



COUNTY OF HUMBOLDT


AGENDA ITEM NO.

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For the meeting of: October 10, 2017

Date: October 3, 2017

To: Board of Supervisors

From:  Thomas K. Mattson, Director of Public Works

Subject: Letter of Commitment to the California Energy Commission from Humboldt County regarding a Solar Plus Battery Storage Microgrid at the California Redwood Coast - Humboldt County Airport in McKinleyville in partnership with the Redwood Coast Energy Authority and the Schatz Energy Research Center at Humboldt State University.

RECOMMENDATION(S):

That the Board of Supervisors:

1. Hear a presentation from the Department of Public Works, Redwood Coast Energy Authority and Schatz Energy Research Center from Humboldt State University about the proposed Solar Microgrid Project;
2. Authorize the Chair of the Board of Supervisors to sign the attached letter of commitment for the project to the California Energy Commission

SOURCE OF FUNDING: The Aviation Fund (3530381) will provide \$15,000 to cover the cost of providing a California Environmental Quality Act review of the project. The funding for the actual project would be grant funded through the California Energy Commission. The grant, if approved, would be between \$2,000,000 and \$5,000,000.

Prepared by Thomas K. Mattson

CAO Approval



REVIEW:

Auditor



County Counsel

Human Resources

Other

TYPE OF ITEM:






☐ Consent
☒ Departmental
☐ Public Hearing
☐ Other

PREVIOUS ACTION/REFERRAL:

Board Order No. _____

Meeting of: _____

BOARD OF SUPERVISORS, COUNTY OF HUMBOLDT
Upon motion of Supervisor  Seconded by Supervisor 

Ayes , , , 
Nays _____
Abstain _____
Absent 

and carried by those members present, the Board hereby approves the recommended action contained in this Board report.

Dated: 

By:


Kathy Hayes, Clerk of the Board

DISCUSSION:

The Public Works Aviation Division (PW) would like to partner with the Schatz Energy Research Center and the Redwood Coast Energy Authority (RCEA) for the installation and maintenance of a Solar Plus Battery Storage Microgrid system to furnish electricity to the community and the California Redwood Coast - Humboldt County Airport (ACV) in McKinleyville. The Schatz Energy Research Center would be the lead in applying for a grant from the California Energy Commission if the county and RCEA will provide letters of commitment for the grant application.

The proposed system would be installed on nine (9) acres owned by the county within the airport grounds. The system includes two photovoltaic (PV) arrays, a battery system and electric vehicle (EV) charging stations. The larger of the two PV arrays, the battery and EV charging stations would be owned by RCEA. The grid connecting the PV and battery would produce renewable energy for Community Choice Energy Customers. The EV charging stations would be installed for use by the public. Public Works would own the smaller of the two PV systems, which would offset energy costs at the airport. The PV arrays would be installed and maintained by RCEA.

Pacific Gas and Electric Company (PG&E) would continue to own the portion of the Janes Creek 1103 distribution circuit within the boundary of the microgrid and the equipment between the circuit and the approved point of contact for the PV and battery systems. PG&E would also own a new controllable switch and any other new equipment installed on the circuit as a result of this project.

FINANCIAL IMPACT:

The California Environmental Quality Act review of the project will be funded by the Public Works Aviation Division (3530381). The project would be funded by a grant from the California Energy Commission and matching funds. ACV can qualify for green funding programs.

Under this project, the PV array owned by Public Works would be installed for the largest account at the airport at no cost to the county. The PV array would offset approximately 65% of the electricity consumed at the largest account at the airport, which would be approximately \$60,000 annually.

This project will not impact the General Fund.

This project conforms to the Board of Supervisors' Core Role of providing for and maintaining infrastructure.

OTHER AGENCY INVOLVEMENT: Redwood Coast Energy Authority, Schartz Energy Research Center, Pacific Gas and Electric Company

ALTERNATIVES TO STAFF RECOMMENDATIONS: To not send the letter of commitment. This is not recommended as this project has the ability to offset a significant cost to the Airport for electricity, and provide a sustainable energy source to RCEA for their Community Choice Energy program.

ATTACHMENTS: Proposed letter of commitment.



BOARD OF SUPERVISORS
COUNTY OF HUMBOLDT

825 5TH STREET, ROOM 111
EUREKA, CALIFORNIA 95501 PHONE: (707) 476-2390

October 10, 2017

California Energy Commission
1516 Ninth Street, MS-29
Sacramento, CA 95814-5512

Schatz Energy Research Center
Humboldt State University
1 Harpst St, Arcata, CA 95521

RE: ACV Airport Microgrid Project

To Whom It May Concern:

The County of Humboldt is committed to the agreement for the proposed ACV Airport Microgrid Project with the Redwood Coast Energy Authority (RCEA), the Schatz Energy Research Center (SERC), and Pacific Gas & Electric Company at the California Redwood Coast—Humboldt County Airport. The project will provide substantial benefits to the Aviation Division of Public Works and to the community at large.

To support the proposed ACV Airport Microgrid Project, Humboldt County—the owner of the airport—agrees to allow the designated nine acres at the airport to be used for this project. Humboldt County also agrees to allow publicly accessible EV charging stations to be installed at the California Redwood Coast—Humboldt County Airport. Humboldt County will also participate as a customer in the microgrid, along with numerous electric accounts that are located on the distribution circuit.

Humboldt County has already been working with Mead & Hunt to develop a revised airport layout plan that includes the proposed solar electric array, and this revised plan is currently making its way through the FAA approval process. We expect full FAA approval by the end of 2017.

Humboldt County will be the CEQA Lead Agency for this project and prior to March 2018, the County agrees to complete the required environmental review for the project. The County does not expect any significant environmental impacts associated with this microgrid project. We have documented this in our CEQA Compliance Form. We will also provide a plan, with specific milestones and due dates, that describes how we will complete the CEQA review process prior to



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March of 2018. We are confident we can complete the review in this timeframe and we commit to providing the necessary staff time to accomplish this.

As part of the proposed project Humboldt County will receive power from a PV array rated at approximately 250 kWAC. This PV array will be located within the designated nine acres and will be installed and maintained by RCEA to serve airport electric loads. We understand that RCEA will own, operate, and maintain a larger PV array and battery energy storage system that will be co-located with the smaller array. The County will also provide space for up to four electric vehicle charging stations to be connected to the microgrid. RCEA will own, operate, and maintain the EV charging stations, which will be equipped with demand response features.

Humboldt County is at serious risk for major earthquake and tsunami hazards, as well as other natural disasters. In addition, we are somewhat remote and isolated with respect to energy infrastructure. Consequently, reliable emergency power for critical facilities is a priority in our region. In conjunction with the California Redwood Coast—Humboldt County Airport, the U.S. Coast Guard Sector Humboldt Bay (located at the airport and included in the microgrid) provides critical emergency services for our area, and these services are dependent on reliable electrical power for the airport. By improving electric power reliability, the proposed airport microgrid project will provide much needed added resilience.

Humboldt County is pleased to be a partner in this important and exciting microgrid project. This project fits in with many of our stated community goals and we are committed to working with our partners to execute a successful project. If you have any questions, please feel free to contact me at (707) 445-7491.

Sincerely,

Virginia Bass, Chair
Humboldt County Board of Supervisors