

**DATE:** MARCH 19, 2015  
**TO:** BOARD OF PUBLIC UTILITIES  
**FROM:** COLIN CLOSE, RESEARCH AND PROGRAM COORDINATOR  
**SUBJECT:** AGREEMENT FOR ENERGY OPTIMIZATION PLAN PART 2  
**ACTION:** MOTION

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**ISSUE:**

Shall the Board of Public Utilities, by motion, approve the Professional Services Agreement with Kennedy/Jenks Consultants, Inc. for an amount not to exceed \$121,960 to conduct Part 2 of the Subregional Energy Optimization Plan, which includes detailed investigations of five projects (Waste Heat Recovery; Energy Management Software; Irrigation System Optimization; Solar Photovoltaics; and Mechanical Digester Mixing) to determine their cost effectiveness and potential to optimize energy use?

**BACKGROUND:**

On September 5, 2013, the Board of Public Utilities (BPU) approved an agreement with Kennedy/Jenks Consulting, Inc., (K/J) in the amount of \$28,700 to begin developing an Energy Optimization Plan (EOP). The services included developing a scope of work and fee schedule for establishing an EOP for the Utilities Department. This work was completed on time and within budget.

On January 16, 2014, the BPU approved contract Amendment No.1 (not to exceed \$159,700) to conduct energy and process efficiency audits of the Subregional System and to hold meetings and workshops with key staff to identify potential practices, programs, and projects for optimizing energy use in the Subregional System.

During the audit phase of work, Utilities Department managers and staff determined it would be valuable to have K/J evaluate Delta Pond pump station and the E-Station in conjunction with the West College storage pond. On September 18, 2014, the BPU approved contract Amendment No.2 (not to exceed \$19,500) to assess the potential energy and cost savings associated with modifying these recycled water pump stations.

K/J has completed the first phase of work for the Subregional EOP and concluded that the Subregional System is in the top-tier nationally in its performance and practices. While K/J found no "low hanging fruit," K/J did identify energy efficiency measures and process improvements that could potentially further optimize energy use cost-effectively. K/J's Technical Memorandums with findings and recommendations are attached as background information. All recommendations are under consideration by staff.

K/J also conducted a brainstorming session with staff from the Subregional System to identify additional energy optimization options above and beyond those analyzed in the audits. Staff identified and ranked 49 potential projects. After consolidating and ranking these potential projects, staff and K/J identified five projects that are appropriate to evaluate for cost-effectiveness and potential to optimize energy use.

At the request of staff, K/J provided a scope of work and fee schedule for Part 2 and Part 3 of the Subregional EOP. The scope of work for Part 2 includes analyzing five projects (identified during the brainstorming session) to determine their cost effectiveness and potential for optimizing energy use. The scope for Part 3 includes developing an Action Plan for prioritizing and implementing the recommendations from Part 1 and Part 2 and writing a report outlining the Subregional EOP process and results.

### **ANALYSIS:**

1. The proposed Subregional EOP Part 2 agreement scope of work includes conducting detailed investigations (at a fee not to exceed \$121,960) of potential energy optimization projects in five areas: Waste Heat Recovery; Energy Management Software; Irrigation System Optimization; Solar Photovoltaics; and Mechanical Digester Mixing. Each investigation would entail between 92 and 108 hours of K/J's labor and would be conducted over four to five months. The deliverables would include draft and final technical memorandums outlining the findings and recommendations for each of the potential projects. The source of funds for this contract is JL Key 86494 "Energy Optimization Plan Project."
2. Part 3 (at a fee not to exceed \$127,306) includes developing an Action Plan for prioritizing and implementing the recommendations of Part 1 and Part 2 and writing a report outlining the EOP process and results. The Part 3 scope of work is not included in the proposed agreement and will be considered after the conclusion of Part 2.
3. On March 10, 2015, the Contract Review Subcommittee reviewed the agreement and recommended approval.

### **RECOMMENDATION:**

It is recommended by the Contract Review Subcommittee and Utilities Department staff that the Board of Public Utilities, by motion, approve the Professional Services Agreement with Kennedy/Jenks Consultants, Inc. for an amount not to exceed \$121,960 to conduct Part 2 of the Subregional Energy Optimization Plan.

#### Attachments:

- Staff Update to BPU Contract Subcommittee
- KJ Technical Memorandums
- Professional Services Agreement with Kennedy/Jenks Consulting, Inc.