County Of Sonoma
Agenda Item
Summary Report

Department: Sonoma County Water Agency

4/5 Vote Not Required

Name and Phone Number: Dale Roberts - (707) 547-1979

Board Date: 12/13/2011

Deadline for Board Action:

AGENDA SHORT TITLE:
Renewable Energy Secure Communities (RESCO) Project Update.

REQUESTED BOARD ACTION:
Informational report presentation.

CURRENT FISCAL YEAR FINANCIAL IMPACT - None.

Explanation (if required):
None.

Prior Board Action:
03/22/11 Board Action. Approval of the updated Energy Policy, and Authorized and Directed the General Manager to implement the Energy Policy.
02/24/09 Resolution No. 09-0128 Authorizing the Water Agency’s General Manager/Chief Engineer to make application to the California Energy Commission Public Interest Research Renewable-Based Energy Secure Communities Grant and to enter into an agreement to receive a grant for the Renewable Energy Secure Sonoma County Project.
**Alternatives – Results of Non-Approval:**

None.

**Background:**

The Sonoma County Water Agency’s (Water Agency) Energy Policy states that the Water Agency “will continue to seek and develop more reliable sources of electricity for the region, including participating in local energy projects and programs that promote self-sufficiency and make North Bay residents less dependent on outside energy sources subject to market fluctuations, natural disasters, and transmission system failures.” The Water Agency’s Renewable Energy Secure Communities (RESCO) Project (Project) is one such project.

The Board of Directors authorized the Water Agency to submit an application for the California Energy Commission’s (CEC) RESCO grant program in February 2009. The Board of Directors also authorized the Water Agency to enter into necessary contractual agreements with the CEC and the Water Agency subcontractors. The CEC entered into an agreement with the Water Agency in August of 2009, providing the RESCO team a $1 million grant. The Water Agency’s portion of the grant is $220,000. Water Agency subcontractors for the Project include: Los Alamos National Laboratories (LANL) $450,000; Climate Protection Campaign (CPC) $255,000; and the Regional Climate Protection Authority (RCPA) $75,000. The Water Agency and its subcontractors have each contributed an equivalent amount of matching funds for a total project value over $2 million.

The goal of the RESCO Project is to develop a local, cost effective, integrated renewable energy portfolio. This requires:

1) Detailed data analysis for designing a prototype renewable energy portfolio,
2) development of an integrated renewable energy portfolio,
3) demonstrating effectiveness of pilot tested local renewable resources,
4) modeling and analysis of related greenhouse gas reductions,
5) exploration of the financial mechanisms for cost effective construction of the portfolio
6) proposed rollout schedule for a full renewable energy portfolio, and
7) governance structure for managing the public works projects envisioned.

All of these elements comprise the scope of Sonoma County’s RESCO project.

The Sonoma County RESCO team is comprised of members of the partners listed above, including staff from the Water Agency, LANL, CPC, and RCPA. The Sonoma County RESCO team collected energy data from various sources including confidential and non-confidential community choice aggregation tariff data from the local utility. The team collected available data from public, local, and state governments, including utility and public infrastructure data, physical geographic data, zoning, permitting, and planning data. The objectives of the local data requests were to identify existing energy infrastructure considerations, obtain geographic information to evaluate resource availability, identify legal barriers to development such as permit or zoning restrictions, and characterize factors influencing the feasibility of resource development such as land ownership, land use regulations and permit jurisdictions. The team completed a report describing data collection methodology, barriers, lessons learned and recommendations to facilitate similar projects in other communities.

The data collected are being analyzed, and are forming the basis for an approach for developing integrated, cost effective, community scale, projects for a renewable energy portfolio. A preliminary analysis of the data collected has been incorporated into the team’s Data Integration and Pre-Analysis Report summarizing.
energy use patterns and proposed approaches to developing locally derived renewable energy projects in Sonoma County. The team continues to refine the renewable energy portfolio based on data and resources specific to Sonoma County.

The Climate Energy Assessment for Resiliency (CLEAR) systems dynamics model being developed by LANL will analyze natural, built, and social systems in Sonoma County. This will help us understand the interrelationship of energy use and greenhouse gas emissions while assessing renewable energy scenarios in the portfolio design. A web portal will allow other communities to use the model to see the effectiveness of similar governance structures, financial incentives, and renewable energy portfolio scenarios in their communities even though their inputs may be different.

The pilot project component of the RESCO Project will demonstrate the local effectiveness of a cogeneration plant fueled with chicken manure biogas (Farms to Fuel), small wind turbine system, electric vehicle charging stations, and geothermal heat pumps using recycled water ponds (at the new Water Agency’s Operations Center). The features of these technologies will be included as parameters in the CLEAR system dynamics model to verify the applicability of these technologies as part of a community-wide renewable energy portfolio.

The pilot project demonstration technologies are expected to begin construction in spring 2012. Data from implementation of these renewable technologies will begin to be collected in the summer 2012. Permitting and suspension of the CEC’s Emerging Renewables Program and the state’s Self Generation Incentive Program (SGIP) caused delays in implementing the demonstration elements of the RESCO Project.

The Sonoma County RESCO team has been implementing a three-year communications plan to provide progress updates, increase familiarity with the Project, look for potential synergies, and prepare for eventual implementation of the renewable energy portfolio. Initial presentations have been made to the Regional Climate Protection Authority; Sonoma County’s city managers; PG&E; the Mayors and Council Members meeting; and at the City Managers League of Cities conference.

The Sonoma County RESCO team is also exploring governance options for implementation of the Sonoma County RESCO, and has collected relevant models from other regions. Sonoma County RESCO team members participated in the steering committee for the Water Agency’s community choice aggregation feasibility study.

The RESCO Project includes a technology transfer element to disseminate the findings of the Project to other communities. Progress of the Project as it develops can be found at http://sonomaresco.org/.

Official contract end date is March 2013. The project has experienced unforeseen delays in data collection and funding programs from outside agencies. In discussions with the CEC, Sonoma County RESCO team plans to extend the end date of the project to March 2014.

This presentation to the Board will summarize the progress toward achieving Project goals and objectives and the plan for completion of remaining work according to the tasks outlined in the agreement between CEC and the Water Agency.
**Attachments:**
None.

**On File With Clerk:**

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**Attachment:**


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**CEC PIER Interim Project Report April 2011:**
Renewable Energy Secure Community Task 2.2 Renewable Energy Portfolio Design Coordination, and Task 3.0 Data Collection Report

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**CEC PIER Final Task Report December 2010:**
Renewable Energy Secure Community Task 4 Data Integration and PreAnalysis Final Report

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**Template revised:** 12/15/2010