



**COUNTY OF SAN MATEO**  
Inter-Departmental Correspondence  
Public Works



**Date:** August 27, 2013  
**Board Meeting Date:** October 1, 2013  
**Special Notice / Hearing:** None  
**Vote Required:** Majority

**To:** Honorable Board of Supervisors

**From:** James C. Porter, Director of Public Works

**Subject:** Installation of a 750 Kw Cogeneration System in the Central Plant at the San Mateo Medical Center

**RECOMMENDATION:**

Adopt a Resolution authorizing:

- A) An agreement with Johnson Controls, Inc. to design, furnish, and install a 750 Kw cogeneration system in the Central Plant of the San Mateo Medical Center, for the term of October 7, 2013 through October 6, 2015, in an amount not to exceed \$2,667,500; and
- B) An agreement with Peterson Power Systems to operate and maintain a 750 Kw cogeneration system in the Central Plant at the San Mateo Medical Center for a term commencing upon acceptance of the cogeneration system from Johnson Controls, Inc., anticipated to be November 1, 2014, and running for a period of ten years, in an amount not to exceed \$2,600,000.

**BACKGROUND:**

Your Board adopted the County Strategic Energy Master Plan on December 11, 2012. One of the recommendations in that plan was to install a cogeneration system in the Central Plant at the San Mateo Medical Center.

**DISCUSSION:**

Staff initiated a formal request for proposal process under California Government Code Section 4217 to select a vendor to design, furnish, and install a cogeneration system (COGEN) with a capacity of approximately 750 Kw in the Central Plant at the San Mateo Medical Center. Staff received three proposals, with corresponding bids that ranged from \$2.8 to \$4.1 million. Staff computed and compared the net present value of each proposal as well as the reliability and supportability of the different systems proposed. Staff considered the proposal by Johnson Controls, Inc. (JCI) to be in the

best interest of the County and entered into negotiations with them. The contract not-to-exceed amount includes an additional 10% to cover unforeseen conditions. The anticipated simple payback period is five years.

Proposers were required to include operation and maintenance of the completed system in their submittals and JCI teamed with Peterson Power Systems, the local representative for Caterpillar engines, the main component of the selected COGEN system, to provide that service. The 10-year term allows the contractor to provide full service repair and maintenance at level annual costs that, based on engine life cycles, will cover major overhaul. The County Contract Compliance Committee has approved a waiver of the three year term policy.

County Counsel has reviewed and approved the Resolution and Agreements as to form.

Approval of these Agreements contributes to the Shared Vision 2025 outcome of Environmentally Conscious Community by reducing the net annual production of greenhouse gases through the utilization of the waste heat produced in combustion.

**FISCAL IMPACT:**

The Board authorized \$2.5 million dollars in FY2012/2013 and an additional \$375,000 in FY2013/2014 for the acquisition of the COGEN system. The system is expected to generate approximately \$300,000 in net facility operating savings annually and PG&E will provide an energy rebate of approximately \$375,000 over six years. Payments for maintenance and repair to Peterson Power will be paid out of annual operating budgets. Assuming 97% availability of the COGEN system, staff estimates annual maintenance costs to be \$225,000.