

GUIDELINES FOR THE REDWOOD COAST ENERGY AUTHORITY COMMUNITY ENERGY PROGRAM LAUNCH-PERIOD STRATEGY AND TARGETS



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OVERVIEW & GOALS

The Redwood Coast Energy Authority (RCEA) is proceeding with the launch of a community choice energy program scheduled to commence service to customers in May of 2017. Based on the groundwork established by the RePower Humboldt strategic plan for developing local renewable energy, in June of 2015 the RCEA Board of Directors voted to proceed with developing a community choice energy program for Humboldt County with the following core goal:

Maximize the use of local renewable energy while providing competitive rates to customers.

In addition to this over-arching goal, the program will be designed to pursue the following aspirations and community benefits:

- Environment Quality
- Local Control and the Ability to Pursue Local Priorities
- Economic Development
- Energy Independence
- Customer Rate-savings, Choice, and Community Programs

Implementing a community choice energy (CCE) program that furthers these goals will be an ongoing and evolving process. Outlined below are targets and objectives for the initial launch phase of the program during years 1-5 of operation. These targets and objectives will have to be adaptively managed based on market conditions and local considerations, but will be used as a guiding framework for the development of RCEA's CCE Program Implementation Plan, power procurement strategy, and the development of local generation projects and programs.

FINANCIAL TARGETS

- A target of approximately 5% of the available program annual budget will be allocated to customer rate savings (based on parity with PG&E generation rates and with PG&E PCIA fees factored in). This equates to a total customer rate savings that averages at least \$2 million per year over the first 5 years, for a targeted total cumulative customer rate savings of at least \$10 million over the first 5 years of operation.
- The program will target building a rate-stabilization/reserve/contingency fund of \$35 million by the end of year five under projected market conditions. The program will be designed to target a minimum reserve of at least \$10 million even under adverse market conditions.
- Over the first 5 years, the program will aim to retain and/or redirect \$100 million dollars or more of rate-payer dollars back into Humboldt County when taking into consideration local power-procurement, customer rate-savings, local-program spending, and allocations toward building the reserve/contingency fund.

POWER OBJECTIVES

- At least 5% more renewable energy (as defined by state law) than PG&E's power mix.
- At least 5% lower greenhouse gas emission rate than PG&E mix.
- Maximize the use of local renewable energy to the extent technically and economically feasible and prudent.
- Strongly support energy efficiency and conservation as core strategies toward achieving the program's environmental, economic, and community goals.

GENERATION PORTFOLIO TARGETS

Existing Local Biomass

- Issue a Request for Offers targeting power purchase agreements with 1-2 existing facilities.
- Structure overall biomass procurement strategy around local waste-management and forest restoration priorities and needs.
- Include environmental, community, and economic considerations in selection process.
- Contingent on price and market conditions, contract for a target of around 20MW of local biomass energy (about 15% of the total RCEA power portfolio).

Existing Local Small Hydroelectric

- Pursue contracting with a target of 2MW of existing local small hydro.
- Ensure that any contracts are structured to support and prioritize the operators' water-management and environmental quality objectives.

New Local Solar Power

- **Feed-in-tariff power procurement program for small generators**
 - <1MW small/medium renewable generators (solar and other technologies)
 - Eligible projects are designed primarily for wholesale power production (not focused on meeting on-site energy loads).
 - Standardized, upfront purchase price, projected to be in the range of \$80-100/MWh to facilitate project financing.
 - Standardized, upfront, and straightforward contract terms and duration to facilitate project financing.
 - Initial power portfolio allocation to the feed-in-tariff program will be targeted at 6MW.

- **Utility-scale Solar**

In parallel to the feed-in-tariff program RCEA will pursue the development of additional wholesale-generation solar projects, which could be developed by RCEA and/or third-parties in pursuit of overall power portfolio solar content targets:

 - Initial target of 5MW of new local wholesale solar online before the end of 2018.
 - Launch-phase target of 15MW of utility-scale/wholesale solar online by the end of year 5 of operations.
 - Focus project development on underutilized/idle public and industrial sites to limit impacts related to other beneficial uses such as agriculture, economic development, habitat, and open space.

Additional Power Resources

To meet and balance over-arching objectives for rates, renewable energy %, and greenhouse gas emissions as well as to match power generation availability to customer loads demands, the launch-period portfolio will incorporate the following addition power sources:

- Renewable generation projects--wind, solar, geothermal, etc--located outside the County.
- California and/or Pacific Northwest hydroelectric power (which is renewable and emissions-free, but cannot be counted toward CA state renewable portfolio standard requirements). This will not include any power from the Klamath River dams.
- Unspecified “system power” from the CASIO power market pool (while power from the pool is not traceable to any specific generator, in northern CA this power is predominately generation from natural gas and large hydro power facilities).

Future/Long-term Generation

- **New Local On-shore Wind Generation**
 - Assess the possibility for up to 50MW of local on-shore wind energy generation on Bear River Ridge.
 - The most viable site for local on-shore wind is Bear River Ridge west of Rio Dell and South of Ferndale.
 - While there are other possible sites in the area, Bear River Ridge has the best wind resource in the County (it is one of the top wind resource areas in the state), Bear River Ridge property owners are willing and interested in developing a wind project, and there was considerable environmental and technical study and evaluation previously conducted which, if utilized, would reduce the development costs and timelines of a potential project.

- **New Local Small-scale Hydroelectric**
 - Evaluate options for the development of new small-scale hydroelectric that would be feasibly-compatible with environmental and cultural priorities.

- **Offshore Wind Energy**
 - While not yet deployed in California, offshore wind energy generation is an established technology. The wind resource off of the Samoa Peninsula coastline is one of the best in North America, and the on-shore infrastructure on the peninsula appears well-suited to accommodate offshore wind development.
 - During the initial 5-year launch-phase of Program, RCEA will allocate resources to moving forward with community and stakeholder engagement, site selection, environmental review, and project scoping.

- **Wave Energy**
 - Wave energy technology is in an early stage of development. During the program launch phase, RCEA will build on the previous WaveConnent and CalWave projects to explore and evaluate opportunities for local wave-energy research, development, and pilot-deployment.

PROGRAMS

Enhanced Solar Net-Energy-Metering (rate-based program)

- Self-generation power credited to customer's bill at retail rate plus \$0.01/kWh (+5-10% above base retail generation rate).
- Excess generation credits roll-over from year to year and never expire.
- Excess generation credits can be cashed-out for full retail value.

100% Renewable Energy Option (rate-based program)

- Voluntary opt-up option for premium price (based on actual cost of service).
- Large hydro and system power components of base RCEA power mix replaced with renewable energy (non-local solar, wind, geothermal, etc).
- Evaluate 100% solar and/or 100% local renewable options in the near-term (in or after 2018, after launch and ramp-up of operations).

Programs budget target of an initial allocation of up to \$1,000,000 per year for:

- ***Solar and Energy-storage Technical Assistance***
Program emphasis will be on public-agency and community facilities, especially critical infrastructure such as water/wastewater treatment and emergency response.

- ***Electric Vehicle Charging Infrastructure***
Supporting the adoption of electric vehicles provides multiple benefits aligned with CCE Program goals: significant reductions in greenhouse gas emission compared to petroleum-powered vehicles; lower \$/mile fuel costs compared to petroleum vehicles, increasing CCE customer-load base, and providing a flexible electricity demand load that has the future potential to be managed to support the integration of renewable energy.

- ***Energy Efficiency and Conservation***
New programs that support and enhance the existing programs offered by RCEA, PG&E, the Redwood Community Action Agency, and others.

- ***Match funding for State, Federal, and Foundation Energy Grants***
The majority of grant funding opportunities require some level of local match funding, so tagging/reserving a flexible component of the CCE program budget to be available as-needed for use as energy-related grant match funding will support bringing resources into Humboldt County to pursue our community energy goals.