COMMUNITY ADVISORY COMMITTEE MEETING

COVID-19 NOTICE: RCEA OFFICES ARE NOT OPEN TO THE PUBLIC

Pursuant to the Governor’s Executive Order N-29-20 of March 17, 2020, and the Humboldt County Health Officer’s March 30, 2020, Shelter-in-Place Order, the RCEA Community Advisory Committee meeting will not be convened in a physical location. Committee members will participate in the meeting via an online Zoom video conference.

To listen to the meeting by phone, call (669) 900-6833 or (253) 215-8782. Enter webinar ID: 811 0869 1757. To watch the meeting online, join the Zoom webinar at https://us02web.zoom.us/j/81108691757.

You may submit written public comment before and during the meeting by email to PublicComment@redwoodenergy.org. Please identify the agenda item number in the subject line. Comments received before the agenda item is heard will be read into the record, with a maximum allowance of approximately 500 words per comment. Comments received after the agenda item is heard and before the meeting’s end will be included in the meeting record but not read aloud during the meeting.

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. You will continue to hear the meeting while you wait. When it is your turn to speak, a staff member will unmute your phone or computer. You will have 3 minutes to comment.

While downloading the Zoom application may provide a better meeting experience, Zoom does not 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 Ltaketa@redwoodenergy.org 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

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>What / Action</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Open</td>
<td>Roll Call:</td>
<td>6 - 6:05 (5 min.)</td>
</tr>
<tr>
<td></td>
<td>Norman Bell                      Richard Johnson</td>
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<tr>
<td></td>
<td>Elizabeth Burks                  Luna Latimer</td>
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<td></td>
<td>Jerome Carman                    Dennis Leonardi, Vice Ch.</td>
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<td></td>
<td>Colin Fiske                      Kit Mann</td>
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<td></td>
<td>Larry Goldberg, Chair            Kathy Srabian</td>
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<td></td>
<td>Pam Halstead                     Matty Tittman</td>
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<td></td>
<td>Tom Hofweber                     Amin Younes</td>
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<td></td>
<td>Stephen Avis, Board liaison      Review meeting agenda and goals.</td>
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<tr>
<td>2. Approval of Minutes</td>
<td>Action: Approve minutes of April 14, 2020, CAC meeting.</td>
<td>6:05 - 6:10 (5 min.)</td>
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<tr>
<td>3. Alternative Biomass Use</td>
<td>Receive presentation by HSU Environmental Resources Engineering class on</td>
<td>6:10 – 6:30 (20 min.)</td>
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<tr>
<td>Presentation</td>
<td>alternative uses for biomass.</td>
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<td></td>
<td>(Information only)</td>
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<tr>
<td>4. RePower Humboldt Energy</td>
<td>Receive report on RCEA’s work on RePower Humboldt comprehensive action plan</td>
<td>6:30 – 6:50 (20 min.)</td>
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<tr>
<td>Strategic Plan Update (Q2)</td>
<td>for energy.</td>
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<td></td>
<td>(Information only)</td>
<td></td>
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<tr>
<td>5. County Energy Resilience</td>
<td>Action: Establish an ad hoc subcommittee to work with staff to evaluate</td>
<td>6:50 – 7:05 (15 min.)</td>
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<tr>
<td>Bond Subcommittee</td>
<td>potential options for a County revenue bond to fund local energy</td>
<td></td>
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<td></td>
<td>independence and resiliency.</td>
<td></td>
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<tr>
<td>6. PSPS Update</td>
<td>Receive update on PG&amp;E’s efforts to minimize customer impacts of Public</td>
<td>7:05 – 7:10 (5 min.)</td>
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<tr>
<td></td>
<td>Safety Power Shutoffs. (Information only)</td>
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<tr>
<td>7. Non-Agenda Item</td>
<td>This item is provided for the public to address the Committee on matters not</td>
<td>7:10 – 7:15 (5 min.)</td>
</tr>
<tr>
<td>Public Comment</td>
<td>on the agenda. At the end of public comments, the Committee will respond to</td>
<td></td>
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<tr>
<td></td>
<td>statements, set requests requiring action to a future agenda, or refer</td>
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<td></td>
<td>requests to staff.</td>
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<tr>
<td>8. Member Reports</td>
<td>This time is provided for Committee members to share information on topics</td>
<td>7:15 – 7:25 (10 min.)</td>
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<tr>
<td></td>
<td>not on the agenda. At the end of member reports, the Executive Director will</td>
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<td></td>
<td>set requests requiring action to a future agenda or refer requests to staff</td>
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<tr>
<td></td>
<td>or the Board.</td>
<td></td>
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</tbody>
</table>
9. Close & Adjourn  | Summarize actions, outcomes, Board communication items, next steps  | 7:25 - 7:30 (5 min.)

**NEXT REGULAR CAC MEETING** – Tuesday, October 13, 2020, 6 - 7:30 p.m. Location to be determined pending County Public Health Officer and Governor's Executive Orders.
COMMUNITY ADVISORY COMMITTEE MEETING
DRAFT MINUTES
April 14, 2020 - Tuesday, 6 - 7:30 p.m.

The agenda for this meeting was posted on April 10, 2020. Community Advisory Committee Chair Larry Goldberg called the meeting to order at 6:03 p.m., stating that the meeting was being conducted by teleconference pursuant to Brown Act waivers included in Governor Newsom’s COVID-19 State of Emergency Executive Orders and in response to local efforts to reduce the spread of the virus. Chair Goldberg stated that the posted agenda outlined instructions for the public on listening to the meeting and providing written comment.

Members present:
Norman Bell
Jerome Carman
Colin Fiske
Larry Goldberg, Chair
Pam Halstead
Richard Johnson
Luna Latimer
Dennis Leonardi, Vice Chair
Kit Mann
Craig Mitchell
Matty Tittman
Stephen Avis, Board Liaison (non-voting)

Members absent:
Tom Hofweber
Kathy Srabian

Staff present:
Richard Engel, Power Resources Director
Matthew Marshall, Executive Director
Nancy Stephenson, Community Strategies Mgr.
Lori Taketa, Clerk of the Board

Minutes Approval
There were no Committee or public comments on this item.

Motion Halstead, Second Mann: Approve minutes of the January 14, 2020, CAC meeting.


RCEA’s Coronavirus Response
Executive Director Marshall reported that most RCEA staff are working from home with minimal staff working at RCEA’s office. Agency offices are closed to the public but customer support continues by phone and email. Director Marshall requested the Committee’s assistance in informing the community that customers’ electricity will not be shut off due to inability to pay their bills following Executive Orders, and that a range of programs are available to customers experiencing financial hardship due to the Coronavirus pandemic. Links to bill payment assistance and discount programs can be found on RCEA’s updated COVID-19 webpage, https://redwoodenergy.org/covid-19/. RCEA staff can provide technical assistance by phone to residential and business customers considering changing rate plans to save money and custom-tailored energy saving kits are available.
The Committee thanked RCEA staff for their efforts during the shelter-in-place period. There was no public comment on this agenda item.

**RCEA Customer Programs**

Executive Director Marshall reported that the Community Choice Energy program will likely be financially impacted by customers’ inability to pay electricity bills and exit fee increases. Cost containment, discretionary environmental performance target adjustment, and reserve use will be explored with the goal of avoiding rate increases. A solar power purchase agreement for 100 MW from a Kern County project, and three 1 MW local solar project agreements will be considered by the Board. For scale, Blue Lake Rancheria’s microgrid output is .5 MW. Energy efficiency programs have largely been suspended during the COVID crisis but Public Agency Solar projects are moving forward with physical distancing measures. Staff time is being redirected to implementing approved customer programs. RCEA anticipates having more control over local energy efficiency program design starting in July, pending CPUC approval of Program Administrator status. The CAC Programs Subcommittee will be asked for input on program design.

Staff will launch the e-bike $500 rebate program on the 50th anniversary of Earth Day. Electric vehicle charging station upgrades and maintenance continues. RCEA continues to assist the County with the multi-jurisdiction climate action plan and is providing analysis for a potential County revenue bond measure for energy resilience and independence for the November ballot.

The committee confirmed that RCEA is proposing to enter a 15-year agreement to purchase the full 100 MW output of the Sandrini solar project in Kern County, which is 45% of RCEA’s customer load and which would not impact other near-term RCEA renewable energy procurement. The increased power purchase fills the shortfall in state-required long-term renewable energy contracts caused by the Terra Gen wind project termination.

The committee discussed: e-bikes’ strategic importance for Eastern Humboldt transportation; the value of putting money back into the community while encouraging energy efficiency; the renewed focus on building more local energy storage to improve local grid resilience, especially through large projects at public facilities; and that RCEA staff continues to study micro-scale projects such as residential rooftop distributed resources to provide more grid reliability during outages. Executive Director Marshall explained that Feed-In-Tariff project developers are responsible for seeing the projects through the different environmental and local jurisdictions’ approval processes. Power purchase agreements are signed very early in the development process to ascertain the economic viability of project development. RCEA can only purchase power from projects that are successfully built.

Executive Director Marshall reported that Humboldt State University and RCEA’s offshore wind project partner Aker Solutions both received grants for offshore-wind-related research from the California Energy Commission, and that the airport solar microgrid project which is scheduled to begin construction this summer may experience delays from pandemic-related supply chain disruptions.

Luna Latimer left the meeting at 7 p.m. There were no public comments on this agenda item.

**Public Safety Power Shutoff Response Efforts**

Executive Director Marshall reported that PG&E representative in-person meetings and Humboldt Bay Generating Station tour plans were derailed due to the shelter-in-place orders, but that PG&E will conduct more islanding tests to enable the majority of Humboldt County to be islanded during out-of-county fire risk events this coming fire season. The area around Humboldt Bay should remain energized with certainty of power to substations decreasing in more outlying areas farther away from the plant. PG&E is considering deploying temporary
generators to substations near Hoopa and Willow Creek. It is currently uncertain whether Southern Humboldt will be powered from Humboldt Bay or Mendocino County. PG&E is considering microgrid installation at some substations for the long term. Chair Goldberg and vice-chair Leonardi expressed interest in serving on the PSPS Subcommittee and in attending meetings with PG&E. There were no public comments submitted for this agenda item.

Non-Agenda Item Public Comment
Community Strategies Manager Nancy Stephenson read a comment submitted by member of the public Nancy Ihara requesting the CAC to contribute to a changed “clean energy” definition in the Comprehensive Action Plan for Energy that would take into consideration the harmful health impacts of biomass energy’s fine particulate and CO2 emissions. Ms. Ihara requested that the CAC review Dr. Wendy Ring’s comments for the upcoming Board meeting on fine particulates and COVID-19 and that RCEA transition away from biomass energy.

The committee discussed the need for a plan that is more satisfactory for community members who oppose biomass use, that the current biomass contracts end this year and in 2024, and the need for more local storage if the grid stability provided by local biomass plants is removed.

Member Reports
Member Norman Bell requested establishment of a subcommittee on wave energy to provide grid stability.

Member Jerome Carman inquired about the behind-the-meter storage request for proposals. Executive Director Marshall stated that the RFP had open conditions to increase response rates and that reviewing staff share Mr. Carman’s ownership and maintenance cost concerns.

Member Colin Fiske requested an update on the CAPE strategic plan’s targets since the Terra Gen project fell through.

Pam Halstead left the meeting at 7:35 p.m.

Member Richard Johnson praised the video conference process and requested that the committee hold virtual meetings more often.

Member Craig Mitchell, whose CAC term was ending, thanked RCEA and his fellow committee members, who congratulated Mr. Mitchell on his acceptance to a master’s degree wind engineering program in Norway.

Chair Goldberg stated that the COVID-19 experience would have profound environmental and other impacts and suggested RCEA investigate how to encourage telecommuting as a long-term option to achieve greenhouse gas reduction goals.

Executive Director Marshall summarized actions as follows:

- Include formation of a CAC Bond Initiative Subcommittee on July’s meeting agenda.
- Provide an update on the CAPE strategic plan’s targets after the Terra Gen project rejection at the July meeting.
- Staff to consider how RCEA can be involved in encouraging telecommuting.
- Executive Director Marshall will communicate to the Board PSPS Subcommittee Chair Goldberg and Vice Chair Leonardi’s interest in participating in meetings with PG&E and the power plant tour.

Chair Goldberg adjourned the meeting at 7:42 p.m.

Lori Taketa
Clerk of the Board
SUMMARY

The RePower Humboldt 2019 strategic plan update includes strategies that address Humboldt County’s biomass management needs and how these can intersect with RCEA’s energy procurement needs:

**Strategy 4.1.11.1 Support Biomass Fuels Reduction and Utilization.** Develop strategies and technologies for improved biomass utilization in ways that effectively support restoration objectives and fire management priorities. Coordinate with local agencies, communities, and landowners to develop biomass energy plans that are consistent with sustainable forest management, hazardous fuels reduction, fire safety, and restoration needs.

**Strategy 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-mid-term 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 non-energy products are identified, refer potential pilot projects to appropriate stakeholders.

In support of these strategies, this spring Drs. Sintana Vergara and Tesfayohanes Yacob of Humboldt State University led an Environmental Resources Engineering capstone design project focusing on alternative biomass uses. Staff has arranged a presentation by ENGR 492
students on their findings in an effort to keep the CAC informed of promising developments in this area.

The students worked in six teams, each of them identifying and evaluating multiple strategies for energy and non-energy uses of biomass. RCEA power resources staff acted as clients for the class, attending online presentations of the students’ work during the semester and providing feedback as the students performed analysis leading to identification of their recommended design solutions. Some of the solutions the students analyzed have been proposed in some form by community members with concerns about the current use of biomass for energy production via combustion. The students’ work to be summarized in the presentation to the CAC provides insight on the technical and economic feasibility of some of these potential solutions.

RECOMMENDED ACTION

None - information only.
Following approximately 9 months of analysis and gathering public input, in December of 2019 the RCEA Board adopted an update to the RePower Humboldt Plan, RCEA’s comprehensive action plan for energy. The plan establishes goals and strategies to guide RCEA’s work over the 2020-2030 period, and is available online at: https://redwoodenergy.org/wp-content/uploads/2020/06/RePower-2019-Update-FINAL-.pdf

At the Committee meeting staff will provide a presentation on the current status of plan implementation and progress completed over the last 6 months. This will include updates on the four focus areas of the plan:

1. Regional Planning and Coordination
2. Integrated Demand Side Management
3. Low-carbon Transportation
4. Energy Generation and Utility Services

The presentation will include updates on programs developed through the Citizen Sourcing process that are funded through RCEA’s community choice energy program, offshore wind energy development, and microgrid development and other local energy resilience efforts.

STAFF RECOMMENDATION

N/A – Information only.
RePower Humboldt
2020-2030 Strategic Plan
July 2020 Update
Outline

• Fiscal Year 2020-21 Budget highlights
  • CCE-funded program budgets for the coming year
• Transportation programs
• Efficiency and other Demand Side Management programs
  • Behind-the-Meter Storage RFP
• Power Resources Programs and projects
  • Solar Feed-in-Tariff Program
  • Forests & watershed consulting services
  • 2020 Bi-annual Integrated Resource Plan update
Expenses by Program Area

- Power Resources: 92%
- Demand Side Management: 4%
- Transportation: 1%
- Planning: 0.2%
- General Admin: 3%
Expenses by Program, not including power supply

- General Admin: 15%
- Planning: 1%
- Transportation: 7%
- Demand Side Management: 25%
- Power Resources: 52%
Personnel Budget by Program

- General Admin: 25%
- Power Resources: 26%
- Planning: 2%
- Transportation: 6%
- Demand Side Management: 41%
<table>
<thead>
<tr>
<th>CCE-funded Incentive Programs</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Mobile Home Solar</td>
<td>50,000</td>
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<tr>
<td>Public Agency Technical Assist.</td>
<td>55,000</td>
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<tr>
<td>Heat Pumps</td>
<td>50,000</td>
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<tr>
<td>Grocery Refrigeration</td>
<td>16,000</td>
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<tr>
<td>Green Your Grow</td>
<td>35,000</td>
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<tr>
<td>EV Charging</td>
<td>74,000</td>
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<tr>
<td><strong>Roll forward from FY19-20</strong></td>
<td><strong>280,000</strong></td>
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<tr>
<td>Residential kits</td>
<td>50,000</td>
</tr>
<tr>
<td>Heat pumps</td>
<td>50,000</td>
</tr>
<tr>
<td>EV charging/E-bikes</td>
<td>85,000</td>
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<tr>
<td><strong>Addition to FY19-20 roll-forward</strong></td>
<td><strong>185,000</strong></td>
</tr>
<tr>
<td><strong>Total FY20-21</strong></td>
<td><strong>465,000</strong></td>
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Low Carbon Transportation

• Electric bike rebate program: $41.5K in funding expended in <1 month, additional funding approved by RCEA board in FY20-21 budget

• EV Charging Network: Upgrading stations and possible new sites with state funding

• Electric Vehicle and charging station rebates: Launching in the coming months
Demand Side Management

- **After ~15 years, wrapped up PG&E Energy Watch contract in June; for FY19-20:**
  - 223 non-residential customer projects completed
  - Over $340K per year in annual savings to local businesses and public agencies

- **Proposition 39 funding program for schools winding down:**
  - RCEA worked with 22 school districts
  - $5 million in state funding, plus $282K in RCEA incentives
  - Projects included Lighting, Controls, Refrigeration, HVAC, Retro-commissioning, Fuel Substitution, Hot Water, Building Envelope (insulation and windows), Kitchen equipment, Plug loads, and Solar PV.
  - $460K in annual savings to schools.

- **CCE-funded Residential programs in FY19-20:**
  - 251 residential energy efficiency consultations performed
  - 93 residential efficiency kits provided
Demand Side Management

• CCE-funded Public Agency Solar [and more] Program
  • 46 assessments completed
  • 36 feasible solar project = 2.7MW identified
  • 27 energy efficiency projects completed, resulting in over $50K in annual costs savings
  • Over $1.7million in 0-1% financing secured for participants so far to move projects forward
  • Expanding the program to include battery storage for energy resilience

• New Director of DSM Programs – Stephen Kullmann

• New RCEA-administered efficiency program funding: $1.9Million in approved by CPUC beginning in July.

• New Partnership with PG&E for energy efficiency technical assistance: $766K contract beginning in July.

• Additional CCE-funded programs: ramping back up to begin launch previously approved new programs
Behind-the-Meter Storage Request for Proposals

• Goal is to provide a range of community benefits:
  • Resource adequacy value to CCE program
  • Critical energy resilience to host customers
  • Utility cost savings to host customers
  • Grid decarbonization
  • Improved grid operability

• RFP resulted in short list of two program proposals:
  • **TRC**: 5 MW, ~150 systems Aug 2022; focus on large commercial and public project
  • **Swell Energy**: 1.3 MW, ~700 systems by Aug 2021; focused on residential customers

• Contracts in negotiation, targeting approval in August.
Power Resources Projects

- **Airport Microgrid Project:** COVID-19 causing some delays and uncertainty, but project on track for construction in the coming year.

- **Additional community-scale microgrids:** Opportunities to build on temporary/diesel-powered PG&E microgrid work in Willow Creek and Hoopa (more on this elsewhere on the agenda).

- **Offshore Wind:** Federal leasing process slowed due to issues with Department of Defense on central coast, but still moving forward. Auction of Humboldt lease areas anticipated in 2021.
Solar Feed-in-Tariff Program

5.5MW of projects in the queue:
- 4 approved projects (1 other approved but withdrawn by developer)
- 2 additional project in the review process

Available capacity increased by RCEA Board in May:
- Increased FIT phase one to 6.5MW (1 MW of capacity remaining)
- Approved additional 6MW for a second phase of the program
Engaging a consultant or team of consultants for technical expertise to support several RePower Plan work areas:

- **Climate action planning:** provide technical assistance to RCEA members with planning activities around regional forests/working-lands and carbon sequestration.

- **Bioenergy:** Assist with several action items in the plan:
  - "Investigate the impacts of biomass emissions"
  - "Establish a biomass technical advisory committee"
  - "Plan for a long-term transition away from direct combustion of forest-derived biomass and toward lower-impact uses of this material"

- **Small Hydropower:** Goals include “Support existing and new local small-scale hydroelectric power;” perform regional assessment of potential appropriate small hydro sites.
Integrated Resource Plan (IRP)

• Long-term plan for meeting customer loads and system reliability
• Updated and submitted to the CPUC every 2 years
• State requires RCEA plan to include to power portfolio options:
  • One that aligns closely with the State’s “Reference System Plan” and hits a “high” emissions target of 128,000 metric tons
  • One that is at or below the state’s “low” emissions target for RCEA of 106,000 metric tons
• 2020 IRP update due to CPUC on September 1.
## Draft 2020 IRP Portfolios

<table>
<thead>
<tr>
<th>2030 Resource Capacity (MW)</th>
<th>Higher GHG</th>
<th>Lower GHG</th>
<th>Expected Resources in RCEA-Preferred Lower GHG Portfolio</th>
</tr>
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<tbody>
<tr>
<td>Nuclear</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Combined Heat &amp; Power</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>10</td>
<td>0</td>
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</tr>
<tr>
<td>Biomass</td>
<td>25</td>
<td>33</td>
<td>Humboldt Sawmill Co. Units 1-3</td>
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<td>Geothermal</td>
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<td>Hydro (Large)</td>
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<tr>
<td>Hydro (Small)</td>
<td>6</td>
<td>21</td>
<td>Cove Hydro, existing local plants and potential future development</td>
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<td>Wind (On &amp; Offshore)</td>
<td>25</td>
<td>50</td>
<td>Humboldt offshore wind</td>
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<tr>
<td>Solar</td>
<td>108</td>
<td>115</td>
<td>Sandrini, Airport Microgrid, FIT projects</td>
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<tr>
<td>Customer Solar</td>
<td>40</td>
<td>40</td>
<td>Behind-the-meter solar</td>
</tr>
<tr>
<td>Battery Storage</td>
<td>27</td>
<td>15</td>
<td>RCAM, other projects TBD</td>
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<tr>
<td>Long-duration Storage</td>
<td>6</td>
<td>6</td>
<td>To be determined</td>
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<tr>
<td>Demand Response</td>
<td>5</td>
<td>20</td>
<td>Behind-the-meter storage and Distributed Energy Resources</td>
</tr>
<tr>
<td>Total MW of Capacity</td>
<td>284</td>
<td>298</td>
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<tr>
<td><strong>GHG Emissions (MT CO2e)</strong></td>
<td>128,000</td>
<td>&lt;106,000</td>
<td>State-required targets</td>
</tr>
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AGENDA DATE: July 14, 2020
TO: RCEA Community Advisory Committee
FROM: Aisha Cissna, Policy Manager
SUBJECT: County Energy Resilience Bond Subcommittee

BACKGROUND

On March 17, 2020, the County Board of Supervisors voted to request RCEA initiate work towards a municipal bond initiative that would invest in projects to improve the security and resiliency of Humboldt’s energy needs as well as reduce greenhouse gas emissions. As a first step, RCEA is exploring the feasibility of pursuing a municipal revenue bond, given the current economic climate. The two most common types of municipal bonds are general obligation bonds and revenue bonds. A general obligation bond is typically repaid through taxing residents and requires a 2/3 vote at the local level to be issued. A revenue bond is repaid through revenues generated from a specific project and does not require a vote.

While a specific project has not been proposed, examples of potential projects could include—but are not limited to—microgrids for public facilities, utility-scale renewable energy generation, electric vehicle infrastructure, or low-interest customer energy financing programs. To clarify, the County of Humboldt would issue the bond, not RCEA.

COVID’s Impact on the Municipal Bond Market

Please note that the information below has not been verified by a financial professional.

COVID has contributed to volatile and uncertain behavior in the municipal bond market. The pandemic has caused municipal bond interest rates to spike and the price of municipal bonds to plummet; this volatility in the municipal bond market is unprecedented, even when compared to the 2007-2009 crisis.

The price, interest rate, and quality of a municipal bond is dictated by the characteristics of the payment streams backing up the bonds. For a general obligation bond, the payment stream is the revenue from taxes a municipality levies on its citizens. For a revenue bond, the payment stream is the revenue from a specific infrastructure project such as sewer systems and airports. In the era of COVID and social distancing, a revenue bond for an airport may not perform well due to decreases in travel. A bond to finance a sewer system upgrade, on the other hand, would be less risky to an investor.

Many investors divested from the municipal bond market in March and April, as many U.S. government entities scaled back that operations. In mid-May, investors regained an interest in municipal bonds, deeming them to be safer than stocks, even as many municipalities defaulted on payments due to revenue decreases tied to declines in income, sales, and tourism-relates taxes. In early July, investors are continuing to invest in municipal bonds.
The trajectory of the municipal bond market going forward depends on a variety of factors that are in flux right now such as governments reinforcing economic restrictions following another spike in COVID infections, households exchanging their bonds for cash en masse due to anxiety about their personal finances, Federal Reserve intervention, and stimulus funding from Congress to mitigate municipality budget cuts.

**Municipal Bond Credit Rating Basics**

Municipal bond ratings are similar to consumer credit ratings in that they indicate the ability of the borrower (i.e. a State or local government) to pay back a debt. Unlike a consumer credit rating, they are not tracked regularly. A bond issuer must pay to have their credit rating assessed, and there are several agencies that issue bond ratings, including Standards and Poor’s, Moody’s, and Fitch. Each agency has their own rating methodology and categorization system. Due to the highly specific and variable nature of categorization systems between rating agencies, it is best to consult a financial professional to understand any specific bond rating.

Generally, rating agencies have their own rating types and rating scale. These rating types generally describe the risk of the obligated entity relative to factors that include the length of the bond, the entity’s ability to repay on its own, and the entity’s ability to repay with a financial guarantor, third-party credit, or liquidity-support provider.

Rating scales can include various symbols, namely numbers or letters (AAA, AA, BBB, D, etc.). The County of Humboldt was last rated in 2010 by Standard & Poor’s (S&P). S&P gave the County an ‘A’ long-term rating. S&P’s rating scale starts at ‘AAA’ (highest rating) and deescalates to a ‘D’ (lowest rating). The ‘A’ rating indicates a “strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.”

**Project Examples**

There are many examples of municipal bonds for energy efficiency projects, which are often included as a subset of many facility upgrades. Many of these bonds are general obligation, and fund lighting retrofits, HVAC upgrades, and PV systems in various school districts.

Two examples of local government-issued municipal revenue bonds for energy projects include:

- In 2017, the Trinity Public Utilities District issued electric revenue refinancing bonds to pay off a loan which paid for upgrades to transmission lines.
- In 2017, the East Bay Municipal Utility District issued a revenue bond to fund renewable energy generation from its wastewater treatment plant.

Few examples of municipal green energy bonds (in and outside of California) exist past 2018. This may be due to the fact that the federal government discontinued the Qualified Energy Conservation Bonds and Clean Renewable Energy Bonds programs in 2018 which had spurred many green municipal bonds prior to that date.

**RECOMMENDED ACTION**

Establish an ad hoc subcommittee to work with staff to evaluate potential options for a County revenue bond to fund local energy independence and resiliency.
SUMMARY

PG&E has prepared Humboldt Bay Generating Station to island the county during public safety shutoff events outside of Humboldt County and is installing temporary generation capacity to island the Willow Creek and Hoopa substations.

At the Committee meeting the Executive Director will provide a report on PG&E’s local preparations to reduce Public Safety Power Shutoff customer impacts.

STAFF RECOMMENDATION

N/A – Information only.

ATTACHMENTS

1. June 12, 2020, PG&E press release: “Humboldt Bay Generating Station Ready to Serve as a Direct Local Power Source During Emergencies, Reducing Impact of PSPS Events”
2. Map of Areas to Remain Energized During a PSPS Event
3. Willow Creek Substation Spec Sheet
4. Hoopa Substation Spec Sheet
Humboldt Bay Generating Station Ready to Serve as a Direct Local Power Source During Emergencies, Reducing Impact of PSPS Events

Plant's New Set-Up Reflects PG&E's Engagement with Humboldt County Leaders, Customers; In the Past, Local Customers Might Have Been Affected by a Nearby Public Safety Power Shutoff Even If Severe Weather Wasn't Forecast Locally

Release Date: June 12, 2020
Contact: PG&E External Communications (415) 973-5930

EUREKA, Calif. — Pacific Gas and Electric Company (PG&E) today announced the Humboldt Bay Generating Station (HBGS) can now provide power directly to customers, if needed, during emergencies, including Public Safety Power Shutoff (PSPS) events and other events outside Humboldt County that are impacting the county. This is part of the company's continuing effort to reduce impacts on its customers during a PSPS event and other wide-spread power outages.

Known as "islanding," the re-configuring of the plant will allow portions of Humboldt County to be separated from the larger grid and energized exclusively from HBGS when transmission sources that import, export and stabilize power to nearby areas are impacted. Areas that can be powered by the HBGS include 20 cities and towns such as Eureka, Arcata, McKinleyville and Fortuna as well as some tribal communities.

"This represents a significant milestone, not just in Humboldt County where customers will benefit directly, but for all of the customers in our service area who will benefit as we look for innovative solutions to reduce the impact of Public Safety Power Shutoffs," said Andy Vesey, PG&E Utility CEO and President.

Depending on the situation, as many as 67,000 customers who might have lost power when areas outside Humboldt County face extreme weather conditions, will remain energized, due to PG&E's changing of the plant's set-up. The size of the energized area is scalable to the scope of the potential PSPS event and other conditions that could be impacting the grid at the time.

A team of approximately 70 people from the company's Power Generation, Electric Operations, local Customer Care team and other departments worked over the past six months to make this happen. The most recent effort included a successful test of the system's capabilities on May 9. PG&E will continue to fine-tune the system and make additional transmission upgrades to improve functionality in the coming months.

"Our residents and businesses endured hardships during safety shutoffs even when there wasn't a wildfire threat in Humboldt County. PG&E leadership answered our calls to make sure they did everything they can to reduce impacts next time. We thank PG&E for its dedication to serving the county with safe and reliable power," said Rex Bohn, First District Supervisor for Humboldt County.

Sheriff Billy Honsal of Humboldt County agrees reliable power is needed now more than ever.
Especially during these difficult times when we are worried about everyone’s health and safety, we don’t need to worry about an event outside the county impacting our power right now,” Honsal said.

Vesey praised the partnership of Supervisor Bohn, Sheriff Honsal, St. Joseph’s Hospital, Eureka Chief Executive Dr. Roberta Luskin-Hawk and other community leaders.

“As soon as the last PSPS event of 2019 ended, we set a goal to complete direct local powering capabilities before this next wildfire season. The team worked on air permitting, design changes, and testing activities to reach this goal. Safety was at the forefront of everyone’s minds, especially during the pandemic. We thank the community for its support in helping us with this major achievement,” Vesey said.

The HBGS employs 17 full-time workers in Humboldt County and contributes more than $4 million a year in property taxes and local sales taxes to Humboldt County. Operating since 2010, the 163-megawatt power plant uses 10 reciprocating engines that run on natural gas, with diesel fuel as a backup.

It is important for all Humboldt County customers to prepare for power outages. If there is a wildfire threat within the islanded area, PG&E could shut off the power for safety in Humboldt County. The sole purpose of a PSPS is to reduce the risk of major wildfires during severe weather. In 2020, PG&E has pledged to make any PSPS events smaller in size, shorter in duration and smarter for customers. For more information about how you can prepare for emergencies and PSPS events, visit PG&E’s Safety Action Center at safetyactioncenter.pge.com.

Forward-Looking Statements

This news release includes forward-looking statements that are not historical facts, including statements about the beliefs, expectations, estimates, future plans and strategies of PG&E Corporation and Pacific Gas and Electric Company (the "Utility"), including but not limited to statements regarding the size of the energized area during future PSPS events. These statements are based on current expectations and assumptions, which management believes are reasonable, and on information currently available to management, but are necessarily subject to various risks and uncertainties. In addition to the risk that these assumptions prove to be inaccurate, factors that could cause actual results to differ materially from those contemplated by the forward-looking statements include factors disclosed in PG&E Corporation and the Utility’s joint Annual Report on Form 10-K for the year ended December 31, 2019, and their joint Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, and their subsequent reports filed with the Securities and Exchange Commission. PG&E Corporation and the Utility undertake no obligation to publicly update or revise any forward-looking

About PG&E

Pacific Gas and Electric Company, a subsidiary of PG&E Corporation (NYSE:PCG), is one of the largest combined natural gas and electric energy companies in the United States. Based in San Francisco, with more than 23,000 employees, the company delivers some of the nation’s cleanest energy to 16 million people in Northern and Central California. For more information, visit pge.com and pge.com/news.
All information disclosed in this map is provided “as is, with all faults.” PG&E expressly disclaims all warranties and conditions of any kind, express or implied, regarding the accuracy, completeness, intended use, improper use or release, or other attributes of the information disclosed in the map.
Willow Creek Substation
700 State Hwy 96, Willow Creek, CA

Substation Information:

<table>
<thead>
<tr>
<th>City</th>
<th>Willow Creek</th>
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</thead>
<tbody>
<tr>
<td>County</td>
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<tr>
<td>CCA</td>
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<td>North Coast Unified Air Quality Management District</td>
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<tr>
<td>Preparation Type</td>
<td>Temporary generation will be connected at the substation and its functionality will be tested.</td>
</tr>
<tr>
<td>Target Date for Preparation Type</td>
<td>August 2020</td>
</tr>
</tbody>
</table>

Customer Experience:
During a PSPS event, customers served by the proposed Willow Creek substation microgrid would expect the following process/communications, if it is feasible to energize the substation with temporary generation:

- Standard and ongoing outage notifications and alerts related to the PSPS event.
- An alert from PG&E notifying customers of the potential usage of the Willow Creek substation microgrid.
- An outage while PG&E works to establish temporary generation to serve the microgrid.
- Temporary generators operating at the generation site.
- A second outage as PG&E works to reconnect Willow Creek to the surrounding electric grid once it is safe to re-energize lines serving the area.

Please note: At this time, PG&E is preparing the Willow Creek substation to receive temporary generation during 2020 PSPS events. The ability to energize the substation microgrid with temporary generation during a PSPS event will be subject to operational constraints, the specific circumstances of each PSPS event, and the available supply of temporary generation.
Hoopa Substation
Hwy 96 N/O Loop Rd

Substation Information:

<table>
<thead>
<tr>
<th>City</th>
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</tbody>
</table>

Customer Experience:
During a PSPS event, customers served by the proposed Hoopa substation microgrid would expect the following process/communications, if it is feasible to energize the substation with temporary generation:

- Standard and ongoing outage notifications and alerts related to the PSPS event.
- An alert from PG&E notifying customers of the potential usage of the Hoopa substation microgrid.
- An outage while PG&E works to establish temporary generation to serve the microgrid.
- Temporary generators operating at the generation site.
- A second outage as PG&E works to reconnect Hoopa to the surrounding electric grid once it is safe to re-energize lines serving the area.

Please note: At this time, PG&E is preparing the Hoopa substation to receive temporary generation during 2020 PSPS events. The ability to energize the substation microgrid with temporary generation during a PSPS event will be subject to operational constraints, the specific circumstances of each PSPS event, and the available supply of temporary generation.