



## **REQUEST FOR PROPOSAL RFP 11-12-18**

### **Phase I**

## **Distributed Control System (DCS) Upgrade**

**Date: August 28, 2012**

# CONTENTS

1	INTRODUCTION.....	3
2	PROJECT GOALS AND OBJECTIVES.....	3
3	MINIMUM QUALIFICATIONS .....	3
4	COMPLETE RFP PHASE I.....	4
5	PROCUREMENT TIMELINE .....	4
6	CONTACT INFORMATION .....	5
7	HOW TO OBTAIN THIS RFP .....	5
8	PROCEDURE FOR SUBMITTING QUESTIONS AND INQUIRIES.....	5
9	SUBMISSION OF PROPOSALS.....	5
10	LATE PROPOSALS .....	5
11	PHASE I - RESPONSE DOCUMENTS / SUBMISSION REQUIREMENTS.....	6
12	REVIEW PROCESS .....	6
13	GENERAL INFORMATION .....	6
14	GROUNDS FOR DISQUALIFICATION .....	6
15	ADDENDA AND INTERPRETATION.....	7

## **1 INTRODUCTION**

The Water Pollution Control Plant (WPCP) utilizes a distributed control system (DCS) that monitors and controls most aspects of the WPCP's operations. The existing DCS (System Six) is provided by ABB Inc. Components of the ABB System Six control system installed at the WPCP are nearing the end of their product life, and will no longer be supported by ABB in the future. The feature set of the existing system is limited and expansion cannot be done due to the system's limitations. This document outlines the scope of services required to upgrade the DCS Conductor NT consoles and servers to System 800xA Process Portal A. The overall scope shall consist of upgrading hardware, software, and providing related services required for the WPCP to be fully operational on the 800xA system.

The DCS upgrade will require converting the entire existing human machine interface (HMI) configuration and functionality to the new system. The HMI of a DCS system is comprised of graphics, trends, alarms, events, face plates, existing user help screens, security, system management tools, network parameter tools and all other functionality available through a full XDCDUMP file of the system etc. The HMI is used by the operators to monitor and control the Plant's electrical, hydraulic, biological and chemical processes. This interface is a core aspect of WPCP operations and is continuously used by the staff. The upgrade will not involve changing DCU (Distributed Control Unit) controller hardware or control logic residing in the controllers. WPCP has already made significant investment in installing hardware that will support the 800xA based control system. See Exhibit 1 for a thorough description of the existing system and conversion requirements.

## **2 PROJECT GOALS AND OBJECTIVES**

This upgrade shall be a turnkey solution. The contractor shall provide project management, documentation, onsite support, startup and training as part of this upgrade. Once the contractor has completed the conversion of the existing HMI to the new 800xA system, contractor shall work with WPCP staff to rollout the new system in a systemic way where each WPCP process area is brought online with the new system while the existing conductor NT system continues to run in parallel until the entire WPCP is online using the new system.

The City has contracted with ABB for the control system since the mid 1990s, and had originally intended to sole source this upgrade with ABB. The purpose of this Phase 1 RFP is to establish if there are other firms that are qualified to successfully complete this upgrade. In the event that there are other firms that meet the minimum qualification standards as established in this Phase 1 RFP, then RFP Phase 2 will be distributed only to those companies, with the intent of competitively selecting a contractor and entering into a contract for the upgrade.

## **3 MINIMUM QUALIFICATIONS**

All Proposers must submit the required response documents.

The contractor shall demonstrate that they meet the following minimum qualifications by completing Attachment A Previous Customer Reference Worksheet

This project requires understanding of the ABB Conductor NT software and System Six controllers. The Proposer shall have successfully completed at least two ABB Conductor NT to 800xA system upgrades within the past five years. Each reference provided should demonstrate an upgraded system project that includes at a minimum, 5000 hard Input/output points and 1000 graphics converted.

#### **4 COMPLETE RFP PHASE I**

The following attachments are included:

##### **ATTACHMENTS:**

<b>Attachment Number</b>	<b>Title</b>
Exhibit 1	Overview
A	Previous Customer Reference Form

#### **5 PROCUREMENT TIMELINE**

<b>Date</b>	<b>Event</b>
August 28, 2012	RFP Phase I Released
September 6, 2012	Proposer Questions Due
September 7, 2012	City Addendum Responses Posted
September 11, 2012, 4:00PM PST  Submit Proposals to:  LATE SUBMITTALS WILL NOT BE ACCEPTED	Phase I Due  City of San Jose 200 E. Santa Clara Street, 14 <sup>th</sup> Floor San Jose, CA 95113 Attention: Andrew Hitchcock

## **6 CONTACT INFORMATION**

City of San Jose  
Finance/Purchasing, 14<sup>th</sup> Floor  
200 E. Santa Clara St.  
San Jose, CA 95113  
Attn: Andrew Hitchcock  
Phone: 408-535-7059  
E-mail: [andrew.hitchcock@sanjoseca.gov](mailto:andrew.hitchcock@sanjoseca.gov)

## **7 HOW TO OBTAIN THIS RFP**

This RFP may be downloaded from the BidSync e-Procurement system located at [www.bidsync.com](http://www.bidsync.com) . Suppliers can also find a link at the City of San Jose Bid-Line Web site at [www.sanjoseca.gov/purchasing/default.asp](http://www.sanjoseca.gov/purchasing/default.asp). At either Web site, follow the links to register for the on line service. You may register for free either on-line or by calling BidSync Vendor Support at 1-801-765-9245 and telling the support representative that you are registering for City of San José procurements.

All addenda and notices related to this procurement will be posted by the City on BidSync. In the event that this RFP is obtained through any means other than BidSync, the City will not be responsible for the completeness, accuracy, or timeliness of the final RFP document.

## **8 PROCEDURE FOR SUBMITTING QUESTIONS AND INQUIRIES**

Questions pertaining to this RFP should be submitted via e-mail to the Purchasing Contact. Please submit all questions by the deadline indicated in the procurement timeline, Section 5. The City will provide a written response to all pertinent questions in the form of an Addendum.

## **9 SUBMISSION OF PROPOSALS**

Responses to this solicitation shall establish qualified Proposers. Proposers who meet the minimum qualification criteria and have been pre-qualified will be able to participate in Phase II of the RFP process.

Each Proposer must be qualified and validated to participate in Phase II. In the event that no Proposer meets the minimum qualifications, a sole source contract may be negotiated with ABB, the current provider of the software and hardware platform.

## **10 LATE PROPOSALS**

Late proposals shall be rejected and returned to the proposer. This deadline is absolute and proposals received after the due date and time shall not be considered. Proposers must select a method of delivery that ensures proposals will be delivered to the correct location by the due date and time.

## **11 PHASE I - RESPONSE DOCUMENTS / SUBMISSION REQUIREMENTS**

**Required Attachment Submittals** – The following documents **must** be completed and submitted: “Attachment A – Previous Customer Reference Form.” Include at least two clients that can substantiate the Contractor’s experience meeting the minimum qualifications. Contacts should be individuals who can verify performance on projects of a similar scope and budget as this project.

## **12 REVIEW PROCESS**

### **12.1 PROPOSAL RESPONSIVENESS**

**12.1.1** Required Documentation: Proposals will be reviewed to determine if all required documentation was included with the proposal submittal as described in Section 11.

### **12.2 REFERENCE REVIEW**

**12.2.1** Responses will be evaluated against the minimum qualifications as described in Section 3. Each Proposer’s references shall be reviewed to determine a Pass or Fail rating. Passing the Minimum Qualifications shall result in qualified Proposers receiving Phase II of the RFP.

**12.2.2** The City may seek written clarification from any or all proposers in order to better understand and evaluate the references. This process may not be used as an opportunity to submit missing documentation or to make substantive revisions to the original submission.

## **13 GENERAL INFORMATION**

The City reserves the right to accept or reject any item or group(s) of items of a response. The City also reserves the right to waive any informality or irregularity in any proposal. Additionally, the City may, for any reason, decide not to award an agreement as a result of this RFP or cancel the RFP. The City shall not be obligated to respond to any proposal submitted, nor be legally bound in any manner by submission of the proposal.

Final award shall be contingent upon reaching an agreement on software licensing terms, if applicable. Statistical information contained in this RFP is for informational purposes only. The City shall not be responsible for the complete accuracy of said data. The City reserves the right to verify any information provided during the RFP process and may contact references listed or any other persons known to have contracted with the Proposer.

## **14 GROUNDS FOR DISQUALIFICATION**

All Proposers are expected to have read and understood Council Policy 0-35 titled Procurement and Contract Process Integrity and Conflict of Interest adopted on February 6, 2007. A complete copy of the policy can be found at:

[http://www.sanjoseca.gov/clerk/cp\\_manual/CPM\\_0\\_35.pdf](http://www.sanjoseca.gov/clerk/cp_manual/CPM_0_35.pdf)

Any proposer who violates the Policy will be subject to disqualification. Generally, the grounds for disqualification include:

**14.1.1** Contact regarding this procurement with any City official or employee or Evaluation team other than the Procurement Contact from the time of issuance of this solicitation until the end of the protest period.

**14.1.2** Evidence of collusion, directly or indirectly, among Proposers in regard to the amount, terms, or conditions of this proposal.

**14.1.3** Influencing any City staff member or evaluation team member throughout the solicitation process, including the development of specifications.

**14.1.4** Evidence of submitting incorrect information in the response to a solicitation or misrepresent or fail to disclose material facts during the evaluation process.

In addition to violations of the Process Integrity Guidelines, the following conduct may also result in disqualification:

**14.1.5** Offering gifts or souvenirs, even of minimal value, to City officers or employees.

**14.1.6** Existence of any lawsuit, unresolved contractual claim or dispute between Proposer and the City.

**14.1.7** Evidence of Proposer's inability to successfully complete the responsibilities and obligations of the proposal.

**14.1.8** Proposer's default under any City agreement, resulting in termination of such Agreement.

## **15 ADDENDA AND INTERPRETATION**

The City shall not be responsible for nor be bound by any oral instructions, interpretations or explanations issued by the City or its representatives. Should discrepancies or omissions be found in this RFP or should there be a need to clarify the RFP, requests for clarification may be sent via e-mail to the attention of the contact named in Section 6.

Proposer requests for clarification shall be deliverable as stated in Section 8. Any City response to a request for clarification will be made in the form of an addendum to this RFP. All addenda shall become part of this RFP.

## EXHIBIT 1 OVERVIEW

The existing control system deployed at WPCP is a DCS system provided by ABB. The system is called the “DCI System Six” and uses Conductor NT console software. The system is comprised of 18 DCUs (Distributed Control Units), 9 Conductor NT servers and approximately 35 clients. The system has approximately 6700 wired I/O (input/output) points and 14,000 to 15,000 points via communication links. The new system will operate with the existing DCUs. ABB’s “DCI Connect” software will be required for 800xA to communicate with the existing System Six DCU controllers. Upon award to the successful proposer, the WPCP will supply the contractor with the existing system and configuration files.

Converting the exiting HMI is a major portion of this project. Operator input in reviewing the converted graphics and popup windows etc. is very critical to WPCP. It is of great importance to WPCP that the existing behavior of all graphics is kept intact so as to minimize operator error in the future. The contractor is expected to work very closely with the WPCP team to ensure that care is taken in understanding the needs, existing setup and designing the new HMI.

The contractor shall be responsible for extracting all relevant information from the existing system files. In case where the new system does not support an existing graphic or elements of the graphic’s behavior, the contractor shall build new graphic elements to provide the functionality needed. The Proposer shall ensure that the conversion of the new system is fully accurate. The contractor shall make the necessary changes to the HMI or other elements of the system as directed by WPCP staff.

Prior to the start of the conversion process, the contractor and the WPCP staff shall create an understanding on basic conventions to be followed during the development of the new system. Details such as text fonts and sizes, background color(s), static and dynamic colors, dynamic element behavior, and the hierarchy of graphic navigation shall be demonstrated and documented. The contractor shall test the converted graphics and sub models and demonstrate to WPCP that they work and are fully accurate.

The contractor shall turn over all graphics source code or any other engineering/configuration data to WPCP upon completion of the project.

### Conversion Quantities

Upon completion of Phase I of this RFP process, proposers will be invited to attend an onsite session to examine the current set of files in order to properly estimate the number of graphics, trends, sub models and reports needed to convert the entire system. WPCP is undergoing expansion of new I/O and current estimates as of July 2012 are as follows:

Quantity	Item
~1700	Trend Displays
~ 8500	Historical tags in the trend database
10	Excel Reports
~ 1100	Graphics
~ 2000	Graphic Sub-models

The Proposer shall be responsible for converting and testing all of the existing graphics, events, trends and alarms. The proposer shall also be responsible for customizing faceplates, icons and other standard features to meet existing WPCP requirements.

**ATTACHMENT A**  
**PREVIOUS CUSTOMER REFERENCE FORM**

At the time of proposal submission, references are required from Proposers that can demonstrate the completion of at least two ABB Conductor NT to 800xA system upgrades successfully within the past five years. Each reference provided should demonstrate an upgraded system project that includes at a minimum, 5000 hard Input/output points and 1000 graphics converted. Please submit these references using Attachment A, Previous Customer Reference Sheet. Only one copy of the form is provided in the Phase I package. Proposers are required to copy the form as required to meet the reference submission requirements.

**Company Name of Customer:**

**Customer Address:**

**Contract Period:** \_\_\_\_\_ to \_\_\_\_\_

## Customer Contact:

**Customer E-mail:**

**Value of Contract: \$**

**Customer Title:**

**Customer Phone Number:**

**Brief description of service provided including size of system, number of servers and clients, number of graphics, trends and historical tags. (Use additional sheets, if required)**