

# Agenda Report

December 4, 2006

**To:** CITY COUNCIL

**From:** CITY MANAGER

**Subject:** AUTHORIZATION TO ENTER INTO A CONTRACT WITH PA CONSULTING FOR CONSULTING SERVICES TO DEVELOP AN ENERGY DATABASE AND REPORTING SYSTEM

## **RECOMMENDATION:**

It is recommended that the City Council Authorize the City Manager to enter into a contract with PA Consulting for consulting services to design an energy database and reporting system for the power system in an amount not to exceed \$500,000.

Competitive Bidding is not required pursuant to the City Charter Section 1002(F) contracts for professional or unique services.

## **BACKGROUND:**

Pasadena Water and Power (PWP) identified the need to develop a comprehensive energy database and reporting system (Reporting System) in the fiscal year 2007 budget. This system will better manage and report data associated with PWP's energy generation and scheduling operations. PWP does not have the internal resources to develop a reporting system for energy transactions. The proposed contract is for services to assist in completing the following tasks:

1. Identify data reporting requirements of the Reporting System;
2. Develop high-level design options for the Reporting System;
3. Develop Reporting System functional specifications and requirements;
4. Evaluate potential Reporting System software tools and/or vendors;
5. Select software tools and/or vendors; and
6. Provide project management services to implement the Reporting System.

The objective of the Reporting System is to store complex energy related data from disparate sources and provide a comprehensive reporting tool.

Each year, PWP schedules approximately 1,500,000,000 Kilowatt-hours of energy resources valued in excess of \$80 million to meet PWP's electric demand and efficiently utilize excess resource capacity. In the course of the year, thousands of transactions with dozens of counterparties are executed. PWP operates generation resources and must account for fuel use and emissions as well as energy production. PWP must account for data associated with the following types of activities:

- Actual amounts generated versus those scheduled;
- Amounts attributed to transmission and distribution losses;
- Differences between load forecasts and actual electricity requirements;
- Natural gas produced from reserves, purchased for generation, or purchased for hedging;
- Variances between different meter data sources;
- Emissions from power production (e.g. NOX, SO<sub>2</sub>, and CO<sub>2</sub>);
- Forward power and natural gas positions marked-to-market; and
- Volatility and risk measurements associated with natural gas and power.

PWP must maintain accurate records of this data and is required to prepare reports in various formats for government and regulatory agencies as well as for accounting and other internal purposes.

PWP currently utilizes a variety of software applications to manage energy generation and transactions, including:

1. Global Energy Decision's (GED) Schedule Management for power transactions
2. The Structure Group's nMarket for California Independent System Operator (CAISO) scheduling and settlements
3. Power Distribution Supervisory Control and Data Acquisition (SCADA)
4. Power Plant Continuous Emissions Monitoring System
5. Microsoft's Office Products for gas transactions
6. GED's Market Data Warehouse for historical and forward energy prices
7. Pattern Recognition Technologies' (PRT) system for load forecasting

In addition to the above software applications, PWP has several legacy systems with historical data. As specific applications change over time, PWP must maintain a consistent data source for historical data management reporting.

All of these software applications have different data structures and none of them

has the capability of preparing most of the required reports, thus PWP has historically relied on spreadsheets to track and summarize data. Increasing power market complexity and reporting requirements has lead to a dramatic increase in duplicative spreadsheet and databases resulting in disparate values being reported for the same type of request. Once the data is deposited to a spreadsheet there is no ability to control and audit the data.

The Fiscal Year 2007 (FY07) Capital Improvement Project (CIP) Budget created a project to improve the data reporting capability for energy transactions. This contract is the first step in the capital project. Future steps will include:

1. Purchasing a software tool that allows to extract, transform, and load (ETL) data from multiple sources into a single data repository;
2. Implementing the ETL solution;
3. Developing the data warehouse; and
4. Building a series of reports to monitor and analyze energy transactions.

These steps will lead to improvements in market and performance analysis, energy accounting, and data control for PWP's energy transactions.

### ***Vendor Selection Process***

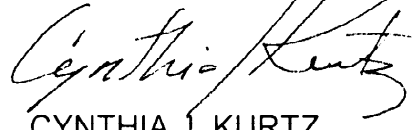
PWP issued a Request for Proposal through the City of Pasadena's Purchasing Group on October 7, 2006 and responses were provided on October 27, 2006. A total of six proposals were received.

An analysis was performed by representatives from PWP's Wholesale Transactions, Settlements, and Information Technology groups on these six vendors and PA Consulting provided the best fit and value for PWP. A summary of the evaluation is shown in Attachment I

**FISCAL IMPACT:**

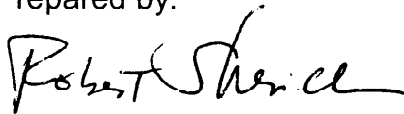
Funds are available in FY2007 CIP Budget Number 3193 "Energy Reporting System Upgrade" for the expected \$500,000 costs for the consulting and project management services.

Respectfully submitted,



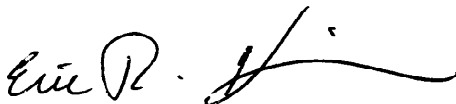
CYNTHIA J. KURTZ  
City Manager

Prepared by:



ROBERT SHERICK  
Director – Power Supply  
Water and Power Department

Approved by:



PHYLLIS E. CURRIE  
General Manager  
Water and Power Department

## ATTACHMENT I

Scoring criteria and scores (out of total 100) for each software vendor:

Vendor	Energy Data Systems and Reporting (30%)	Western Energy Markets (20%)	References (20%)	Overall Value (20%)	Local (5%)	Small Business (5%)	
Aculix	20	5	10	10	0	0	45
Auriga	15	15	10	10	0	5	55
ECCO	15	15	15	10	0	0	55
PA Consulting	25	15	15	20	0	0	75
Structure	20	15	10	10	0	0	55
UISOL	20	15	15	10	0	0	60

**Disclosure Pursuant to the  
City of Pasadena Taxpayer Protection Amendment of 2000  
Pasadena City Charter, Article XVII**

Contractor/Organization hereby discloses its trustees, directors, partners, officers, and those with more than a 10% equity, participation, or revenue interest in Contractor/Organization, as follows:

*(If printing, please print legibly. Use additional sheets as necessary.)*

**1. Contractor/Organization Name: PA Consulting Group, Inc**

**2. Name(s) of trustees, directors, partners, officers of Contractor/Organization:**

Jon Moynihan – President and Director
Simon Hirtzel – Chief Financial Officer and Director
Jon Kanter - Treasurer
Kully Janjuah - Secretary
Mark Culley – Assistant Secretary
Laurie Miller – Assistant Secretary

**3. Names of those with more than a 10% equity, participation or revenue interest in Contractor/Organization:**

Wholly owned subsidiary of PA US Holdings Inc.

Prepared by: \_\_\_\_\_ Jon Kanter \_\_\_\_\_

Title: \_\_\_\_\_ Treasurer \_\_\_\_\_

Date: \_\_\_\_\_ 10/24/06 \_\_\_\_\_

For office use only:

Contract/Transaction No. \_\_\_\_\_

If not a contract, type of transaction: \_\_\_\_\_