

## NOTES: SOFAR Biomass Committee

April 27, 2023

### Action Items & Next Steps

- **Zach** to check with Jonathan/Che regarding: discussions on feasibility for similar biofuels site at Grizzly Flats (or any other site in SOFAR footprint).
- **Zach** to confirm with Sierra Institute team that June 8 works for the Crescent Mills field trip (hopefully by Friday)
- **Michelle** to extend field trip invite to other collaboratives (HELP, ACCG, YSS) once date is confirmed
- **Craig** to send Sophie a PDF of presentation he did with Sierra Institute on biofuels work for CBI to distribute to the Biomass email list.
- **Biomass planning team** to consider inviting a USFS speaker to a future meeting to talk about USFS biofuels-related work (Dave Zelinsky emailed a research needs paper from the Forest Products Lab: <https://www.fs.usda.gov/research/treesearch/65971>)

### Other Updates

- Placer County's having a biofuels symposium on May 1:  
<https://allevents.in/roseville/biomass-energy-technology-symposium/10000590500120757?ref=eventlist-cat>
- El Dorado County's Wildfire Strategy is open for comment, and the County is holding a workshop on May 17 1:30-3:30 at  
EID: <https://www.edcgov.us/Government/CAO/OWPR/Pages/WPRAdvisoryCommittee.aspx>

## Technology-Driven Forest Restoration Services & Low-Value Biomass Utilization

Presentation by James Sedlak, Kodama Systems, followed by Q&A

[Link to Presentation](#)

Kodama aims to dramatically increase the number of acres of fuels thinned in the Western US via automation and connectivity. Kodama wants technology to improve forestry processes through site connectivity (machine sensors, mobile connectivity towers, machine location tracking, improved navigation and sensors for skidders) and potentially teleoperations to improve productivity.

Kodama believes that carbon storage is the most efficient way to utilize biomass. They have a Wood Vault pilot in the eastern Sierra that aims to store and monitor 4,500 green tons of woody biomass, or 3,700 tons of carbon dioxide removed from the environment. Wood vaults are geological enclosures that permanently store carbon-dense waste.

[Link to All Meeting Materials](#)

Frontier Climate awarded Kodama a \$250,000 grant from to prove the wood vault methodology. Frontier is an advanced carbon market platform made up of the parent companies of Facebook and Google. Kodama wants to leverage the multi-million-dollar carbon removal market (companies paying for carbon offsets) for biomass storage.

## Q&A

- It would be better to create a product and create jobs than to bury the biomass.  
Response: Agreed. Kodama would also prefer to have a product instead of burying the wood in a vault, whether tangible products or at least job creation. But there's an urgent need to remove the backlog of material from the landscape and this practices creates efficiencies. Not all biomass should be put in wood vaults.
- Please describe the structure of the wood vault.  
Response: Small diameter wood is packed in the enclosure, then covered in gravel and fine grain soil. The mound is blended in to the natural landscape, and prevents moisture and air from breaking down the wood to store the carbon.
- Is there a risk of spontaneous combustion? The lumber mills in the region are always concerned about combustion.  
Response: Internal combustion will only take place if there's a source of ignition and oxygen penetration through the cover. Given that we are creating an anaerobic environment, this is very unlikely to happen but we'll also be monitoring for oxygen penetration.
- If the vault needs to be in arid conditions, is it viable on the western slope of the Sierras?  
Response: The vaults can work on the western slopes. We're focused on non-forested areas such as rangeland with under 25 inches of annual rainfall.
- Are you subject to land fill regulations? Do you have to work through the regulations of CalRecycle?  
Response: We are working on this policy.
- How does the Frontier Climate financing work?  
Response: Frontier is an advanced market commitment - they pay up front for carbon removal projects in the form of pre-purchases. See the "How Frontier works" section on their website for more information: <https://frontierclimate.com/>.
- How will residual material, aside from the wood boles, dealt with?  
Response: Kodama is still determining this.

## Indian Valley Wood Utilization Campus & Proposed Field Trip Logistics

The Biomass Working Group will take a field tour of Sierra Institute's Wood Products Campus and other Biomass-related sites in Plumas County in June.

Zach Browning, Sierra Institute's new Shared Stewardship Coordinator, educated the group about [Sierra Institute's biomass work in Plumas County](#).

Crescent Mills closed in 1986 and has been repurposed by Sierra Institute as a wood products campus. Logs salvaged from trees burned in the Dixie fire are being used to rebuild homes lost in that fire. The site also processes and stores wood chips to use at the biomass boiler in Quincy. They are hoping to attract other wood products businesses. The campus opened in May 2022 and generates 15-30 local jobs.

### Q&A

- County Supervisor Turnboo would like Sierra Institute to open a small sawmill at Grizzly Flats, to process lumber and restore homes lost in the Caldor fire.  
Response: Zach can follow up with Jonathan Keusel, Sierra Institute's Executive Director. Sierra Institute wants to create more of these small-scale facilities to address this urgent need.
- What will the field trip see at the campus, is the mill running?  
Response: There have been some hurdles to site preparation and cleaning, but the mill is up and running. Sierra Institute has developed some model homes for the field trip to see and is securing funding to do small-scale housing.
- What is Sierra Institute doing to attract tenants for the wood products campus? The Biomass Working Group can see opportunities for replicability in El Dorado County.  
Response: There is a great opportunity for mutual learning and to apply Sierra Institute's pilots and lessons learned to El Dorado County. Jonathan Keusel can share more during the field trip.
- Can we invite other collaboratives to the field trip?  
Response: Yes, when Zach confirms the date as June 8, please extend invitations to other partners.

## Irons in the Fire

[Link to the latest update document](#)

### Black Oak Mine Unified School District

Black Oak Mine submitted an application for a work force development grant from CalFire and expects a response by end of June. The grant would help develop a certificate program related to biomass at Golden Sierra High School and the Community College. Congressman Kylie also

[Link to All Meeting Materials](#)

requested \$3.5 million in appropriations for an energy hub to power the Georgetown community.

### **SPI Camino Site**

TSS consultants did not find any fatal flaws in their analysis of the site for a potential wood products campus. There are concerns about air quality standards, but air quality permitting would depend upon the technology used. The County and SPI will meet to discuss SPI's level of interest in selling a portion of the property to a developer to create a campus. Of the three potential 10-15 acre sites SPI identified at Camino, one is more favorable than the others.

### **Countywide Strategic Planning**

The County Office of Wildfire Prevention and Resilience will lead the effort to develop a countywide strategic plan for biomass, based on Placer County's biomass plan.

### **SMUD & Mote Hydrogen**

Mote Hydrogen received a \$500,000 planning grant from Department of Conservation for a biomass-fueled clean hydrogen facility. The Biomass Working Group has advocated for a location in El Dorado County for the plant. Mote has committed to keeping Greg and Norma engaged in their site selection process.

There's a controversial proposal for a 5-million SF Amazon Distribution Center in El Dorado Hills. If that facility is put in place and utilizes natural gas, its proximity to rail lines could support a hydrogen plant.

### **El Dorado Northern Millsite**

This project is moving forward. TSU supports installing a biomass facility on the property and finally got the contract with PG&E. Mountain Enterprises is asking for an acre of land in the northern part of the property to continue their small-scale milling.

**Next Meeting: June 22, 11-12:30**