

## Regenerative Agriculture Carbon Capture Program

The Regenerative Agriculture Carbon Capture Program (RACC) is a utility sponsored program being developed by Tierra and various utilities and agricultural market participants. The program is intended to deliver significant energy and carbon savings opportunities that are financially beneficial to growers and producers, in terms of both immediate cash flow improvements and providing for longer term economic benefits as the markets for monetizing carbon sequestration mature. The program provides various incentives and services to participants, as shown in Figure 1, and Table 1 defines various program design elements.

Figure 1. Regenerative Agriculture Carbon Capture Program Incentives and Services



Table 1. Regenerative Agriculture Carbon Capture Program Design Elements

Design Element	Feature
<i>Program Concept</i>	Carbon Farms is a utility program designed to provide products and services for sustainable, regenerative farming including renewable energy with battery storage, electrification of farm implements, and carbon sequestration through regenerative farming, livestock management and forestry practices. The program will be a collaborative effort between the utility, local agricultural action organizations, local air quality management districts, and, in California, the California Air Resources Board (CARB).
<i>Target Market &amp; Eligibility</i>	The target market for this program is all types of agricultural operations in a utility service region including field crops, specialty crops (fruits, vegetables, tree nuts, dried fruits, horticulture and nursery crops), livestock and forestry applications.
<i>Objectives</i>	<ul style="list-style-type: none"> <li>• Provide a suite of products and services designed to achieve climate change mitigation through carbon sequestration from regenerative agriculture practices, and clean energy sourced electrification of carbon-fueled agricultural implements, equipment, vehicles and other end uses.</li> <li>• Support electric system load management, reliability, resiliency, and clean energy sourced electrification goals.</li> <li>• Support local economic and workforce development goals in the agricultural sector.</li> </ul>
<i>Implementation Strategy</i>	The Tierra team will provide full-service, turn-key implementation services including application processing, customer outreach and engagement, trade partner training and engagement, coordination and collaboration with community based training

	organizations and service providers, coordination and collaboration with other state and regional partners and support agencies, qualification and referral to local technical assistance providers, data tracking and reporting, and Integrated evaluation of energy, demand, water use, carbon emissions and carbon sequestration impacts.
<i>Key Partners and Collaborators</i>	<ul style="list-style-type: none"> <li>• Electric utilities</li> <li>• California Air Resources Board (CARB)</li> <li>• Monterey Bay Air Resources District (MBARD)</li> <li>• Agricultural and Land-based Training Association (ALBA)</li> <li>• Other</li> </ul>
<i>Education and Outreach</i>	The program would be marketed to all farmers, ranchers and agencies providing training and services to the agricultural sector in a utility's service region.
<i>Products, Services and Incentives</i>	<p>Provide the following products and services to the agricultural sector:</p> <ul style="list-style-type: none"> <li>• Technical assistance with regenerative farming, livestock management and forestry practices, agricultural renewable energy + battery storage applications, energy efficiency applications, and electrification of farm implements, utility and distribution vehicles, and water pumping applications.</li> <li>• Education and outreach to farmers and ranchers including coordination and collaboration with agricultural industry agencies providing training, incentives and services including air quality districts, and other agencies.</li> <li>• Financial incentives for regenerative farming practices, electrification, and renewable energy + storage equipment and systems (see table 1 below).</li> </ul>

The RACC program offers multiple incentive options, including but near-term and long-term financial incentives and economic benefits, as summarized in Table 2.

*Table 2. Regenerative Agriculture Carbon Capture Program Incentive Options*

<i>Measure</i>	<i>Incentive Options</i>
<i>Cover cropping and composting</i>	<i>\$/Acre by cover crop type, \$/weight or volume</i>
<i>Farm implement electrification</i>	<i>\$/vehicle. \$/kWh storage capacity</i>
<i>Water conservation</i>	<i>\$/unit water volume</i>
<i>Biodigesters</i>	<i>\$/pound waste, \$/volume gas</i>
<i>Utility and delivery vehicle electrification</i>	<i>\$/vehicle. \$/charging component, Ag rate advantage</i>
<i>Distribution center electrification</i>	<i>??</i>
<i>Water pumping electrification</i>	<i>\$/hp fossil fuel greater displaced</i>
<i>Solar PV and battery storage systems</i>	<i>Per utility rebate offer (\$/kWh, \$/kW)</i>
<i>Carbon offset credits</i>	<i>\$/mtCO2 verified</i>
<i>Energy efficiency improvements</i>	<i>Per utility rebate offer (\$/kWh, \$/kW)</i>
<i>Demand response</i>	<i>Per utility rebate offer (\$/kWh, \$/kW, demand response rate)</i>

For more information about the program concept, or to partner with Tierra in program development and implementation, please contact Tierra’s lead development staff.



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## About Tierra

Tierra Resource Consultants, LLC (“Tierra”) provides energy and carbon management consulting services to Investor-Owned Utilities (IOUs), public utilities, rural electric cooperatives, government agencies, regulatory bodies, and private sector clients across North America. Our senior staff members have been at the leading-edge of DSM delivery and evaluation for the last three decades. We apply this collective experience to help our clients design programs that have earned more than 20 national awards for excellence in demand and supply side program design, including 12 ENERGY STAR Partner of the Year awards. Recently, programs designed by Tierra staff have earned our clients the 2019 SEPA Innovative Partnership, the 2020 AESP Emerging Technology Program of the Year, and the 2020 PLMA Program Pacesetter Award. Tierra has five practice areas that span the energy and carbon value chain, as summarized in Table 2. [Click here to learn more about Tierra.](#)<sup>1</sup>

Figure 2. Tierra Practice Areas



<sup>1</sup> <https://tierrarc.com/>