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CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

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Tree Mortality Task Force Bioenergy Working Group Agenda

January 29th, 2016, 11:00 – 12:30

801 K St. in Sacramento, 19th floor Conference Call Line: (916) 324-2474

I. Roll call of Working Group Members and confirm new organization/agency leads (Angie)

Lead	Supports	Agency
Le-Huy Ngyuen	Rizaldo Aldas, Aleecia Guitierrez, Chris Metzger	CEC
Julia Levin		Bioenergy Association of California
Rosemarie Smallcombe		Mariposa County Supervisor; CSAC
Angie Lottes		Watershed Research and Training Center
Staci Heaton		RCRC
Jenny Moffit		CDFA
Kim Carr	Chris Anthony	Cal Fire
Steve Brink		California Forestry Association
Rich Wade		Board of Forestry
Matt Plummer	Niel Fischer	PG&E
Brett Storey		Placer County
Larry Swan		US Forest Service
Clair Jahns		Natural Resources Agency
Maria Sotero	Judith Ikle	CPUC
Evan Johnson		Cal Recycle
Julee Malinowski-Ball		CA Biomass Energy Association
Sandy Goldberg		OPR
Mike Muston		Otoka Energy
Christa Darlington		CAPCOA
Matt Henigan		GOA
Amber Blixt		IEP
Ted Roberts		SDG&E

II. Approval of Agenda



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- III. Welcome and Review proposed changes to Working Group Objectives (Kim with PG&E). Two additions to the objectives were submitted by PG&E (highlighted below).
- a. Extend contracts on existing forest bioenergy facilities receiving feedstock from high hazard zones (CPUC).
 - b. Ensure contracts for new forest bioenergy facilities that receive feedstock from high hazard zones can be executed within six months (CPUC).
 - c. Initiate targeted renewable auction mechanism and consideration of adjustments to the BioMat Program (CPUC).
 - d. No later than six months after the Bio Mat program begins, evaluate the need for revisions to the program to facilitate contracts for forest bioenergy facilities (CPUC).
 - e. Prioritize facilitation of interconnection agreements for forest bioenergy facilities in high hazard zones (CPUC).
 - f. Prioritize grant funding from the Electric Program Investment Charge for woody biomass-to-energy technology, consistent with direction from CPUC (CEC).
 - g. Work with bioenergy facilities that accept forest biomass from high hazard zones to identify potential funds to offset higher feedstock costs (CAL FIRE, CEC)- **and reduce the impact on California utility customers.** Discussion below related to this highlighted addition:
 - i. RCRC – which impacts are we talking about? PG&E: the cost to ratepayers
 - ii. Kim: This language was not included in the Emergency Proclamation
 - iii. FEMA account in terms of vege management and the incremental cost of electricity procurement. CPUC supports including this language because their primary charge is protecting ratepayers
 - iv. BAC- we all generally support protecting ratepayers, but the governor did not charge us with protecting ratepayers here, so we should not focus on it.
 - v. CAPCOA – in 2010 there was a case that showed that the benefits of BioMAT bioenergy covered the additional cost of feedstock – PG&E: if there is existing law regarding BioMAT then that is okay but there is more than that affected here, we are also talking about extending contracts and other ways
 - vi. **ACTION: Matt and Angie work on language and utilities be very specific about the impacts considered.**
 - vii. Sandy – this is a controversial thing that we are not likely going to have a consensus on so we should move forward without making this change.
 - viii. Dave Branchcomb (SPI) – CPUC has decisions pending that stray far from least cost we are clearly also trying to mitigate Kim – we can only change the objective if we have consensus and we clearly do not have consensus on this.
 - h. Work with land managers to estimate biomass feedstock availability **from high hazard zones,** storage locations, and volumes that may be available for use as bioenergy feedstock at existing and new facilities.
 - i. CAL FIRE this edit changes language directly from the Proclamation and is not the intent of the directive as given to Cal Fire, so it will be rejected.
 - i. Identify and develop new energy technologies for biomass (e.g. biofuels, etc).
 - j. Create and expand markets for bioenergy by-products (e.g. biochar, heat, etc).



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Provide regular updates at Task Force meetings to ensure effective communication and geographic coordination among all task force groups and stakeholders.

- IV. Review of high hazard zones, existing and planned bioenergy facilities and status (Kim)
 - a. High hazard zones
 - i. Trees are dying as we speak at an astounding rate; HHZ will be designated and redesigned as frequently as quarterly. Staff is ground-truthing the flyover data.
 - ii. FRAP has put together HHZ viewer which shows draft zones. Cross section of tree mortality and 200 ft. boundary around roads, trees, transmission lines, etc. It directs us to the trees of greatest risk, but we should expect that this will change.
 - iii. It has become clear that there needs to be more policy direction on what to use- how to increase the capacity for this material now and over the long terms. We also need to look at the full mortality volume to ensure that we don't offset ag and other wood waste.
 - iv. Chris, Kim, and others are tasked with defining how the HHZ will affect Proclamation implementation.
 - v. PUC: we do have some facilities that are located out of state – we will assume that authorities do not extend past state borders- this could raise a commerce clause problem. Julia: the Governor cannot extend authority over other states
 - vi. PG&E: there are several layers of data here; we are also very concerned that trees removed as a result of the emergency are marked as such, and not that just all dead trees that are cut will fall under these benefits. We are talking about making long term commitments that will be expensive. For us, there are potentially 3 pathways that will expand our procurement (BioMat, restarts, extensions), so we don't want to do more than we need because we don't know what's emergency volume and are moving too quickly.
 - vii. Julee: we do need policy direction on what is emergency vs. what is background mortality. From what I can tell, you're trying to get ahead of the problem.
 - viii. Julia: for BioMat, the issue here is whether the program goes forward sooner or later, not whether there are emergency fuels being consumed by them. It's only 50 MW, not that many projects, so splitting hairs on this issue for the BioMat will only slow us down.
 - b. Establish the potential new MWs within each category and a timeline as to when the MW's could go live
 - c. Discuss and estimate fuels costs from the high hazard zones with 2 Covanta facilities and Maintenance Service's 2 facilities for the same information
- V. CPUC update on programs and policies identified to support existing and new facilities; discussions and progress made to date; next steps (CPUC)



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- a. Identify a date when re-start contracts will be re-negotiated (note to this task – presumably the RAM auction will be used for re-start facilities; the proclamation calls for expedited action and contracts to be executed in 6 months, i.e., end of April) – with PG&E
 - i. CPUC is taking imminent action on RAM and BioMAT. Rulings will be issued in the next couple of weeks. Those rulings are in Commissioner and ALJ offices now and it is important to get the information out so that utilities can file advice letters and stakeholders can comment. Comment periods will be shortened to account for emergency. If the ruling requires a decision, any member of the public will be able to comment.
 - ii. There is a 6 month date in the proclamation which was put out in October, so existing facility work should be done by the end of April, BioMat should be reconsidered in July. Note disagreement on Feb 1 as start date for evaluating BioMat program within 6 months.
 - b. Consider incorporating goals of emergency proclamation in develop fuel attestation monitoring program for SB 1122
 - i. CPUC will need concrete examples of cost and verifying that the fuel is from emergency proclamation.
 - ii. There will need to be changes to contracts “to account for uncertainties and stuff”
- VI. PG&E update on hazardous tree management, storage and facility contracts; next steps (Matt and Niel)
- a. Provide hazardous tree amount estimates, by jurisdiction (private by small industrial and large industrial, etc.) and provide to working group by 1/21 (Neil Fischer)
 - i. Calculating these numbers is a daunting task, and there is a caveat because trees are dying so quickly
 1. Tree count mortality data uses tree as unit instead of BDT. PG&E territory ranges from Santa Barbara – Trinity Counties. In total managing 80,000 trees related to drought or 53,000 in Sierra Nevada
 2. Fresno 6,000 trees; Yosemite (Tuolumne, Mariposa, Madera) 32,500 trees; 9,000 Amador / Calaveras; 8000 Yuba County etc; 6,600 in Butte, Tehama Shasta,
 - b. Report on how PG&E is currently managing cut trees (storing? Final destination?) and plans for managing in the future (as volume grows)
 - i. Managing cut trees and storage – regulated by CPUC and rate cases; must ensure safety by abating safety risks to wires- they do that by trimming and felling trees. Generally leave on site so that land and tree owner can use the trees. Limited times they remove logs because of unusual circumstances or safety reasons- this is very limited



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1. Right now, chipped material is trucked away – about 50% is given to local folks to use for equine uses, compost, camp dust; 40% composted; 4% to landfill; 6-8% chipped on site and left on slope
2. PG&E was managing logs in the Bass Lake region because there was place to leave those logs due to houses, septic, etc. They have given that material away to portable bandsaw operators, firewood, carvers, etc
- c. Identify a date when re-start contracts will be re-negotiated (note to this task – presumably the RAM auction will be used for re-start facilities; the proclamation calls for expedited action and contracts to be executed in 6 months, i.e., end of April) – with CPUC
 - i. Addressed by CPUC update
- d. Status on extending contracts.
 - i. Continuing to talk with facilities and CPUC but cannot talk about specific facilities
 - ii. Wood tolling agreement is one framework they are using
 1. PG&E would give the facility the wood and then buy the power back from them
 - iii. Key operational thing that has to be worked out with all of these facilities is accepting “high hazard fuel”

CAL FIRE update on biomass data and coordination with storage sites; next steps (Kim/Larry)

- a. Tree mortality volume estimates (amount and time) for public and private lands, Southern Sierra Nevada.
 - iv. USFS folks have done a heroic job getting us some preliminary numbers
- b. Approach used is high level overview, focused on 6 southern Sierra Counties now but will be expanded statewide (initial counties are Tuolumne, Mariposa, Madera, Fresno, Tulare and Kern).
 - v. Used USFS Forest Health aerial survey results flown in the spring and summer (2015). Locational information is approximate, which is a key reason the data have to be used with caution. The approximate location information about tree mortality was then cross referenced with a vegetation layer based on USFS Forest Inventory Analysis data, and tree mortality factors applied based on 2015 plot data from Sierra National Forest
 1. Methodology and results will be refined and updated. Preliminary statewide mortality data will be estimated and reviewed over the next 30-60 days.
 2. The preliminary estimates were so high, that both internal and external experts were asked to review methodology, assumptions and conversions. These are “high altitude” estimates.
 - vi. Estimated Volumes and Bone Dry Tons – Totaled about 5 billion board feet within the 6-county area. This is equivalent to about 21 million bone dry tons (includes logs, tops and limbs). If all of this was removed, it would provide enough biomass to supply about 2,500 MW of capacity for one year.
 - vii. Estimated Volume in CAL FIRE DRAFT High Hazard Zones (HHZ) only includes an estimated 15-20% of the total volume of dead trees in the 6 counties. Almost 100% of these trees (that create a public safety issue and are located within proximity to assets)



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will be removed, but over what time period we don't know. This amount alone is enough biomass to power 375 – 500 MWs for a year.

- viii. According to Steve Brink, CFA, he made some estimates independently, which are within 10% of Forest Service estimates
- ix. Dave Branchomb, SPI – Warned that MW and MW/h can get mixed up, and advised caution when using this unit.
- x. Kim: we need to put forward multiple alternatives for how we are going to use this material.
- xi. Accounting for ag and urban feedstock fluxes will also be needed to know how much of our material can be received at facilities without displacing other woody biomass
- xii. **ACTION: Do tree mortality estimates for remainder of state and develop estimates about how much will be cut and over what time frame. It is important to note that none of these estimates account for what material might come from wildfire salvage operations and fuels reduction projects.**

VII. CEC update on EPIC funds for bioenergy; next steps

- a. What authorities exist to increase the amount of funding made available for bioenergy in all 3 categories (market facilitation, technology and research and development)
- b. Provide an estimate (to the extent possible) of when the PON for these funds may be released
- c. Currently talking with Chair's office and Executive office on identifying
 - i. Market facilitation funds were identified as potential source of funds. For the most part, those from the 1st and 2nd investment plan are allocated to GFO-15-312, the EPIC challenge (\$48 million 2 phase solicitation where they are wanting to scope and plan projects in phase one and then build them out in phase 2)
 - 1. Demand side community driven project for permitting and planning, not a supply side type of GFO
 - 2. Northern California, Northern California Disadvantaged Community, Southern California, Southern California Disadvantaged Community
 - ii. In the next couple of weeks CEC will be making information about bioenergy solicitation available on the website.
 - 1. We will get all of the funds allocated to S13 Technology Development and Demonstration Bioenergy (\$18 million); EPIC is not only forest biomass. CEC prioritization of where the money will be devoted is under discussion right now. Significant priority is being given to forest biomass energy, even more than it was in the Investment Plan.
 - 2. Part of the funds allocated to S3 (applied research and development for distributed renewable energy) will be available for bioenergy/biomass



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3. The authority to move 5% of funds between the groups, i.e. from market facilitation to applied R&D does exist, but most of the funds from market development are tied to active or closed solicitation

- VIII. Sensitivity analysis on effect of Bio Mat starting price on ratepayers
 - a. Purpose (CPUC)
 - b. Status (PG&E)
 - i. PG&E provided CPUC some analysis and they are currently reviewing it.

- IX. Review Action Items and prioritize tasks not yet covered: (10 - 12 not yet covered)

ACTION: establish landowner subgroup Cal Fire, USFS, PG&E, Counties, etc. to develop cost estimates

ACTION: Landowner subgroup needs to come up with a ballpark cost – cutting, hauling, power, build, etc

#	Action Item	Responsible party	Status
1*	Reach out to Southern California Edison and San Diego Gas & Power to the Bioenergy / Utilization Group (hold the power contract with Delano facility) to participate	Cal Fire	Complete
2	Meet the last Friday of the month (one week plus in advance of the Full Task Force) 11 – 12:30. Optional meeting is the third Wednesday of the month prior to the Biomass Working Group (9:30 – 11)	All Members	Complete
3*	Establish categories for the status of the existing facilities (i.e., pricing agreement extension, contract extension, expired contract, new MWs, Bio MAT program) and place facilities in these categories (TASK 13 related to updating this)	California Bioenergy Association of California	Complete
4	Establish the potential new MWs within each category and a timeline as to when the MW's could go live	Cal Fire	Ongoing
5*	Establish New and Existing Facilities sub-working groups focused on supporting new facilities and inter-connection issues these working groups will get into details of using existing policy to support facility operation; these working groups will have call(s) between full working group meetings (as needed); members can opt to not participate in either of these sub-working group and still remain active in the full working group	Cal Fire	Complete
6*	Reach out to relevant utilities to participate on the New Facilities sub-working group	CPUC	Complete



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7	Review working group objectives and submit proposed edits to Kim and Angie	All Members	Complete
8*	Review biomass facilities status map and provide edits/corrections to Kim and Angie	All Members	Ongoing
9	Provide hazardous tree amount estimates, by jurisdiction (private by small industrial and large industrial, etc.) and provide to working group by 1/21	PG&E	Ongoing (complete for Southern Sierra)
10	Report on how PG&E is currently managing cut trees (storing? Final destination?) and plans for managing in the future (as volume grows)	PG&E	Ongoing
11*	Add discussion on funding sources to next meeting agenda		Complete
12	Provide an update on what authorities exist to increase the amount of funding made available for bioenergy in all 3 categories (market facilitation, technology and research and development) and provide an estimate (to the extent possible) of when the PON for these funds may be released	CEC / CPUC	Ongoing
13*	Add other facilities to list of power plants in the state (including non-operational), add columns for re-start facilities (6, 12 and 24 plus months to re-start), key contact info and room for more details of status	Cal Fire, WRTC, CBEA	Ongoing (Draft circulated to working group)
14*	Group will use the term nameplate rather than gross when discussing facility size; this is the maximum amount that equipment is designed to produce	All members	Complete
15*	Group will not drill down any further into identifying "under-utilized MW's" as PG&E shared that, in general, each contract allows power to full nameplate; if facility is not operating at full nameplate than it is an economic issue, rather than a contract limitation	All members	Complete
16	Discuss and estimate fuels costs from the high hazard zones for several key facilities including 2 Covanta facilities and Maintenance Service's 2 facilities for the same information	CBEA, Cal Fire, Forest Service, CFA	Ongoing
17	Identify a date when re-start contracts will be re-negotiated (note to this task – presumably the RAM auction will be used for re-start facilities; the proclamation calls for expedited action and contracts to be executed in 6 months, i.e., end of April)	PG&E, CPUC	Ongoing (Addressed in CPUC staff proposal)
18	Fuel availability numbers (amount and time) from public land	Cal Fire/Forest Service	Ongoing (6-Counties complete)
19*	Finalization of initial HHZ potential policy direction on how that will affect BioMat and existing facilities.	Cal Fire	Ongoing (Due by end of Feb)
20	Consider incorporating goals of emergency proclamation in develop fuel attestation monitoring program for SB 1122	CPUC	Ongoing



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21*	Monitor inconsistency in Interconnection Queue and BioMat Queue; revisit after Feb 1	WRTC	Ongoing
22*	When issuing the maps, include in policy direction whether or not the "sustainable fuel" category in SB 1122 includes HHZ fuel; (ties to action 19)	CPUC/Cal Fire	Ongoing (Addressed in Staff Proposal)

- X. Discussion on Funding Sources (Angie)
 - a. Didn't hold discussion, but have pursued information about USDA Rural Energy for America Program, US Department of Energy State Energy Program funds (would be administered through the CEC), and EPIC funds as discussed above; will continue to coordinate with the Resource Allocation Working Group
- XI. New Business
- XII. Closing Comments/Adjournment

Note: Working Group Leaders to present current workgroup priorities and accomplishments at full Task Force Meetings.

Note: Our next meeting will be held on Friday, February 26