

## Project Summary

**Project Title:** Planning for Renewable-based Energy Security and Prosperity in Humboldt County

**Project Duration:** Two years

**Date of Completion:** July 2011

**PIER Funding Requested:** \$199,988

**Total Project Budget:** \$286,744

If California is to meet its aggressive greenhouse gas reduction and renewable energy development goals, select communities will need to take the lead and show how it can be done. Humboldt County is poised to set this example and to become a renewable energy secure community (RESCO). Humboldt County has adequate renewable energy resources to provide for all electricity, heating and transportation energy needs. In addition, there is strong local commitment to develop a secure renewable energy future. What's lacking is a detailed analysis and a corresponding strategic plan for the orderly, capital efficient development of local renewable energy resources. The products of this RESCO proposal will provide the needed analysis and planning guidance and will empower the community to move toward a renewable energy secure future.

The goal of this project is to develop a strategic action plan for Humboldt County to develop its local renewable energy resources in an effort to meet 75% to 100% of the local electricity demand as well as a significant fraction of heating and transportation energy needs. The plan will assess a full range of renewable resources and will identify an integrated mix that can be coupled with energy efficiency and demand management to best meet the county's needs and best capture associated environmental, economic, and social benefits. The plan will lay out a long-term development strategy and will identify the near-term steps the County should take. The long-term success of the proposed analysis will ultimately be measured by the extent of new investment in local renewable energy infrastructure and programs for demand-side management and conservation.

The scope of our proposed project will include in depth engineering and technical analyses, economic and market analyses, policy and regulatory analyses, stakeholder assessment, public education and outreach efforts, development of an action-oriented strategic plan, and preparation of a RESCO planning workbook that will help transfer the lessons learned in this project to other California communities. We will assess local renewable energy resources and associated conversion and grid integration technologies. This assessment will include stochastic time series modeling that examines energy supply and demand. The detailed economic analyses will identify least cost options that meet prescribed renewable energy development goals and will assess both direct and indirect economic affects on the local community. We will also research and evaluate development, financing and ownership models, and will characterize the regulatory environment. We will identify potential regulatory barriers to RESCO development and possible solutions to overcome those barriers. Through our local stakeholder analysis and public education and outreach efforts, we will engage the local community and will inspire key decision makers to take the required next steps to move the Humboldt County RESCO vision forward.

Our proposed project brings together a highly qualified public-private partnership with multi-disciplinary representation. This includes the primary applicant Redwood Coast Energy Authority (RCEA), a Joint Powers Authority that is authorized to develop and implement sustainable energy initiatives that reduce energy demand, increase energy efficiency, and advance the use of clean, efficient and renewable resources available in the region. Partnered with RCEA are the Schatz Energy Research Center at Humboldt State University (a premier local university research group), Pacific Gas and Electric Company (the local investor owned utility), and additional key project partners and stakeholders who can help further the Humboldt County RESCO vision. Our project will leverage the resources and expertise of these project partners to develop a technically viable, economically optimal, and politically palatable RESCO vision for Humboldt County.