

Public Comment

for October 17, 2016

RCEA Board of Directors Meeting

Oct 17,2016

To RCEA Board

Thank you for the continued opportunity to express my bias against biomass as a clean and, carbon neutral fuel as presented by the Biomass Resource Group and RCEA.

Today I would like to present a few questions for future consideration. These questions deal with using rate payer revenue for the least efficient and most expensive source of energy.

1. Question: RCEA appears to act as a fiduciary with the rate payer as the beneficiary. Which party is receiving the most benefit? Is it the rate payers who are paying more for biomass energy or the private investors who own the biomass power companies and, indirectly, the timber companies who receive a revenue source? To which party does RCEA have the duty, as fiduciary, to provide the greatest benefit?
2. Question: Is RCEA exempt from any cause of action as a fiduciary for failing to act with due diligence when the benefits to private investors who own the biomass power companies are not adequately disclosed to the beneficiary, the rate payers?

I'm requesting that these questions be added as a future agenda item and be addressed in writing by legal counsel.

Justification for the higher costs associated with biomass rests on arguments of carbon neutrality and forest fire reduction presented by biomass organizations that have a dog in the hunt. We rate payers benefit from having research on all aspects of biomass presented to us. Research shows the biggest drivers for forest fires are temperature and humidity, not timber slash on the ground. Carbon neutrality is reached only when the photosynthetic surface area equals that which was cut down; this takes decades. Meanwhile biomass plants emit CO2 24-7 and trees only photosynthesizes during daylight hours.

Saving money by using renewable energy credits is a better to way to go. RCEA can then use the savings to invest in assets. Non-combustion renewables are creating many jobs. Currently, Windturbine Services Technician is the fastest growing new job category.

Thank you.

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Local health professionals' statement on Humbolt's Community Choice energy portfolio and biomass
Redwood Coast Energy Authority October 17 2016

Thanks for the opportunity to speak to you today. I am a physician and public health professional and a climate policy advocate with expertise on the health effects of air pollution and climate change. In addition to myself, I'm also representing the opinions of other colleagues who couldn't be with us. We want to thank you for your work bringing this program to fruition so our community can choose the kinds of energy that reflect our values and best interests.

From our perspective, local biomass energy is a double edged sword. It supports the economy, which is good for public health, but pollutes the air and the climate, which is not. Here are the scientific facts:

Biomass is dirty. It pollutes more than coal. The recent EPA consent decree for Blue Lake Power allows the plant, AFTER required emission controls are installed, to emit more pollution than the average late model coal fired power plant. Specifically Blue Lake Power will be allowed to emit 70% more nitrogen oxides, 170% more carbon monoxide, and 17% more PM10 particulates than coal plants (see references below) and even exceed these limits if it proves incapable of meeting them. These pollutants cause heart attacks, strokes, cancer, low birth weights, permanent deficits in children's lung function, and premature death. There are no safe thresholds below which harms don't occur. Exposure to these hazards may be increased by valley topography which holds polluted air in place. Biomass advocates say that burning wood for energy prevents worse pollution from open burning slash and wildfires but our local plants are fueled by mill waste, so that's not true here.

Biomass is bad for the climate, emitting 50% more carbon dioxide than coal. Nitrogen oxides (the pollutant that Blue Lake Power will emit 70% more of than coal plants) warm the planet, molecule for molecule, 298 times more than carbon dioxide. Calling woody biomass carbon neutral because trees eventually regrow is like saying you can fill a bucket with an eye dropper in the middle of a fire. Time is running out. Already now every summer our county public health officer warns parents to keep their kids indoors due wildfire smoke and out of our rivers due toxic algae. If we don't start pouring real clean energy into our bucket now, the planet will go over the 2C "guardrail" by the time those kids are in their 30's.

Biomass is expensive. More expensive than wind and solar. So expensive that private utilities are dropping it. Lets be blunt. Buying this costly form of energy is a public subsidy for a timber industry that doesn't want to pay the full cost of its operations. It's us paying them for the privilege of taking out their trash. Maybe we should support them, but lets set some limits since paying above market prices to biomass plants will raise our electricity rates, increase the risk of people choosing to stick with PG&E, and lower the potential savings we can invest in building a local clean energy economy.

The choice is not all or nothing. If you exercise care and foresight, you can support existing biomass as a transitional energy source without adding more pollution to our air or blocking the off ramp from this expensive high carbon form of energy. As your local health professionals, we ask that you keep our air clean and our future healthy by setting the following commonsense conditions for including biomass in our Community Choice Aggregation portfolio:

- 1) Only solicit bids from plants that are currently in operation
- 2) Don't buy more electricity than these plants currently produce on a consistent basis
- 3) Limit the duration of biomass contracts to 1-2 years

We know that approving the draft Biomass Request for Offers is on today's agenda but we urge you to hold off on making any decisions that would preclude our proposed conditions until you have time to study them. Your choices today are critical for a healthy tomorrow. Thanks for your time and attention.

Wendy Ring MD, MPH
Margaret Grossman MD
Corinne Frugoni MD
Andrea Armin RN

COMPARISON BLUE LAKE POWER (with new emissions controls) vs COAL

Blue Lake (not including startup/shutdown)	Coal (average permitted plant 2002-2006)
NOx 0.12 lb/MMBtu	.088 lb/MMBtu
CO 0.40 lb/MMBtu	.144 lb/MMBtu
PM10 0.02 lb/MMBtu	.017 lb/MMBtu

(including startup/shutdown, which cause high spikes of pollution)

NOx 0.15 lb/MMBtu
CO 0.50 lb/MMBtu
PM10 0.02 lb/MMBtu

EPA's fallback limits (if BLP proves it can't meet those above)

excluding startup/shutdown

NOx emissions 0.15 lb/MMBtu
CO 0.55 lb/MMBtu
PM10 0.03 lb/MMBtu

including startup/shutdown

NOx 0.175 lb/MMBtu
CO 0.69 lb/MMBtu
PM10 0.03 lb/MMBtu

Sources:

Allowable emissions rates in 2016 EPA consent decree with Blue Lake Power
<http://www.ncuaqmd.org/files/permits/BLP/Exhibit%201%20-%209.pdf>

Average EPA emission limits for COAL POWERED plants permitted 2002-2006
Source: <https://www.dep.state.fl.us/air/emission/construction/taylor/BACT.pdf>



Asthma and Allergy Foundation of America



September 13, 2016

Dear Senator/Representative:

The undersigned public health, medical and nursing organizations urge you to oppose policies that would encourage or expand the use of biomass for electricity production. Biomass is far from “clean” – burning biomass creates air pollution that causes a sweeping array of health harms, from asthma attacks to cancer to heart attacks, resulting in emergency room visits, hospitalizations, and premature deaths.

Biomass uses fuel sources, or feedstocks, whose combustion harms human health, including wood products, agricultural residues or forest wastes, and highly toxic construction and demolition waste. Burning biomass from any source generates immediate dangerous air pollution that puts health at risk.

Among the most dangerous of these emissions is particulate matter, also known as soot. These particles are so small that they can enter and lodge deep in the lungs, triggering asthma attacks, cardiovascular disease, and even death.ⁱ Particulate matter can also cause lung cancer.ⁱⁱ

Biomass combustion also creates nitrogen oxide emissions, which are harmful in their own right and also contribute to the formation of ozone smog and particulate matter downwind.ⁱⁱⁱ Ground-level ozone pollution can trigger asthma attacks and cause premature death, and newer research shows possible links to reproductive and central nervous system harm.^{iv}

Burning biomass also creates carbon monoxide, which leads to headaches, nausea, dizziness, and in high concentrations, premature death;^v and carcinogens, including benzene and formaldehyde.^{vi}

The dangerous air pollution from burning biomass endangers some people more than others. Millions of infants and children, older adults, individuals with respiratory or cardiovascular disease or diabetes, and individuals with lower incomes face a higher risk of suffering serious health effects from these pollutants.^{vii}

In addition to emitting harmful conventional pollutants, some biomass processes also increase carbon emissions that contribute to climate change. The U.S. Environmental Protection Agency’s Science Advisory Board is currently evaluating available research to answer questions about the net carbon emissions that result from burning biomass. In their 2012 letter to EPA from an earlier review, the Science Advisory Board noted that “[c]arbon neutrality cannot be assumed for all biomass energy a priori” and described the processes that can make biomass increase carbon emissions.^{viii}

Scientists must be allowed to continue to review these impacts. The United States is already experiencing health harms as a result of climate change. Increased temperatures lead to heat-related illnesses and deaths and help make the formation of ground-level ozone more likely. More droughts lead to elevated particulate matter levels. More frequent and severe extreme weather events harm both physical and mental health. These trends are projected to continue, along with increased health threats from vector-borne diseases; food insecurity; food- and water-borne diseases; worsened allergy seasons; and many more.^{ix}

Burning biomass creates proven harm to human health through direct air pollution impacts, as well as the potential for increasing climate change. Because of those threats, the undersigned public health, medical and nursing organizations ask that you oppose policies that would encourage or expand the use of biomass for electricity production. We urge you to protect human health by supporting the development of truly clean, carbon-free sources of energy such as solar energy and wind power.

Sincerely,

Allergy & Asthma Network

American Academy of Pediatrics

American Lung Association

American Public Health Association

Asthma and Allergy Foundation of America

National Association of County & City Health Officials

National Environmental Health Association

Physicians for Social Responsibility

ⁱ U.S. Environmental Protection Agency. Integrated Science Assessment for Particulate Matter. 2009.

ⁱⁱ World Health Organization International Agency for Research on Cancer. IARC Monograph on the Evaluation of Carcinogenic Risks to Humans. Volume 109, Outdoor Air Pollution. Lyon: IARC (in Press).

ⁱⁱⁱ U.S. Environmental Protection Agency. Integrated Science Assessment for Oxides of Nitrogen-Health Criteria. 2016.

^{iv} U.S. Environmental Protection Agency. Integrated Science Assessment of Ozone and Related Photochemical Oxidants. 2013.

^v U.S. Environmental Protection Agency, Integrated Science Assessment for Carbon Monoxide, 2010.

^{vi} Naeher LP, Brauer M, Lipsett M, Zelikoff JT, Simpson CD, Koenig JQ, Smith KR. 2007. Wood smoke Health Effects: A Review. *Inhalation Toxicology*. 19:67-106.

^{vii} U.S. Environmental Protection Agency, Integrated Science Assessment for Particulate Matter. 2009.

^{viii} Swackhammer, Deborah L. and Madhu Khanna, letter to Lisa P Jackson, Administrator, U.S. Environmental Protection Agency on SAB Review of EPA's *Accounting Framework for Biogenic CO₂ Emissions from Stationary Sources*. September 28, 2012.

^{ix} USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. <http://dx.doi.org/10.7930/J0R49NQX>