City of Palo Alto (ID # 11685)

City Council Staff Report

Report Type: Consent Calendar **Meeting Date: 12/14/2020**

Summary Title: Contract Amendment Number 4 with Advanced Control Systems

Title: Approval of Amendment Number 4 to Contract Number S16161922 With Advanced Control Systems, Inc, for Maintenance and Support of the City's Supervisory Control and Data Acquisition (SCADA) System, to Extend the Contract for Five Additional Years (for a Ten-year Term) and to Increase Compensation by $372,064, Which Includes a ten Percent Contingency for Additional Services, for a new Total Not-to-Exceed $672,794

From: City Manager

Lead Department: IT Department

Recommendation

Staff recommends that Council approve and authorize the City Manager or designee to execute contract amendment number four to contract S16161922 with Automated Control Systems, Inc. (ACS), for ongoing maintenance and support of the City's Supervisory Control and Data Acquisition (SCADA) system, in order to extend the term by five (5) additional years, bringing the total term to ten (10) years, and increase the compensation by $372,064, which includes a ten percent Additional Services contingency of $33,824, for a new total compensation amount not to exceed $672,794.

Background

City of Palo Alto Utilities (CPAU) uses a Supervisory Control and Data Acquisition (SCADA) system to monitor and control the City's electric, water, and gas substations. Maintaining a streamlined and highly available SCADA system is essential to providing safe and reliable utilities to City of Palo Alto residents and customers. Advanced Control Systems, Inc. (ACS) is the provider of the SCADA equipment since the original system was installed in 1997. The City uses only compatible equipment/software when it upgrades and adds on to the system, which only ACS can provide, as it is a proprietary system. Past efforts to integrate third-party equipment, such as third-party remote terminal units (RTUs) and spreadsheet software, proved to be much more costly and never fully met the intended need.

The SCADA system consists of a set of main servers, replicating servers and nodes, connecting

devices, field units, periphery management systems, communication bridges, switches, memory arrays, security and backup servers, operator consoles, databases, and software. ACS provides this equipment and supporting software including the services to implement properly. CPAU has a replacement program to replace/upgrade the SCADA system equipment, including servers, RTUs, etc., at the Utility Control Center (UCC) and also at its substations. All devices and software are covered by the ACS annual support subscription.

Contract S16161922 was executed with ACS on December 1, 2015, for a three-year term and then amended to correct an error in the listing of the annual and total cost (Amendment 1). On December 8, 2017, the contract was amended to extend the term and compensation by two additional years (Amendment 2). A third amendment dated January 24, 2019, added two security documents to the contract, the Information Privacy Policy and the Software as a Service Security and Privacy Terms and Conditions (Amendment 3). The links to all of the signed contract documents can be found in Attachment A. This contract was originally exempted from competitive solicitation in 2015, PAMC 2.30.360 (b)(2).

Discussion

This SCADA system communicates to the intelligent field devices using a communication system mostly via fiber optics, logic controllers, and RTUs. This system is integral to the secure operation of these three electric, water, and gas utilities.

Although an industry standard, this ACS SCADA system is complex. It requires regular updates, much like Microsoft updates to office computing systems. It requires detailed technical support to ensure it is available and reliable at all times. In addition, as staff incorporates changes, additions, and deletions to this ever-evolving system, the impacts need to be assessed and planned for carefully. All updates to the operating system (OS) must be tested and compatible with the ACS SCADA system. Only ACS can perform these tests and updates. It poses a significant risk to invite a third-party integrator into the City's SCADA system, given that any glitches can cause power outages, water/gas shutting off, and wrong telemetry/status readings. ACS is an expert in its systems and provides support so staff can achieve success. Although staff is very capable, and they remain in regular communication with the ACS support line. This need is especially magnified today in the age of cyber-terrorism. That said, staff have been aggressively increasing the level of security and access features the past several years, which adds additional levels of complexity. ACS is the only company that can adequately provide this full-subscription support service on its proprietary system.

Staff is satisfied with the current system and nonetheless keeps abreast of the marketplace. Staff will advance a comprehensive procurement if the system is unable to meet critical business requirements and/or when it is cost-effective to do so.

Resource Impact

The funds for the payment of this contract are budgeted in the IT Technology Fund and were approved during the Fiscal Year 2021 budgeting cycle. Funding for this contract for Fiscal Year 2022 and beyond is subject to annual appropriation of funds.

Stakeholder Engagement

ACS has been providing maintenance and support of the City's SCADA system since 1997 and is the only vendor to provide support of its proprietary system.

Environmental Review

Approval of these contracts do not constitute a project under the California Environmental Quality Act (CEQA); therefore, no Environmental Assessment is required.

Attachments:

- Attachment A: Contract Documents for Advanced Control Systems - S16161922

Attachment A: Contract Documents for Advanced Control Systems – S16161922 (CMR 11685)

- S16161922 – Original Contract
- S16161922 – Amendment #1
- S16161922 – Amendment #2
- S16161922 – Amendment #3
- S16161922 – Amendment #4 (signed by vendor)