

- 350 Sonoma • California River Watch • Coast Action Group •
- Friends of the Climate Action Plan • Forest Unlimited •
- Petaluma River Council • Sierra Club Sonoma Group •
- Sunrise Movement Sonoma County • Wine & Water Watch •
- Working Group for Emergency Climate Action Now •

February 1, 2021

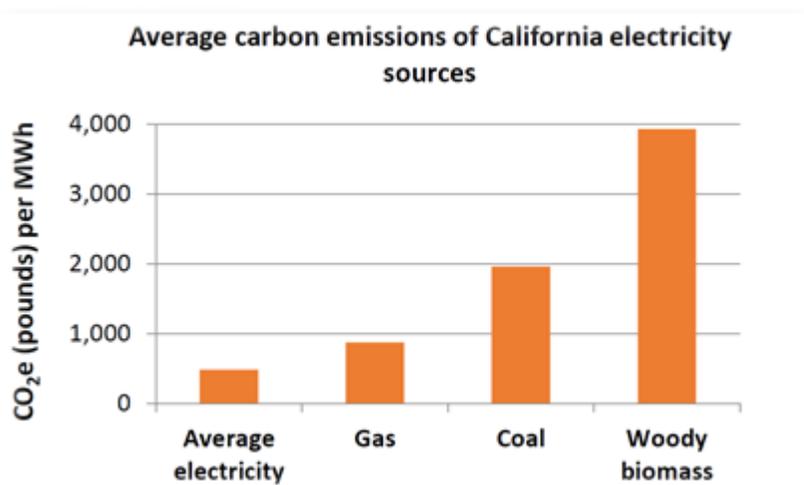
To: Sonoma Clean Power Board of Directors
 Geof Syphers, CEO, Sonoma Clean Power
 Rebecca Simonson, Director, Planning & Analytics

Re: Board of Directors Meeting, February 4, 2021 – Agenda item #8: Discuss EverGreen Local Resource Public Workshop #2 and Provide Direction as Appropriate

Dear Sonoma Clean Power Board of Directors:

We, Sonoma County residents and organizations, are very concerned that Sonoma Clean Power (SCP) is actively considering adding forest-based biomass to its energy portfolio. We believe it is not in SCP's best interest to support the generation of biomass energy within the County or to purchase biomass energy from other counties. Far from being clean, renewable, and carbon neutral, forest biomass is [polluting, ineffective, and expensive](#), and will contribute to the climate crisis. Biomass emits massive amounts of toxic byproducts including [dioxins and benzene](#), which are known to cause cancer.

Within Sonoma County, we have directly documented the transport and processing of living trees as well as snags (which contribute to soil carbon) for biomass facilities. The negative impacts of biomass energy have been well documented [by over 200 scientists](#) who reported to Congress in May 2020. In 2018, 784 scientists worldwide [warned the European Parliament](#) about the dangers of forest-based biomass. Burning biomass for electricity produces more carbon dioxide per unit of electricity than burning coal, as explained by the [Union of Concerned Scientists](#).



Source of diagram: https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Forest-Bioenergy-Briefing-Book.pdf

Biomass is polluting and hazardous to human health

Biomass energy is California's dirtiest electricity source, [more than eight times as climate polluting, on average, as other electricity sources in California](#) and produces [approximately double the amount of carbon dioxide released by burning coal](#).

Toxic pollutants from biomass power plants including dioxins, benzene, formaldehyde, nitrogen oxides, carbon monoxide, sulfur dioxide, lead, mercury and arsenic can exceed those from coal-powered plants and have been linked to serious health problems, often affecting low-income communities located in the vicinity. In 2017, a biomass facility

in Scotia, Northern California, [emitted over 10,000 pounds of benzene](#) and over 12,000 pounds of formaldehyde that affected nearby communities. Members of the [Blue Lake Rancheria](#) in Humboldt County, especially children and the elderly members of the tribe, endured severe health impacts from toxic emissions from the large (11 megawatt) biomass power plant less than a half mile away, which has since been abandoned and replaced by clean solar and wind power projects. In Mendocino County, a wood pellet plant in the small, mainly indigenous and Latinx community of [Capella](#) violated its permit from the Air Quality Management District three times, emitting [unacceptable levels of particulates and other pollutants](#). Attempts to lessen the pollution have failed; the plant had to reduce its production levels.

Biomass is ineffective in protecting communities and homes from fire

Large-scale efforts [from thinning, "fuel load reduction" and "vegetation management" are ineffective in protecting communities from wildfire](#) and exacerbate climate change impacts. The risk of fires which destroy homes and communities are linked to flying embers, which can be carried over a mile by wind gusts.

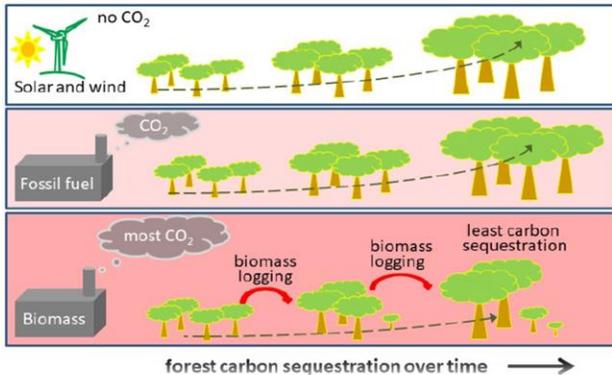
The 2018 Camp Fire, which devastated Paradise and Concow, [sped fast through lands that had been treated by heavily logging and thinning 10 years prior to the fire](#). The fire intensity and speed were related to the logging activities. Massive data-sets have revealed that forest management practices that rely on heavy logging have actually [increased fire severity in those forests](#). By creating an extraction-based market for forest-based biomass, SCP could unwittingly increase the risk of severe wildfire in Sonoma County.

To address ember casts, comprehensive studies by fire scientist Jack Cohen and others indicate that the [only effective ways to protect communities from fire are by hardening homes and reducing the ignitability of the 100-foot area immediately surrounding homes](#). Most efforts to promote large-scale thinning in areas far from homes and structures are wasteful, carbon-releasing, ecologically damaging, and ineffective in protecting communities, when compared to efforts that focus on buildings and the defensible space in their immediate vicinity.

Home hardening creates jobs. A 2018 [Study on Potential Jobs and Wages from Investments in Defensible-Space Approaches to Wildfire Safety](#) concludes that home hardening and defensible-space projects could create not only wildfire safety benefits but more jobs and wages for local workers than logging and thinning programs.

To sequester carbon, leave it in the forests

A Double Whammy for the Climate – more CO₂ emissions and less forest carbon sequestration with biomass power production compared to fossil fuels or solar and wind



Source of diagram: https://www.biologicaldiversity.org/programs/climate_law_institute/pdfs/Forest-Bioenergy-Briefing-Book.pdf

[Thinning and logging paired with burning of woody biomass in bioenergy facilities will reduce forest carbon storage](#) and lead to higher greenhouse gas emissions. The best way to reduce global greenhouse gas emissions and to sequester carbon is by protecting forests, as expressed in IPCC scientist Dr. William Moomaw's [Why Keeping Mature Forests Intact is Key to the Climate Fight](#). His concern is echoed in a compelling and comprehensive essay opposing biomass energy, [To Counter Climate Change, We Need to Stop Burning Things](#), written by Bill McKibben (*The New Yorker*, January 2021).

Forests are living, interconnected ecosystems providing us with many essential natural services, protecting our watersheds, water quality, soil, water and air, providing essential habitat for wildlife, and regenerating naturally after wildfire. Clearing forests can reduce carbon sequestration potential for decades. Machinery and equipment used in tree removal compacts the soil, which has far-reaching negative consequences making it harder for forests to rejuvenate after fire. Dead trees and snags, too, are essential for the forest carbon cycle, providing [habitat for a wide range of birds and animals](#), nurse logs, and, eventually decaying to protect and enrich the soil and continue the cycle.

Cutting forests is not sustainable and large trees are not a renewable resource; many decades must pass before the planted saplings reach maturity. The more trees mature, [the greater their ability to sequester carbon](#). In addition, natural forest ecosystems support an abundant variety of wildlife, unlike plantations of trees which do not. We have no time to waste the best way to maximize carbon sequestration now is by protecting mature, intact forests, [including ones that quickly regenerate after fire](#).

We in your community are appealing to you to stop considering any source of biomass energy.

Biomass is California's most expensive energy source

Biomass power is California's most expensive energy source, averaging \$166 per megawatt hour compared to \$49 per megawatt hour for solar and \$57 for wind. We need to focus on clean, carbon neutral, renewal sources of energy such as solar and wind. Biomass operations are often [heavily](#)

[dependent on subsidies](#) that take resources away from truly clean energy alternatives. We the ratepayers will end up carrying the increased costs.

We realize that the California Energy Commission currently includes biomass in its Renewables Portfolio Standard (RPS), which is a problem. We would encourage a review and revision of those standards; we also urge SCP to consider the limitations and negative impacts of biomass incineration now as a matter of urgency before taking any further steps to promote biomass as part of its energy portfolio.

We were shocked to learn that even while soliciting public input from EverGreen customers for its Local Resource Plan, SCP is simultaneously one of the proponents of a new Biomass Biz competition. We urge you to stop promoting biomass incineration now.

Beverly Alexander, Petaluma resident, Sonoma Clean Power customer, President of Protect Wild
Petaluma ProtectPetaluma.org
Dena Allen, 350 Sonoma
Michael Allen, California Assembly member (Ret.)
Maria Alvarez and David Trowse
Krista Anandakuttan, Sebastopol resident
Laurie-Ann Barbour, Evergreen customer, Cotati resident
Katy Baumgras, Sebastopol resident
Ashwini Bhat, Petaluma resident
Henrietta Bensussen, Santa Rosa Resident
Steve Birdlebough, Santa Rosa resident
Jenny Blaker, Cotati resident, EverGreen customer
George Bono, Petaluma Resident and Keysight Technology engineer
Susan Bono, Petaluma resident
Taylor Bright, Post-Fire Ecological Restoration Practitioner, Mycologist, CoRenewal
Dana Brown, Sonoma County Resident
Kimberly Burr, Green Valley Creek
Ernie Carpenter, Sonoma County Supervisor, Retired
Kevin Conway, Sonoma County Resident
Connor DeVane, SCP customr and member of Sunrise Movement Sonoma County
Iris Jamahl Dunkle, Sonoma County Poet Laureate Emerita
Deborah Eppstein, PhD. Sonoma County Resident
Dr. Brenda Flyswithhawks, SRJC Professor and Santa Rosa resident
Karl Frederick, Profession: Engineer/Program Manager
Rue Furch, Sonoma County Resident
Sunny Galbraith, 350 Sonoma
Forrest Gander, Petaluma Resident
Pete Gang
Jessica T. Gilleran, 4th/5th grade educator, University Elementary La Fiesta
Natasha Granoff, Sonoma County resident, EverGreen customer, California Native Plant Society Milo
Baker Chapter Conservation Committee
Mel Halbach, Sonoma County Resident
Debora Hammond, Cotati resident

Larry Hanson
Suzanne Hanson
Jean Hegland and Douglas Fisher, Walbridge Fire Survivors and Sonoma Clean Power Customers
Judith Helfand, Sonoma Clean Power customer
Fred Heuristic, Sonoma County Resident
Deirdre and Chris Hockett, Sonoma Clean Power customer and members Protect San Antonio Valley
Christine Hoex, 350 Sonoma
Jodi Hottel
Veronica Jacobi and the Climate Protection & Recovery Fund
Anna Cummings Jacopetti, 350 Sonoma
Vasanti Jayaswal, Petaluma
John Johnson
Amy Jolly, Sonoma County Resident
Suzy Karasik, Windsor resident, CCL volunteer
Dr. Douglas Kenning, Professor and biologist, Sonoma County Resident
Maya Khosla, wildlife biologist, fire filmmaker, Sonoma County Poet Laureate Emerita
Natalie Korman, Penngrove resident
Paul Lamb, Sonoma County resident
Mike Lipelt
Dr. Elyse Lord, Cotati Resident
Raye Lynn Thomas, Petaluma resident, retired librarian
Greg Mahrer, Sonoma County resident
Janus Matthes, Wine & Water Watch
Tom Meier, Sonoma County Resident tmeier10@att.net
Matt McGuire, former City Council, Petaluma; Pachamama Alliance
Michele Melio
Phyllis Meshulam, Sonoma County Poet Laureate (2020-2022), teacher with California Poets in the Schools, and an SCP customer
Mella Mincberg, Sebastopol resident & Sonoma Clean Power customer
Donald N. Moe and Therese A. Ehret, Petaluma Residents and Sonoma Clean Power customers
Laura Morgan, M.D.
Laura Neish, 350 Bay Area
Wayne Morgenthaler, Sonoma County Pachamama Alliance, Drawdown Advocacy and Training Group
Clare Morris, PhD
Mark Mortensen, Santa Rosa resident , SCP EverGreen customer
Gwynn O'Gara, Sonoma Poet Laureate Emerita
Rebecca Patrascu, Petaluma Resident
Margo Perin, Santa Rosa Resident, Whoa Nelly Press
Dennis Pocekay, SCP EverGreen Customer
Dena Rahun
Suzy Karasik, Windsor resident, CCL volunteer
Larry Robinson, Sebastopol Resident
Barbara Quick, Author and journalist, Cotati
Tracy Salcedo, Glen Ellen resident
Padi Selwyn, Co-chair, Preserve Rural Sonoma County
Teri Shore, Advocacy Director, Greenbelt Alliance, Sonoma Valley resident
Cynthi Stefenoni, Co-Director & Producer, Sebastopol Film Festival

Waights Taylor Jr., Santa Rosa resident.

Mike Turgeon

Sally Weare, resident at Bennett Ridge Rd, Santa Rosa, Member of Women Eco Artists Dialogue

Kathleen Winter, Sonoma County resident

Johanna van de Woestijne, MD, Stanford Medical School, and Medical Microbiology, BS, San Jose State U., Property owner in Occidental, California.

Definitely opposed to biomass fuels because of impacts on human and the science, which shows that biomass fuels are even dirtier than coal.

Bill Vartnaw, Sonoma Poet Laureate Emeritus

Janis Watkins, ret. Attorney

Kathleen Winter, Sonoma County Resident

Gloria Zarifa – Concerned customer, Sonoma Clean Power