

# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE:** NOVEMBER 27, 2017

**ITEM NO:** 5

**SUBJECT:** REQUEST FOR PROPOSAL NO. 1723 – PROFESSIONAL CONSULTANT SERVICES AGREEMENT WITH TAS ENERGY INC. OF HOUSTON, TEXAS, FOR THE RETROFIT AND UPGRADE OF THE AIR INLET CHILLER CONTROLS SYSTEM AT RIVERSIDE ENERGY RESOURCE CENTER IN THE AMOUNT OF \$96,285 – APPROVE WORK ORDER NO. 1812272 FOR \$111,000

**ISSUE:**

Approve the Professional Consultant Services Agreement with TAS Energy Inc. of Houston, Texas, for the retrofit and upgrade of the air inlet chiller controls system at Riverside Energy Resource Center for \$96,285; and approve the capital expenditure of \$111,000 for Work Order No. 1812272.

**RECOMMENDATION:**

That the Board of Public Utilities:

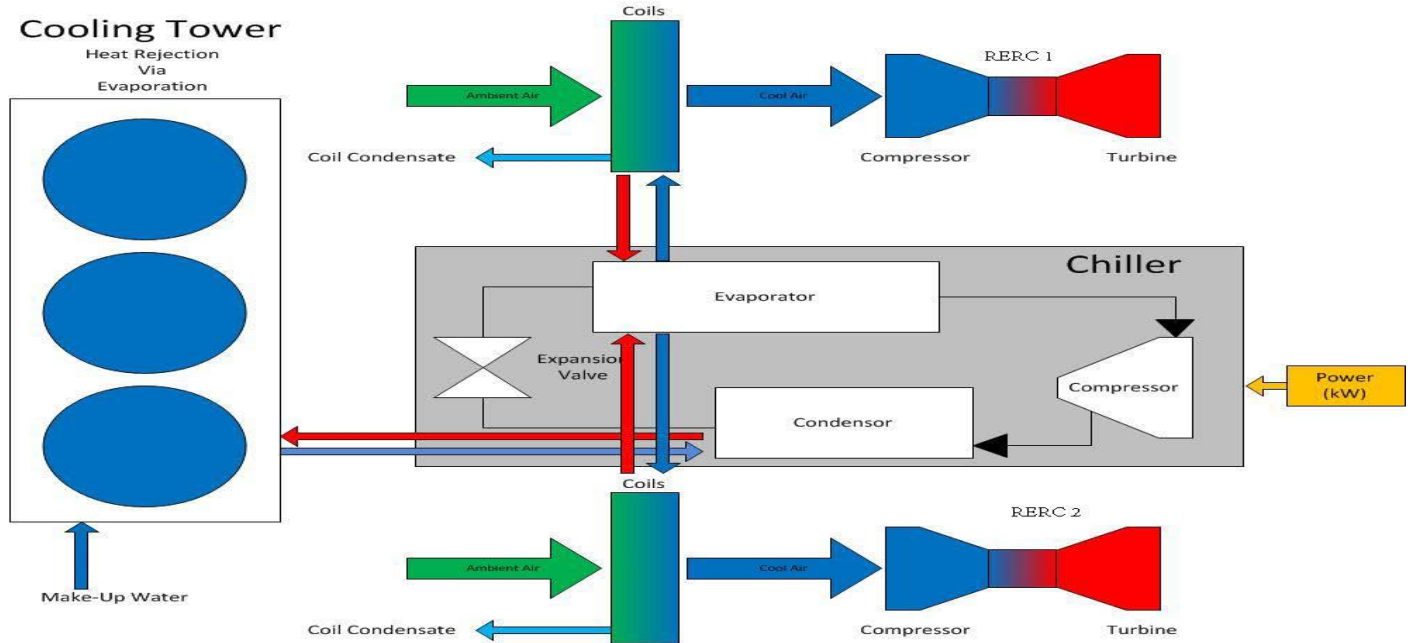
1. Approve the Professional Consultant Services Agreement, in the amount of \$96,285, with TAS Energy Inc. of Houston, Texas, for the retrofit and upgrade of the air inlet chiller controls system at the Riverside Energy Resource Center; and
2. Approve Work Order No. 1812272 in the amount of \$111,000.

**BACKGROUND:**

In June 2006, Riverside Public Utilities (RPU) built and commissioned Riverside Energy Resource Center (RERC) Units 1 and 2. Both gas turbine generators incorporate air inlet chilling technology.

The air inlet chilling system is vital to the electric power output of RERC Units 1 and 2. The chiller system cools the ambient air entering both gas turbines to 47 degrees Fahrenheit, which allows each gas turbine to achieve maximum power output. During the summer months, the colder air represents approximately 20% of the overall megawatt output capacity.

During recent maintenance activities, staff encountered delays acquiring chiller parts and specialized services. The existing control system is obsolete and replacement parts are not readily available. Staff evaluated different maintenance options and selected to upgrade the chiller. The upgrade option provides a more current and supported system. It minimizes unnecessary delays obtaining replacement parts or repair services.



## **DISCUSSION:**

Request for Proposal No. 1723 was posted on June 12 and closed June 29, 2017. Two vendors submitted proposals for the chiller control system upgrade. Staff interviewed the vendors; evaluated proposals; and selected TAS Energy Inc. for the following reasons:

1. Proven experience with extensive knowledge on how the chiller system interfaces with power plant operations.
2. Original system integrator and software programmer for the inlet air chiller systems at RERC.
3. Standardized operator interface with the chiller control systems at RERC.

<b>Vendors:</b>	<b>Location</b>	<b>Bid Amount</b>	<b>Evaluation</b>
1. TAS Energy Inc.	Houston, TX	\$96,285	Proven knowledge and experience with the specific chiller system installed on RERC 1 & 2.
2. Fourstep Automation	Corona, CA	\$67,737	<ol style="list-style-type: none"> <li>1. General controls and industrial background.</li> <li>2. Unfamiliar with the RERC chiller control systems.</li> <li>3. Limited support with RERC's chiller control system software programming.</li> </ol>

The project breakdown is proposed as follows:

<b>Project Breakdown</b>	
Engineering Performed By:	TAS Energy Inc.
Electrical Work Performed By:	TAS Energy Inc.
Inspection and Supervision	RPU Staff
Anticipated Start Date:	May 7, 2018
Anticipated Duration:	5 days

The breakdown for the total capital expenditure as follows:

<b>DESCRIPTION</b>	<b>AMOUNT</b>
Project Materials –TAS Energy Inc.	\$33,782
Contract Labor – TAS Energy Inc.	\$59,463
Taxes	\$3,040
Inspection and Supervision - RPU Staff	\$5,115
Contingency	\$9,600
<b>Work Order Total</b>	<b>\$111,000</b>

The Purchasing Manager concurs that the recommended actions comply with Purchasing Resolution No. 22576.

**FISCAL IMPACT:**

The total fiscal impact is \$ 111,000. Sufficient funds are available in Public Utilities Capital Account No. 6120130-462200.

Prepared by: Daniel E. Garcia, Utilities Assistant General Manager/Resources  
Approved by: Girish Balachandran, Utilities General Manager  
Approved by: John A. Russo, City Manager  
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability  
of funds: Laura Chavez-Nomura, Utilities Assistant General Manager/Finance

**Attachments:**

1. Professional Consultant Services Agreement TAS Energy Inc.
2. RFP Award Recommendation
3. Presentation