



CITY OF SANTA BARBARA

COUNCIL AGENDA REPORT

AGENDA DATE: January 27, 2015

TO: Mayor and Councilmembers

FROM: Facilities Division, Public Work Department

SUBJECT: Approve HVAC Controls Standardization And Professional Services Agreement

RECOMMENDATION: That Council:

- A. Find it in the City's best interest to standardize to the Carrier I-Vu Building Automation System for all new buildings and major heating, ventilation and air conditioning systems; and
- B. Authorize the Public Works Director to negotiate with and execute a professional services agreement with West Coast Power Solutions for the design, supply and integration of the Carrier I-Vu Building Automation Systems for one year in an amount not to exceed \$75,000, with four one-year renewal options.

DISCUSSION:

Building Automation Systems (BAS) are used to control, measure and troubleshoot the operation of heating, ventilation and air conditioning (HVAC) systems, and they provide valuable data on how efficiently a building is operating. The Facilities Division (Facilities) has been installing the Carrier I-Vu BAS controls on most new HVAC systems and in the City's largest buildings in an effort to maximize each building efficiency.

Staff evaluated several BAS, including the Johnson Metasys system, the Honeywell Tridium system and the Carrier I-Vu system. It was determined through this thorough evaluation that the I-Vu is the most cost effective way to reliably control City buildings and to meet all of the unique building needs that the City faces.

There are currently 11 buildings using the I-Vu, including City Hall, the Central Library, the Franklin Center, the Teen Center, Parks Administration, Recreation Administration, 630 Garden St, Granada Garage, Water Distribution, the Westside Center and the Eastside Library. Since the I-Vu has been installed at each of these sites, Facilities staff has been able to easily identify and troubleshoot system issues and failures, make adjustments to temperature setpoints, schedules and user access easily and remotely, and easily train building staff on using the controls for their own unique building needs.

Ultimately, Facilities would like to implement the I-Vu controls at all medium- to large-sized City buildings.

Standardizing on the I-Vu will allow the City to stock system components for quick repair and maintenance, and to train all staff on a single, easy-to-use system. Furthermore, the I-Vu has the capability of controlling most, if not all, of our incorporated buildings from a single I-Vu Web Server, meaning that Facilities staff can access most of our buildings' HVAC systems from a single web interface. This not only reduces the cost of incorporating new buildings into the system, but it makes it very easy for Facilities staff to assess, compare and troubleshoot each HVAC system that is on the I-Vu.

By comparing the I-Vu to other similar control systems, it has been identified as the most "user-friendly" system by Facilities staff, primarily because it allows building "owners" the ability to easily and intuitively control their own occupant comfort, see how their system is working in real time, and look at historical trends with minimal training. The I-Vu is also easily adjusted and updated by City Staff to adapt to each building's changing needs, unlike the other systems previously tested. This greatly reduces the cost and length of time to fix a problem, as opposed to needing a controls installer to come out and make adjustments to the system. Because of the complex and idiosyncratic nature of controls design and implementation, it is critical to work with an experienced and tested controls designer and programmer.

Facilities staff has found West Coast Power Solutions (WCPS) to be the most reliable implementer of the I-Vu system, based on several years of BAS implementation experience and working with various contractors for controls projects. WCPS has consistently outperformed the other controls installers in terms of product, professionalism and long-term follow through, which is a key component of keeping the controls running optimally. Additionally, WCPS has installed all but one of the City's I-Vu systems and is familiar with all of the City's buildings and mechanical equipment.

Though there are several installers in Southern California capable of installing this system, WCPS is the closest geographically to Santa Barbara, and the most responsive to City needs.

SUSTAINABILITY IMPACT:

Building Automation Systems are proven to reduce energy use by ensuring that HVAC systems are only used when needed, based on building occupancy and at an appropriate temperature for occupant comfort. The City anticipates saving approximately 10-15% in energy usage and costs for each building brought on to the control system.

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SUBMITTED BY: Rebecca J. Bjork, Public Works Director

APPROVED BY: City Administrator's Office