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Tuesday, November 8, 2022, 6 - 7:30 p.m.

COMMUNITY ADVISORY COMMITTEE MEETING

COVID-19 NOTICE: THIS IS A VIRTUAL MEETING

Pursuant to the Governor's <u>Executive Order N-29-20</u> of March 17, 2020, and revised Brown Act provisions signed into law on September 16, 2021, this meeting will not be convened in a physical location. CAC members will meet via an online Zoom video conference.

<u>To participate in the meeting by phone</u>, call (669) 900-6833 or (253) 215-8782. Enter webinar ID: 822 2338 1610. <u>To participate in the meeting online</u>, join the Zoom webinar at https://us02web.zoom.us/j/82223381610.

To make a comment during the public comment periods, raise your hand in the online Zoom webinar, or press star (*) 9 on your phone to raise your hand. When it is your turn to speak, a staff member will ask you to unmute your phone or computer. You will have 3 minutes to speak.

You may email written comments to <u>PublicComment@redwoodenergy.org</u>. <u>Please identify the agenda item number in the subject line</u>. Comments will be included in the meeting record but not read aloud during the meeting.

While downloading the Zoom application may provide a better meeting experience, Zoom does <u>not</u> need to be installed on your computer to participate. After clicking the webinar link above, click "start from your browser."

In compliance with the Americans with Disabilities Act, any member of the public needing special accommodation to participate in this meeting or access the meeting materials should email <u>LTaketa@redwoodenergy.org</u> or call (707) 269-1700 at least 3 business days before the meeting. Advance notification enables RCEA staff to make their best effort to reasonably accommodate access to this meeting and its materials while maintaining public safety.

Pursuant to Government Code section 54957.5, all writings or documents relating to any item on this agenda which have been provided to a majority of the Community Advisory Committee, including those received less than 72 hours prior to the Committee's meeting, will be made available to the public at www.RedwoodEnergy.org.

COMMUNITY ADVISORY COMMITTEE MEETING AGENDA

Agenda Item		What / Action	When
1. C	Open	Roll Call: Norman Bell Richard Johnson Elizabeth Burks Luna Latimer Colin Fiske Ethan Lawton Catherine Gurin, Dennis Leonardi, Vice Chair Chair Larry Goldberg Kit Mann Roger Hess Emily Morris Chris Honar Jeff Trirogoff Sarah Schaefer, Board Liaison Review meeting agenda and goals.	6:00 p.m.
	Approval of Minutes	Action: Approve minutes of September 13, 2022, CAC meeting.	6:00 – 6:05 p.m. (5 min.)
It	Non-Agenda tem Public Comment	This item is provided for the public to address the Committee on matters not on the agenda. At the end of public comments, the Committee may respond to statements, or refer requests requiring action to the Executive Director or the Board of Directors.	6:05 – 6:10 p.m. (5 min.)
	Biomass Discussion	 Action: Review and discuss: The proposed Biomass Technical Advisory Group formation methods, Humboldt Sawmill Company MOU implementation improvements, and Whether a recommendation should be passed on to the RCEA Board to commit to a specific sunset date for RCEA procurement of biomass power from direct combustion power plants such as HSC, as a means of implementing RePower strategic plan item 4.1.11.6. 	6:10 – 6:25 p.m. (15 min.)
S	PG&E Southern Humboldt Grid Issues	Action: Consider/discuss Southern Humboldt grid capacity issues and potential next steps.	6:25 – 6:40 p.m. (15 min.)
G	CAC Work Goals & Annual Report	Action: Undertake a full Community Advisory Committee goal setting process every two years, adjusting goals every other year, as necessary. Adjust existing Community Advisory Committee goals for 2023.	6:40 – 6:55 p.m. (15 min.)

7.	RCEA Policy Platform	Action: Provide input on the Draft 2023 Policy Platform for consideration by the Board of Directors during their December 2022 meeting.	6:55 – 7:05 p.m. (10 min.)
8.	Local Major Projects	Action: Discuss any major projects that may have an impact on RePower goals and establish an ad hoc major project committee(s) if needed.	7:05 – 7:20 p.m. (15 min.)
9.	Member Reports	This time is provided for Committee members to share information on topics not on the agenda. At the end of member reports, the Executive Director will set requests requiring action to a future agenda or refer requests to staff or the Board.	7:20 – 7:30 p.m. (10 min.)
10. Close & Adjourn			7:30 p.m.

NEXT REGULAR CAC MEETING – Tuesday, January 10, 2023, 6 - 7:30 p.m. Location to be determined.

633 3rd Street, Eureka, CA 95501

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COMMUNITY ADVISORY COMMITTEE MEETING DRAFT MINUTES

September 13, 2022 - Tuesday, 6 - 7:30 p.m.

The agenda for this meeting was posted on September 9, 2022. Community Advisory Committee Chair Dennis Leonardi called the meeting to order at 6:04 p.m., stating that the meeting was being conducted by teleconference pursuant to revised Brown Act provisions signed into law on September 16, 2021. Chair Leonardi stated that the posted agenda outlined instructions for public participation in this meeting.

Members present:

Elizabeth Burks Colin Fiske Larry Goldberg Catherine Gurin, Vice Chair Roger Hess Richard Johnson

Sarah Schaefer, Board Liaison

Luna Latimer Ethan Lawton Dennis Leonardi, Chair Kit Mann

Jerome Qiriazi Jeff Trirogoff

Norman Bell, Christopher Honar, Emily Morris Members absent:

Staff present:

Matthew Marshall, Executive Director Nancy Stephenson, Community Strategies Manager Lori Taketa. Board Clerk Eileen Verbeck, Deputy Executive Director

Guests:

Aoife McGovern, Assistant Project Manager, Offshore Wind - Mainstream Renewable

Michael Olsen - Vice President, Policy & Government Affairs - Aker Offshore Wind Raquel Pichardo, Communications - Aker Offshore Wind Torbjorn Prestegard, Chief Technology Officer, Redwood Coast Offshore Wind Development - Aker Offshore Wind

Minutes Approval

No member of the public or committee commented on the draft minutes. Chair Leonardi closed the public comment period.

Motion Goldberg, Second Johnson: Approve minutes of July 12, 2022, CAC meeting.

The motion passed with a roll call vote. Ayes: Burks, Fiske, Goldberg, Gurin, Hess, Johnson, Latimer, Lawton, Leonardi, Mann, Qiriazi, Trirogoff. Noes: None. Abstain: None. Absent: Bell, Honar, Morris. 4

Non-Agenda Item Public Comment

No member of the public submitted comment or requested to speak. Chair Leonardi closed the non-agenda public comment period.

Offshore Wind Project

The Committee heard a presentation by representatives from Aker Offshore Wind and Mainstream Renewable Power, RCEA's offshore wind project company partners. EDPR/Ocean Winds, a former project partner, was purchased by Aker Offshore Wind, which then merged with a sister company called Mainstream Renewable Power. Mainstream Renewable Power and Aker Offshore Wind's experience, renewable energy development projects and holdings around the world were described, as were the quality of Humboldt's offshore wind resources and the potential to develop Humboldt's port into a regional offshore wind hub. The main challenges for Humboldt offshore wind development are port upgrades, electricity transmission out of the area, and the supply chain. The Bureau of Ocean Energy Management is proposing a multifactor auction, which would allow it to score bidders higher for supply chain and workforce development and community benefit agreements, among other factors, instead of awarding the leases to the highest bidders. Mainstream Renewable's preference is to do as much fabrication and assembly as possible locally. The project's extensive supply chain needs will require equipment and port facilities where components manufactured elsewhere can be brought for staging, final assembly and transport offshore from the port of Humboldt. Energy transmission lines to major grid lines need to be improved to accommodate full development of the lease auction areas.

Committee members inquired about how Mainstream Renewables will finance the project and different ways the community could have a say in the project. Development costs make public ownership of a large share unlikely, and public agency ownership of a for-profit venture is also complicated. RCEA will be a power offtaker of the energy captured offshore and the CAC and its Offshore Wind Subcommittee are encouraged to provide input on ways the community's concerns and interests can be addressed. The floating platform technology is derived from oil and gas platforms that are currently in use and specific designs will be chosen based on specific ocean and harbor conditions. Restrictions on ocean use around the platforms cannot be determined until studies are completed. Survey and review activities during the five-year site assessment period were described, including surveys to determine possible wildlife impacts.

No member of the public responded to Chair Leonardi's invitation to comment. Chair Leonardi closed the public comment period.

RePower Strategic Plan Update

Executive Director Marshall reviewed RCEA's RePower Strategic Plan goals and the agency's progress toward each of them in the past few months. Offshore wind project activity was also described. RCEA is working with local consultants "Lost Coast Wind" to increase engagement with local tribes. The agency awarded the Humboldt Fishermen's Marketing Association a small grant which helped them establish a nonprofit California Fishermen's Resilience Association to coordinate Northern California port association offshore wind development negotiations. Humboldt and Morro Bay offshore wind development and transmission infrastructure improvement were described in the greater context of state renewable energy and decarbonization goals. Development will take place in stages, with additional wind energy areas, including ones off Del Norte County and Cape Mendocino, needed before costly infrastructure development can be justified.

The members inquired about different potential electrical transmission routes, which CAISO is considering. Depending on facility construction and where floating turbine units are assembled, windmill construction and deployment could take as little as two years. Member Qiriazi requested a visual graph showing progress toward RCEA strategic plan 2030 targets. Staff will quantify progress toward these goals at the beginning of each year.

No member of the public responded to Chair Leonardi's invitation to comment. Chair Leonardi closed the public comment period.

Local Major Projects

Executive Director Marshall clarified the process that Board members requested CAC use to comment on local major development projects. CAC members did not name any new local development projects on which to engage to promote RePower goals.

No member of the public responded to Chair Leonardi's invitation to comment. Chair Leonardi closed the public comment period.

Biomass Discussion

Due to a lack of time, the committee members decided to postpone discussion of this topic until the November CAC meeting.

Member Reports

Member Goldberg presented information on a Humboldt County grant program to reduce off-grid cannabis cultivators' greenhouse gas (GHG) emissions and fossil fuel use and transition to renewable energy systems. Mr. Goldberg shared data he gathered from 15 off-grid growing operations showing an average of 252 gallons of fuel used and 4,800 lbs. of GHG emissions per grower each month. Member Goldberg stated the need for a Cal Poly Humboldt or Schatz Energy Research Center study to quantify the real impact of Humboldt County's cannabis industry, CAC discussion on the topic and formation of an ad hoc subcommittee to determine whether RCEA could provide rebates and incentives to the cannabis industry to transition from fossil fuel generator use. The committee supported placing this topic on a future agenda. RCEA staff may have access to existing County-level information.

Chair Leonardi adjourned the meeting at 7:44 p.m.

Lori Taketa Clerk of the Board



STAFF REPORT Agenda Item # 4

AGENDA DATE:	November 8, 2022
TO:	Community Advisory Committee
PREPARED BY:	Richard Engel, Director of Power Resources
SUBJECT:	Update on Alternative Uses of Biomass Subcommittee Activity

BACKGROUND

The Community Advisory Committee formed an Alternative Biomass Uses Ad Hoc Subcommittee at its October 2020 meeting. The scope of work for this ad hoc subcommittee was to draft a proposal to the RCEA Board on RCEA's involvement in alternative biomass use options. The sunset date for this ad hoc subcommittee is after the proposal is submitted to the RCEA Board for approval and the establishment of a Biomass Technical Advisory Group. The RCEA Board has received the report and the only outstanding item is the formation of the Biomass Technical Advisory Group.

The Community Advisory Committee's Alternative Biomass Uses Ad Hoc Subcommittee met on September 1, 2022. CAC member Norman Bell and community member Wendy Ring who made comments on biomass to the CAC at its July 2022 meeting joined the September 1 meeting as guests. The meeting covered the following topics:

- A recap of the first annual report presentation to the RCEA Board on RCEA's memorandum of understanding (MOU) with Humboldt Sawmill Company (HSC) regarding potential alternative biomass uses
- Updates on other local biomass plants and RCEA's biomass procurement
- Establishment of a Biomass Technical Advisory Group
- Process improvement for future annual reports from HSC's MOU
- Follow-up on public comment and ensuing CAC discussion on biomass power at the CAC's July 12, 2022, meeting.

This report presents material that the subcommittee agreed to bring to the full CAC for discussion.

SUMMARY

Staff presented the subcommittee with a proposal for implementing item 4.1.11.4 from RCEA's RePower strategic plan, "Establish a Biomass Technical Advisory Committee." The diagram below shows the proposed process for establishing a Biomass Technical Advisory Group (BTAG). The first step was completed at the subcommittee meeting, with staff asking the

subcommittee members for suggestions on what interest groups should be represented on the biomass technical advisory group (BTAG), providing some examples for discussion. Subcommittee members offered additional ideas.



The discussion concluded with the following list of stakeholder interest groups and some specific organizations proposed for representation on BTAG:

- Tribal/traditional ecological
- Forest products industry
- Agricultural producers (soil carbon interest)
- Energy industry
- Environmental groups
- Public health/air quality
- Federal and state regulators
 - o CalFIRE
 - California Natural Resources
 Agency

- Academic/research
 - UC Extension
- Local agencies (other than RCEA members)
 - HCAOG
- Communities of practice
 - Watershed Research & Training Center (Trinity Co.)
 - CalForest WRX Alliance
- Vulnerable communities

Subcommittee members commented that it may be challenging to build such a group from scratch and that an organization such as the CORE Hub that already has built extensive stakeholder networks could act as a bridge to other community groups with interest in biomass energy and alternative biomass uses.

The subcommittee also discussed a staff proposal for process improvements to the annual consultation with HSC per the MOU. The proposal presented is shown in the diagram below:



The subcommittee members were generally supportive of this proposed process.

The subcommittee discussed whether a recommendation should be passed on to the RCEA Board to commit to a specific sunset date for RCEA procurement of biomass power from direct combustion power plants such as HSC, as a means of implementing RePower strategic plan item 4.1.11.6: "Plan for a Long-Term Transition Away from Direct Combustion of Forest-Derived

Biomass and Toward Lower-Impact Uses of this Material." A proposal was considered for this sunset to take place when RCEA's current contract with HSC ends in 2031.

CAC members are invited to provide input on the above items, with CAC recommendations to be presented to the Board at an upcoming meeting.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

- **4.1.11.2 Procure Local Biomass Energy.** Contract with local biomass facilities as a means of providing locally generated renewable power and managing wood waste from mills and, when feasible and appropriate, from forest management and restoration activities. Require and support a high standard of environmental performance from RCEA's biomass suppliers. Support the deployment of the best-available emissions control technologies, recognizing that power producers' ability to implement such technologies is affected by the price they are paid for their power and term length of contracts.
- **4.1.11.3** Investigate the Impacts of Biomass Emissions. Support research and quantification of the gross and net emissions of greenhouse gases and criteria pollutants associated with local biomass energy production, and the potential emissions reductions associated with disposing of biomass feedstocks by other means. Support development of a locally specific model to estimate human exposure to criteria pollutants from biomass power plants under different operating scenarios. Adjust RCEA's biomass power procurement strategy as appropriate based on these findings and power producers' progress in limiting emissions, and in keeping with achieving RCEA's power mix goals for 2025 and 2030. Consider power producers' historic emissions performance in making procurement decisions.
- **4.1.11.4 Establish a Biomass Technical Advisory Committee.** Create a technical advisory committee made up of local government representatives; state and federal natural resource agencies; and subject matter experts on biomass energy, public health, the local forest products industry, and environmental impacts associated with biomass energy. The committee shall meet periodically and provide a quarterly report to the RCEA Board of Directors on technical feasibility and financial, environmental, and health implications of biomass use alternatives.
- **4.1.11.6 Plan for a Long-Term Transition Away from Direct Combustion of Forest-Derived Biomass and Toward Lower-Impact Uses of this Material.** Investigate and pursue development funding for alternative pathways that could address local forest products industry biowaste management needs, including:
 - Repowering of the existing biomass plants to substantially reduce emissions and/or improve efficiency
 - Emerging biomass energy technologies, including but not limited to gasification, torrefaction, and briquetting
 - Non-energy products, including but not limited to biochar and durable goods

Limit procurement of biomass power from existing direct combustion plants to short-to-midterm contracts, recognizing that power producers' ability to reduce their emission output is affected by the price they are paid for their power and term length of contracts. Pursue partnerships with others, including research organizations and interested public agencies, in development of pilot projects to produce low-emissions energy as a means of treating mill waste and where feasible

sequestering the carbon in this material; where potential nonenergy products are identified, refer potential pilot projects to appropriate stakeholders.

EQUITY IMPACTS

Criteria pollutants from biomass combustion at power plants in RCEA's service area do not impact all communities equally. Reduction of RCEA's biomass procurement from existing plants, through development of alternative uses of biomass residuals or other means, could improve equity in pollution exposure across Humboldt County. However, recognizing economic opportunity as another important equity matter, biomass power also provides jobs in the community for workers at a variety of skill levels. It is not clear how replacement of biomass power production with alternative uses of biomass would affect employment or what the related equity impacts would be.

FINANCIAL IMPACT

Under current contractual terms, procurement of biomass energy is financially favorable to RCEA as compared with procuring energy, renewable energy certificates and resource adequacy through alternative sources.

SUBCOMMITTEE RECOMMENDATION

The subcommittee requests that the CAC provide input on

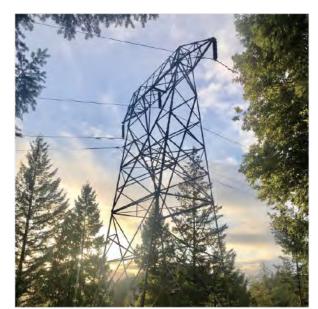
- 1. The proposed Biomass Technical Advisory Group formation methods,
- 2. Humboldt Sawmill Company MOU implementation improvements, and
- 3. Whether a recommendation should be passed on to the RCEA Board to commit to a specific sunset date for RCEA procurement of biomass power from direct combustion power plants such as HSC, as a means of implementing RePower strategic plan item 4.1.11.6.

ATTACHMENTS

A presentation will be made at the CAC meeting.







Update on Alternative Uses of Biomass Subcommittee Activity

Presentation to RCEA's Community Advisory Committee November 8, 2022

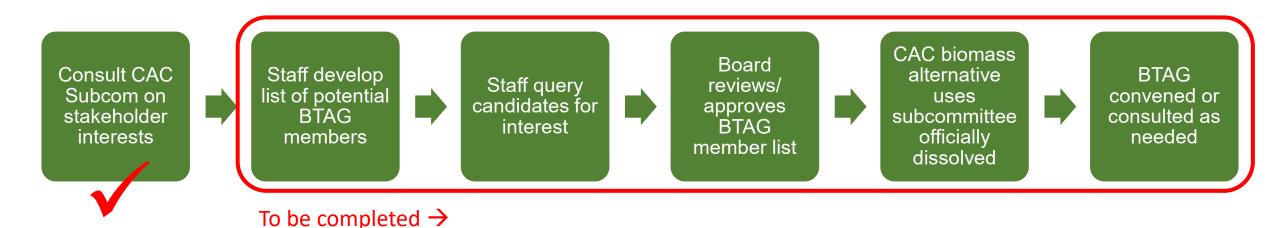
Alternative Biomass Uses Subcommittee's Recommendations to the CAC

The subcommittee requests that the CAC provide input on:

- 1. The proposed Biomass Technical Advisory Group formation methods
- 2. Humboldt Sawmill Company MOU implementation improvements
- 3. Whether a recommendation should be passed on to the RCEA Board to commit to a specific sunset date for RCEA procurement of biomass power from direct combustion power plants such as HSC, as a means of implementing RePower strategic plan item 4.1.11.6.

Establishment of Biomass Technical Advisory Group

- RCEA's RePower strategic plan calls for establishment of a Biomass Technical Advisory Group (BTAG)
- At the CAC biomass alternative uses subcommittee's 9/1/2022 meeting, staff requested input on what stakeholder interests should be represented in BTAG membership
- Per prior agreement, establishment of BTAG will trigger dissolution of CAC biomass alternative uses subcommittee



Proposed Stakeholder Interests to Be Represented on Biomass Technical Advisory Group (BTAG)

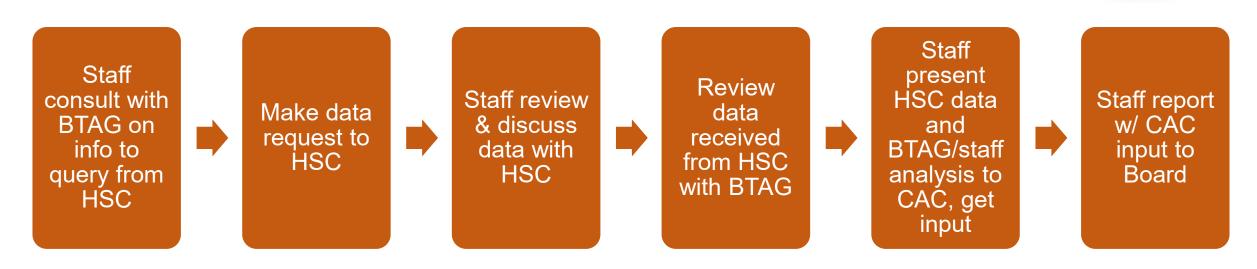
- Tribal/traditional ecological
- Forest products industry
- Agricultural producers (soil carbon interest)
- Energy industry
- Environmental groups
- Public health/air quality
- Federal and state regulators
 - CalFIRE
 - California Natural
 Resources Agency

- Academic/research
 - UC Extension
- Local agencies (other than RCEA members)
 - HCAOG
- Communities of practice
 - Watershed Research & Training
 Center (Trinity Co.)
 - CalForest WRX Alliance
- Vulnerable communities

CAC Input?

Process improvement for future annual reports from HSC MOU

- In this first reporting year, staff met with HSC staff, obtained data from them, did some analysis and reported back to RCEA Board
- Opportunity to involve BTAG and full CAC (subcommittee will have dissolved by then) in the process to bring additional community perspectives to the Board as part of the MOU reporting process



CAC Input?

From RCEA's RePower Strategic Plan (2019 update):

- 4.1.11.6 Plan for a Long-Term Transition Away from Direct Combustion of Forest-Derived Biomass and Toward Lower-Impact Uses of this Material. Investigate and pursue development funding for alternative pathways that could address local forest products industry biowaste management needs, including:
- Repowering of the existing biomass plants to substantially reduce emissions and/or improve efficiency
- Emerging biomass energy technologies, including but not limited to gasification, torrefaction, and briquetting
- Non-energy products, including but not limited to biochar and durable goods

Limit procurement of biomass power from existing direct combustion plants to short-to-midterm contracts, recognizing that power producers' ability to reduce their emission output is affected by the price they are paid for their power and term length of contracts. Pursue partnerships with others, including research organizations and interested public agencies, in development of pilot projects to produce low-emissions energy as a means of treating mill waste and where feasible sequestering the carbon in this material; where potential nonenergy products are identified, refer potential pilot projects to appropriate stakeholders.

Does the CAC wish to make a recommendation to the RCEA Board to commit to a specific sunset date for RCEA procurement of biomass power from direct combustion power plants such as HSC?

Public Comment

November 8, 2022 Community Advisory Committee Regular Meeting

Agenda Item #4 - Biomass Discussion

From:
To:
Public Comment
Subject:
biomass, item 4

Date: Sunday, November 6, 2022 4:15:49 PM

Dear RCEA,

I'm with Wendy on this issue. We shouldn't contract with any more dirty biomass. We SHOULD ONLY CONTRACT FOR BIOMASS IF IT'S GASIFICATION USING PYROLYSIS.

John Schaefer,

Arcata

From: Sue Parsons
To: Public Comment

Subject: Reject future biomass combustion contracts

Date: Sunday, November 6, 2022 9:37:04 PM

Dear RCEA Community Advisory Committee,

I urge you to support a resolution calling on RCEA not to pursue further contracts for biomass combustion.

We are in a climate crisis. Humboldt Sawmill's biomass plant releases 300,000 MT of CO2e each year which will warm the planet for decades. This is unacceptable.

Biomass is dirty energy. EPA impact modeling shows that the Scotia plant's reported emissions result in millions of dollars in health care costs annually.

Rejecting biomass incineration will help even if someone else picks up the contract. How? 1) it could stop the potential biomass plant at Korbel or enforce its cleaner use of non-combustion technology; and 2) Biomass combustion has no future; it's on its way out. The Scotia plant is one of the oldest in the state. Ten California CCAs recently rejected bids for biomass as a source of firm power. A shrinking market for this archaic technology will eventually lead to lower prices, less economic viability, and faster adoption of alternatives.

Finally, the Community Advisory Committee should not give up its voice on biomass to an expert committee. RCEA staff (who are steadfast biomass advocates) will pick the experts and include those who feed their own interests. The community's interests need representation because we are the ones paying with our health and our families' futures.

Respectfully Submitted, Susan Parsons, PhD Bayside, CA 95524

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[&]quot;A book, too, can be a star, explosive material capable of stirring up fresh life endlessly, a living fire to brighten the darkness, leading out into the expanding universe." - Madeleine L'Engle

Agenda Item #4 - Biomass Discussion

From: Emily Siegel LCSW

To: Public Comment

Subject: 11/7/22 CAC agenda item 4 public comment Date: Monday, November 7, 2022 1:10:20 PM

I am writing to urge the RCEA Community Advisory Committee to pass a resolution calling on RCEA to make no further contracts for biomass combustion. We are in a climate crisis that is already affecting us. I live in King Salmon, where sea level rise is a real concern. Biomass is dirty energy. It makes no sense for us to pay for a process that pollutes us and harms our health and our future. EPA impact modeling shows that the Scotia plant's current reported emissions lead to millions of dollars of health costs annually. Humboldt Sawmill's biomass plant emits 300,000 MT of CO2 each year, something that will harm the planet for decades to come. Biomass combustion is an outdated technology that other, California CCA's have already rejected. It is also very important that the Community Advisory Committee should not give up. It's say on biomass to an expert committee. The community needs is interest represented, because we are the ones paying with our health and the effects of the climate crisis. We need voice and sticking up for clean energy and clean air.--Emily Siegel LCSW,

Thank you for serving our community by representing our interests at RCEA. In your capacity as community representatives I hope you will tell the RCEA board to follow the RePower Plan's commitment to end biomass combustion and commit now to no new, expanded, or extended contracts for this dirty carbon intensive energy.

You yourselves have studied alternative fates for mill waste and have concluded that they do exist. Compared with climate damaging combustion, many of these uses are climate beneficial. There are successful businesses turning mill waste into carbon negative compost, mulch for erosion protection and wildfire recovery, and products replacing virgin wood, plastic, and petrochemicals. Gasification plants in Bakersfield, Oroville and Madera will be turning wood waste into hydrogen. Some include carbon capture but even without it, they will emit less than a combustion plant while producing fuel which displaces dirtier diesel.

Humboldt Sawmill's owners looked at these options and decided they didn't want to spend the money. They were happy to spend millions, along with other timber companies, opposing Prop 30 so more forests would burn, opening them up to lucrative and unregulated salvage logging. Clearly community wellbeing is not HSC's priority and we shouldn't keep paying to pollute ourselves until they find something more profitable. RCEA's board members are politicians who won't take a dime away from the timber industry without strong and continued community pressure. That must begin with you.

Biomass costs more than true clean energy. The CAC should ask RCEA staff for documentation to support their assertion that biomass is a good value relative to other sources of power and Resource Adequacy. It looks to me like the average values for renewable power purchase agreements in CAISO reported by Level Ten and NREL are much lower than the price RCEA is paying for biomass. I'm no fan of fossil gas but as a local source of electrons PGE's load following gas plant far outperforms biomass, which emits 3 times more CO2, 13 times more NOx, 12 times more pm2.5, and over 49 times as much SO2 per megawatt hour.

Those emissions mean we pay more than what's in the contract. Our infants, our elders, people with heart disease and asthma, our children and future generations all have to pay for the pollution and carbon coming out of the Scotia plant's smokestack. The science on this is so well established that the Humboldt Del Norte Medical Society took less than 2 minutes of consideration to call for an end to local biomass combusion. The American Public Health Association, the American Lung Association, the American Academy of Pediatrics, and the National Association of City and County Health Officials all agree that public funds should not be used to support biomass because it is so unhealthy.

Entering the Scotia plant's reported emissions into an EPA model that monetizes local and regionial health impacts yields total annual health costs in the range of 2-6 million dollars. And that's not counting the health impact of wildfires, extreme heat and drought from climate change as each year of operation adds more atmospheric carbon, which will warm the planet for 20-40 years before it is all reabsorbed.

Biomass incineration is a source of environmental injustice. It is opposed by California environmental justice organizations as a false climate solution. This is not just an issue in

other parts of the state. The health impacts of biomass disproportionately affect people who are low income and/or people of color who have higher rates of chronic health problems and less resources to adapt. Children are also disproportionately affected and 39% of Humboldt's youth are non-white or Latino.

Won't emissions rise if the mills haul their waste to Anderson? Mill owners have said many times while advocating for renewed biomass contracts that long distance transport isn't a viable long term solution. Even if it was, transport to Anderson might still emit less carbon than local combustion since the Wheelabrator plant is newer and more efficient, emitting almost 30% less CO2e per megawatt hour.

Won't someone else just contract for HSC's power? When HSC is forced to sell biomass power on the open market, it will soon encounter trends that are decreasing its desirability: 1) the growing preference for carbon free energy and 2) increasing commitments to location coincident clean energy. This is already starting. A consortium of 10 CCA's rejected bids from biomass plants for firm power this year, deciding on geothermal instead.

Age and time are also working against the Scotia plant, which is one of the oldest in the state. When the current contract expires, it will be 44 years old and buyers would have legitimate concerns about reliability. Despite the current price bump, the long term prices of wind, solar and storage are predicted to keep falling, while the price of biomass combustion is not. The lower the price HSC gets for its energy, the more motivation they will have to do something better with their mill waste.

Can Scotia make its plant cleaner? They could cut their particulate emissions by installing a bag house. That would be a signficant improvement but would not decrease emissions of greenhouse gas emissions or other pollutants like NOx, volatile organic chemicals and air toxics like benzene and formaldehyde.

Finally, please don't give up your authority to advise the board on biomass to a committee of experts, particularly one that is being convened after many years of inaction at the same time the CAC is considering an end to biomass contracts. Expert advice is valuable but experts often have a narrow view arising from the concentration which is the source of their expertise. In medicine, ophthalmologists don't know about pregnancy and psychiatrists don't know about sports medicine. You need a generalist to see the whole person and how their problems fit together. That's you. Experts also often have their own vested interests, while your job is to advocate for what's best for our community. You have a unique and irreplaceable role. Please don't give that power away.

Sincerely,

Wendy Ring MD, MPH

 From:
 Walter Paniak

 To:
 Public Comment

 Subject:
 CAC item 4

Agenda Item #4 - Biomass Discussion

Date: Tuesday, November 8, 2022 1:43:23 PM

I oppose extending the Scotia Biomass contract. Wood burning is the most inefficient source of power. It is dirtier than coal.

We are in a climate crisis; releasing CO2 24/7 when the same money could be spent on clean sources of power is not sustainable.

The current Scotia contract will pay them about 9 million dollars over a 12 month period. Rate payers should not have to provide a profit center for a privately held billion dollar plus company.

The yearly cost of living increase of the current contract is highly problematic. The cost will keep escalating compared to solar and wind. The fuel is free for solar and wind. The maintenance cost for a complicated machine around 40 years old is just too much.

In the past HRC was complimented because they spend a million dollars on upgrades and repair. I would say that rate payers paid that amount.

I seem to remember from 2018 where Richard Engel said that the BIomass contract at that time were 2 million dollars over market rates. That money could have been better spent in other areas.

The RCEA broad has a Fiduciary responsibility to make. sure funds are handled wisely. Is it wise to invest in 40 plus year old technology? Is HRC biomass your first choice for an investment for yourself or generations to follow?

The claim that biomass power is renewable in the short run is just wrong. Trees can't differentiate CO2 source as they sequester carbon.

The air pollution may be in regulatory compliance. The regulations limit the amount of damage to your health. Wind, solar and storage have no such problems.

The attachment discusses the EPA loopholes.

Thank you for your consideration.

Walt Paniak

Arcata

EPA Loopholes Allow Biomass to

Walt Paniak



STAFF REPORT Agenda Item # 5

AGENDA DATE:	November 8, 2022
TO:	Community Advisory Committee
FROM:	Matthew Marshall, Executive Director
SUBJECT:	PG&E's Southern Humboldt Transmission Issues

BACKGROUND

In September, local news outlets reported that PG&E had reached its capacity for electricity transmission in the Eel River Valley and Southern Humboldt County and is unable to provide promised electricity service to multiple development projects that are currently underway. Affected communities include Fortuna, Rio Dell and Garberville. Affected development projects include, among others, the Jerold Phelps Community Hospital in Garberville, Fortuna's Strong's Creek Plaza and Riverwalk development areas and the city's sewage lift back-up power system.

PG&E representatives initially informed elected officials and staff from affected jurisdictions that distribution system upgrades to accommodate load growth will cost \$900 million and take between 7-10 years to complete, a timeline that prevents local jurisdictions from meeting county and state Climate Action Plan decarbonization requirements while also halting economic development. After working to refine their analysis and potential solutions to these issues, PG&E provided the following update on October 26:

Today, we provided an update to state and local leaders on electricity load growth in Humboldt County and PG&E's plans for meeting our customers' and communities' energy needs safely and reliably.

PG&E's grid planning process carefully considers the energy needs of the 16 million customers we serve in Northern and Central California. As part of the Distribution Planning Process, PG&E annually forecasts load growth to assess needs on the electric distribution system. Similarly, the CAISO's annual Transmission Planning Process forecasts load growth on the electric transmission system.

Examples of projects created to address local energy needs include the Humboldt Bay Power Plant which opened in 2010 where we have more recently added islanding capabilities to avoid significant outages during Public Safety Power Shutoff events, winter storms, and fires that have impacted transmission lines over the last couple years. Another example of a more recent project is the Redwood Coast Airport Microgrid, which provides grid resiliency and additional local generation.

While actual customer load has not increased over the last ten years, there has been a significant increase in demand for additional load growth through new business applications in recent years. Many of the new business applications are farther from substations in rural areas requiring significant capacity upgrades. The increase is primarily on powerline circuits from Fortuna area down to the Garberville area.

Here's a quick overview of the three areas PG&E is working on to serve new customers:

We are confident we will be able to safely serve new ag and commercial load customers in Fortuna and Rio Dell and surrounding areas by the end of 2024. Some customers will be served sooner depending on their location, load, and application status.

New business customers in a second area, between Bridgeville and Alderpoint, will be served by the end of 2026.

In a third area, PG&E has identified traditional capacity upgrades needed in the Garberville to Petrolia areas with extraordinary costs estimated at \$300M and we are evaluating alternative solutions to serve customers in that area.

In the wake of these reports, RCEA wanted to provide the CAC with an update and opportunity for discussion on this issue and the measures PG&E is taking to address them.

SUMMARY

Executive Director Matthew Marshall will provide a brief update on:

- PG&E Southern Humboldt Grid Issues, and
- Other topics as needed.

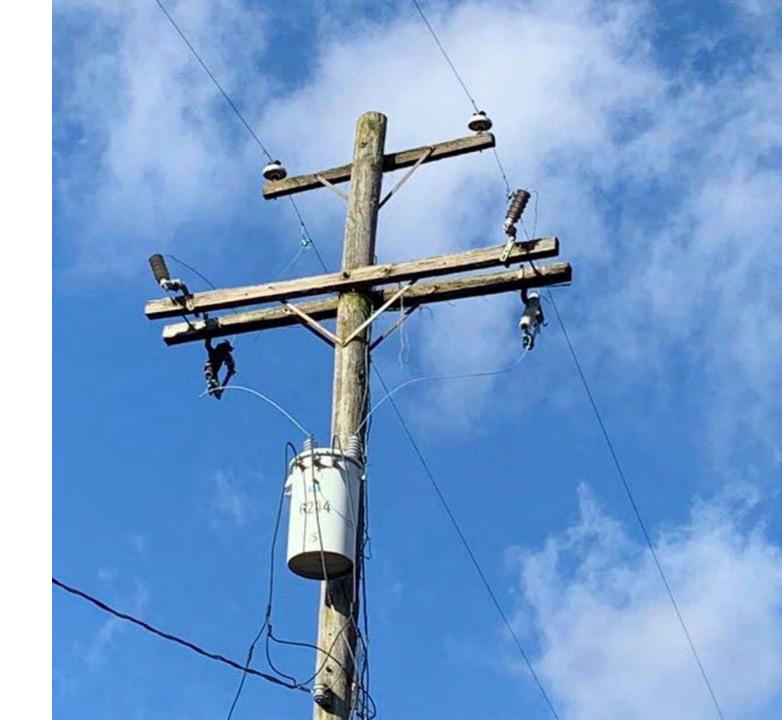
RECOMMENDED ACTION

Consider/discuss Southern Humboldt grid capacity issues and potential next steps.

ATTACHMENT

None.

PG&E's
Humboldt
County Grid
Issues



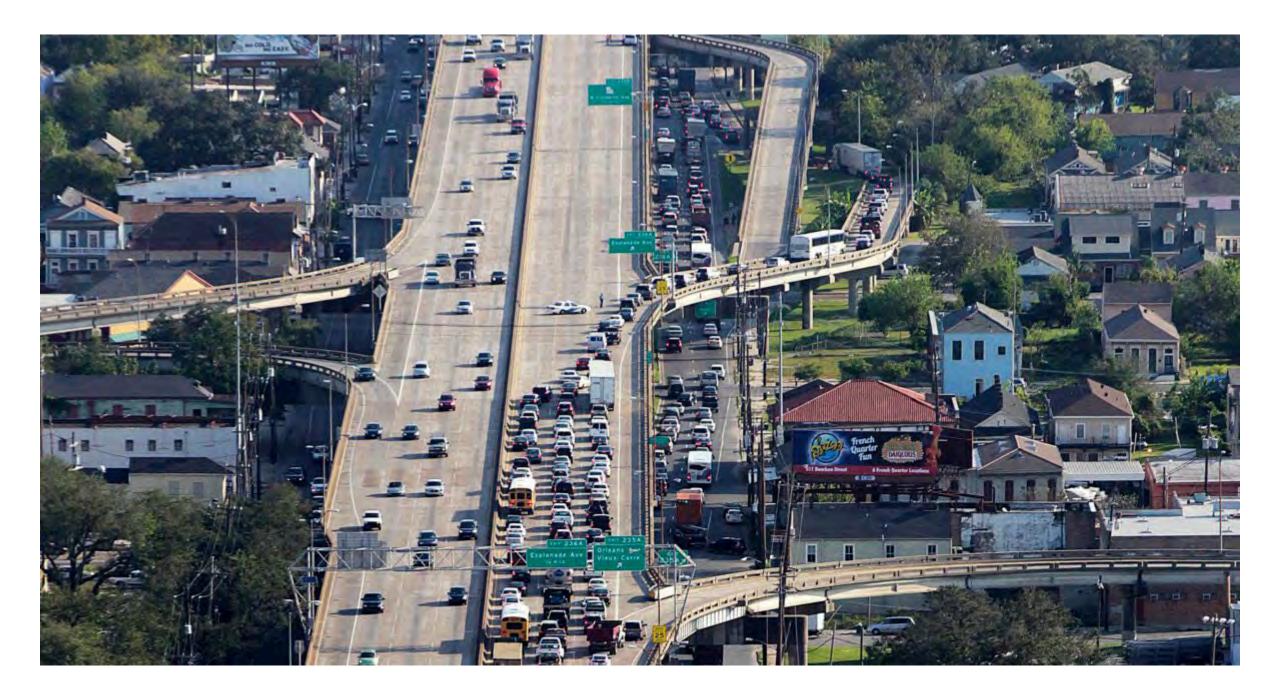
Grid infrastructure

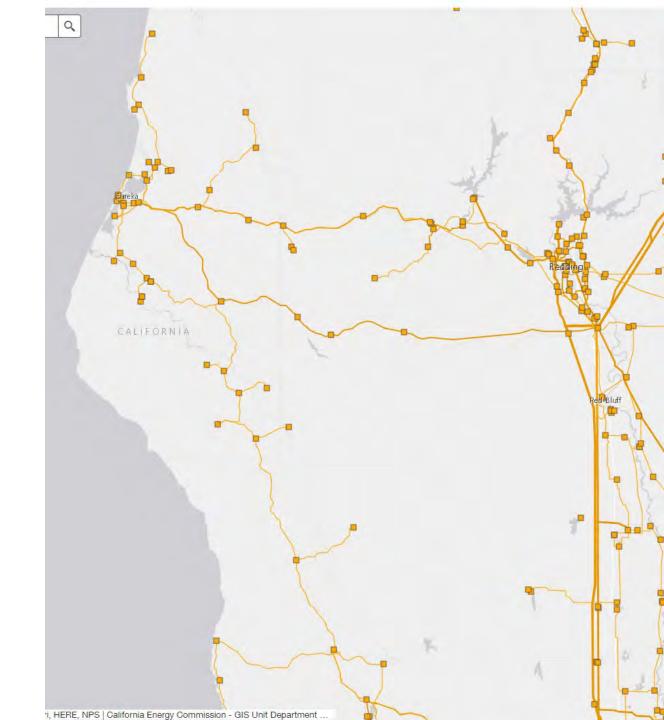
- Transmission = highways
- Substations = offramps/interchanges
- Distribution = city streets and county roads



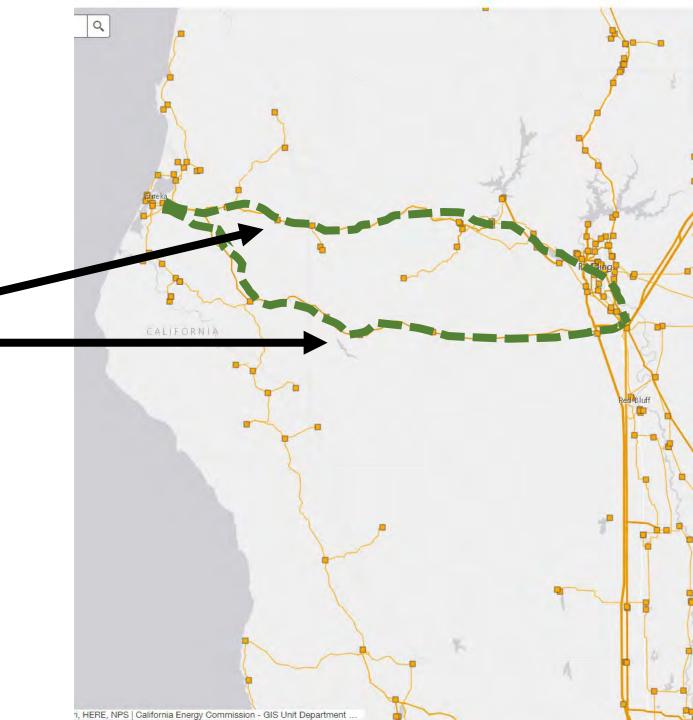




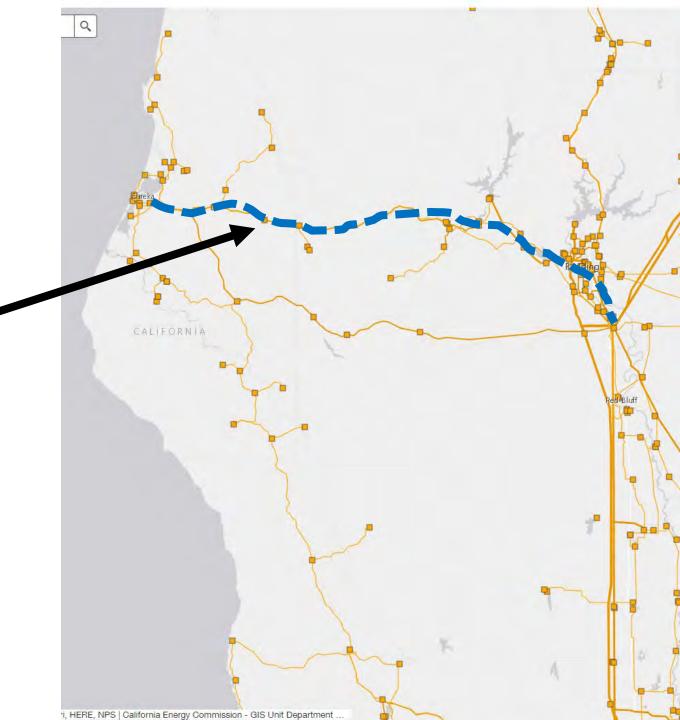




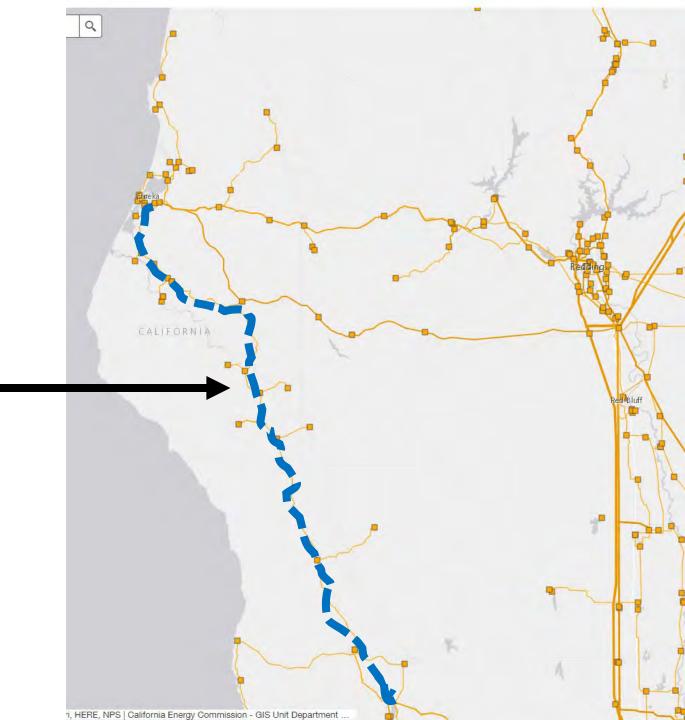
115kV lines from Eureka to Cottonwood - ~follow Hwy 299 and Hwy 36



60kV lines from Eureka to Cottonwood - ~follows 115kV line along Hwy 299

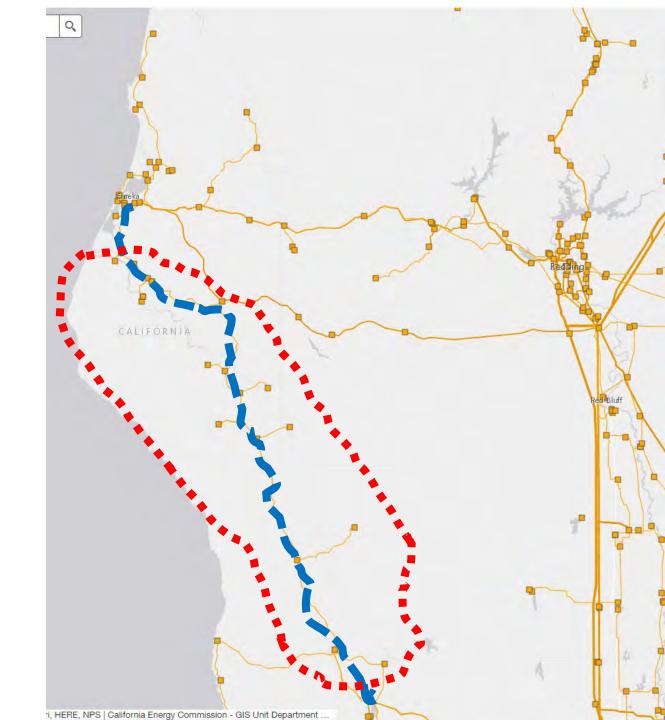


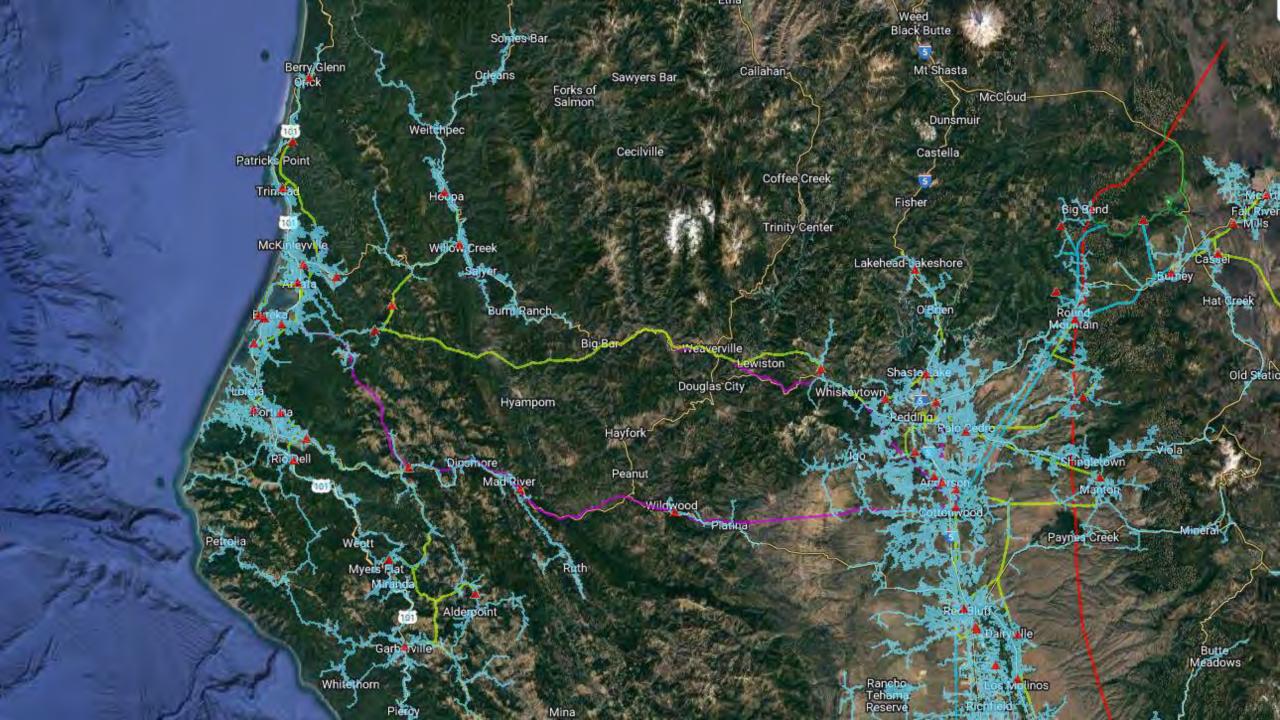
60kV lines (with spurs) from Eureka to Bridgeville, Bridgeville to Willits

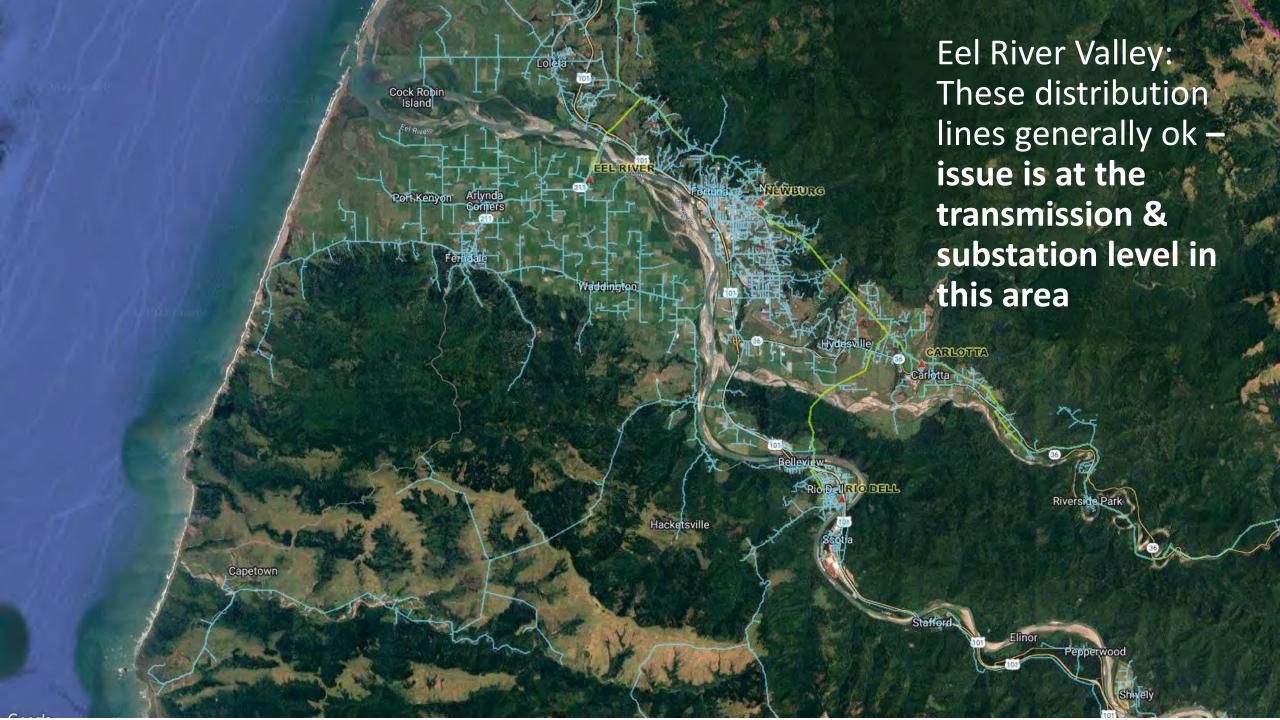


60kV lines (with spurs) from Eureka to Bridgeville, Bridgeville to Willits

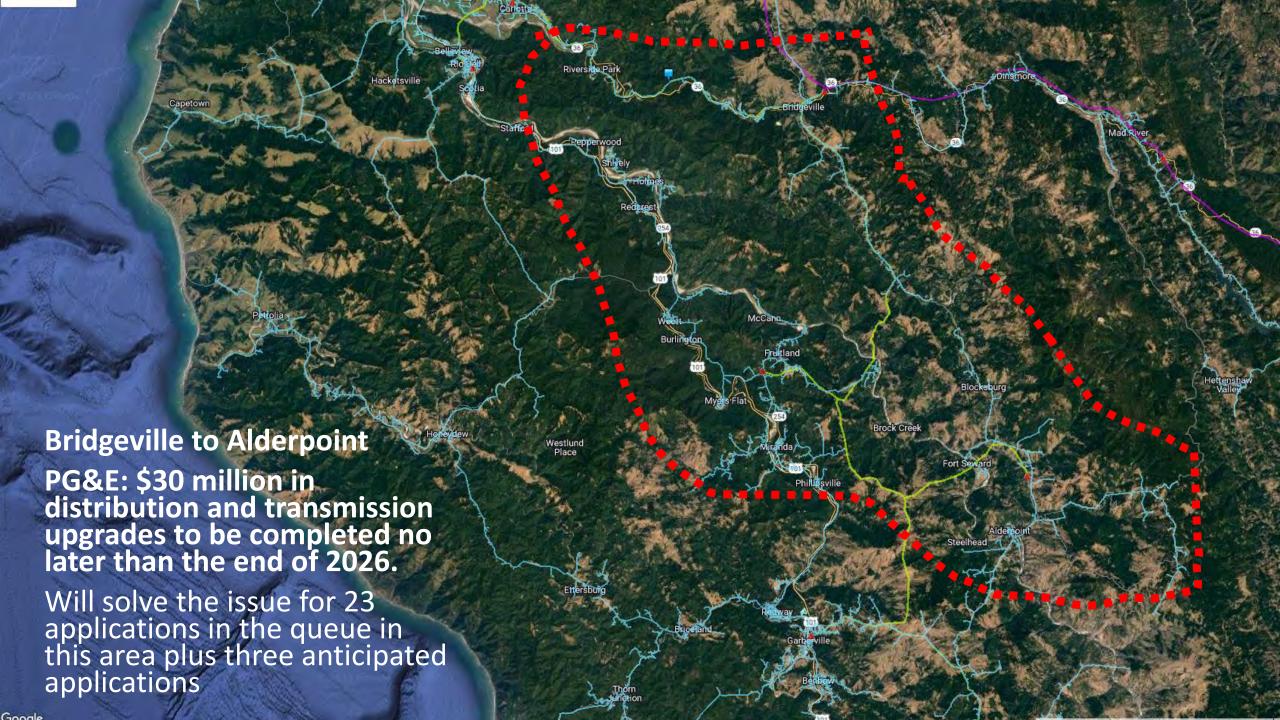
The transmission-level problems are this line and its substations — which impacts customers served by the distribution lines branching out from those substations

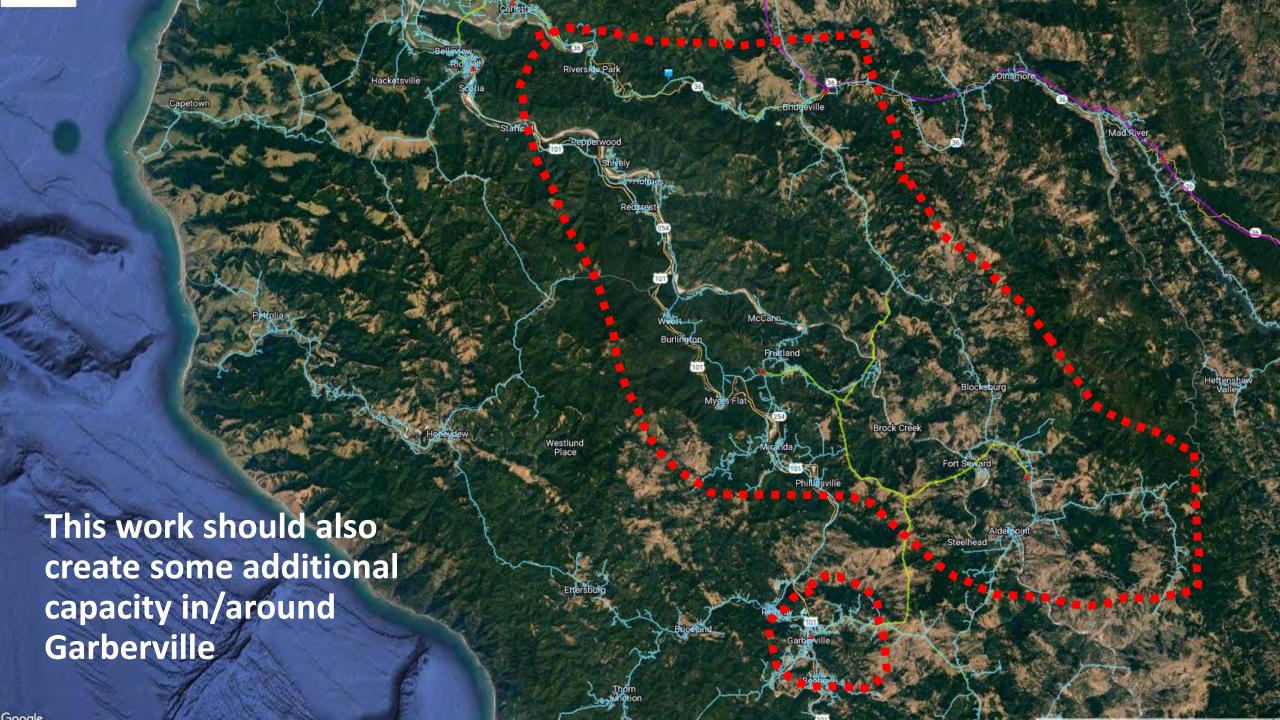


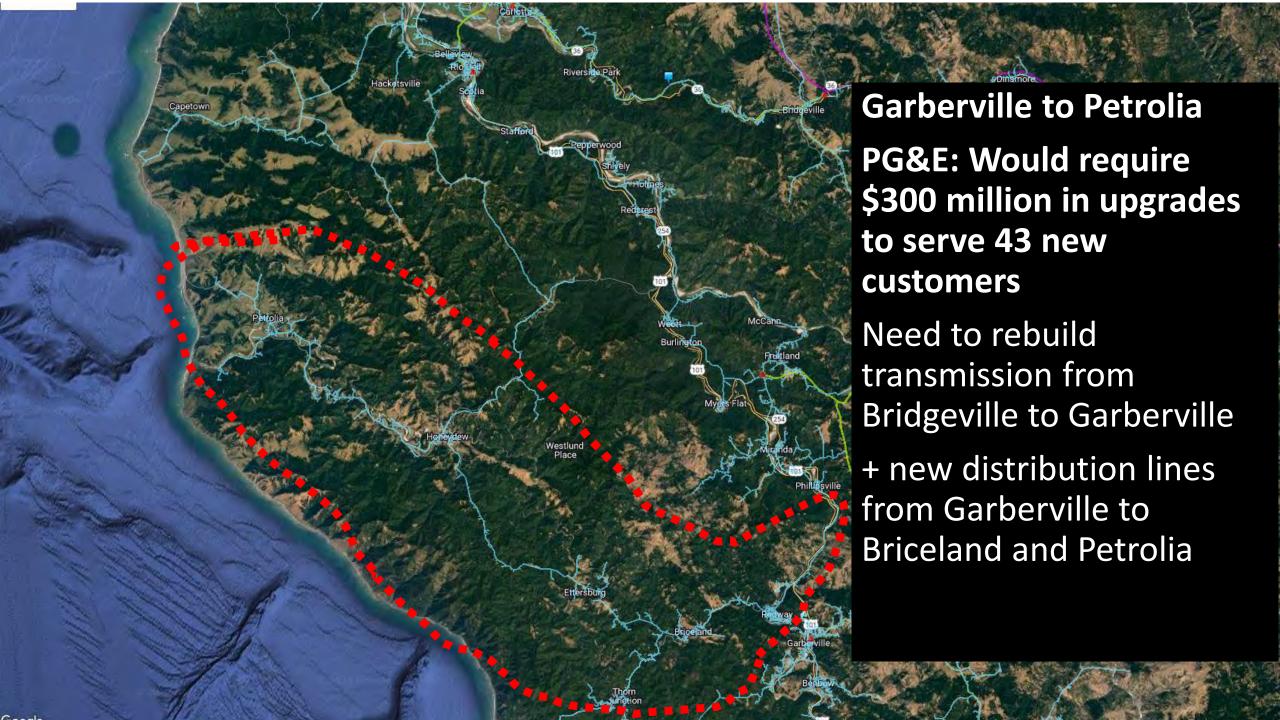


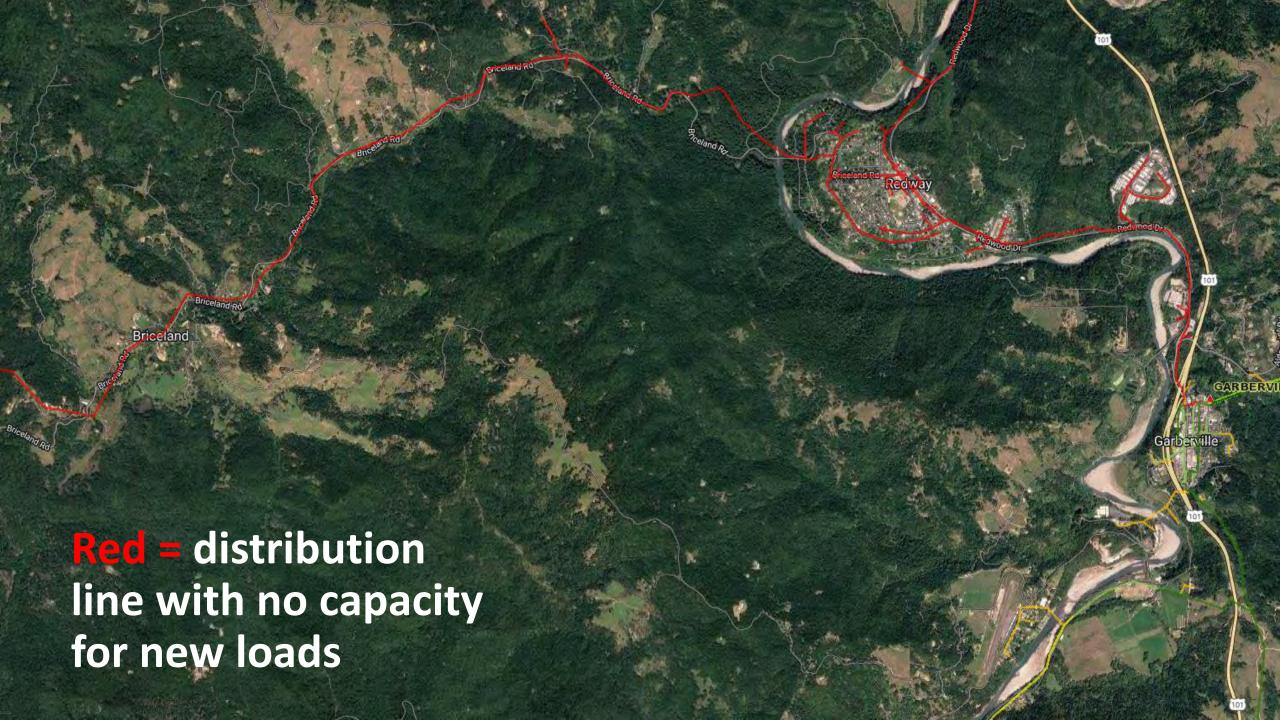


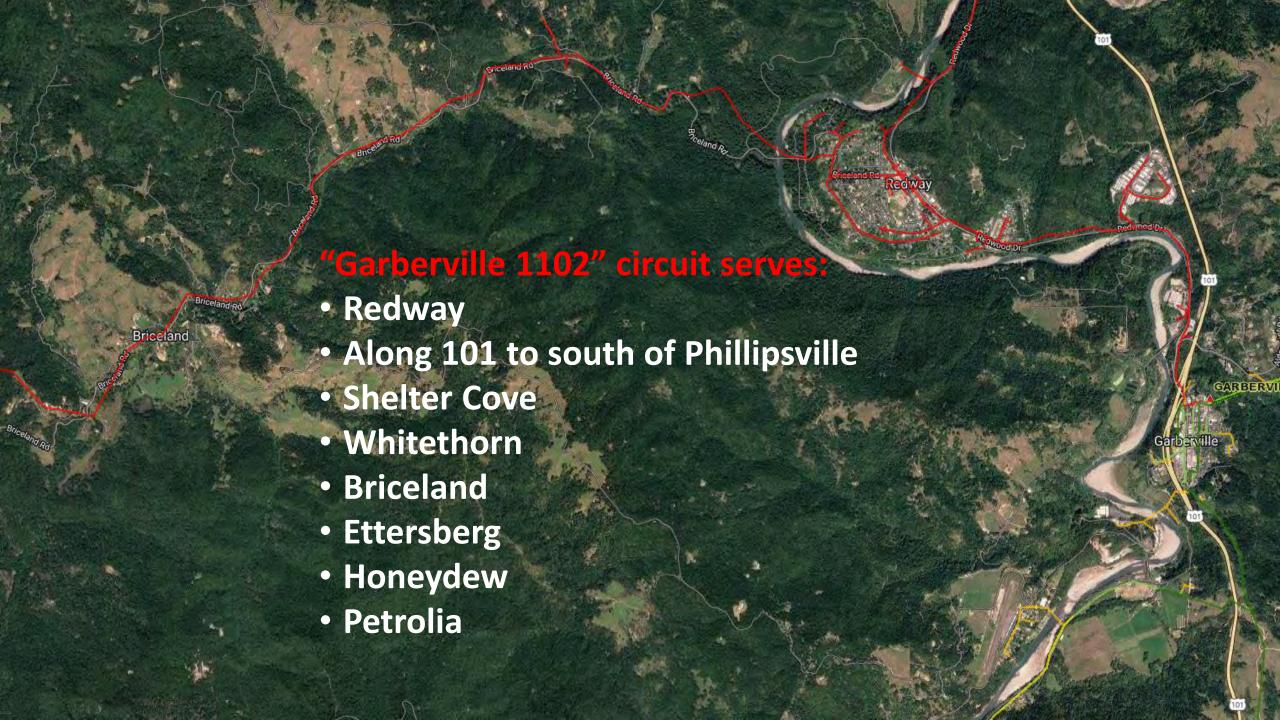


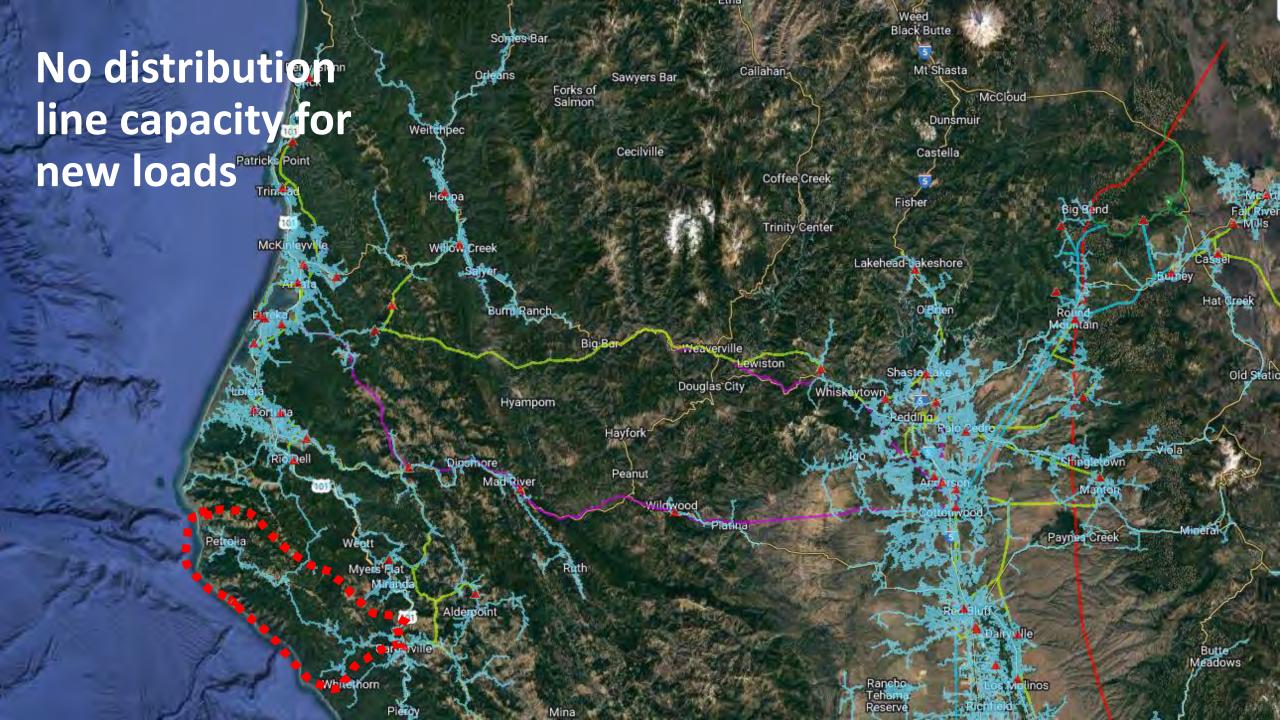


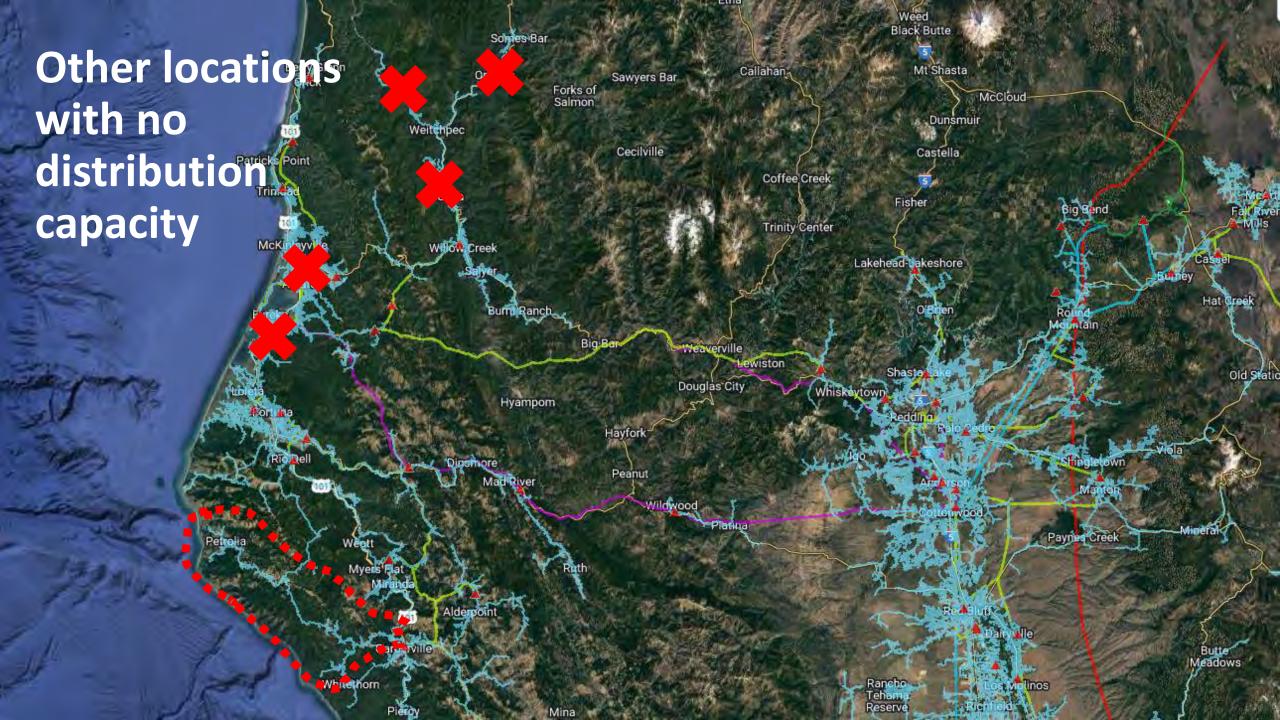


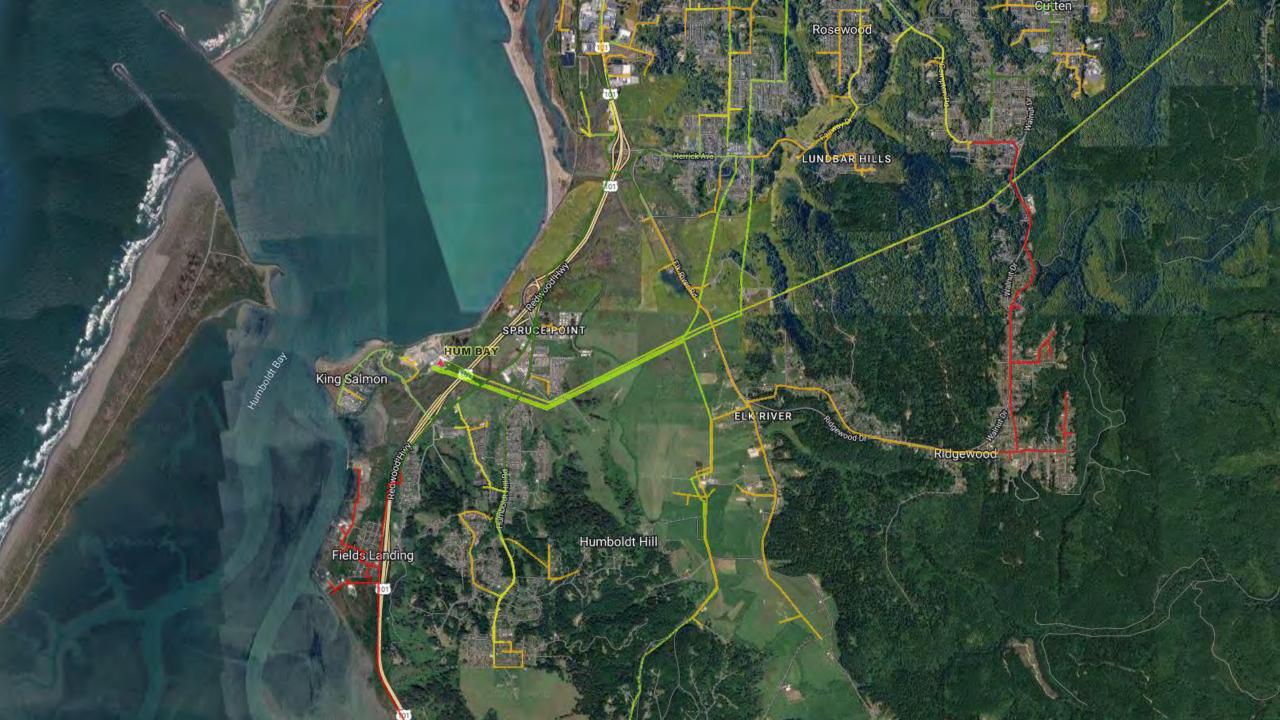


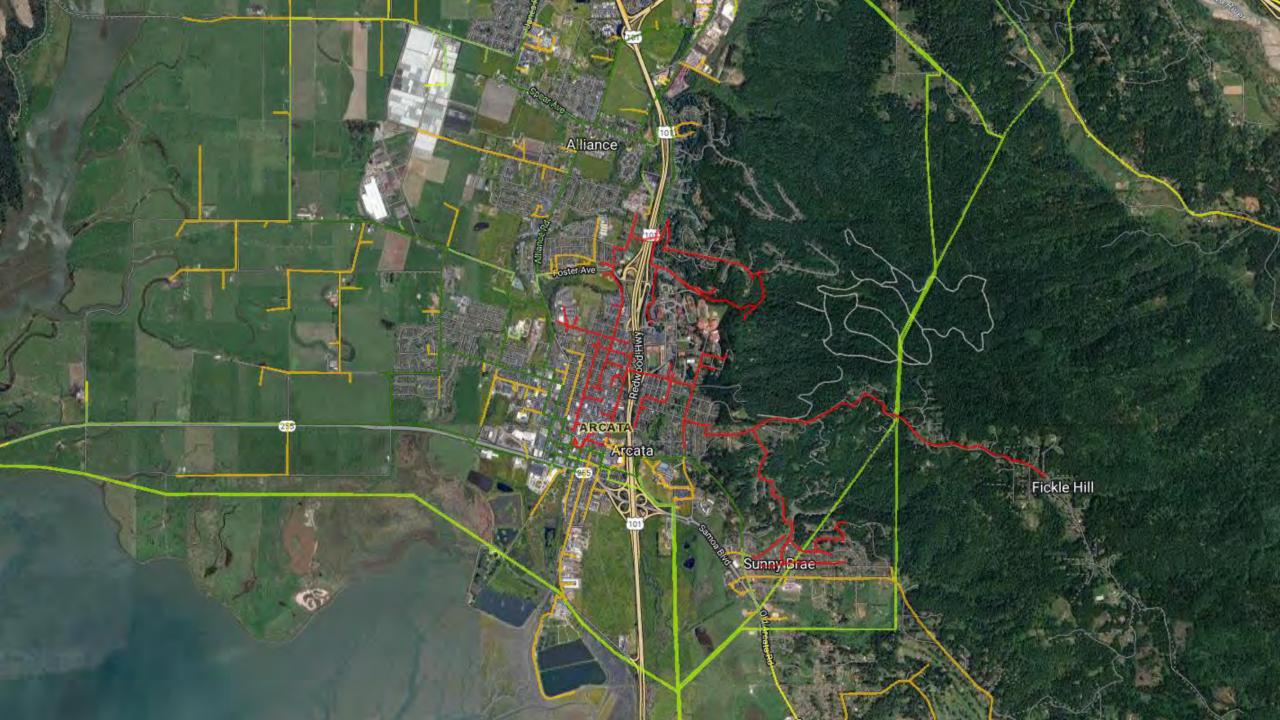


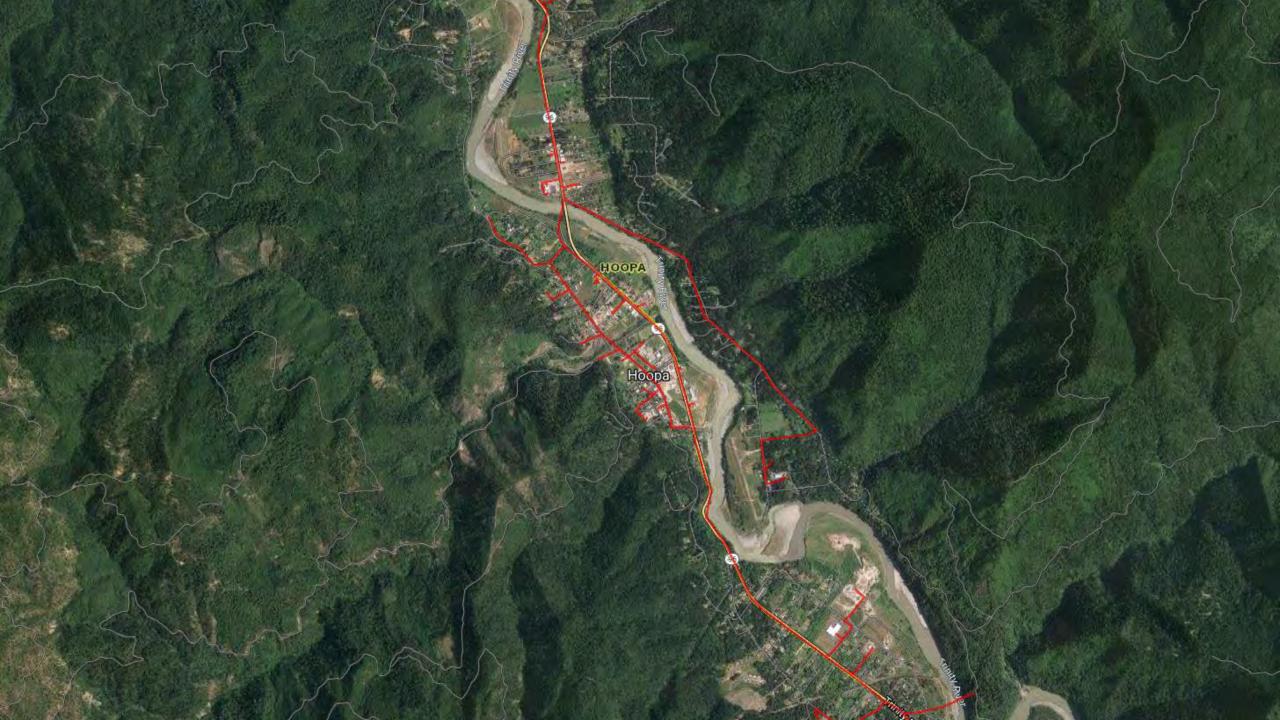


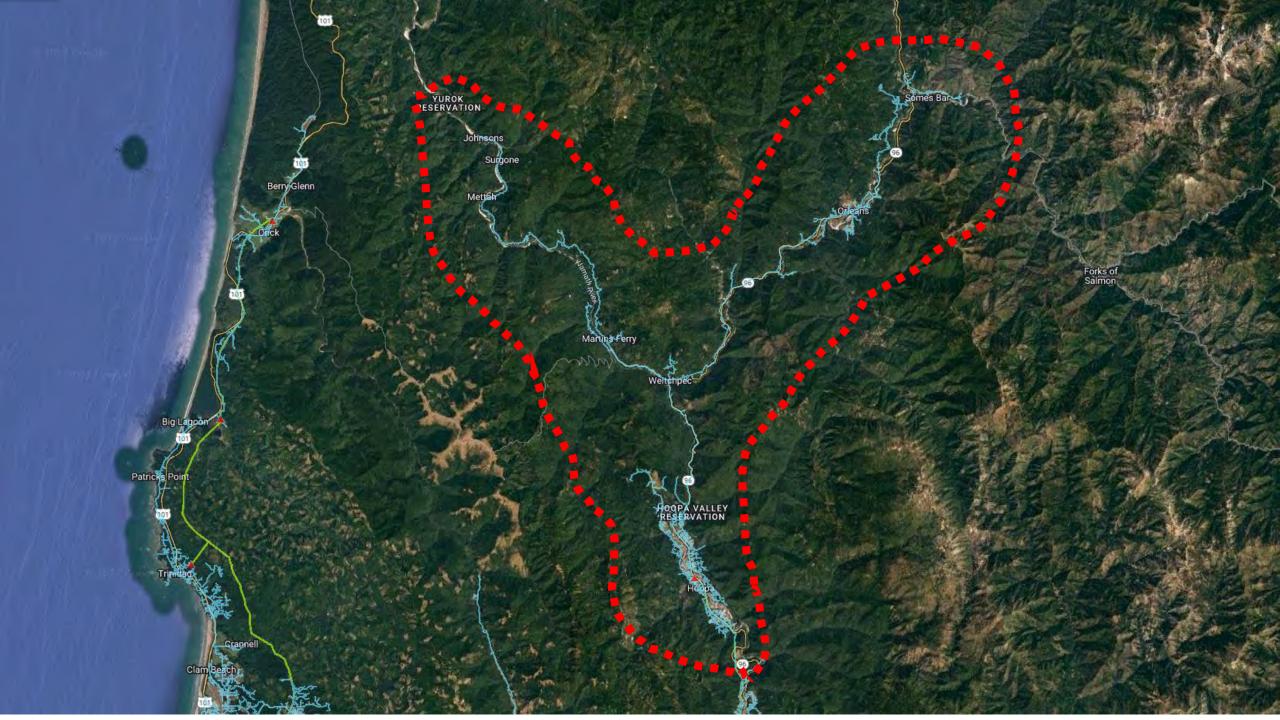








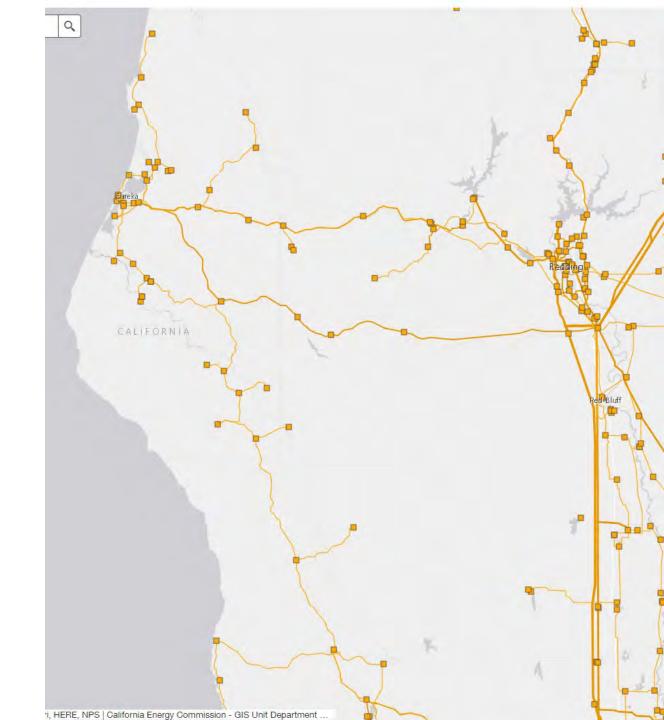




RCEA Options

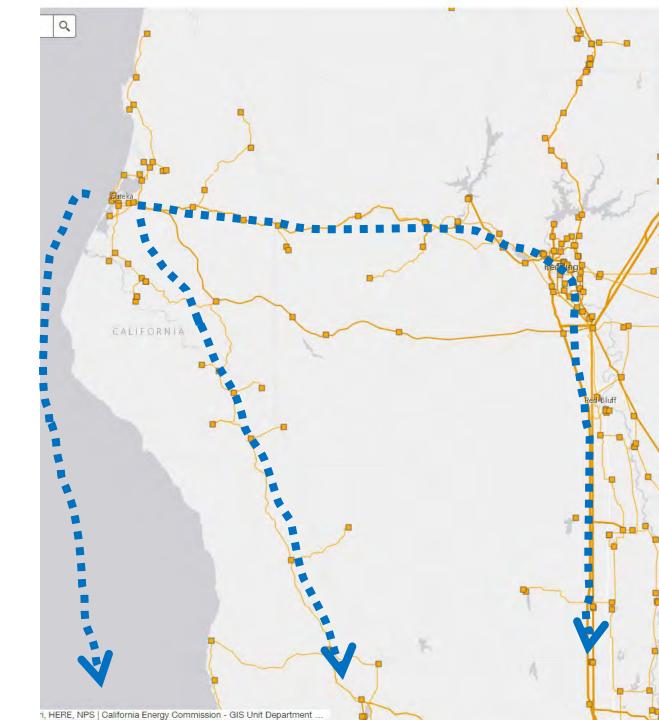
- Assess with PG&E if battery storage and other distributed resources can be deployed to help accelerate new connections while Eel River Valley and Bridgeville to Alderpoint work is in progress 2023-2026
- Evaluate if/how/where distributed resources and/or microgrids might be implemented to address issue out of the scope of PG&E's proposed solutions
- Evaluate how future transmission upgrades for export of offshore wind could be leveraged to address local issues.

Humboldt Transmission Lines & Substations



Humboldt Transmission Lines & Substations

Routes considered for offshore wind energy export in CA Independent System Operator's (CAISO) 2022 long-range transmission planning outlook



Public Comment

November 8, 2022 Community Advisory Committee Regular Meeting



Agenda Items #5 - PG&E S. Humboldt Grid Issues #6 - CAC Work Goals & Annual Report #7 - RCEA Policy Platform #8 - Local Major Projects

November 8, 2022

Comments
Agenda items 5-8

Widespread Distributed Solar (WDS) on the Horizon

Given the problems with PG&E supply (inadequate in SoHum, fires, applications of poisons to protect poles, habitat degradation, fracked fuel) and in the overwhelming context of climate change, how can we supply our electricity needs now and into the future without contributing to the biodiversity crisis?

The answer: locally distributed, networked solar microgrids, called Widespread Distributed Solar (WDS), ready for installation NOW, while we await offshore wind.

The problem: RCEA not only fails to embrace WDS (it commits to "one solar rooftop per day"), but doesn't even send staff to Microgrid22 or other industry conventions where WDS experts and technologies are featured. These companies are eager to invest.

With WDS, every appropriately available rooftop and parking space is outfitted with solar arrays that are networked in islandable Microgrids with storage, and connected to the grid.

WDS does not change existing land or sea uses (i.e. habitat), and produces electricity where it is used, obviating extra transmission lines, and raising users' energy IQ. It can be installed in a matter of months, with available technology, by local workers, producing more local jobs, more revenue for the producer, more resilience in emergencies, and less ecological harm per kilowatt, than any other source.

According to the U.S. Department of Energy, WDS could supply a huge percent of our electricity needs just from rooftops, not including public spaces: "To determine the amount of solar rooftop potential for the United States is to determine the number of rooftops across the nation that are suitable for solar panels. Rooftop potential depends on the size of the roof, the amount of shade it gets, the direction it faces, and the general location," concludes the DOE.

The DOE's National Renewable Energy Laboratory (NREL) reports that there are more than 8 billion square meters of rooftops on which solar panels could be installed in the United States, representing over 1 terawatt of potential solar capacity. Residential and

other small rooftops represent about 65% of national rooftop potential, and 42% of residential rooftops are households with low-to-moderate income. NREL estimates that an average of 3.3 million homes per year will be built or will require roof replacement—representing a potential of roughly 30 gigawatts (GW) of solar capacity annually. If even a small fraction of these new roofs had solar installations, it could have a significant impact on U.S. solar power generation.

Has Humboldt done these inventories with an eye towards WDS?

Humboldt could model intelligent distributed solar as the least impactful and most democratic energy source—the best *local* job creator that also incentivizes and powers the *sustainable* transition to electric vehicles and tools, heat pumps, and induction stoves, while adding beneficial shade to parking areas, irrigation canals, and some limited agriculture. Nation-wide, WDS could supply 40-80% of our electrical needs, according to DOE, precluding the "need" for nuclear, habitat-degrading renewables, and more fossil fueled power plants.

At the same time, the end-user's energy autonomy will grow significantly: whether for the benefit of private or public entities, generating electricity becomes a valuable resource that provides invaluable resilience during emergencies.

Long-lived solar panels produce energy the way living systems do: silent electron transfer with negligible heat, no $C0^2$ production, and no need for petrochemicals.

NONE of our current "renewable" electricity sources are green. Biodiversity requires healthy habitat. Currently, our electricity comes from distant solar and wind farms, and hydroelectric and geothermal sources, all of which degrade habitat. Transmission over incendiary lines and poison poles is another hit. PG&E's plant uses fracked natural gas, and our local source, biomass, is not only one of the most polluting fuels, but it accelerates deforestation, converting what's left of our forests into instant CO2, and worse.

Then there is offshore wind with its massive habitat-ruining infrastructure: Samoa and it's marine habitat would become fully industrialized. A local news source reports, "The new <u>facility</u> – which would become the second-largest wind terminal in the United States – will support the manufacturing, installation and operation of offshore wind floating platforms."

Aside from terrestrial traffic, the wide sea lane from platforms to shore, extending 25 miles into our richly inhabited, and poorly studied ocean, will be a traffic corridor to maintain turbines that could tower over 800 feet with blades the length of a football field, networked with a minefield of cables. Eventually, all that electricity will have to be transmitted over terrestrial wires, undersea cables, or used to create, store and transport hydrogen, or charge batteries, all of which expand the industrializing of our shoreline, terrestrial and marine habitats.

Our precious forest habitats depend on fog drip, and our local climate, agriculture, and way of life are intimately and complexly intertwined, poorly understood, and changing, as atmospheric/oceanic CO2 accumulates.

The second law of thermodynamics explains why "the climatic impacts from solar photovoltaic systems are about ten times smaller than wind systems," according to a Harvard study. When energy is transferred from wind to turbine, some of that energy scatters, causing a desiccating turbulence in the wake and downstream of the blades, potentially affecting our entire coastal habitats. Temperature and humidity effects increase at night, when the turbines would be spinning.

Thanks to advanced technologies, including reliable grid connectivity and balancing, we now have the opportunity to embrace WDS. The WDS industry is anxiously awaiting an invitation to help deploy systems throughout the County, if only they were given a chance. Check out Microgrid 22 website to see what's possible, irrespective of offshore wind or other habitat-wreckers.

From Microgrid Knowledge:

"After years of making little progress, community microgrids are rapidly innovating with the most recent example – a nested community microgrid – unveiled this week in Menifee, California."

What is a nested community microgrid?

Still rare, a nested microgrid connects several separate distributed energy resources or microgrids that are on the same utility circuit. They are akin to shared microgrids or microgrid clusters. Some view these advanced connections as the future direction for the electric grid because of the level of electric reliability they afford. They see an eventual grid of connected microgrids.

This is the direction RCEA and our county should be heading, irrespective of offshore wind, or biomass.

Ken Miller Director, Siskiyou Land Conservancy



COMMUNITY ADVISORY COMMITTEE STAFF REPORT Agenda Item # 6

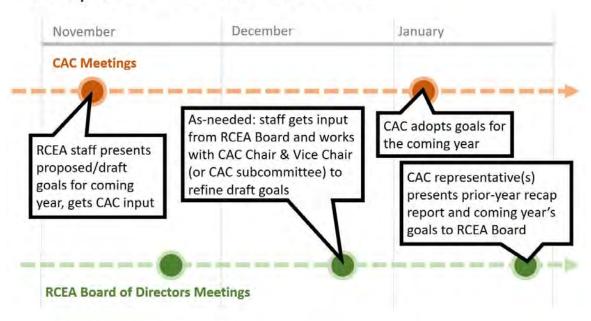
AGENDA DATE:	November 8, 2022
TO:	RCEA Community Advisory Committee
PREPARED BY:	Matthew Marshall, RCEA Executive Director
SUBJECT:	CAC Annual Report & 2023 Goals

SUMMARY

At the July 2021 Community Advisory Committee meeting, the CAC agreed to report the group's past year accomplishments and upcoming year goals annually to the RCEA Board of Directors. The process aims to organize the body's work within the framework of the agency's work goals and help the Board thoughtfully utilize the committee as a resource to support Board decision-making and agency public engagement efforts.

The group agreed to the schedule illustrated below:

Community Advisory Committee Goal-setting & Board Reporting Proposed Annual Timeline



Page 1 of 3

The Community Advisory Committee approved 2022 goals (below) at its January 11, 2022, meeting. These goals were presented to the RCEA Board of Directors in February 2022.

During 2022, the CAC's work on several goals has been delayed due to factors beyond RCEA's control. These circumstances are noted below following the approved goals:

- a. Help guide community outreach and messaging for RCEA programs. A subcommittee was formed to assist in community education and messaging regarding customer programs in March 2022. Staff anticipated implementation of a Rural Regional Energy Network (Rural REN) in early 2023, which will involve new customer program development. However, the application review process has been delayed and approval and implementation are now expected in 2024. As staff further develops Rural REN business plan and program proposals, they will be working with the Customer Programs Outreach Subcommittee for outreach and messaging support.
- b. Monitor and advocate for implementation of RePower Humboldt
 Comprehensive Action Plan for Energy goals and notify staff of community
 activities and projects that may have significant impact on the ability to reach
 these goals. The CAC received clarification from the Board of Directors on the
 process to discuss local major projects as it relates to this work goal. Staff has added
 a standing agenda item to the CAC meeting to allow time for CAC members to bring
 any projects to the attention of the RCEA Executive Director or Deputy Executive
 Director. The CAC drafted and presented comments to the North McKay Ranch
 Development project's draft environmental impact report. Since that time the CAC
 has not identified any additional local major projects as it relates to work goal B.
- c. Support and help guide offshore wind energy community outreach. A subcommittee was formed to assist in community education and messaging regarding offshore wind development in March 2022. The group met once to discuss concerns voiced by the public and prioritize project information for general outreach. Further engagement with the CAC subcommittee was delayed until more offshore wind lease auction information was released. The offshore wind lease auction will occur on December 6, 2022, and staff anticipate engaging more with the subcommittee on outreach material once the successful bids are announced.
- d. Provide input on the development of new and expanding RCEA customer programs. CPUC approval processes changed for the Rural Regional Energy Network (Rural REN), which would administer new and expanded energy efficiency programs in RCEA's service area and throughout California in Rural and Hard-to-Reach areas. Instead of beginning services in 2023, programs will now begin in 2024, if the Rural REN is approved. Staff anticipates engaging the CAC on the development of new and expanded RCEA customer programs in the second quarter of 2023.
- e. Assist with identifying and prioritizing critical facilities and at-risk communities that would benefit from enhanced energy resilience infrastructure, including future microgrid deployment and/or facility-level

renewable back-up power systems. CAC members volunteered to serve on a Critical Facilities Subcommittee in March 2022. Limited staff bandwidth and focus on pressing deadlines has prevented staff from developing a subcommittee scope of work and engaging with the subcommittee.

- f. Finalize recommendations to the RCEA Board and County Board of Supervisors for energy-project bond and/or alternative financing opportunities, support any resulting implementation efforts as appropriate. Staff investigated a potential solar project at the We Are Up community housing development but determined it was not well-suited for micro-bond financing. Staff continued to seek other potential micro-bond financing projects, including substation microgrids and solar-plus-storage projects, and assessed the viability of traditional municipal bond financing for these projects. Staff will re-engage the Subcommittee to discuss updated project options, more detailed financing and next steps.
- g. Help facilitate community input on the finalization and adoption of the Humboldt Regional Climate Action Plan. A subcommittee was formed in March 2022 to assist in community education and messaging for Humboldt Regional Climate Action Plan finalization and adoption. RCEA is awaiting direction from Humboldt County on how the Subcommittee can assist with outreach efforts. Additionally, the Subcommittee decided that outreach efforts would be most effective after the County releases the Notice of Preparation and Environmental Impact Report. The subcommittee will meet again when the County has further updates.

The CAC's work in 2022 is summarized in the attached draft Community Advisory Committee Annual Report. Staff recommends enlisting the Chair and Vice-Chair to edit this report or soliciting volunteers for an ad hoc 2023 Annual Report Subcommittee, if desired. The report can be brought back to the full CAC for approval in January, prior to presentation to the Board in February 2023.

Due to the timeframes of the RCEA initiatives with which the CAC is being asked to assist, staff also recommends undertaking the work goal setting process every two or three years, rather than annually. On non-goal setting years, committee members could have the opportunity to adjust goals, if needed. At the meeting staff will present a proposed timeline of next steps and milestones for the current/ongoing CAC goals.

STAFF RECOMMENDATION

<u>Undertake a full Community Advisory Committee goal setting process every two years, adjusting goals every other year, as necessary.</u>

Adjust existing Community Advisory Committee goals for 2023.

ATTACHMENTS

Draft Community Advisory Committee 2023 Annual Report

Redwood Coast Energy Authority COMMUNITY ADVISORY COMMITTEE ANNUAL REPORT TO THE RCEA BOARD OF DIRECTORS February 2023

The Community Advisory Committee meets on the second Tuesday of odd-numbered months, supports RCEA public engagement efforts and provides decision-making support and input to the RCEA Board.

2022 Committee Members	Representing Jurisdiction:
Norman Bell	Arcata
Elizabeth Burks	Fortuna
Colin Fiske	At-Large
Larry Goldberg	At-Large
Catherine Gurin, Vice Chair	Eureka
Roger Hess	Rio Dell
Christopher Honar	County 3 (Southern Humboldt)
Richard Johnson	Trinidad
Luna Latimer	County 1 (Eastern Humboldt)
Ethan Lawton	Humboldt Bay Municipal Water District
Dennis Leonardi, Chair	Ferndale
Emily Morris	At-Large
Kit Mann	Blue Lake
Jerome (Carman) Qiriazi	County 2 (McKinleyville Area)
Jeff Trirogoff	At-Large
Other Members in 2022:	
Pam Halstead	At-Large, January-March

Committee Liaison:

Matthew Marshall, Executive Director

I. ACCOMPLISHMENTS

The CAC was involved in the following activities in 2022:

Dennis Leonardi was elected to serve as Chair and Catherine Gurin was elected to serve as Vice Chair.

The Committee was updated on:

- a. RePower Humboldt Strategic Plan status (biannually)
- b. Redwood Region Climate & Community Resilience (CORE) Hub

- c. RCEA comments on the North McKay Ranch Project
- d. Net Energy Metering Successor Tariff changes
- e. Countywide Climate Action Plan development
- f. Public Agency Solar Program and CalSHAPE (California Schools Healthy Air, Plumbing and Efficiency Program)
- g. Offshore Wind Project update by Aker Offshore Wind and Mainstream Renewable Power
- h. RCEA's Legislative Platform.

The CAC ad hoc subcommittees accomplished the following in 2022:

Alternative Biomass Uses (Staff Liaison: Power Resources Director Richard Engel)

- a. Received report on first annual RCEA-HSC alternative biomass uses meeting resulting from a 2021 MOU reviewed by the subcommittee.
- b. Received report on Firm Clean Resources joint procurement via California Community Power JPA. Geothermal and biomass companies responded. No biomass energy was procured.
- c. Provided input on interests to be represented on the Biomass Technical Advisory Group and suggestions for group formation. The Alternative Biomass Uses Subcommittee will sunset upon formation of this group.

Bond Subcommittee (Staff Liaisons: Executive Director Matthew Marshall and Legislative & Regulatory Policy Manager Aisha Cissna)

- The Subcommittee heard a presentation from clean energy financing company RaiseGreen on crowd funding and micro-bonds.
- At RaiseGreen's suggestion, staff looked for specific projects for RaiseGreen to consider and visited the We Are Up community housing project as a potential solar project site.
 Staff determined the site does not seem well-suited for utility-scale solar development.
- Staff began investigating other micro-bond financing projects, including substation microgrids and solar-plus-storage projects. Staff also assessed the viability of potential project financing through traditional municipal bonds.
- Staff will re-engage the Subcommittee to share project option updates, detailed financing information and discuss next steps.

Climate Action Plan Outreach Subcommittee (Staff Liaison: Legislative & Regulatory Policy Manager Aisha Cissna)

a. The Subcommittee received a report and overview of the Climate Action Plan timeline. RCEA staff reached out to Humboldt County to determine initial 2023 outreach strategy and is waiting for a response. RCEA staff assisted in selection of the County's Environmental Impact Report consultant. b. The ad hoc subcommittee decided to start outreach efforts after the County releases the Climate Action Plan Notice of Preparation and distributes the Climate Action Plan's EIR. Staff will publicize the Notice of Preparation's publication. The Notice has not yet been published.

Critical Facilities (and At-Risk Communities) Subcommittee (Staff liaison not yet assigned.)

The scope of work and sunset date for this subcommittee have not yet been determined.

Customer Programs Outreach Subcommittee (Staff Liaison: DSM Director Kullmann)

The scope of work for this subcommittee has not yet been determined.

Offshore Wind Outreach Subcommittee (Staff Liaison: Executive Director Matthew Marshall)

- a. Received updates on offshore wind development and expected timelines.
- b. Subcommittee members provided staff input on their four (4) most important points for the community to know about Humboldt County offshore wind development. Staff will compile this material into future educational material.
- c. Subcommittee members provided staff input on who should be in a short social media/website video about Humboldt County offshore wind development.

II. GOALS FOR COMING YEAR

At their November 8, 2022, meeting, the Community Advisory Committee revised the timing of their goal setting process to be done every two years, with adjustments allowed midway through the cycle.

The following adjustments (in red) were made to the CAC 2022 work goals:

- a. Help guide community outreach and messaging for RCEA programs.
- b. Monitor and advocate for implementation of RePower Humboldt Comprehensive Action Plan for Energy goals and notify staff of community activities and projects that may have significant impact on the ability to reach these goals.
- c. Support and help guide offshore wind energy community outreach.
- d. Provide input on the development of new and expanding RCEA customer programs.
- e. Assist with identifying and prioritizing critical facilities and at-risk communities that would benefit from enhanced energy resilience infrastructure, including future microgrid deployment and/or facility-level renewable back-up power systems.

- f. Finalize recommendations to the RCEA Board and County Board of Supervisors for energy-project bond and/or alternative financing opportunities, support any resulting implementation efforts as appropriate.
- g. Help facilitate community input on the finalization and adoption of the Humboldt Regional Climate Action Plan.

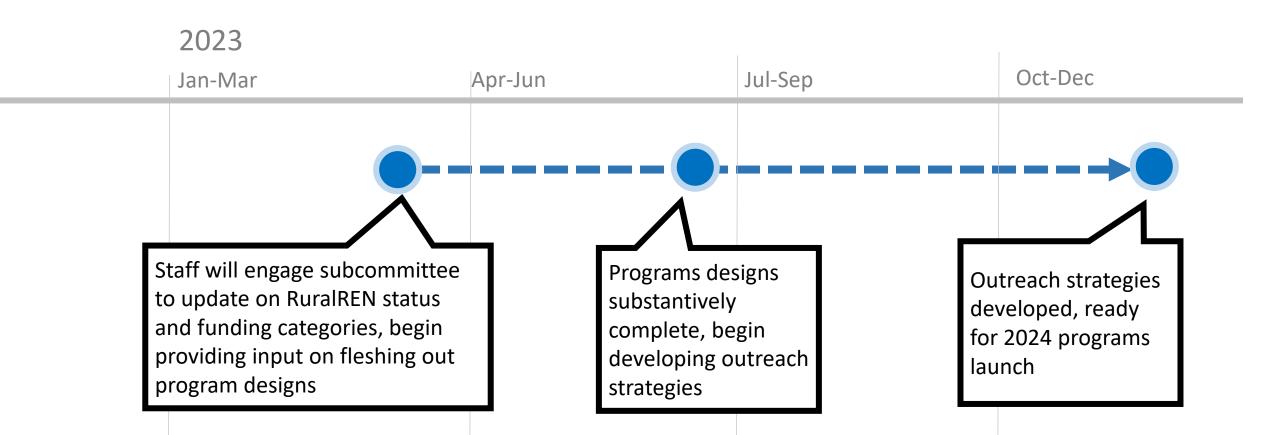


Current CAC Goals, Status, and Next Steps

- 1. Help guide community outreach and messaging for RCEA programs.
- 2. Monitor and advocate for RePower Humboldt goals and notify staff of projects that may have significant impacts on those goals.
- 3. Support and help guide offshore wind energy community outreach.
- 4. Provide input on the development of new and expanding RCEA customer programs.
- 5. Assist with identifying and prioritizing critical facilities and at-risk communities for enhanced energy resilience infrastructure.
- 6. Finalize recommendations to the RCEA Board and County Board of Supervisors for energy-project bond and/or alternative financing opportunities.
- 7. Help facilitate community input on the finalization and adoption of the Humboldt Regional Climate Action Plan.

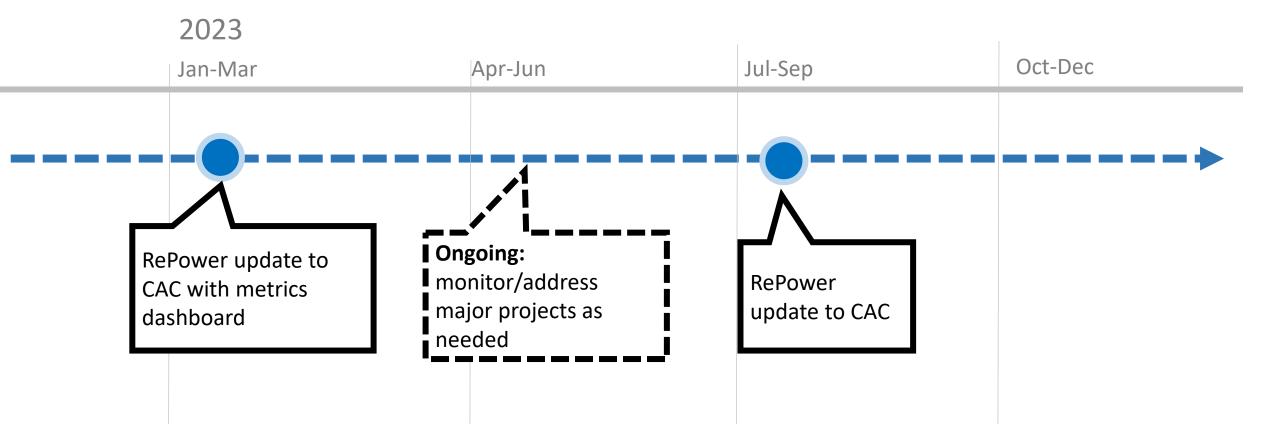
1 & 4. Customer Program Development & Outreach

Status/next steps: Rural Regional Energy Network (Rural REN) funding delayed until 2024; staff will engage subcommittee in the first part of 2023 to inform program design and outreach for 2024 launch



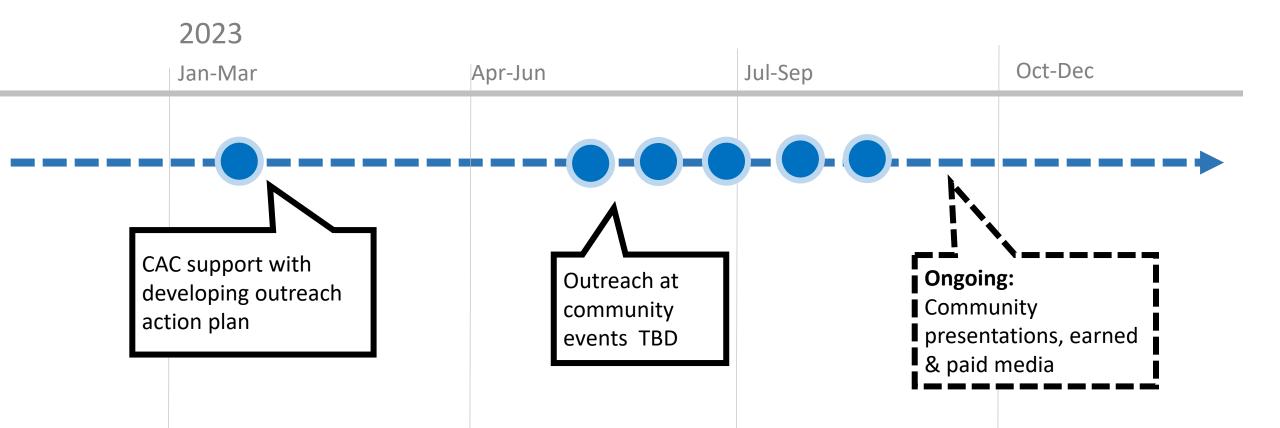
2. Monitor & Advocate for RePower Humboldt Goals

Status/next steps: Ongoing; metrics "dashboard" will be added to semi-annual updates. CAC will monitor identify major projects and form project-specific subcommittees if/when needed.



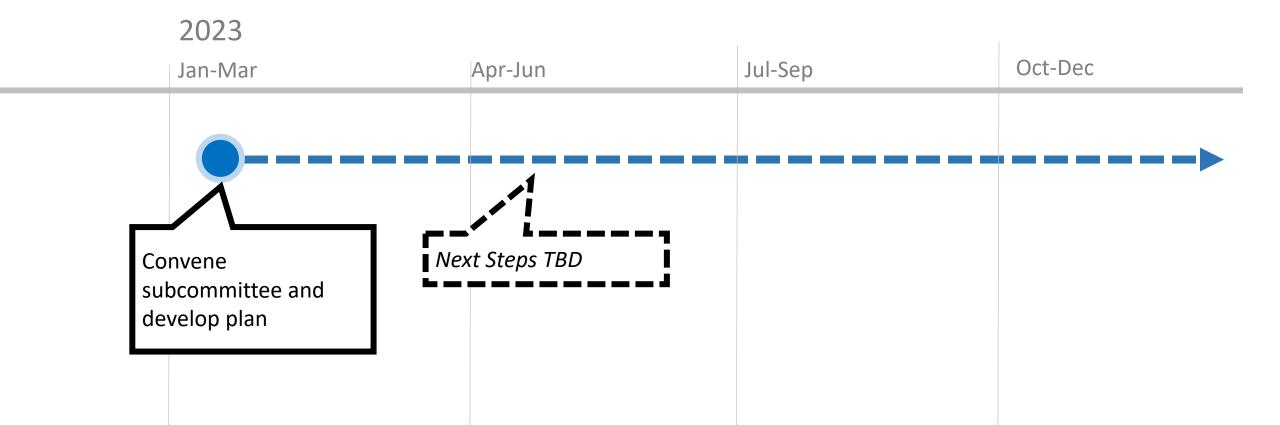
3. Offshore Wind Community Outreach

Status/next steps: Initial input on key topics/messages provided by CAC; outreach will be ramp up following Dec 6 auction, will be developing an outreach plan and coordinating with CORE Hub and other partners



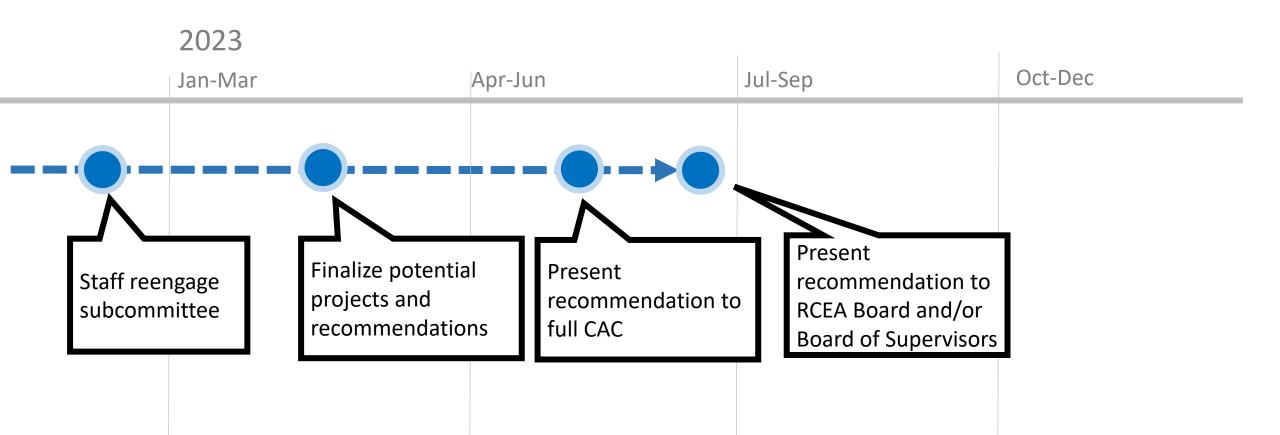
5. Identifying & Prioritizing Critical Facilities

Status/next steps: Not yet begun, need to convene sub committee to refine scope and develop plan. RCEA created and filled a new position to focus on this topic, anticipated significant opportunity for State and Federal funding



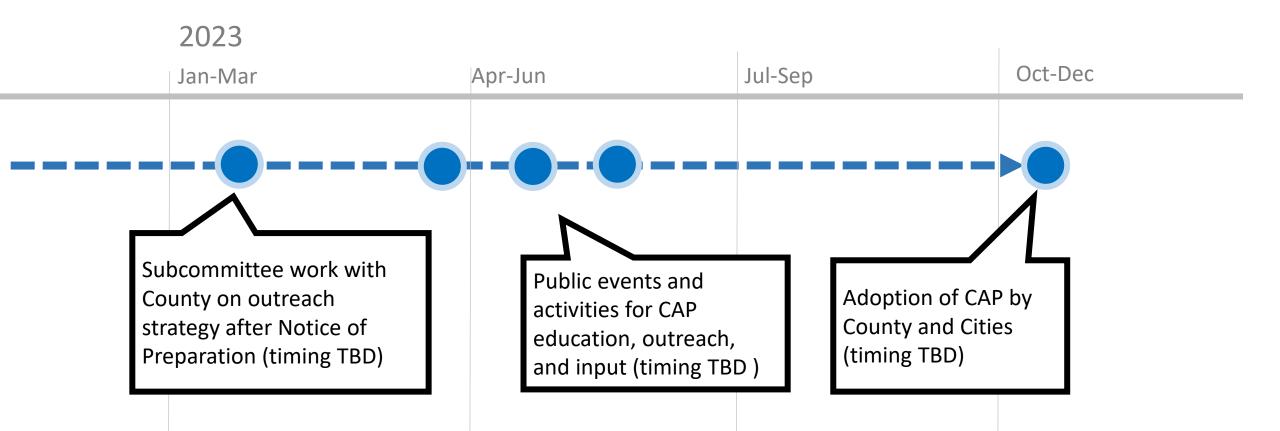
6. Bond & Financing Recommendations

Status/next steps: Last activity was evaluating SEC-regulated crowdfunding potential; staff has been picking this back up and will reengage the subcommittee



7. Regional Climate Action Plan

Status/next steps: Subcommittee determined that outreach will be most effective/relevant after the Notice of Preparation of the EIR is issued by County, waiting on updates and direction on timeline from County staff.



- 1. Help guide community outreach and messaging for RCEA programs.
- 2. Monitor and advocate for RePower Humboldt goals and notify staff of projects that may have significant impacts on those goals.
- 3. Support and help guide offshore wind energy community outreach.
- 4. Provide input on the development of new and expanding RCEA customer programs.
- 5. Assist with identifying and prioritizing critical facilities and at-risk communities for enhanced energy resilience infrastructure.
- 6. Finalize recommendations to the RCEA Board and County Board of Supervisors for energy-project bond and/or alternative financing opportunities.
- 7. Help facilitate community input on the finalization and adoption of the Humboldt Regional Climate Action Plan.

Public Comment

November 8, 2022 Community Advisory Committee Regular Meeting



Agenda Items #5 - PG&E S. Humboldt Grid Issues #6 - CAC Work Goals & Annual Report #7 - RCEA Policy Platform #8 - Local Major Projects

November 8, 2022

Comments
Agenda items 5-8

Widespread Distributed Solar (WDS) on the Horizon

Given the problems with PG&E supply (inadequate in SoHum, fires, applications of poisons to protect poles, habitat degradation, fracked fuel) and in the overwhelming context of climate change, how can we supply our electricity needs now and into the future without contributing to the biodiversity crisis?

The answer: locally distributed, networked solar microgrids, called Widespread Distributed Solar (WDS), ready for installation NOW, while we await offshore wind.

The problem: RCEA not only fails to embrace WDS (it commits to "one solar rooftop per day"), but doesn't even send staff to Microgrid22 or other industry conventions where WDS experts and technologies are featured. These companies are eager to invest.

With WDS, every appropriately available rooftop and parking space is outfitted with solar arrays that are networked in islandable Microgrids with storage, and connected to the grid.

WDS does not change existing land or sea uses (i.e. habitat), and produces electricity where it is used, obviating extra transmission lines, and raising users' energy IQ. It can be installed in a matter of months, with available technology, by local workers, producing more local jobs, more revenue for the producer, more resilience in emergencies, and less ecological harm per kilowatt, than any other source.

According to the U.S. Department of Energy, WDS could supply a huge percent of our electricity needs just from rooftops, not including public spaces: "To determine the amount of solar rooftop potential for the United States is to determine the number of rooftops across the nation that are suitable for solar panels. Rooftop potential depends on the size of the roof, the amount of shade it gets, the direction it faces, and the general location," concludes the DOE.

The DOE's National Renewable Energy Laboratory (NREL) reports that there are more than 8 billion square meters of rooftops on which solar panels could be installed in the United States, representing over 1 terawatt of potential solar capacity. Residential and

other small rooftops represent about 65% of national rooftop potential, and 42% of residential rooftops are households with low-to-moderate income. NREL estimates that an average of 3.3 million homes per year will be built or will require roof replacement—representing a potential of roughly 30 gigawatts (GW) of solar capacity annually. If even a small fraction of these new roofs had solar installations, it could have a significant impact on U.S. solar power generation.

Has Humboldt done these inventories with an eye towards WDS?

Humboldt could model intelligent distributed solar as the least impactful and most democratic energy source—the best *local* job creator that also incentivizes and powers the *sustainable* transition to electric vehicles and tools, heat pumps, and induction stoves, while adding beneficial shade to parking areas, irrigation canals, and some limited agriculture. Nation-wide, WDS could supply 40-80% of our electrical needs, according to DOE, precluding the "need" for nuclear, habitat-degrading renewables, and more fossil fueled power plants.

At the same time, the end-user's energy autonomy will grow significantly: whether for the benefit of private or public entities, generating electricity becomes a valuable resource that provides invaluable resilience during emergencies.

Long-lived solar panels produce energy the way living systems do: silent electron transfer with negligible heat, no $C0^2$ production, and no need for petrochemicals.

NONE of our current "renewable" electricity sources are green. Biodiversity requires healthy habitat. Currently, our electricity comes from distant solar and wind farms, and hydroelectric and geothermal sources, all of which degrade habitat. Transmission over incendiary lines and poison poles is another hit. PG&E's plant uses fracked natural gas, and our local source, biomass, is not only one of the most polluting fuels, but it accelerates deforestation, converting what's left of our forests into instant CO2, and worse.

Then there is offshore wind with its massive habitat-ruining infrastructure: Samoa and it's marine habitat would become fully industrialized. A local news source reports, "The new <u>facility</u> – which would become the second-largest wind terminal in the United States – will support the manufacturing, installation and operation of offshore wind floating platforms."

Aside from terrestrial traffic, the wide sea lane from platforms to shore, extending 25 miles into our richly inhabited, and poorly studied ocean, will be a traffic corridor to maintain turbines that could tower over 800 feet with blades the length of a football field, networked with a minefield of cables. Eventually, all that electricity will have to be transmitted over terrestrial wires, undersea cables, or used to create, store and transport hydrogen, or charge batteries, all of which expand the industrializing of our shoreline, terrestrial and marine habitats.

Our precious forest habitats depend on fog drip, and our local climate, agriculture, and way of life are intimately and complexly intertwined, poorly understood, and changing, as atmospheric/oceanic CO2 accumulates.

The second law of thermodynamics explains why "the climatic impacts from solar photovoltaic systems are about ten times smaller than wind systems," according to a Harvard study. When energy is transferred from wind to turbine, some of that energy scatters, causing a desiccating turbulence in the wake and downstream of the blades, potentially affecting our entire coastal habitats. Temperature and humidity effects increase at night, when the turbines would be spinning.

Thanks to advanced technologies, including reliable grid connectivity and balancing, we now have the opportunity to embrace WDS. The WDS industry is anxiously awaiting an invitation to help deploy systems throughout the County, if only they were given a chance. Check out Microgrid 22 website to see what's possible, irrespective of offshore wind or other habitat-wreckers.

From Microgrid Knowledge:

"After years of making little progress, community microgrids are rapidly innovating with the most recent example – a nested community microgrid – unveiled this week in Menifee, California."

What is a nested community microgrid?

Still rare, a nested microgrid connects several separate distributed energy resources or microgrids that are on the same utility circuit. They are akin to shared microgrids or microgrid clusters. Some view these advanced connections as the future direction for the electric grid because of the level of electric reliability they afford. They see an eventual grid of connected microgrids.

This is the direction RCEA and our county should be heading, irrespective of offshore wind, or biomass.

Ken Miller Director, Siskiyou Land Conservancy



STAFF REPORT Agenda Item # 7

AGENDA DATE:	November 8, 2022
TO:	Community Advisory Committee
PREPARED BY:	Aisha Cissna, Regulatory and Legislative Policy Manager
SUBJECT:	Draft 2023 Policy Platform

BACKGROUND

On March 24, 2022, the RCEA Board of Directors adopted the RCEA 2022 Policy Platform (Platform).

The purpose of the Platform is to deliver on RCEA's RePower Humboldt goals and maintain the operation of its various programs. RCEA regularly tracks policy developments in both the regulatory and legislative space to fulfill these goals.

Previously, RCEA needed Board authorization to adopt a position on any given piece of legislation. Seeking authorization on a case-by-case basis was more time-consuming, but necessary because the frequency of RCEA Board meetings typically does not align with the pace of the legislative process. The ultimate purpose of establishing the Platform is to implement a more efficient and structured advocacy approach akin to what other Community Choice Aggregators (CCAs) have in place. The Platform allows RCEA to be nimbler in adopting positions on legislative matters in a timely manner without full Board approval if the position is aligned with the Board-approved priorities. This Platform also helps inform RCEA's regulatory activities to ensure staff engagement aligns with the Board's priorities and RCEA's goals. As noted in the Platform, staff is authorized to engage in regulatory matters without Board consultation.

The 2022 Policy Platform and Draft 2023 Policy Platform support the following overarching policy priorities:

- To maintain local control for the purpose of preserving the ability to self-procure its
 power resources, and to self-determine rates and the energy programs RCEA offers to
 its residents, businesses, and communities it serves, through the mechanisms of local
 governance,
- To provide lower and more stable rates for RCEA customers,
- To provide greater economic benefits to the local community,
- To have maximum flexibility to utilize and develop local resources in the most economically efficient manner possible and with a high degree of local control,
- To maintain the financial stability of CCA operations, and
- To maintain an efficient, transparent governance structure and operations.

To keep the Board abreast of RCEA advocacy activities, a quarterly report is provided summarizing legislative engagement.

Additionally, the Platform will be brought to the RCEA Board of Directors each December for their annual review. This is an opportunity for the Board to suggest revisions to RCEA's policy priorities.

RCEA staff is engaging the Community Advisory Committee on the Draft 2023 Policy Platform to receive input that can be considered by the Board during their December 2022 meeting.

SUMMARY

RCEA staff reviewed the 2022 Policy Platform and suggest one revision to the Platform which is included as a redline in the attached document.

The change is to item 3(a), the Resource Adequacy section. In the 2022 Policy Platform, the language indicates that "RCEA will support the efforts of CalCCA to create a central procurement entity for residual Resource Adequacy needs."

Staff proposes amending this language to read, "RCEA will support the efforts of CalCCA to reform the Resource Adequacy program."

The reason for this change is that CalCCA previously advocated for a single entity that would procure Resource Adequacy products to fill any gaps left over after Load Serving Entities had completed their Resource Adequacy procurement, should there be a shortfall in their procurement. CalCCA is currently re-examining numerous models to improve the California Public Utilities Commission Resource Adequacy program. While a central procurement entity is still an option on the table, several other solutions are being deliberated.

The CAC is welcome to propose additional feedback for consideration by the Board when they review the Draft 2023 Platform for adoption.

ALIGNMENT WITH RCEA'S STRATEGIC PLAN

The Platform was developed to allow RCEA to efficiently engage in regulatory and legislative development that will support RCEA's ability to implement strategies in RePower Humboldt and achieve the objectives articulated in RCEA's Mission Statement.

EQUITY IMPACTS

The Platform contains a section on "Environmental Justice" which includes "engag[ing] in policy that directly or indirectly impact the ability of rural, low-income, and underserved communities in the RCEA service territory to have affordable, reliable and clean energy."

This section also includes support for policies that "strengthen the resilience of vulnerable communities to adapt to the impacts of climate change" and "enable all communities [...] to participate in the decarbonization of the state's electrical grid, building stock, and the transportation sector in a cost-effective manner"

FINANCIAL IMPACT

None

STAFF RECOMMENDATIONS

• Provide input on the Draft 2023 Policy Platform for consideration by the Board of Directors during their December 2022 meeting.

ATTACHMENT

• Redwood Coast Energy Authority Draft 2023 Policy Platform



REDWOOD COAST ENERGY AUTHORITY 2022 2023 POLICY PLATFORM

INTRODUCTION

Redwood Coast Energy Authority ("RCEA") is a joint-powers authority of the cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, Trinidad, County of Humboldt, and the Humboldt Bay Municipal Water District. The mission of RCEA is to develop and implement sustainable energy initiatives which reduce energy demand, increase energy efficiency, and advance the use of clean, efficient, and renewable resources available in the region for the benefit of the Member agencies and their constituents.

This Policy Platform serves as a guide for regulatory and legislative engagement which is based on principles set forth in RCEA's RePower Humboldt strategic plan. To review RCEA's strategic plan, please see https://redwoodenergy.org/wp-content/uploads/2020/06/RePower-2019-Update-FINAL-.pdf

This platform will be brought to the RCEA Board on an annual basis for review and input.

AVENUES AND EXAMPLES OF ADVOCACY

Legislation and regulation are two distinct, but related, policy tools. Legislation sets principles of public policy, while regulation implements these principles and brings legislation into effect.

Examples of RCEA legislative advocacy include submitting letters in support or opposition of specific bills, as well as meeting with legislators in the California State Senate, the California State Assembly, U.S. House of Representatives, and U.S. Senate.

Most of RCEA's regulatory engagement takes place through the California Public Utilities Commission ("CPUC"), the primary State agency responsible for executing legislation and issuing regulations pertinent to Community Choice Aggregation ("CCA") operations. However, RCEA's operations are also impacted by other state and federal agencies including but not limited to the California Energy Commission, the California Air Resources Board, the Federal Energy Regulatory Commission, and the federal Bureau of Ocean Energy Management. Each of these agencies develop and implement regulations that are of interest to RCEA. Examples of advocacy in this sphere include meeting with agency staff, agency decision-makers, and submitting comments in response to regulations.

PROCEDURES

Regulatory Engagement: RCEA regulatory engagement at the CPUC and other agencies is conducted at the staff level under the authority of the Executive Director in a manner consistent with RCEA's mission, this policy platform, RCEA's strategic plan, and any applicable RCEA policies.

Legislative Advocacy: The RCEA Executive Director, or their designee, is authorized to adopt positions on legislative matters in a timely manner without Board approval if the position is aligned with the issue areas described below.

Prior to adopting a legislative position, the Executive Director shall confer with the Board Chair and Vice-Chair on the matter. If both the Chair and Vice-Chair concur that the position is consistent with the Legislative Platform and/or the mission of RCEA then the Executive Director may take the position.

To keep the Board apprised of advocacy activities, staff will notify the full Board of any legislative positions taken by RCEA and deliver a quarterly report to the Board summarizing legislative engagement. Furthermore, this platform will be brought to the Board for review and input on an annual basis.

While the platform attempts to address a full range of issues of interest to RCEA, it is not intended to limit RCEA's engagement in other issues that may impact RCEA in a positive or negative way. Issues not addressed in the platform will continue to be brought to the Board on a case-by-case basis.

ISSUE AREAS

1. Governance and Statutory Authority

RCEA will:

- a. Oppose policies which limit the local decision-making authority of local governments or CCAs, including rate-setting authority and procurement of energy and capacity to serve their customers.
- b. Oppose policies which limit RCEA's ability to effectively serve its customers.
- c. Support efforts of CCAs to engage with their customers and promote transparency in their operations. Similarly, RCEA will oppose policies which restrict or limit these abilities.
- d. Support policies which make it easier for other cities and counties to form a CCA, become members of RCEA or other CCAs, and oppose regulations and legislation which restricts which ability.

2. Restructuring the Electricity Utility Sector

RCEA will:

a. Support policies and advocate for reforms to the utility regulatory and business model to transform IOUs into entities that solely provide transmission and distribution services.

- b. Support policies and advocate for reforms to the utility regulatory and business model to ensure Investor-Owned Utilities (IOUs) deliver greater benefits to ratepayers, increase safety and reliability, and reduce costs.
- c. Support local governments' ability to form municipal electric utilities, including supporting legislation which expands opportunities for CCAs to become municipal electric utilities.
- d. Advocate for greater collaboration to occur between CCAs, tribes, local governments, and incumbent IOUs, particularly in local planning efforts related to energy, EV charging, community resource centers, and customer programs.
- e. Support efforts which result in IOUs providing meter data in real time to enable CCAs to better forecast and schedule load.

3. Resource Adequacy

RCEA will:

- a. Support the efforts of CalCCA to <u>reform the Resource Adequacy program.</u> create a central procurement entity for residual Resource Adequacy needs.
- b. Advocate for and support efforts to remove barriers to demand response, microgrids and behind the meter resources to provide Resource Adequacy or other demand-reduction value.

4. Power Cost Indifference Adjustment (PCIA)

RCEA will:

- a. Support CalCCA efforts to increase the transparency of IOU electricity contracts which provide the basis for Power Cost Indifference Adjustment (PCIA) charges which RCEA (and its customers) and other CCAs must pay.
- b. Support efforts which create a pathway to wind down the PCIA.
- c. Support policies which would bring stability to the PCIA and/or provide new mechanisms for CCAs to securitize PCIA charges.
- d. Oppose policies which would increase or expand exit fees, including PCIA, on CCA customers.

5. Public Safety Power Shut-Offs (PSPS)

RCEA will:

- a. Support policies which increase the notification and transparency requirements on IOUs as they implement a PSPS.
- b. Support policies which create standards for PSPS implementation and penalties on IOUs which execute PSPS below those standards.
- c. Support policies which create rules and procedures to ensure PSPS are implemented narrowly and only as absolutely necessary.
- d. Support policies which require IOUs to notify impacted cities, counties, tribes, and CCAs of impending PSPS events.

6. COVID-19 Response

a. To the extent that it does not harm RCEA's financial health and standing, support regulatory policies, legislation, or budget appropriations to alleviate residential and commercial financial hardship caused by the COVID-19 pandemic that could disrupt electricity service to RCEA customers or restrict RCEA customers accessing clean energy opportunities. This could include, for example, assistance to avoid electric service disconnection or economic recovery funding for transportation electrification.

7. Community Resilience

RCEA will:

- a. Advocate for and support funding for programs implemented by local governments and CCAs to increase community resilience to wildfires, PSPS events and other potential service disruptions.
- b. Support policies which reduce barriers to microgrid development by CCAs and other local entities including tribes and local governments.
- c. Support policies that expand the ability of non-IOU entities to develop microgrids (e.g., ensuring CCA access to ratepayer funds to develop microgrids).
- d. Support policies which increase the development of community level resources and distributed energy resources which reduce the need for new transmission and distribution infrastructure.

8. Renewable Energy Generation Sources

RCEA will:

- a. Support policies which expand opportunities for or reduce barriers to the development of renewable energy sources, including, but not limited to, wind, solar, bioenergy, battery storage, small hydro, and geothermal, as long as local development and siting criteria are consistent with city and county land use authority, other local and state regulatory requirements, and informed by input from tribal governments.
- b. Support policies which expand opportunities for offshore wind, including investment in requisite infrastructure (e.g., harbor facilities and transmission) and workforce training necessary to support such development.
- c. Oppose policies which require CCAs to purchase specific renewable energy products, thus limiting the ability of CCAs to meet local energy needs in a cost-effective manner and in conflict with their local procurement and rate setting authority.

9. Environmental Justice

RCEA will:

 Engage in regulatory and legislative developments which directly or indirectly impact the ability of rural, low-income, and underserved communities in the RCEA service territory to have affordable, reliable, and clean energy.

- b. Support policies which strengthen the resilience of vulnerable communities to adapt to the impacts of climate change.
- c. Support policies that enable all communities, including emerging and historically marginalized communities, and individuals, regardless of race, color, national origin, religion, sexual orientation, sex, gender identity, age, disability, or socioeconomic status, in California to participate in the decarbonization of the state's electrical grid, building stock, and the transportation sector in a cost-effective manner.

10. RCEA Programs

- a. Protect RCEA autonomy to administer programs, and support policies that expand opportunities for or reduce barriers to the development of RCEA programs including but not limited to:
 - Integrated demand side management (microgrids, distributed energy resources, demand response, energy efficiency, electrification, distributed generation and storage, vehicle-to-grid storage)
 - ii. Low-carbon transportation (advanced fuel deployment, fuel efficiency, fueling infrastructure)
 - iii. Energy generation and utility services (rates and tariffs, transmission and distribution infrastructure)

11. Local Economic Development and Environmental Objectives

RCEA will:

- a. Support policies which enhance opportunities for local governments and CCAs to promote local economic and workforce development through locally designed programs which meet the unique needs of its member agencies and customers.
- b. Support efforts to enhance development of local and regional sources of renewable energy.
- c. Support policies which enable CCAs to collaborate with their member jurisdictions on local energy resources and projects to advance environmental objectives.

12. Direct Access/Electric Service Providers

RCEA will:

a. Oppose policies which expand direct access or the ability or economic incentives for electric service providers to selectively recruit CCA or IOU customers.

Public Comment

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The problem: RCEA not only fails to embrace WDS (it commits to "one solar rooftop per day"), but doesn't even send staff to Microgrid22 or other industry conventions where WDS experts and technologies are featured. These companies are eager to invest.

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other small rooftops represent about 65% of national rooftop potential, and 42% of residential rooftops are households with low-to-moderate income. NREL estimates that an average of 3.3 million homes per year will be built or will require roof replacement—representing a potential of roughly 30 gigawatts (GW) of solar capacity annually. If even a small fraction of these new roofs had solar installations, it could have a significant impact on U.S. solar power generation.

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Ken Miller Director, Siskiyou Land Conservancy



STAFF REPORT Agenda Item # 8

AGENDA DATE:	November 8, 2022
TO:	RCEA Community Advisory Committee
PREPARED BY:	Eileen Verbeck, Deputy Executive Director
SUBJECT:	Local Major Projects

BACKGROUND

Prior to the adoption of the CAC goals in February 2022, the CAC formed a Major Project Ad Hoc Subcommittee to draft and present recommended comments to the North McKay Ranch Development project's draft environmental impact report. The evaluation and input provided by the CAC focused on the proposed project's impact on RePower Humboldt strategic plan goals. The CAC Major Project Ad Hoc Subcommittee sunset date coincided with the approval of the comment letter by the Board and the designation of a process for the CAC to provide input for local projects moving forward.

Based on the feedback from this process the CAC created work goal B, monitor and advocate for implementation of RePower Humboldt Comprehensive Action Plan for Energy goals and notify staff of community activities and projects that may have significant impact on the ability to reach these goals.

Further clarification from the Board outlines the process for the CAC to discuss local major projects as it relates to work goal B as follows:

- 1. If CAC members see a need to comment on or engage with a local project in development in ways that are within RCEA's scope, they notify RCEA Executive Director.
- 2. If staff agrees that engaging with project developers is appropriate for RCEA, then staff will follow up or request volunteers for an ad hoc CAC Major Projects Subcommittee specific to a particular project for assistance in drafting comments.
- 3. If it is unclear whether engagement falls within RCEA's scope, staff will ask the Board for direction.
- 4. It is more productive for RCEA to engage and provide input early in the development process, rather than when the project is soliciting public comment (e.g. RCEA provided the County with technical input related to Nordic Aquafarms prior to the solicitation for public comments).
- 5. If RCEA has not been invited to provide input and RePower strategies are not accounted for in project plans, then it is appropriate for RCEA to comment during the public comment phase.

SUMMARY

Staff proposed a standing agenda item at each CAC meeting to provide an opportunity for CAC members to bring forward any upcoming projects or plans that may impact RCEA's ability to meet the Repower goals. If staff agrees that a project is within RCEA scope, staff will engage with developers of the project in early stages or a project-specific CAC ad hoc subcommittee will be formed to develop comments to present to the Board if the project is in the public comment phase.

STAFF RECOMMENDATION

Discuss any major projects that may have an impact on RePower goals and establish an ad hoc major project committee(s) if needed.

Public Comment

November 8, 2022 Community Advisory Committee Regular Meeting



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According to the U.S. Department of Energy, WDS could supply a huge percent of our electricity needs just from rooftops, not including public spaces: "To determine the amount of solar rooftop potential for the United States is to determine the number of rooftops across the nation that are suitable for solar panels. Rooftop potential depends on the size of the roof, the amount of shade it gets, the direction it faces, and the general location," concludes the DOE.

The DOE's National Renewable Energy Laboratory (NREL) reports that there are more than 8 billion square meters of rooftops on which solar panels could be installed in the United States, representing over 1 terawatt of potential solar capacity. Residential and

other small rooftops represent about 65% of national rooftop potential, and 42% of residential rooftops are households with low-to-moderate income. NREL estimates that an average of 3.3 million homes per year will be built or will require roof replacement—representing a potential of roughly 30 gigawatts (GW) of solar capacity annually. If even a small fraction of these new roofs had solar installations, it could have a significant impact on U.S. solar power generation.

Has Humboldt done these inventories with an eye towards WDS?

Humboldt could model intelligent distributed solar as the least impactful and most democratic energy source—the best *local* job creator that also incentivizes and powers the *sustainable* transition to electric vehicles and tools, heat pumps, and induction stoves, while adding beneficial shade to parking areas, irrigation canals, and some limited agriculture. Nation-wide, WDS could supply 40-80% of our electrical needs, according to DOE, precluding the "need" for nuclear, habitat-degrading renewables, and more fossil fueled power plants.

At the same time, the end-user's energy autonomy will grow significantly: whether for the benefit of private or public entities, generating electricity becomes a valuable resource that provides invaluable resilience during emergencies.

Long-lived solar panels produce energy the way living systems do: silent electron transfer with negligible heat, no $C0^2$ production, and no need for petrochemicals.

NONE of our current "renewable" electricity sources are green. Biodiversity requires healthy habitat. Currently, our electricity comes from distant solar and wind farms, and hydroelectric and geothermal sources, all of which degrade habitat. Transmission over incendiary lines and poison poles is another hit. PG&E's plant uses fracked natural gas, and our local source, biomass, is not only one of the most polluting fuels, but it accelerates deforestation, converting what's left of our forests into instant CO2, and worse.

Then there is offshore wind with its massive habitat-ruining infrastructure: Samoa and it's marine habitat would become fully industrialized. A local news source reports, "The new <u>facility</u> – which would become the second-largest wind terminal in the United States – will support the manufacturing, installation and operation of offshore wind floating platforms."

Aside from terrestrial traffic, the wide sea lane from platforms to shore, extending 25 miles into our richly inhabited, and poorly studied ocean, will be a traffic corridor to maintain turbines that could tower over 800 feet with blades the length of a football field, networked with a minefield of cables. Eventually, all that electricity will have to be transmitted over terrestrial wires, undersea cables, or used to create, store and transport hydrogen, or charge batteries, all of which expand the industrializing of our shoreline, terrestrial and marine habitats.

Our precious forest habitats depend on fog drip, and our local climate, agriculture, and way of life are intimately and complexly intertwined, poorly understood, and changing, as atmospheric/oceanic CO2 accumulates.

The second law of thermodynamics explains why "the climatic impacts from solar photovoltaic systems are about ten times smaller than wind systems," according to a Harvard study. When energy is transferred from wind to turbine, some of that energy scatters, causing a desiccating turbulence in the wake and downstream of the blades, potentially affecting our entire coastal habitats. Temperature and humidity effects increase at night, when the turbines would be spinning.

Thanks to advanced technologies, including reliable grid connectivity and balancing, we now have the opportunity to embrace WDS. The WDS industry is anxiously awaiting an invitation to help deploy systems throughout the County, if only they were given a chance. Check out Microgrid 22 website to see what's possible, irrespective of offshore wind or other habitat-wreckers.

From Microgrid Knowledge:

"After years of making little progress, community microgrids are rapidly innovating with the most recent example – a nested community microgrid – unveiled this week in Menifee, California."

What is a nested community microgrid?

Still rare, a nested microgrid connects several separate distributed energy resources or microgrids that are on the same utility circuit. They are akin to shared microgrids or microgrid clusters. Some view these advanced connections as the future direction for the electric grid because of the level of electric reliability they afford. They see an eventual grid of connected microgrids.

This is the direction RCEA and our county should be heading, irrespective of offshore wind, or biomass.

Ken Miller Director, Siskiyou Land Conservancy