA
Green Longjiang	China
Green Snohomish	USA
Himalaya Niti Abhiyan	India
Hunter Knitting Nannas	Australia
Independent Forestry Monitoring Network (JPIK)	Indonesia
John Muir Project	USA
Kaoem Telapak	Indonesia
Kitsap Environmental Coalition	USA
Landelijk Netwerk Bossen- en Bomenbescherming	Netherlands
Leefmilieu	Netherlands
Maíra Institute	Brazil
Natural Resources Defense Council	USA
Nature Nova Scotia	Canada
NC Climate Solutions Coalition	United States
No Electricity from Forests	Australia
Ole Siosiomaga Society Incorporated (OLSSI)	Samoa
Pakaid	Pakistan
Partnership for Policy Integrity	USA
Pivot Point	USA

Profundo	Netherlands
River coalition	Czech Republic
Sahabat Alam Malaysia (Friends of the Earth)	Malaysia
Save Estonia's Forests (Päästame Eesti Metsad)	Estonia
Scholar Tree Alliance	China
Snow Alliance	China
Solutions for Our Climate	South Korea
South East Region Conservation Alliance (SERCA)	Australia
Southern Environmental Law Center	USA
Spruill Farm Conservation Project	USA
Southern Forests Conservation Coalition	USA
Stand.earth	Canada
Standing Trees	USA
Sunflower Alliance	USA
The Corner House	UK
Thurston Climate Action Team	USA
Trend Asia	Indonesia
Utah Physicians for a Healthy Environment	USA
Wild Nature Institute	USA
WOLF Forest protection movement	Slovakia

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- ¹ The Ministry of Economy, Trade and Industry (METI), Outline of Interim Report of the Working Group to Study Coal-fired Power Plants, p.27,
<https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/sekitan_karyoku_wg/20210423_report.html>
- ² Prepared by FoE Japan based on the data from the website of the Agency for Natural Resources and Energy and the database of Japan Beyond Coal (See Appendix 1)
- ³ METI, 'Embodiment of Policy Initiatives to Realise GX', p.29, p.31, p.33,
<https://www.meti.go.jp/shingikai/sankoshin/sangyo_gijutsu/green_transformation/pdf/011_01_00.pdf>
- ⁴ The Ministry of Finance, 'Trade Statistics' (See Appendix 2)
- ⁵ J-Power, a major Japanese coal-fired power utility company, and Enviva, a world leading wood pellets manufacturing company in the U.S., signed a memorandum of understanding to jointly establish a system producing and supplying 5 million tons of wood pellets annually.
<https://www.jpowers.co.jp/english/news_release/pdf/news211117e.pdf>
- ⁶ Center for Global Environmental Research, National Greenhouse Gas Inventory Report of JAPAN 2022, p.3-16,
<https://www.nies.go.jp/gio/archive/nir/jqjm10000017uzyw-att/NIR-JPN-2022-v3.0_GIOweb.pdf>
- ⁷ The GHG Protocol and SBTi, which are the global standard for corporate GHG emissions calculation and reporting methods, require that CO2 emissions from biomass used for energy to be reported as corporate emissions.
- i) World Business Council for Sustainable Development, World Resources Institute, 'The Greenhouse Gas Protocol -A Corporate Accounting and Reporting Standard, Revised Edition', p.63, <<https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf>>
- ii) Science Based Targets Initiative, SBTi corporate net zero standards, p.24,
<https://www.env.go.jp/earth/ondanka/supply_chain/gvc/files/tools/Net-Zero-Standard_v1.0_jp.pdf>
- ⁸ The Ministry of Finance, 'Trade Statistics' and the Ministry of Agriculture, Forestry and Fisheries, 'Survey of Production Statistics on Special Forest Products' (See Appendix 3)
- ⁹ METI, Outline of Interim Report of the Working Group to Study Coal-fired Power Plants, p.1,
<https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/sekitan_karyoku_wg/20210423_report.html>
- ¹⁰ Global Environmental Forum, Reference 'CO2 emissions from biomass power plants' provided at the webinar 'In the shadow of "Carbon Neutral" -CO2 emissions from biomass power generation and coal co-firing', p.6,
<<https://www.gef.or.jp/wp-content/uploads/2022/12/bbd4731754105f73e348ee35cca7119c.pdf>>
- ¹¹ METI, Reference 4 'Securing Investment in Power Sources', p.28,
<https://www.meti.go.jp/shingikai/enecho/denryoku_gas/denryoku_gas/seido_kento/061.html>
- ¹² The amount of waste biomass in Japan is limited and most of it has already been used.