Hon. Alexandria Ocasio-Cortez
Representative-elect
U.S. House of Representatives
NY 14th Congressional District
By email to us@ocasio2018.com

December 11, 2018

Re: Bioenergy in the Green New Deal

Dear Representative-elect Ocasio-Cortez,

Heartfelt congratulations on your election, and thank you for your early and brilliant leadership in making climate change a priority for the incoming Democratic majority in the House. We strongly support developing a bold and comprehensive plan to address climate change, one that puts Americans to work in pursuing real solutions to decarbonize the economy.

We understand many details remain to be worked out in the "Green New Deal" agenda and want to alert you to a particularly fraught area of renewable energy policy, biomass energy - particularly the combustion of solid biomass for electricity generation (including the use of biomass energy plus carbon capture and storage, "BECCS," as a means of reducing emissions).

Most new biomass energy worldwide is fueled with wood, with the perverse outcome that forests are actually being harvested for fuel. The climate and forest impacts of forest bioenergy are increasingly controversial worldwide; more than 130 international groups have so far signed the position statement below opposing biomass energy expansion, including major groups such as the Center for Biological Diversity, Friends of the Earth USA, Greenpeace International, Natural Resources Defense Council, and the Sierra Club.

Reflecting the understanding of these groups, and drawing on our own extensive investigations into the biomass energy industry, we advise that in your work on the Green New Deal, you:

1) Reject biomass and other solid-fuel combustion-based energy sources as renewable energy.

Biomass power plants (and other "renewable" solid fuel combustors like garbage incinerators) are dirty, inefficient, and expensive. They emit more carbon pollution per megawatt-hour than coal plants, as well as massive quantities of other air pollutants and ash.[1] Inevitably, it is low-income communities and communities of color that suffer the impacts of these power plants. Biomass energy has been treated as "carbon neutral" in policy, but the science shows that net carbon emissions from wood-burning power plants exceed those from fossil-fueled plants for decades, well past the point when the IPCC says we need emissions to shrink to almost nothing.[2] In recognition of this science, the State of Massachusetts

[1] Booth, M. 2014. Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal. Partnership for Policy Integrity, Pelham, MA. At http://www.pfpi.net/wp-content/uploads/2014/04/PFPI-Biomass-is-the-New-Coal-April-2-2014.pdf

actually eliminated renewable energy subsidies for low-efficiency biomass power plants,[3] but bioenergy continues to compete with zero-emissions renewables for subsidies in other states.

Defying the science on the climate impacts of cutting and burning forests, the biomass energy industry has persuaded Congress to adopt annual budget riders legislating forest bioenergy as having zero emissions, a policy that was enthusiastically embraced by the Pruitt EPA.[4] But watch what has been happening due to the false classification of bioenergy as "carbon neutral" renewable energy overseas: US and Canadian forests are being clear-cut at alarming rates to supply sharply rising demand for wood pellet fuels in Europe and Asia.[5] Climate science shows we need to dramatically expand forests, not cut and burn them for energy, and any similar expansion of biomass energy in the US would further undermine the benefits of increased deployment of zero-emissions energy.

2) Promote natural climate solutions to draw down and capture greenhouse gases.

Avoiding dangerous temperature rise requires both reducing greenhouse gas emissions and increasing carbon uptake from the atmosphere. Importantly, the recent IPCC report includes a green pathway toward carbon sequestration that largely depends on reforestation and protection of standing forests.[6] This approach should be initiated immediately -- we must not defer action by relying on hypothetical future deployment of unproven, unscalable, and environmentally risky biomass energy with carbon capture and storage (BECCS). A recent study by The Nature Conservancy found that the "natural climate solution" of restoring and expanding forests had the potential to increase carbon storage and avoid greenhouse gas emissions equivalent to 21% of current net annual emissions in the US.[7] These are real solutions that can be deployed immediately, creating tremendous green new jobs potential on the scale of the Civilian Conservation Corps , which was one of the most popular programs of the original New Deal.

The biomass industry has been on the ropes in the US, and no doubt you and your team will be told that increasing bioenergy deployment will create many new jobs. Don't believe the hype. Many of these are not really green jobs, because wood-burning power plants contribute to forest clearing, increased greenhouse gas emissions, and increased air pollution. Furthermore, bioenergy is a risky investment.

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[2] Some examples of papers highlighting the high intensity and long duration of biomass energy net carbon impacts: Booth, Mary S. 2018. Not Carbon Neutral: Assessing the Net Emissions Impact of Residues Burned for Bioenergy. Environmental Research Letters, Vol. 13, No. 3; Domke, G. M., et al (2012). "Carbon emissions associated with the procurement and utilization of forest harvest residues for energy, northern Minnesota, USA." Biomass and Bioenergy 36: 141-150; Laganière, J., et al (2017). "Range and uncertainties in estimating delays in greenhouse gas mitigation potential of forest bioenergy sourced from Canadian forests." GCB Bioenergy 9(2): 358-369; Mitchell, S., et al. 2012. Carbon debt and carbon sequestration parity in forest bioenergy production. GCB Bioenergy (2012) doi:10.1111/j.1757-1707.2012.01173.x

[3] Massachusetts Cuts Renewable Energy Subsidies for Biomass Power. August 17, 2012. Partnership for Policy Integrity, Pelham, MA. At http://www.pfpi.net/massachusetts-cuts-renewable-energy-subsidies-for-biomass-power

[4] EPA's new policy declaring biomass from "managed forests" to be carbon neutral is at https://www.epa.gov/sites/production/files/2018-04/documents/biomass_policy_statement_2018_04_23.pdf

[5] See https://www.dogwoodalliance.org/wp-content/uploads/2017/05/NRDC_2014-2017Booklet_DigitalVersion-resize.pdf for photos and documentation of how the pellet industry is clearcutting oldgrowth hardwood forests in the US Southeast.

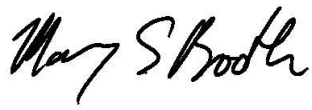
[6] Partnership for Policy Integrity. The IPCC's Recipe for a Livable Planet: Grow Trees, Don't Burn Them. October 7, 2018. Pelham, MA. At http://www.pfpi.net/the-ipccs-recipe-for-a-livable-planet-grow-trees-dont-burn-them

[7] Fargione, J. E., et al. 2018. Natural Climate Solutions for the United States. Science Advances, vol. 4, no. 11. At http://advances.sciencemag.org/content/4/11/eaat1869 (open access)

PFPI just completed a report[8] on the 25 biomass plants in the US that got $10 million or more in federal Stimulus funding starting in 2009 and found that many depended on expensive power purchase agreements or additional bailouts, but still couldn't compete. In addition to early closures, several plants had fires, several rendered neighborhoods unlivable due to odor, dust and noise, and 17 (68%) had Clean Water Act or Clean Air Act violations. This is an expensive, polluting industry that belches CO_2 and makes climate change worse. It should have no place in a Green New Deal.

We would welcome the opportunity to share additional information with you and your advisors regarding these issues, and you can find more materials on PFPI's website at www.pfpi.net.

Thank you for your work. We are all behind you.



Mary S. Booth, PhD
Director, Partnership for Policy Integrity

[8] Booth, M. and Leuenberger, B. 2018. The Bioenergy Boom From the Federal Stimulus: Outcomes and Lessons. Partnership for Policy Integrity, Pelham, MA. At http://www.pfpi.net/wp-content/uploads/2018/10/PFPI-Bioenergy-and-the-Stimulus-Oct-24.pdf

Position Statement on Forest Biomass Energy signed by 137 environmental groups (including major US NGO's) (at **https://environmentalpaper.org/the-biomass-delusion/**)

We share a vision of a world in which thriving natural forests play a significant role in tackling climate change and contribute to a clean, healthy, just and sustainable future for all life on earth. Burning forest wood for large-scale energy production cannot be part of that future for all of the reasons outlined below. Instead we must protect and restore natural forests, thereby reducing emissions and removing atmospheric carbon dioxide while supporting biodiversity, resilience and well-being.

Large-scale burning of forest biomass for energy:
Harms the climate
It is not low carbon – Burning forest biomass for energy is not carbon neutral. It immediately emits large quantities of greenhouse gases into the atmosphere. In contrast it takes decades to centuries for forests to regrow and sequester the carbon, which is far too long to effectively contribute to the 1.5°C Paris Agreement target. Direct and indirect emissions from logging and the bioenergy supply chain also negatively affect its overall carbon balance.

It is encouraged by flawed accounting – Current carbon accounting rules incentivise forest bioenergy by considering biomass combustion as a zero-emission technology, expressed as zero emissions in the energy sector. The assumption is that all emissions are instead to be accounted for when the biomass is logged, placing the burden on the forest producer rather than the biomass consumer. Yet emissions accounting of forests in the land sector is fatally flawed and generally understates emissions. The true carbon cost of biomass burning rarely appears accurately on any country's balance sheet.

Harms forests
It threatens biodiversity and climate resilience – Using forest biomass for energy can entrench, intensify and expand logging. This degrades forest ecosystems, depletes biodiversity and soils and harms forests' ability to deliver ecosystem services like clean drinking water, flood protection, and clean air. Conversion of forests and other ecosystems to industrial monoculture tree plantations for biomass is especially harmful. These increased impacts come at a time when we recognise that rights-based protection and ecological restoration improve the health and well-being of forests and make them more resilient to climate change and other environmental disturbances.

It undermines the climate mitigation potential of forests – To meet the Paris Agreement goal of pursuing efforts to limit global warming to 1.5 degrees, scientists now agree we will need to draw carbon dioxide out of the atmosphere. A safe and proven way to do this is to protect and restore natural forests. Logging for biomass does the opposite.

Harms people
It undermines community rights and interests – Demand for biomass can exacerbate conflicts over land and forest resources, including land grabbing. This threatens rights, interests, lives,

livelihoods and cultural values of indigenous and tribal peoples and local communities as well as established businesses relying on forest resources. The wide-ranging negative effects can also impact food security for the wider populace and for the long term.

It harms human health and well-being – Forests play an important role in safeguarding communities from the worst impacts of climate change. Those living at the front-lines of forest destruction are often most vulnerable to the effects of climate change and also face oppressive extractive industries. In addition, biomass manufacturing and combustion facilities are often located in areas of socio-economic disadvantage, where they pollute the air, increasing incidents of respiratory and other diseases. Local quality of life is affected.

Harms the clean energy transition

It provides a life-line for burning coal for energy production – Co-firing forest biomass with coal extends the life of coal power stations at a time when we need to move beyond emissive, industrial scale burning.

It pulls investment away from other renewables – Biomass undermines less emissive renewable energy solutions because it competes for the same government incentives. Unlike investment in low emission technologies, such as wind and solar, biomass energy entails ongoing feedstock costs and relies on continuous subsidies.

We, the undersigned organisations, believe that we must move beyond burning forest biomass to effectively address climate change. We call on governments, financiers, companies and civil society to avoid expansion of the forest biomass based energy industry and move away from its use. Subsidies for forest biomass energy must be eliminated. Protecting and restoring the world's forests is a climate change solution, burning them is not.

Signatories in alphabetical order:

Abibiman Foundation	Ghana
All India Forum of Forest Movements	India
Alliance for a Clean Environment, Western Australia	Australia
Alliance for the Wild Rockies	USA
AMAF – Benin	Benin
Amis de la Terre – Togo	Togo
ARA	Germany
Arise for Social Justice – Springfield	USA
Asia Pacific Forum on Women, Law and Development	
Australian Forest and Climate Alliance	Australia
Australian Rainforest Conservation Society	Australia
Ballina Environment Society	Australia
BankTrack	Europe
Battle Creek Alliance	USA
Bellingen Environment Centre, NSW	Australia

Biodiversity Conservation Center	Russia
Biofuelwatch	International
Birdlife	Europe
Blue Dalian	China
Bob Brown Foundation	Australia
Busselton Dunsborough Environment Centre, WA	Australia
California Chaparral Institute	USA
Canberra Forest Network, ACT	Australia
Canopee	France
Canopy	Canada
Censat Agua – Amigos de la Tierra Colombia	Colombia
Center for Biological Diversity	USA
Clarence Environment Centre, NSW	Australia
Client Earth	UK
Colectivo VientoSur	Chile
Concerned citizens of Franklin County	USA
Conservation Congress	USA
Conservatree	USA
Czech Coalition for Rivers	Czech Republic
Defiance Canyon Raptor Rescue	USA
denkhausbremen	Germany
Doctors and Scientists against Wood Smoke Pollution	International
Dogwood Alliance	USA
Don't Waste Arizona	USA
Earth Ethics	USA
Ecology Action Centre	Canada
Econexus	UK
Endangered Species Coalition	USA
Environment East Gippsland	Australia
Estonian Forest Aid	Estonia
Federation of Community Forestry Users, Nepal (FECOFUN)	Nepal
FERN	Europe
Forest Media, NSW	Australia
Forest observatory	Morocco
Forests of the World	Denmark
Forum Ecologie & Papier	Germany
Forum Umwelt und Entwicklung	Germany
Fresnans against Fracking	USA
Friends of Siberian Forests	Russia
Friends of the Earth Bosnia & Herzegovina	Bosnia & Herzegovina
Friends of the Earth Finland	Finland
Friends of the Earth U.S.A.	USA
Friends of the Forest, mid South coast NSW	Australia

Friends of the Wild Swan	USA
Fund for Wild Nature	USA
Fundacja “Rozwój TAK – Odkrywki NIE	Poland
Geasphere	South-Africa
GEOS Institute	USA
Gesellschaft fur okologische Forschung e V.	Germany
Global Forest Coalition	International
Great Southern Forest, NSW	Australia
Green Longjiang	China
GreenLatinos	USA
Greenpeace International	International
Healthy Forest Coalition, Nova Scotia	Canada
Henoi	Paraguay
Humane Society International Australia	Australia
Indigenous Environmental Network	USA
Instytut Spraw Obewatelskich INSPRO	Poland
Jamesville Positive Action Committee	USA
Kalang Land and Environment Action Network, NSW	Australia
Kalang River Forest Alliance, NSW	Australia
Last Tree Laws	USA
Leonardo DiCaprio Foundation	USA
Les Amis de la Terre – Togo	Togo
Margaret River Regional Environment Centre, WA	Australia
Massachusetts Forest Rescue	USA
Mighty Earth	USA
Milieudefensie	Netherlands
My Environment, Vic	Australia
Nambucca Valley Conservation Association, NSW	Australia
National Toxics Network, Australia	Australia
Natural Resources Defense Council	USA
Nimbin Environment Centre, NSW	Australia
NOAH (FoE Denmark)	Denmark
North Coast Environment Council, NSW	Australia
North Columbia Environmental Society	USA
North East Forest Alliance, NSW	Australia
Partnership for Policy Integrity	USA
Pivot Point	USA
Protect the Forest	Sweden
Public Lands Media	USA
Rachel Carson Council	USA
Rainforest Action Network	USA
Rainforest Information Centre	Australia
Rainforest Relief	USA
Renourish	USA

Restore: The North Woods	USA
Rettet de Regenwald	Germany
RICCE	Liberia
RootsKeeper	USA
Salva la Selva	Spain
Santa Fe Forest Coalition	USA
Sequoia ForestKeeper	USA
Sierra Club	USA
Sierra Club BC	Canada
Snow Alliance	China
Society for Responsible Design	Australia
South East Forest Alliance	Australia
South East Forest Alliance	Australia
South East Forest Rescue	Australia
South East Region Conservation Alliance	Australia
South-West Forests Defence Foundation, WA	Australia
Southern Environmental Law Center	USA
STAND.earth	USA
Sustainable Agriculture and Communities Alliance	Australia
Swan View Coalition, Montana	USA
Terra!	Italy
The Corner House	UK
The Development Institute	Ghana
The John Muir Project	USA
TUK Indonesia	Indonesia
Western Australian Forest Alliance	Australia
Wild Nature Institute	USA
WildWest Institute	USA
Women's Environment & Development Organization	USA – International
Womens Earth and Climate Action Network	US & International
Woodland League	Ireland
Woods Hole Research Center	USA
Wuhu Ecology Centre	China
Yellowstone to Uintas Connection	USA
ZERO	Portugal