



**AGENDA**  
**ENGINEERING, OPERATIONS & WATER RESOURCES COMMITTEE MEETING**  
**OF THE BOARD OF DIRECTORS**  
**OF THE**  
**INLAND EMPIRE UTILITIES AGENCY\***

**WEDNESDAY, JUNE 12, 2024**  
**10:00 AM**

**AGENCY HEADQUARTERS**  
**BOARD ROOM**  
**6075 KIMBALL AVENUE, BUILDING A**  
**CHINO, CALIFORNIA 91708**

**\*A MUNICIPAL WATER DISTRICT**

**[VIEW THE MEETING LIVE ONLINE AT IEUA.ORG](http://IEUA.ORG)**

**TELEPHONE ACCESS: (415) 856-9169 / Conf Code: 803 810 685#**

**The public may participate and provide public comment during the meeting by dialing the number provided above. Comments may also be submitted by email to the Recording Secretary Jennifer Hy-Luk at [jhyluk@ieua.org](mailto:jhyluk@ieua.org) prior to the completion of the Public Comment section of the meeting. Comments will be distributed to the Committee Members.**

**CALL TO THE ORDER**

**PUBLIC COMMENT**

Members of the public may address the Committee on any item that is within the jurisdiction of the Committee; however, no action may be taken on any item not appearing on the agenda unless the action is otherwise authorized by Subdivision (b) of Section 54954.2 of the Government Code. Those wishing to address the Committee on any matter, whether or not it appears on the agenda, are requested to email the Board Secretary prior to the scheduled meeting time or address the Committee during the public comments section of the meeting. Comments will be limited to three minutes per speaker.

**ADDITIONS TO THE AGENDA**

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require two-thirds vote of the legislative body, or, if less than two-thirds of the members are present, a unanimous vote of those members present, that there is a need to take immediate action and that the need for action came to the attention of the local agency subsequent to the agenda being posted.

## 1. CONSENT ITEMS

### A. MINUTES

Approve the Minutes of the April 10, 2024 Engineering, Operations & Water Resources Committee meeting.

### B. AWARD CONTRACT FOR BUILDING AUTOMATION SYSTEM CONTROLS UPGRADE

Staff recommends that the Committee/Board:

1. Award a contract for the Building Automation System Controls Upgrade, to Infinite Control Systems for a not-to-exceed amount of \$415,707; and
2. Authorize the General Manager to execute the service contract, subject to non-substantive changes.

### C. AWARD CONSTRUCTION CONTRACT FOR THE RP-1 CENTRATE LINE IMPROVEMENT PROJECT

Staff recommends that the Committee/Board:

1. Award a construction contract for the RP-1 Centrate Line Improvement, Project No. EN24020, to Mladen Buntich Construction Co. Inc., in the amount of \$1,388,000; and
2. Authorize the General Manager to execute the contract, subject to non-substantive changes.

### D. AWARD CONSTRUCTION CONTRACT FOR RP-1 EVAPORATIVE COOLING FOR AERATION BLOWER BUILDING

Staff recommends that the Committee/Board:

1. Award a construction contract for the RP-1 Evaporative Cooling for Aeration Blower Building, Project No. EN21056, to Horizons Construction Company International, in the amount of \$1,327,000; and
2. Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

## 2. ACTION ITEMS

### A. AWARD MASTER SERVICE CONTRACTS FOR SUPERVISORY CONTROLS AND DATA ACQUISITION INTEGRATION SERVICES

Staff recommends that the Committee/Board:

1. Award master services contracts for System Integration Services to Technical Systems Inc. and E Tech Group for a total aggregate not-to-exceed amount of \$6,000,000 over a five-year period, with two one-year options to extend; and
2. Authorize the General Manager to execute the contracts, subject to non-substantive changes.

**B. APPROVE RP-1 PHOTOVOLTAIC SYSTEM PARTIAL DECOMMISSIONING AGREEMENT**

Staff recommends that the Committee/Board:

1. Approve the Photovoltaic System Partial Decommissioning Agreement between Solar Star California V, LLC and IEUA for the not-to-exceed amount of \$443,727; and
2. Authorize the General Manager to execute the agreement, subject to non-substantive changes.

**C. ADOPT RESOLUTION NO. 2024-06-11, ESTABLISHING REGIONAL INDUSTRIAL PRETREATMENT PROGRAM SERVICES**

Staff recommends that the Committee/Board Adopt Resolution No. 2024-06-11, Establishing Regional Industrial Pretreatment Program Services.

**3. INFORMATION ITEMS**

**A. RP-5 TO RP-2 SLUDGE LINE REPAIR ON EL PRADO ROAD UPDATE (POWERPOINT)**

**B. RP-5 EXPANSION PROJECT UPDATE JUNE 2024 (POWERPOINT)**

**4. GENERAL MANAGER'S COMMENT**

**5. COMMITTEE MEMBER COMMENTS**

**6. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

**ADJOURN**

**Declaration of Posting**

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I, Denise Garzaro, CMC, Board Secretary/Office Manager of the Inland Empire Utilities Agency\*, a Municipal Water District, hereby certify that, per Government Code Section 54954.2, a copy of this agenda has been posted at the Agency's main office, 6075 Kimball Avenue, Building A, Chino, CA and on the Agency's website at [www.ieua.org](http://www.ieua.org) at least seventy-two (72) hours prior to the meeting date and time above.

**In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary at (909) 993-1736 or [dgarzaro@ieua.org](mailto:dgarzaro@ieua.org), 48 hours prior to the scheduled meeting so that IEUA can make reasonable arrangements to ensure accessibility.**



**MINUTES**  
**ENGINEERING, OPERATIONS, AND WATER RESOURCES**  
**COMMITTEE MEETING**  
**INLAND EMPIRE UTILITIES AGENCY\***  
**AGENCY HEADQUARTERS, CHINO, CA**

**WEDNESDAY, APRIL 10, 2024**  
**10:00 A.M.**

**COMMITTEE MEMBERS PRESENT**

Michael Camacho, Chair  
Marco Tule, Director

**CALL TO ORDER**

Committee Chair Camacho called the meeting to order at 10:00 a.m. There were no public comments received or additions to the agenda.

**1A – 1B. CONSENT ITEMS**

The Committee:

- ◆ Approved the Minutes of the March 13, 2024 Engineering, Operations, and Water Resources Committee.
- ◆ Recommended that the Board:
  1. Approve a construction contract change order for the RP-3 Basin Improvements, Project No. RW15003.05, to Metro Builders & Engineer Group LTD, in the amount of \$ 176,501; and
  2. Authorize the General Manager to execute the construction change order, subject to non-substantive changes;

as a Consent Calendar item on the April 17, 2024 Board Meeting agenda.

**2A. – 2B. ACTION ITEMS**

The Committee:

- ◆ Recommended that the Board:
  1. Award a consultant contract for the RP-4 1299 Recycled Water Pump Station Rehabilitation, Project No. EN24007, to Stantec Consulting Services, Inc., for the not-to-exceed amount of \$612,475; and
  2. Authorize the General Manager to execute the contract, subject to non-substantive changes;

as a Consent Calendar item on the April 17, 2024 Board Meeting agenda.

◆ Recommended that the Board:

1. Award a contract for the procurement, installation, and delivery of a modular building for the Education Center, Project No. EA24001, to Williams Scotsman, Inc., in the amount of \$278,980; and
2. Authorize the General Manager to execute the contract, subject to non-substantive changes;

as a Consent Calendar item on the April 17, 2024 Board Meeting agenda.

**3A. INFORMATION ITEM**

The following information item was presented or received and filed by the Committee:

- ◆ RP-5 Expansion Project Update April 2024

**4. GENERAL MANAGER'S COMMENTS**

General Manager Shivaji Deshmukh stated that staff are happy to conduct tours of the RP-5 project.

**5. COMMITTEE MEMBER COMMENTS**

There were no Committee member comments.

**6. COMMITTEE MEMBER REQUESTED FUTURE AGENDA ITEMS**

There were no Committee member requested future agenda items.

**ADJOURNMENT**

Committee Chair Camacho adjourned the meeting at 10:25 a.m.

Respectfully submitted,

Denise Garzaro  
Board Secretary/Office Manager

\*A Municipal Water District

**APPROVED: JUNE 12, 2024**



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**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Award Contract for Building Automation System Controls Upgrade

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**Executive Summary:**

Heating, ventilation, and air conditioning (HVAC) systems are required to maintain a safe and comfortable environment for staff and visitors. HVAC is also critical to ensure the reliable operation of the Agency's electrical-intensive assets, such as motor control centers, server rooms, and other industrial applications. The Agency currently owns and maintains HVAC equipment such as chillers, boilers, pumps, cooling towers, air handlers, cabinet air conditioning units, and variable frequency drives that periodically require monitoring by using a Building Automation System (BAS). The Agency's current BAS system has obsolete controls that do not have replacement parts readily available. This project aims to replace five different product lines currently in use with one standardized BAS that is serviceable and repairable.

On February 7, 2024, a competitive Request for Proposal (RFP-VC-24-004) was issued through PlanetBids Network to provide BAS controls upgrade. A mandatory job walk was conducted on February 14, 2024, and one proposal was received on February 22, 2024. Infinite Control Systems (ICS) submitted a comprehensive proposal and demonstrated that they understood the scope of services. Staff is recommending the award to ICS for the upgrade of the Building Automation System for a not-to-exceed amount of \$415,707.

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**Staff's Recommendation:**

Staff recommends that the Committee/Board:

1. Award a contract for the Building Automation System Controls Upgrade, to Infinite Control Systems for a not-to-exceed amount of \$415,707; and
2. Authorize the General Manager to execute the service contract, subject to non-substantive changes.

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**Budget Impact** *Budgeted (Y/N): Y Amendment (Y/N):*    *Amount for Requested Approval \$415,707*

*Account/Project Name:* FM24001 Headquarters HVAC System Upgrades  
FM24002 RP-1 Operations Building HVAC  
FM24004 RP-5 Central Plant HVAC

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**Regional Sewerage**    *Technical Committee (Y/N):*  
*Policy Committee (Y/N):*

## **Environmental Determination:**

Statutory Exemption

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### **Environmental Determination Text:**

The project is statutorily exempt based on the CEQA General Rule found in Section 15061(b)(3) of the State CEQA Guidelines.

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### **Attachments:**

Attachment 1 - [PowerPoint](#)

Attachment 2 - [Contract](#)



# Award Contract for Building Automation System Controls Upgrade

Frank Sotomayor  
Facilities Program Supervisor  
June 2024

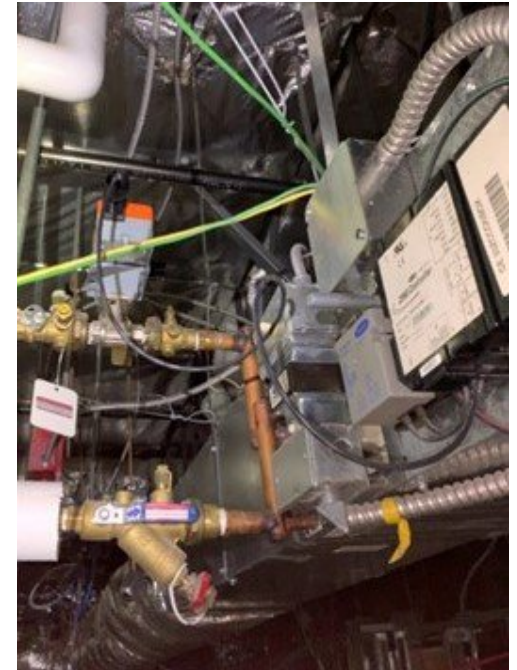
# Agency-Wide Heating, Ventilation, and Air Conditioning (HVAC)



Central Plant



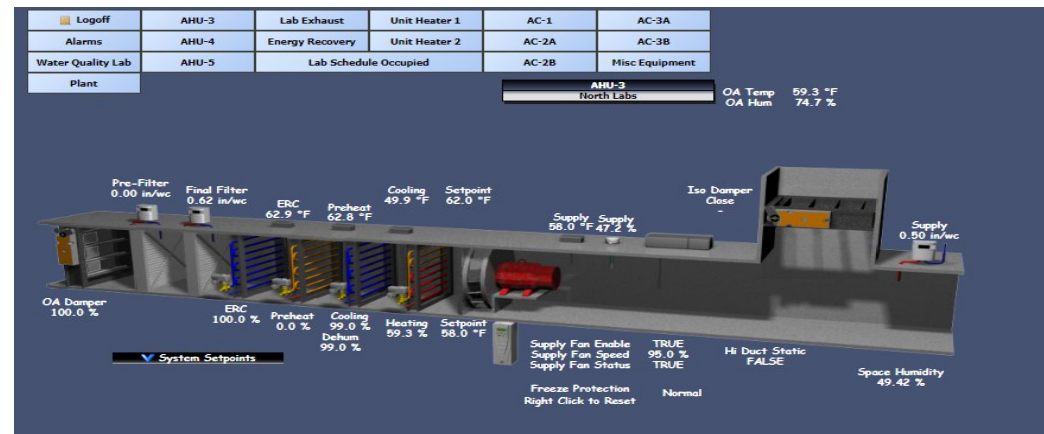
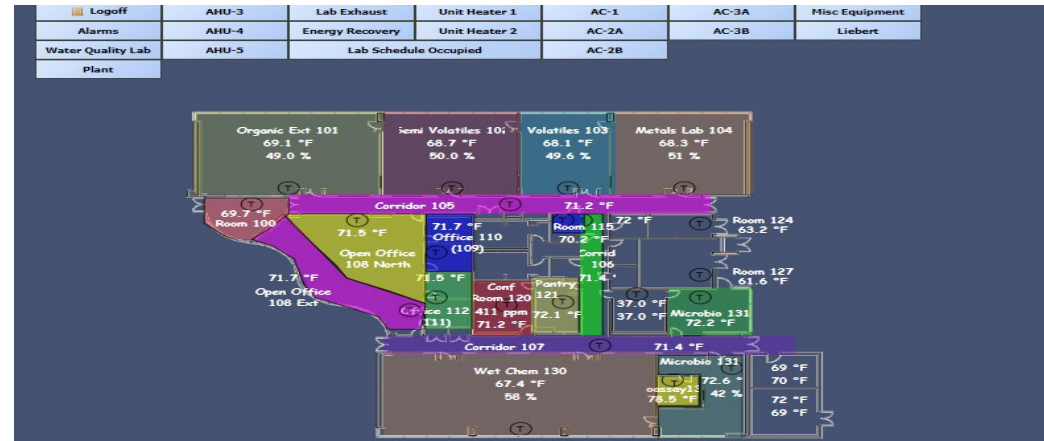
Air Handlers



HQ Variable Air Volume Zones

# HVAC Control System

- HVAC control systems allow staff to access, control, and monitor all connected building systems from a single interface.
- The agency has 5 different control systems, all of which are outdated or at the end of life.
- Headquarters
  - 53 Office Zones
  - Central Plant
  - Main Server Rooms
- Regional Water Recycling Plant No. 1
  - Main Control Building
  - 930 Reclaimed water pump VFD room
  - Maintenance staff offices



# Equipment with Obsolete Controls

Major Equipment	TOTAL
Critical Area Package A/C Units	8
Critical Area Split System A/C Units	2
Cabinet A/C Units	8
Chillers	7
Boilers	4
Variable Frequency Drives	26
Pumps	18
Cooling Tower	1
Main Air Handlers	5



# Proposal Evaluation

- February 7, 2024: Request for Proposal
- February 14, 2024: Job walk conducted. Three contractors participated.
- February 22, 2024: One proposal received.

## Selection Criteria

- Level of experience and knowledge
- Approach (Proposed Work Plan)
- Past Record of Performance
- References
- Pricing
- Exceptions taken to the specifications

- Contract term is one year  
—July 1, 2024 through June 30, 2025

## Proposals

1. Infinite Control Systems (ICS)	Chino, CA
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# Project Budget and Schedule

Description	Estimated Cost
<b>Construction</b>	<b>\$457,277</b>
Construction	\$415,707
Contingency (~10%)	\$41,570
<b>Total Project Cost</b>	<b>\$457,277</b>
FM24001 Headquarters HVAC System Upgrades	\$300,000
FM24002 RP-1 Operations Building HVAC	\$60,000
FM24004 RP-5 Central Plant HVAC	\$100,000
<b>Total Project Budget</b>	<b>\$460,000</b>

Project Milestone	Date
<b>Construction</b>	
Construction Contract Award	July 2024
Construction Completion	March 2024



# Staff's Recommendation

1. Award a contract for the Building Automation System Controls Upgrade, to Infinite Control Systems for a not-to-exceed amount of \$415,707; and
2. Authorize the General Manager to execute the service contract, subject to non-substantive changes.

The Building Automation System Contract, is consistent with **IEUA's Business Goal of Wastewater Management** specifically the Asset Management objective that IEUA will ensure the regional sewer system and treatment facilities are well maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.



**CONTRACT NUMBER: 4600003477  
FOR  
BUILDING AUTOMATION SYSTEM CONTROL UPGRADES**

THIS CONTRACT (the "Contract"), is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2024, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter interchangeably referred to as "Agency" or "IEUA"), and Infinite Control Systems (ICS), located in Chino, California (hereinafter referred to as "Contractor"), for upgrading of the building automation system controls.

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. AGENCY PROJECT MANAGER ASSIGNMENT: All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: Chris Ruff  
 Company Name: Inland Empire Utilities Agency  
 Address: 6075 Kimball Avenue  
 Chino, CA 91708  
 Telephone: 909-993-1600, extension number 1883  
 Facsimile: 909-993-1987  
 Email: [cruff@ieua.org](mailto:cruff@ieua.org)

2. CONTRACTOR ASSIGNMENT: Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Contractor: Fred Daniali  
 Company Name: Infinite Control Systems (ICS)  
 Address: 13777 Amarillo Avenue  
 Chino, CA 91710  
 Telephone: 909-631-1428  
 Facsimile: 909-627-0147  
 Email: [fred.daniali@infinitecontrolsystems.com](mailto:fred.daniali@infinitecontrolsystems.com)

3. **ORDER OF PRECEDENCE**: The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions the governing order of precedence shall be as follows:
  - A. Amendments to Contract Number 4600003477
  - B. Contract Number 4600003477 General Terms and Conditions.
  - C. Agency's Request for Proposal Number RFP-VC-24-004, **Exhibit A**.
  - D. Contractor's proposal dated, February 22, 2024, **Exhibit B**.
  
4. **SCOPE OF WORK AND SERVICES**: The Contractor has overall responsibility for and shall provide and furnish all materials, equipment, tools, and labor as necessary or reasonably inferable to complete the work, or any phase of the work, in accordance with the Agency's requirements and the terms of the Contract documents with the following:
  - A. Scope of Work and Technical Specifications in accordance with **Exhibit B**.
  
  - B. Contractor shall provide Agency with a Schedule of Work and Services, documenting the anticipated completion of the work within the timeframe of this contract. The Schedule of Work and Services will be prepared and submitted, to the Project Manager, for review and approval.
  
  - C. Method of Inspection:
    1. Work performed under this Contract may be required to undergo monthly, weekly, or daily inspections.
    2. The Project Manager will be responsible for performance of the inspections.
    3. If Contractor fails an inspection, the Project Manager will be responsible for providing a written notice to the Contractor explaining the error and a determination of the urgency for the correction of the error (herein referred to as a "Cure Notice").
  
  - D. Cure Procedure:
    1. For a Cure Notice deemed by the Agency to be **urgent**, Contractor shall correct any error of the Work within five (5) calendar days after Contractor's receipt of a Cure Notice, as directed by the Project Manager.
    2. For a Cure Notice deemed by the Agency to be **important**, Contractor shall correct any error of the Work within ten (10) calendar days after Contractor's receipt of a Cure Notice, as directed by the Project Manager.
    3. If the Project Manager rejects all, or any part of, the Work as unacceptable and agreement to correct such Work cannot be reached without modification to the Contract, Contractor shall notify the Project Manager, in

writing, detailing the dispute and the reason(s) for the Contractor's position. Any dispute that cannot be resolved between the Project Manager and Contractor shall be resolved in accordance with the provisions of this Contract.

- E. The Agency may, at any time, make changes to this Contract's Scope of Work, including additions, reductions, and other alterations to any or all of the Work. However, such changes shall only be made via written amendment to this Contract. The Contract compensation and Schedule of Work and Services shall be equitably adjusted, if required, to account for such changes and shall be set forth within the mutually approved Contract Amendment.
5. **TERM:** The initial term of this Contract shall begin on **July 1, 2024**, through **June 30, 2025**, or until services are completed whichever occurs first, unless agreed upon by both parties, reduced to writing, and amended to this contract.

6. **PAYMENT, INVOICING, AND COMPENSATION:**

- A. Agency shall pay Contractor's once-monthly, properly executed invoice, approved by the Project Manager, within thirty (30) days following receipt of the invoice.
- B. As compensation for the Work performed under this Contract, Agency shall pay Contractor's invoice, for a total contract price NOT-TO-EXCEED **\$415,707.15** for all services satisfactorily provided during the term of this Contract.
- C. Additionally, to qualify for payment, the Contractor shall prominently display, on the first page of the invoice, both:
1. The Contract Number – 4600003477, and
  2. The Contract Release Purchase Order Number – 4500043034
  3. Contractor **must** accept payment electronically by Automated Clearing House (ACH) and provide Bank Routing information on ACH form provided by Agency

The preferred method of receiving invoices is electronic. The Contractor should submit invoices by email & such invoices shall be submitted as follows:

[APGroup@ieua.org](mailto:APGroup@ieua.org)

- D. Concurrent with the submittal of the original invoice to the Agency's Accounts Payable Department, the Contractor shall forward via email a copy of the invoice to the designated Project Manager, identified in Section 1, on Page 1 of this Contract.
- E. No Additional Compensation: Nothing set forth in this Contract shall be interpreted to require payment by Agency to Contractor of any compensation

specifically for the assignments and assurances required by the Contract, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract, as approved by the Project Manager.

- F. Contractor may request taking advantage of the Agency's practice of offering an expedited payment protocol to a Contractor who has proposed accepting an invoice amount reduction in exchange for early payment. The Contractor may offer and the Agency may accept, applying a (1%, 2%, or 5%) discount (invoice amount reduction) to a Contractor's invoice in exchange for payment of such invoice within (20, 15, or 10) days, respectively, of the date the invoice is received at the Agency's [APGroup@ieua.org](mailto:APGroup@ieua.org) email address.
7. **CONTROL OF THE WORK:** The Contractor shall perform the Work in compliance with the Schedule of Work and Services. If performance of the Work falls behind schedule, the Contractor shall accelerate the performance of the Work to comply with the Schedule of Work and Services as directed by the Project Manager. If the nature of the Work is such that Contractor is unable to accelerate the Work, Contractor shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Schedule of Work and Services.
8. **PRICE ADJUSTMENT:** RESERVED
9. **FITNESS FOR DUTY:**
- A. **Fitness:** Contractor on the jobsite:
1. Shall report for work in a manner fit to do their job.
  2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
  3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
  4. Compliance: Contractor shall advise all personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the jobsite and shall immediately remove from the jobsite any employee determined to be in violation of these requirements. Agency may cancel the Contract if Contractor violates these Fitness for Duty Requirements.
- B. California Department of Industrial Relations: **For all public works performed in excess of \$1,000.00, SB854 is applicable:**

**Effective January 1, 2015:** The call for bids and contract documents must include the following information:

1. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
2. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
3. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. As such, a PWC-100 shall be generated under the direction of the IEUA Project Manager or their designee.

C. Confined Space Work:

1. Precautions and Programs:
  - a. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work or the activities of subcontractors, suppliers, and others at the work site.
  - b. The Contractors and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the "Contract Work Hours and Safety Standards Act," as set forth in Title 29 C.F.R. If the Agency is notified of an alleged violation of the Occupational Safety and Health Standards referred to in this Section and it is established that there is a violation, the Contractor shall be subject to liquidated damages as provided in the Contract.
  - c. The Contractor and all subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the United States Secretary of Labor under the "Occupational Safety and Health Act of 1970," as set forth in Title 29, C.F.R. Where an individual State act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.

- d. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary supervision, control, and direction to prevent damage, injury, or loss to:
    - 1) All employees on the work or work site and other persons and organizations who may be affected thereby;
    - 2) All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
    - 3) All other property at the site.
  - e. Contract work requiring confined space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 - 5158. This regulation requires the following to be submitted to IEUA for approval prior to the start of the project:
    - 1) Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157. This regulation also requires the following to be submitted to IEUA for approval prior to the entry of a confined space.
    - 2) A written plan that includes identification of confined spaces within the construction site, alternate procedures where appropriate, contractor provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.
  - f. The Contractor must also submit a copy of their Safety Program or IIPP prior to the start of the project for approval by the IEUA Safety Department.
10. **INSURANCE**: During the term of this Contract, the Contractor shall maintain, at Contractor's sole expense, the following insurance.

A. **Minimum Scope of Insurance**: Coverage shall be at least as broad as:

- 1. Commercial General Liability ("CGL"): Insurance Services Office ("ISO") Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
  3. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
  4. Reserved
- B. Deductibles and Self-Insured Retention: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees, and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- C. Other Insurance Provisions: The insurance policies are to contain, or be endorsed to contain, the following provisions:
1. Commercial General Liability and Automobile Liability Coverage
    - a. Additional Insured Status: The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment supplied in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85; or **by either** CG 20 10, CG 20 26, CG 20 33, or CG 20 38 **and** CG 20 37 forms if later revisions are used).
    - b. Primary Coverage: The Contractor's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Contractor's insurance and shall not contribute with it.
    - c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees, or volunteers.

- d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- e. The Contractor may satisfy the limit requirements in a single policy or multiple policies. Any additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

Contractor hereby grants to Agency a waiver of any right to subrogation which any insurer of the Contractor may acquire against the Agency by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this Contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency pursuant to Section 14, page 12 of this Contract.

- D. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A minus:VII, and who are admitted insurers in the State of California.
- E. Verification of Coverage: Contractor shall provide the Agency with original certificates and amendatory endorsements, or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
- F. Submittal of Certificates: Contractor shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency  
Attn: Risk Management  
P.O. Box 9020  
Chino Hills, CA 91709

**PLEASE NOTE:** In lieu of mailing certificates, it is preferable for contractor and/or broker to submit all required insurance certificates and endorsements electronically to [insurance@ieua.org](mailto:insurance@ieua.org).

11. LEGAL RELATIONS AND RESPONSIBILITIES:

- A. Professional Responsibility: The Contractor shall be responsible to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Contractor: The Contractor is retained as an independent Contractor only, for the sole purpose of providing the services described herein and is not an employee of the Agency.
- C. Observing Laws and Ordinances: The Contractor shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, the Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor, its employees, or subcontractors.
- D. Subcontract Services: Any subcontractors for the performance of any services under this Contract shall be subject to the written approval of the Project Manager and shall comply with State of California, Department of Industrial Relations, SB 854 requirements.
- E. Grant/Loan Funded Projects: This project **Is Not** grant-funded. *[For Federal/State grant/loan-funded projects, the Contractor shall be responsible to comply with all grant requirements related to the Project. These may include but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Disadvantaged Business Enterprise (DBE) Requirements, Competitive Solicitation, Record Retention and Public Access to Records, and Labor Compliance and Compliance Review. Federal funds have additional requirements. See Exhibit B]*
- F. Work Safety: Contract work requiring confine space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 – 5158. This regulation requires the following to be submitted to IEUA, for approval, prior to the Contractor's mobilization to the work site:

- (1) Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157; and,
  - (2) A written plan that includes identification of confined spaces within the work site, alternate procedures where appropriate, contractor provisions and specific procedures for permit-required and non-permit required spaces and a rescue plan.
- G. Hours of Labor: The Contractor shall comply with all applicable provisions of California Labor Code Sections 1810 to 1815 relating to working hours. The Contractor shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the completion of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.
- H. Travel and Subsistence Pay: The Contractor shall make payment to each worker for travel and subsistence payments which are needed to complete the work and/or service, as such travel and subsistence payments are defined in an applicable collective bargaining agreements with the worker.
- I. Liens: Contractor shall pay all sums of money that become due from any labor, services, materials, or equipment provided to Contractor on account of said services to be rendered or said materials to be provided under this Contract and that may be secured by any lien against the Agency. Contractor shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- J. Indemnification: Contractor shall indemnify the Agency, its directors, employees, and assigns, and shall defend and hold them harmless from all liabilities, demands, actions, claims, losses, and expenses, including reasonable attorneys' fees, which arise out of, or are related to, the negligence, recklessness or willful misconduct of the Contractor, its directors, employees, agents, and assigns, in the performance of work under this contract.
- K. Conflict of Interest: No official of the Agency, who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- L. Equal Opportunity and Unlawful Discrimination: During the performance of this Contract, the Contractor shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status, or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination.

M. Non-Conforming Work and Representation: Contractor represents that the Work and Documentation shall conform to the specifications described in the Contract. For a period of not less than one (1) year after acceptance of the completed work, Contractor shall, at no additional cost to the Agency, correct any and all errors in and non-conforming Work or Documentation regardless of whether any such errors or non-conforming Work or Documentation is brought to the attention of Contractor by Agency, or any other person or entity. Contractor shall within three (3) calendar days, correct any error or non-conforming Work that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Contractor's receipt of notice of the error. Upon request of Agency, Contractor shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Contractor's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Contractor shall notify the Project Manager, in writing, detailing the dispute and reason for the Contractor's position. Any dispute that cannot be resolved between the Project Manager and Contractor shall be resolved in accordance with the provisions of this Contract. The Contractor's liability, with respect to any claims arising out of the Work and the Contractor, shall bear no liability whatsoever for any consequential loss, injury or damage incurred by the Agency, including but not limited to, claims for loss of use, loss of profits and loss of markets.

N. Disputes:

1. All disputes arising out of or in relation to this Contract shall be resolved in accordance with this section. The Contractor shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of a dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et seq., or their successor.
2. Any and all disputes prior to the work starting shall be subject to resolution by the Agency's Project Manager; and the Contractor shall comply, with the Agency Project Manager instructions. If the Contractor is not satisfied with the resolution directed by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written directive of the Project Manager's decision. Failure by Contractor to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Project Manager's resolution. The Project Manager shall submit the Contractor's written

protests to the General Manager, together with a copy of the Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of the protest-related documents. The General Manager shall make his or her determination with respect to each protest filed with the Project Manager within ten (10) calendar days after receipt of the protest-related documents. If Contractor is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of arbitration, the parties to this contract agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
  - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Contractor to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Contractor are acceptable and, if so, such person will be designated as Arbitrator.
  - b. In the event that none of the names submitted by Contractor are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Contractor a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Contractor shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
  - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
4. Association in Mediation/Arbitration: The Agency may join the Contractor in mediation or arbitration commenced by a contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such association shall be initiated by written notice from the Agency's representative to the Contractor.
- O. Workers' Legal Status: For performance against this Contract, Contractor shall only utilize employees and/or subcontractors that are authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986.

- P. Prevailing Wage Requirements: Pursuant to Section 1770 and following, of the California Labor Code, the Contractor shall not pay less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations for the locality in which the work is to be performed and for each craft or type of worker needed to execute the work contemplated under the Contract. The Contractor or any subcontractor performing part of said work shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, workdays, nondiscrimination, apprentices, maintenance and availability of accurate payroll records and any other matters required under all Federal, State and local laws related to labor.
12. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: The Agency retains ownership of any, and all, partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Contractor and/or the Contractor's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Contractor shall deliver them to the Agency whenever requested to do so by the Project Manager and/or Agency representative. The Contractor agrees that all documents shall not be made available to any individual or organization, private or public, without the prior written consent of an Agency representative.
13. TITLE AND RISK OF LOSS:
- A. Documentation: Title to the Documentation shall pass to the Agency when prepared; however, a copy may be retained by Contractor for its records and internal use. Contractor shall retain such Documentation in a controlled access file, and shall not reveal, display, or disclose the contents of the Documentation to others without the prior written authorization of the Agency or for the performance of Work related to the Scope of Work described in this Contract.
- B. Material: Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to the Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Contractor shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Contractor shall dispose of items to which the Agency has title as directed, in writing, by the Project Manager and/or an Agency representative.
14. PROPRIETARY RIGHTS:
- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively

referred to as "Proprietary Rights"), used or developed by Contractor in the performance of the Work, shall be governed by the following provisions:

1. Proprietary Rights conceived, developed, or reduced to practice by Contractor in the performance of the Work shall be the property of Agency, and Contractor shall cooperate with all appropriate requests to assign and transfer same to Agency.
  2. If Proprietary Rights conceived, developed, or reduced to practice by Contractor prior to the performance of the Work are used in and become integral with the Work, or are necessary for Agency to have complete control of the Work, Contractor shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete control of the Work, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and grant sublicenses to others with respect to the Work.
  3. If the Work includes the Proprietary Rights of others, Contractor shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete control of the Work, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy, or dispose of any or all of the Work; and to grant sublicenses to others with respect to the Work. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.
  4. Notwithstanding anything to the contrary herein, Contractor's Work and Documentation shall not be changed or used for purposes other than those set forth in the Contract, without the prior written approval of the Contractor. If the Agency reuses the Work or Documentation without Contractor's prior written consent, changes or uses the Work or Documentation other than as intended hereunder, Agency shall do so at its sole risk and discretion, and Contractor shall not be liable for any claims and or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.
- B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Contractor of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract.
15. INFRINGEMENT: Contractor represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trademark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Contractor shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses to the extent of Contractor's negligence for any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Contractor shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

16. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Agency  
P.O. Box 9020  
Chino Hills, CA 91709

Contractor: Clara Kechichian  
Infinite Control Systems (ICS)  
13777 Amarillo Avenue  
Chino, CA 91710

Any notice given pursuant to this section shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission through the United States Postal Service.

17. SUCCESSORS AND ASSIGNS: All of the terms, conditions and provisions of this Contract shall take effect to the benefit of and be binding upon the Agency, the Contractor, and their respective successors and assigns. No assignment of the duties or benefits of the Contractor under this Contract may be assigned, transferred, or otherwise disposed of, without the prior written consent of the Agency; and any such purported or attempted assignment, transfer, or disposal without the prior written consent of the Agency shall be null, void, and of no legal effect whatsoever.
18. PUBLIC RECORDS POLICY: Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act.

The Agency shall use its best efforts to notify Contractor of any requests for disclosure of any documents pertaining to this work. In the event of litigation concerning disclosure of information Contractor considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Contractor has marked "Confidential," "Proprietary," or "Trade Secret," Contractor shall defend and indemnify Agency from all liability, damages, costs, and expenses, in any action or proceeding arising under the Public Records Act.

19. RIGHT TO AUDIT: The Agency reserves the right to review and/or audit all Contractor's records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to the Contractor. The Contractor shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
20. INTEGRATION: The Contract Documents represent the entire Contract made and entered into by and between the Agency and the Contractor as to those matters contained in this contract. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered, or amended except by written mutual agreement by the Agency and the Contractor.
21. GOVERNING LAW: This Contract is to be governed by and constructed in accordance with the laws of the State of California, in the County of San Bernardino.
22. TERMINATION FOR CONVENIENCE: The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Contractor. In the event of such termination, the Agency shall pay Contractor for all authorized and Contractor-invoiced services up to the date of such termination, as approved by the Project Manager.
23. CHANGES: The Agency may, at any time, make changes to this Contract's Scope of Work, including additions, reductions, and other alterations to any or all of the work. However, such changes shall only be made via a written amendment to this Contract. The Contract Price and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth with the Contract Amendment.
24. FORCE MAJEURE: Neither party shall hold the other responsible for the effects of acts occurring beyond their control, e.g., war, riots, strikes, natural disasters, etcetera.

- 25. **PARTICIPATING PUBLIC AGENCIES:** It is intended that any other public agency as defined by Cal. Gov. Code 6500 shall, if authorized by its governing body, have the option to participate in any award made as a result of this solicitation. This option shall extend for the duration of the term of the agreement with IEUA and shall be subject to contractor's acceptance. The participating public agency shall accept sole responsibility for placing orders, arranging for delivery of services, and making payments to contractor. IEUA will not be liable or responsible for any obligations, including but not limited to financial responsibility, in connection with any participation by another public agency.
- 26. **LIQUIDATED DAMAGES:** There are no liquidated damages.
- 27. **NOTICE TO PROCEED:** No services shall be performed or provided under this Contract unless and until this document has been properly signed by all responsible parties and a notice to proceed has been issued to the Contractor by the Project Manager.
- 28. **AUTHORITY TO EXECUTE CONTRACT:** The Signatories, below, each represent, warrant, and covenant that they have the full authority and right to enter into this Contract on behalf of the separate entities shown below.
- 29. **DELIVERY OF DOCUMENTS:** The Parties to this Contract and the individuals named to facilitate the realization of its intent, with the execution of the Contract, authorize the delivery of documents via facsimile, via email, and via portable document format (PDF) and covenant agreement to be bound by such electronic versions.

The parties hereto have caused the Contract to be entered as of the day and year written above.

**INLAND EMPIRE UTILITIES AGENCY:**  
*(A MUNICIPAL WATER DISTRICT)*

**INFINITE CONTROL SYSTEMS (ICS):**

\_\_\_\_\_  
Shivaji Deshmukh, P.E. (Date)  
General Manager

DocuSigned by:  
  
 \_\_\_\_\_ 5/14/2024  
 Clara Kechichian (Date)  
 Vice President/CFO



**REQUEST FOR PROPOSAL  
NUMBER RFP-VC-24-004**

FOR

**BUILDING AUTOMATION SYSTEM (BAS)  
CONTROLS UPGRADE**

**RFP Due Date: February 22, 2024, by 3:00 pm**  
Submit to: Veronica Cordova, Contracts Administrator II  
Via: PlanetBids on-line electronic submission

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## SECTION 1 - SUBMITTAL INFORMATION

- A. **INTRODUCTION:** The Inland Empire Utilities Agency ("IEUA" or "Agency") is accepting electronic proposals from experienced and qualified contractors to provide a new building system to control and monitor the HVAC systems at the agency buildings located at Headquarters, Central Plant, and Regional Plant 1.
- B. **SUBMITTAL LOCATION – CLOSING DATE, AND TIME:** The scheduled submittal closing dates and times are listed below. The Offeror is required to acknowledge addendum posted on PlanetBids after original solicitation posting with regard to changes in the original RFP up to and including any changes to the closing date and time and must include any addendum in their submitted proposal. Proposals received after the "closing" date and time indicated will not be accepted. Faxed, emailed or hard copy proposals will not be accepted as this is an **electronic** bid submittal through PlanetBids portal only.

**Submittal Closing: February 22, 2024, at 3:00 pm**

**Location: PlanetBids (Electronic only)**

- C. **INQUIRIES:** Inquiries regarding this RFP should be submitted to PlanetBids. *The cut-off date for submitting questions is **February 15, 2024, 3:00 P.M.*** Questions may be answered and uploaded to PlanetBids as an Addendum to all registered participants.
- D. **PRE-PROPOSAL MEETING/JOB-WALK:** A **mandatory** job walk is scheduled for **February 14, 2024**, beginning at 11:00 am for all interested bidders. All interested parties are urged to meet at Regional Plant No. 1 (RP-1) located at 2662 East Walnut Street, Ontario, CA 91761. **Please allow time for the job walk, as it will take several hours.**
- E. **RFP DATES:** The following table identifies the estimated dates/time frame for this RFP.

Description	Due Date
Release of RFP:	February 7, 2024
Job Walk (MANDATORY)	February 14, 2024, at 11:00 am
Deadline for RFIs:	February 15, 2024, by 3:00 pm
Proposal due date:	February 22, 2024, by 3:00 pm (PlanetBids)
Project Start Date (anticipated):	TBD

- F. **PROPOSAL FORMAT:** All proposals shall be submitted as Electronic Files **ONLY** via PlanetBids. All proposals shall be submitted/uploaded into the response file and any required general attachments via PlanetBids, as either a single PDF file or as multiple, clearly identified PDF files.

A proposal not following the requested format may be deemed non-responsive and eliminated from further consideration. The Proposal shall include a **dated cover letter** which must be signed by a person authorized to negotiate and execute contracts on behalf of the Offeror and must be binding for a period of one hundred twenty (120) days.

**NOTE: IT IS THE OFFEROR'S RESPONSIBILITY TO EXAMINE THIS "REQUEST FOR PROPOSAL" SOLICITATION IN ITS ENTIRETY PRIOR TO SUBMITTING A PROPOSAL.**

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## SECTION 2 - GENERAL INFORMATION

- A. **WAITING PERIOD**: All Offerors are alerted that a waiting period of up to one hundred twenty (120) days from the date of the proposal opening may be required before an award is made. The offer shall assume full responsibility for the effect of the waiting period on all proposal prices and terms.
- B. **PROPOSAL PREPARATION COSTS**: The Agency is not, nor shall be, deemed liable for any costs incurred by the Offeror during the preparation, submittal, or presentation of their proposal.
- C. **WITHDRAWAL OF PROPOSAL BEFORE CLOSING**: Any Offeror may request the withdrawal of their submitted proposal by a written request at any time **prior** to the scheduled proposal due date and time. Upon receiving the written request to withdraw any proposal, the Agency will consider the Offeror's proposal null and void and return the proposal to the Offeror unopened. Withdrawal of an Offeror's proposal will not prejudice Offeror's re-submittal for this or any future proposal(s). E-mailed proposals will be sent back to the Contractor via e-mail. The Contractor shall take note that no guarantee will be made concerning opening e-mails prior to the closing date/time, given the informal format of this type of submittal.
- D. **MISTAKE IN PROPOSAL**: Any Offeror may withdraw their proposal after the proposal opening, subject to the time restrictions indicated, **only** if the Offeror can establish to IEUA's satisfaction that a mistake was made in preparing the proposal.
1. An Offeror declaring a mistake must provide a written notice to IEUA within five (5) calendar days following the scheduled closing date, specifying in detail, how the mistake occurred, and how the mistake made the Proposal materially different than as was intended.
  2. Withdrawal of the proposal will **only** be permitted for mistakes made in the completion of the proposal. An Offeror who claims a mistake shall be **PROHIBITED** from submitting further proposals on the project in which the mistake in proposal was claimed. (*Public Contract Code 5105*).
- E. **PROPOSAL ACCEPTANCE**: IEUA reserves the right to **accept or reject** any or all proposals or waive any informality(s) in any proposal, if such action is deemed to be in the best interest of IEUA. Additionally, be advised that if all valid proposal prices received are found to exceed the budget appropriated for this project, IEUA may reject all proposals.
- F. **INTERPRETATION OF DOCUMENTS**: During the proposal solicitation period, should an Offeror find discrepancies or omissions in the specifications of the "Request for Proposals," or should the Offeror be in doubt as to their interpretation, the Offeror shall immediately notify the contact indicated in Section 1(C). Should it be found necessary, an addendum will be posted on PlanetBids. **Any addenda issued prior to the scheduled proposal closing date and time shall form a part of this solicitation and shall become a part of the submitted proposal.**
- G. **PROPOSAL FEES**: Offeror's shall submit a fully burdened fee schedule, for each task or specific skill category required to provide the Contractor's Services, clearly identifying the firm's staff classifications by category, by hourly billing rates, and any associated administrative costs.
- H. **PUBLIC RECORD**: After finalization of the award decision, the results of the proposal may be recorded on PlanetBids. Alternately, a summary of all the proposals will be made available upon a written request through the Agency's Records Management Department through the Agency's website (<https://www.ieua.org/request-for-public-records/>). Be advised that all information contained in the proposals submitted in response to this solicitation shall become a matter of public record and be made available upon request in compliance with the California Public Records Act.

**SECTION 2 - GENERAL INFORMATION**

- I. **CONTRACT REFERENCES:** Using the References form included in Section 4, each Offeror shall provide a list of at least three (3) references from clients that have engaged the Offeror, for which similar work has been performed, within the last five (5) years. Include the reference names, contact person(s), telephone numbers, e-mail address, business physical address, and brief description of the specific services provided.
- J. **AWARD CRITERIA:** The following criteria will be used in the rating process for the proposals submitted; to determine the selection of the successful Offeror(s):
- Past record of performance in providing similar services (prior projects or engagements).
  - Experience of personnel (individual or company history, years in business, licenses, certifications, other personnel qualifications).
  - Proposed staffing plan and methodology proposed for the Project.
  - References.
  - Availability of personnel and ability to meet the timeline for IEUA's Contract/Project.
  - Exceptions taken to the proposed contract terms.
  - Project fee/rate schedule.
  - Payment discount proposed, in exchange for expedited invoice payment.
- K. **PUBLIC RECORD:** Be advised that **all** information contained in proposals submitted in response to this solicitation, **shall** become a matter of public record, be subject to the California Records Act of 2004 (Government Code Section 6250 et seq.), and the information's use and disclosure are governed by this Act.
- L. **ACCEPTANCE AND PAYMENT:** The selected Offeror's invoice(s), subsequent to the completion of a valid and binding contract, shall include a specific reference to the Contract Number, the associated Purchase Order number, and be accompanied by detailed supporting documentation. The Agency shall pay the Offeror's properly executed invoice, subject to approval by the Project Manager, within thirty (30) days following receipt of the invoice.
- M. **INSURANCE:** The Contractor shall furnish IEUA with certificates of insurance and with original endorsements effective coverage required by IEUA for themselves and all subcontractors, prior to commencing work or allowing any subcontractor to commence work under any subcontract. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be approved by IEUA before work commences. IEUA reserves the right to require complete. Certified copies of all required insurance policies, at any time. The minimum scope of insurance required:
1. General Liability: Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury, and personal & advertising injury with limits no less than \$1,000,000 per occurrence \$2,000,000 aggregate. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
  2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.

## SECTION 2 - GENERAL INFORMATION

3. **Workers' Compensation and Employers Liability:** Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

For Workers' Compensation and Employers Liability Coverage, the insurer shall agree to waive all rights of subrogation against IEUA, its officers, officials, employees, volunteers, property owners or engineers under contract to IEUA for losses arising from work performed by the Entity for IEUA. Original Waiver of Subrogation endorsement must be furnished to IEUA.

4. **Professional Liability (Errors and Omissions):** RESERVED.

N. **RELEASE OF LIABILITY:** The selected Offeror shall execute a Release of Liability form. Contractor agrees and understands that the Contractor's personal property, if left at any of the Agency's sites, during the course of the work, may be exposed to the risk of, but not limited to theft, fire damage, water damage, and wind damage; for which the Contractor agrees to assume any and all such risk, and consequences as a result thereof. The Contractor shall be responsible for the completion of the Agency's Waiver/Release of Liability form (see Section 4) as part of a complete proposal.

O. **CONTRACT EXECUTION(S)/EXCEPTIONS:** The selected Offeror shall execute a contract with the Agency which establishes the terms and conditions covering the services provided. A sample of the Agency's standard contract is provided as Section 5 of this RFP and the Offeror's proposal. Thus, the Offeror is encouraged to carefully review and consider the sample contract. (For Contracts with Rotating Contractors a Task Order shall be issued against their master contract.) The Offeror shall provide any additional bonding indicated and a preliminary schedule within 10 days of request from the Agency.

The Offeror must advise the Agency of any exceptions to the contract's content or to the content of the RFP. If no exceptions to the contract are included in the offeror's response, the offeror is expected to execute the contract in the form set forth herein. An Exceptions Form is provided in Section 4.

P. **PROPOSAL PRICE:** The Offeror's proposed price(s) shall be indicated on the Proposal Rate/Fee Schedule located within this document. Each Offeror must fully complete all parts of the Summary Fee Schedule, or their proposal may be rejected. Be advised that, at any time, the Agency may require the Offeror to further itemize/detail components of proposed prices and/or invoices, (i.e., labor, materials, travel expenses, sales taxes, freight charges, etc.). If the Offeror desires to convey clarifications/explanations to the information presented on the Proposal Rate/Fee Schedule, an addendum page(s) may be attached thereto. For each proposal item, all cost including overhead, burden, administration, supervision, etcetera, shall be evenly weighted so that work may be added or deducted, at the discretion of the Inland Empire Utilities Agency, with no adjustment to the unit costs submitted.

Q. **ENVIRONMENTAL PURCHASING POLICY:** The Goal of IEUA is to reduce global warming and other environmentally harmful effects generated by its operations, its operational protocols, and its capital improvement projects. In this endeavor, the terms and conditions of all IEUA solicitations encourage, whenever possible and practical, the proposal for products and services that are proven beneficial to the environment. Examples for this project would be projects manufactured with recycled steel, recycled plastics, and vehicles fueled with natural gas or propane versus gasoline or diesel fuel. The Offerors, in their proposals should present (and explain) the efforts they will be employing on the project that moves the Agency closer to its sustainability goals.

## SECTION 2 - GENERAL INFORMATION

R. **PROPOSAL INCLUSIONS:** The Request for Proposal documents shall be returned in their entirety, with all applicable portions fully completed by the Contractor.

S. **PREVAILING WAGE (if applicable):**

A public works contractor must be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

This contract has been deemed to be a Prevailing Wage Contract and is therefore subject to the requirements Section 1770 (and following) of the California Labor Code. **Offeror shall not pay less than general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations, for the locality in which the work is to be performed**, for all applicable classifications under this contract. The determinations are available for review at <https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>

The Offeror, and any subcontractor performing part of said work, shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, workdays, non-discrimination, apprentices, maintenance, availability, and submittal of accurate payroll records, and any other matters required under all Federal, State, and local laws related to labor.

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## SECTION 3 - SCOPE OF WORK

### A. **PURPOSE:**

Inland Empire Utilities Agency is seeking proposals from firms qualified to provide a new building system to control and monitor the HVAC systems at the Agency buildings located at Headquarters, Central Plant, and Regional Plant 1.

### B. **SCOPE OF WORK AND SERVICES:**

1. **HQ A&B Refurbish and Upgrade of 52 Existing Carrier Variable Air Volume controllers (typical, may vary).**
  - a. Replace all low voltage control transformers in every associated enclosure.
  - b. Replace and install with IP Distech ECY-VAV Controllers and Unitouch Graphical Space Temperature Sensors to replace existing Carrier Comfort Networks controllers.
  - c. Upgrade and install all new associated sensors discharge air temperature sensors as needed to repair non-working items.
  - d. Provide and convert all 24 existing floating reheat valve actuators with new analog reheat valve actuators.
  - e. Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing variable air volume controller.
2. **HQ A&B Refurbish and Upgrade of 2 Existing Air Handler Unit programmable controllers (typical, may vary).**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing ECB series controllers with enough IO plus extra 10 percent for spare IO.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Air Handling Units.
  - e. All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
3. **Upgrade and integration of HQA 3 Rooftop Units with isolation dampers.**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing network as needed to accommodate new RTUs and BACNet MS/TP Carrier card.
  - e. All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
4. **Upgrade and integration of HQB 2 Rooftop Units with isolation dampers.**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing network as needed to accommodate RTUs and BACNet MS/TP Carrier card.

## SECTION 3 - SCOPE OF WORK

5. **HQ Refurbish and Upgrade of Existing Central Plant Controllers**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Niagara 4 series controllers with enough IO plus extra 10 percent for spare IO.
  - c. Replace and install upgraded IP Distech Controllers to replace all non-standard TES related IO controllers including flow stations and 2 AHU units serving mechanical rooms.
  - d. Calibrate and verify operation of all TES sensors and replace units that are not reading or working within parameters.
  - e. Provide and install new analog reheat valve actuators for AHUs.
  - f. Replace any non-working isolation valve actuators, current sensors, or differential pressure switches to create a working system.
  - g. Upgrade and install all new associated sensors as needed to repair non-working items.
  - h. Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Central Plant.
  - i. Provide full integration of all two-wire and IP Modbus and 3<sup>rd</sup> party protocols for controls of chillers, boiler, and all peripheral devices that currently exist on the system.
  - j. All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
  
6. **RP1 MCB Bldg. Refurbish and Upgrade of 9 Existing Variable Air Volume controllers (typical, may vary).**
  - a. Replace all low voltage control transformers in every associated enclosure.
  - b. Replace and install with IP Distech ECY-VAV Controllers and Unitouch Graphical Space Temperature Sensors to replace existing Metasys controllers.
  - c. Upgrade and install all new associated sensors discharge air temperature sensors as needed to repair non-working items.
  - d. Provide and convert all 9 existing floating reheat valve actuators with new analog reheat valve actuators.
  - e. Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing variable air volume controller.
  
7. **RP1 MCB Bldg. Refurbish and Upgrade of Existing Controls System for Air Handler, Chilled water and Hot water systems (typical, may vary).**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Metasys controllers with enough IO plus an extra 10 percent for spare IO.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing point I/O to maintain or exceed the functionality of the existing Air Handling Unit.
  - e. Replace any non-working isolation valve actuators, current sensors, or differential pressure switches to create a working system.
  - f. Upgrade and install all new associated sensors as needed to repair non-working items.
  - g. Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Central Plant.
  - h. Provide full integration of all two-wire and IP Modbus and 3<sup>rd</sup> party protocols for controls of chillers, boiler, and all peripheral devices that currently exist on the system.
  - i. All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.

### SECTION 3 - SCOPE OF WORK

8. **RP1 Upgrade and integration of Stilt Room Packaged Units with isolation dampers.**
  - a. Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert must be UL listed and conform to all UL standards.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Metasys controllers for the control of 2- 30ton Packaged units and isolation dampers.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing network as needed to accommodate RTUs and BACNet MS/TP Carrier card.
9. **RP1 Maintenance management offices. Upgrade and integration of Rooftop Unit with 4 zone vav system with reheat, attached boiler, pump, and 20-ton Trane Gaspak.**
  - a. Furnish and install new NEMA 4 control panel and install it in an accessible location.
  - b. Replace and install upgraded IP Distech Controllers to replace existing Tracer controller for 20-ton Trane Gaspak, hydronic heating system, and zone dampers.
  - c. Upgrade and install all new associated sensors as needed to repair non-working items.
  - d. Provide a full replacement of existing network as needed to accommodate RTUs and BACNet MS/TP Carrier card.
  - e. Provide and convert all 8 existing floating reheat valve actuators and damper actuators, with new analog reheat valve actuators.
10. **Installation of network connectivity via network to all devices.**
  - a. Provide network connectivity termination to all devices as needed.
  - b. Provide complete animated graphics representation using all available building standard Niagara 4 graphics and full integration into graphics server.
11. **Supplemental to all portions of work:**
  - a. **Upgrade of Niagara 4 Supervisor License.**
    - i. Provide license requirements for addition of new IP controllers and all associated points and programming fees. A minimum 3-year license must be included for all necessary user licenses.
  - b. **Assist on Design Build and Engineering.**
    - i. Provide assistance and recommendations on design, sequence of operations, and assist with parameters for controls and controls products to be implemented.
    - ii. Provide all necessary drawings and submittal package to be reviewed and approved by the IEUA team prior to beginning of work.
  - c. **Commissioning, Training and Turnover of Completed Job.**
    - i. Provide pre air balance verification assistance for all systems to check air requirements.
    - ii. Provide post air balance verification assistance to check final air distribution.
    - iii. Provide one day's worth of training and turnover of job and material to customer.
    - iv. Provide commissioning assistance to prove functionality of air handling units, rooftop units, and at least 10 percent of variable air volume units.
    - v. Provide commissioning assistance to prove complete functionality of central plant system to operate as intended per the existing sequence of operation.
  - d. **Coordination with Life-Safety and Smoke Control System.**
    - i. Provide needed coordination for life-safety shutdown with fire alarm contractor.
    - ii. Provide standby for needed city testing for verification of shutdown.

## SECTION 3 - SCOPE OF WORK

- e. **All work must be performed in a way the maintains the operation of the HVAC systems. All areas of this project have critical zones that cannot be compromised by an inoperable climate control system.**
- i. Each control panel in the project must have its own Distech Horyzon-C Multi-Function display installed. (8)
  - ii. Provide user interface, routers, gateways, repeaters, controls units, and all software required for service of installed system.
  - iii. Provide commissioning and product demonstration per specification.
  - iv. Provide as-builts and O and M manuals as required by specifying engineer.
  - v. Provide training as per specification for engineering crew.
  - vi. Provide 12 months parts and labor warranty from official completion of job. Control contractor will provide animated graphics for each piece of equipment and integrate into base building control system per the specification.

### C. LOCATIONS

1. **Central Plant**  
6075 Kimball Ave, Chino CA 91708
2. **IEUA Headquarters A**  
6075 Kimball Ave, Chino CA 91708
3. **IEUA Headquarters B**  
6075 Kimball Ave, Chino CA 91708
4. **Regional Plant 1 Operations/Admin Building**  
2662 E Walnut St, Ontario, CA 91761
5. **Maintenance office**
6. **930 Stilt VFD electric room**

### D. PROJECT REQUIREMENTS:

1. Provide a new building system to control and monitor the HVAC systems at the agency buildings located at Headquarters, Central Plant, and Regional Plant 1.
2. Provide submittal data sheets, control drawings schematics (in Visio or AutoCAD), data entry, electrical installation, programming, start up, test and validation acceptance documentation, as-built documentation, maintenance manuals and system warranties.
3. All labor, material, equipment, and services not specifically referred to in this specification or on associated drawings that are required to fulfill the functional intent of this specification shall be provided at no additional cost.
4. The work covered by this specification and related sections consists of providing submittals, labor, materials, engineering, technical supervision, and transportation as required to furnish and install a fully operational BAS to monitor and control the facilities listed herein, and as required to provide the operation specified in strict accordance with these documents, and subject to the terms and conditions of the contract. The work in general consists of but is not limited to, the following:

### SECTION 3 - SCOPE OF WORK

- a. Furnish and install all to achieve system operation, any control devices, conduit, and wiring, in the facility as required to provide the operation specified.
  - b. Furnish complete operating and maintenance manuals and field training of facilities technicians.
  - c. Perform acceptance tests and commissioning as indicated.
5. BAS Open System Design and Qualifications
- a. Provide an ECY IP Based Distech Controls building automation system supplied by a company that is an “Authorized Distech Open System Solution Provider”, an “Authorized Distech Controls Systems Integrator”, has at least three individuals on staff that is EC-NET 4 certified, is regularly engaged in the installation and distribution of Distech Controls building automation systems for a minimum of 10 years, and could provide a letter from Distech Controls, Inc. (dated within 15 days of the project award) which proves that the business entity is in good standing with capabilities to perform the job in a proficient manner.
  - b. Prior to award of the contract the BAS contractor is to provide proof of being an “Authorized Distech Open System Solution Provider” and an “Authorized Distech Controls System Integrator” with the following requirements:
    - i. Provide proof of having a local office within 50 miles [80 km] of project for at least 10 years, staffed by trained personnel capable of providing installation, engineering, programming, servicing, commissioning, instruction, routine maintenance, and emergency service on systems.
    - ii. The controls system shall utilize the Niagara EC-Net 4 software framework.
      - 1) The Contractor shall have a minimum of 2 years’ experience in the sales, installation, engineering, programming servicing and commissioning of Niagara4.
      - 2) Submit the Niagara Compatibility Statement (NiCS) via a letter from the manufacturer. The NiCS shall have no connectivity restrictions and all aspects of the Niagara Framework will be provided to maintain an Open System Design. The System as provided shall confirm with the following NiCS properties (Station Compatibility In, Station Compatibility Out, Tool Compatibility In, AND Tool Compatibility Out shall each have a value of “All”).
      - 3) The controls system shall conform to the following guidelines for communication protocols.
      - 4) BACnet shall be used for all BAS provided controllers.
        - a) The manufacturer of the hardware and software components as well as its subsidiaries must be a member in good standing of the BACnet International and all controllers used shall be BACnet Listed with documentation on the BACnet website (<https://www.bacnetinternational.net/btl/search.php>)
        - b) The use of BACnet Communications protocol alone shall NOT warrant an “Open System Design.” Manufacturers must adhere to all aspects of “BAS Open System Design and Qualifications” and “Acceptable System Manufacturers” sections to comply.
      - 5) Modbus shall only be acceptable for third party devices.
      - 6) LonTalk shall only be acceptable for sites with existing LonTalk controls architecture where the owner has explicitly stated that the LonTalk architecture must remain in place.
      - 7) Proprietary communications protocols shall NOT be acceptable.
6. A software programming tool shall be provided for this project and adhere to the following guidelines:
- a. All software tools needed for full functional use, including programming of controllers, Niagara4 Framework network management and expansion, and graphical user interface use and development, of the BAS described within these specifications shall be provided to the owner or his designated agent.

### SECTION 3 - SCOPE OF WORK

- b. The software programming tool shall be free of charge and openly available for download from the internet.
  - c. For any manufacturer that does not have a free programming tool the manufacturer must provide the tool with this project for a minimum of 5 years with proof of availability via letter from the manufacturer.
  - d. Any licensing required by the manufacturer now and to the completion of the 3 years, including changes to the licensee of the software tools and the addition of hardware corresponding to the licenses, to allow for a complete and operational system for both normal day to day operation and servicing shall be provided.
7. Acceptable System Manufacturers and Contractors
- a. Provide an ECY IP Based Distech Controls building automation system supplied by a company that is an "Authorized Distech Open System Solution Provider", an "Authorized Distech Controls Systems Integrator", has at least three individuals on staff that is EC-NET 4 certified, is regularly engaged in the installation and distribution of Distech Controls building automation systems for a minimum of 10 years.
  - b. The manufacturer of the hardware and software components shall have a technical support group accessible via a toll-free number that is staffed with qualified personnel, capable of providing instruction and technical support service for networked control systems.
  - c. BACnet/IP communication protocol must be used for all BAS manufacturer provided controllers (including terminal devices such as VAVs, FCUs, etc.)
  - d. Any approved manufacturer that can supply both equipment and controls must provide controls pricing separately from equipment pricing.
  - e. Acceptable Manufacturers: Distech Controls, Inc. ECY IP Based System Controllers and Unitary Controllers (No substitutions will be accepted)
  - f. All other manufacturers/contractors besides the manufacturer listed above will not be allowed to bid.
8. Being listed as an approved manufacturer/contractor does not preclude the bidder from meeting all aspects and requirements of this specification.
9. Those bidders not prequalified prior to review of bids will not be considered responsive. To be prequalified a bidder must be accepted to bid the project by the engineer either by a bid addendum or documented RFI response from the engineer. No other prequalification's shall be acceptable.
10. Quality Assurance: All new building automation system products on this project shall be provided by a firm that is a registered ISO 9001:2015 manufacturer, for a minimum duration of 5 years, at time of bid.
11. Computer Hardware: Provide the following computer hardware for this project:
- a. Onsite Server(s) [Existing]
  - b. Workstation Computer(s) [Existing]
  - c. Uninterruptible Power
  - d. Provide each network/building controller with individual UPS to provide clean, reliable, noise-filtered power at all times and to protect and maintain systems operation throughout short-term power interruptions of up to 15 minutes duration.
  - e. Acceptable Manufacturer is APC.
12. Remote Access
- a. The BAS contractor shall comply with owner IT infrastructure security policies for remote access. The owner IT team shall provide VPN, firewalls, etc. as needed for secure remote access.
  - b. A VPN and firewall must be used for secure remote access.
  - c. The BAS system must have mobile access for use with Facility technician's mobile phones.

## SECTION 3 - SCOPE OF WORK

### 13. Operator Software

- a. Real-Time Displays
  - i. Provide a visual graphical representation of buildings, floor layouts, each piece of mechanical equipment and/or mechanical system that duplicates the represented system, presented as a web page via any industry standard web browser, where applicable.
  - ii. Graphics shall include at a minimum the value of each input, each output, each setpoint, alarms and graphical representation of trend logs.
- b. On-Line Help
  - i. Provide a context sensitive, on-line help system to assist the operator in operation and editing of the system.
- c. Security
  - i. Each operator shall be required to log on to that system with a username and password to view, edit, add, or delete data.
  - ii. System security shall be selectable for each operator.
  - iii. The system administrator shall have the ability to set passwords and security levels for all other operators.
  - iv. Each operator password shall be able to restrict the operators' access for viewing and/or changing each system application, full screen editor, and object.
  - v. Each operator shall automatically be logged off the system if no keyboard or mouse activity is detected.
  - vi. This auto log-off time shall be set per operator password.
  - vii. All system security data shall be stored in an encrypted format.
- d. System Diagnostics.
  - i. The system shall automatically monitor the operation of all workstations, printers, modems, network connections, building management panels, and controllers.
  - ii. The failure of any device shall be annunciated to the operator.
- e. Third-Party Windows-Based Programs
  - i. The system shall be capable of utilizing third-party Windows-based programs for such things as spreadsheet analysis, graphing, charting, custom report generation, and graphics design packages.
  - ii. Graphics generation shall be done using standard Windows packages.
  - iii. No proprietary graphics generation software shall be needed.
- f. Overrides
  - i. It shall be possible for the operator to override automatic analog and digital output commands.
  - ii. Where the BAS software normally originates these outputs, the provision shall exist for the operator to terminate automatic BAS control of any particular output and to originate a manual analog or digital output command.
  - iii. The provision shall exist for the operator to return analog or digital output command functions to automatic BAS software control.
- g. Password Protection
  - i. Provide security system that prevents unauthorized use unless operator is logged on.
- h. Trend Data
  - ii. System shall periodically gather historically recorded selected samples of object data stored in the field equipment (global controllers, field controllers) and archive the information on the operator's workstation (server) hard disk.
    - 1) Archived files shall be appended with new sample data, allowing samples to be accumulated over 3 years.

### SECTION 3 - SCOPE OF WORK

- 2) Systems that write over archived data shall not be allowed, unless limited file size is specified.
  - 3) Samples may be viewed at the operator's terminal in a trend log.
  - 4) Logged data shall be stored in spreadsheet format.
  - 5) Operator shall be able to scroll through all trend log data.
  - 6) Software shall be included that is capable of graphing the trend logged object data. Software shall be capable of creating two-axis (x,y) graphs that display up to six object types at the same time in different colors and these Graphs shall show object type value relative to time.
  - 7) Operator shall be able to change trend log setup information such as time intervals and objects logged.
- i. Graphics: The operator's workstation shall display all data associated with the project.
    - i. Operator's workstation shall display all data using Animated 3-D graphic representations of all mechanical equipment.
    - ii. System shall be capable of displaying graphic file, text, and dynamic object data together on each display.
    - iii. Information shall be labelled with descriptors and shall be shown with the appropriate engineering units.
    - iv. All information on any display shall be dynamically updated without any action by the user.
    - v. Terminal shall allow user to change all field-resident BAS functions associated with the project, such as setpoints, weekly schedules, exception schedules, etc. from any screen no matter if that screen shows all text or a complete graphic display.
    - vi. Animated graphic objects shall be displayed as a sequence of multiple bitmaps to simulate motion.
    - vii. Analog objects may also be assigned to an area of a system graphic, where the color of the defined area would change based on the analog objects value.
    - viii. For example, an area of a floor-plan graphic served by a single control zone would change colour with respect to the temperature of the zone or its deviation from setpoint.
    - ix. Separate Displays shall be supplied, specific to the project, to form the following overall presentation style.
    - x. All Displays will be linked in a logical fashion using hyperlink style (single left mouse click on text/display object/dynamic to load linked display if programmed)
    - xi. The entire system shall operate without dependency on the operator's terminal. Provide graphic generation software at each workstation.
  - j. Alarms
    - i. Operator's terminal shall provide audible, visual, electronic, and printed means of alarm indication.
    - ii. Any alarm may be handled based on its individual or assigned class actions.
    - iii. Displayed on the Alarm console.
      - 1) The system shall be provided with a dedicated alarm window or console.
      - 2) This window will notify the operator of an alarm condition and allow the operator to view details of the alarm and acknowledge the alarm.
    - iv. Alarm reports shall be viewable via the BAS system and available for delivery by electronic mail (e-mail) or printing.
    - v. System shall provide log of alarm messages. Alarm log shall be archived to the hard disk of the system operator's terminal.
    - vi. Each entry shall include a description of the event-initiating object generating the alarm, time and date of alarm occurrence, time and date of object state return to normal, and time and date of alarm acknowledgement.

### SECTION 3 - SCOPE OF WORK

- k. Scheduling
  - i. Operator's terminal display of weekly schedules shall show all information in easy-to-read 7-day (weekly) format for each schedule.
  - ii. Exception schedules (non-normal schedules, such as holidays or special events) shall display all dates that are an exception to the weekly schedules.
  - iii. At the operator's terminal, the system user shall be able to change all information for a given weekly or exception schedule if logged on with the appropriate security access.
- l. Archiving
  - i. Store back-up copies of all controller databases in at least one OWS and the server.
  - ii. Provide continuous supervision of integrity of all controller databases.
  - iii. Data base back up and downloading to occur over LAN without operator intervention.
  - iv. Operator to be able to manually download entire controller database or parts thereof.
- m. Reports
  - i. Provide a report facility to generate and format for display, printing, or permanent storage, as selected by the operator, the reports as specified in this section.
  - ii. Provide the software to automatically generate any report specified; the user will be able to specify the type of report, start time and date, interval between reports (hourly, daily, weekly, monthly) and output device.
  - iii. As a minimum, the following reports shall be configured on the system:
    - 1) Dynamic Reports: To allow operator to request a display of the dynamic value for the user specified points which shall indicate the status at the time the request was entered and updated at an operator modifiable scan frequency.
    - 2) Summary Report: To permit the display or printing of the dynamic values for the user specified points.
    - 3) Trend Reports: To permit the trending of points selected by the operator, including as a minimum digital input and output, analogue input and output, set points, and calculated values.
    - 4) Historical Data Collection: Provision shall be made to ensure historical data is not lost.
    - 5) Alarm Summary: Provide a summary of all points in alarm and include as a minimum; point acronym, point description, current value, alarm type, limit exceeded, and time and date of occurrence.
    - 6) Disable Point Summary: Provide a summary of all points in the disabled state and include as a minimum point acronym and point description.
    - 7) Run Time Summary: Provide a summary of the accumulated running time of selected pieces of equipment with point acronym and description, run time to date, alarm limit setting. The run time shall continue to accumulate until reset individually by means of suitable operator selection.
    - 8) Schedule Summary: Provide a summary of all schedules and indicate as a minimum, which days are holidays and, for each section, the day of the week, the schedule times, and associated values; for digital schedules value will be on or off; for analogue schedules value will be an analogue value.
    - 9) User Record Summary: Provide a summary of all user records to include as a minimum; username, password, initials, command access level and point groups assigned.

#### 14. BAS Controllers

- a. All controllers on the job shall have the following minimum requirements:
  - i. BACnet/IP communication protocol shall be used for all BAS manufacturer provided controllers (including terminal devices such as VAVs, FCUs, etc.)
  - ii. Support for IPv4 addressing.
  - iii. DHCP support and Auto DNS
  - iv. Baud rate of not less than 100 Mbps

### SECTION 3 - SCOPE OF WORK

- v. 2 - RJ45 ports each capable of supporting 10/100 Base-T.
    - 1) Supporting controller daisy chaining on the Ethernet network via integral switch functionality.
    - 2) Integrated fail-safe should allow for communication when the controller is powered down.
  - vi. All controllers shall be able to communicate peer-to-peer without the need for a Network Control Unit (such as JACE, NAE, etc.) and shall be capable of assuming all responsibilities typically assumed by a Network Control Unit.
    - 1) Any controller on the Ethernet Data Link/Physical layer shall be able to act as a Master to allow for the exchange and sharing of data variables and messages with any other controller connected to the same communication cabling. Slave controllers are not acceptable.
    - 2) The resulting network will be a 'Flat' topology with all devices (controllers, workstations, ...) connecting at the same physical network level.
  - b. Memory and Processing
    - i. 512MB of RAM and 4GB of non-volatile flash memory.
    - ii. 32-bit microprocessor operating at a minimum of 600 MHz
    - iii. Each individual controller shall have an embedded web based HTML5 visual interface with the following functionality without reliance on any other controller for access:
      - 1) Typical and custom control processes
      - 2) Scheduling
      - 3) Energy management applications
      - 4) Alarm management applications.
      - 5) Historical/trend data for points specified.
      - 6) Maintenance support applications
      - 7) Graphical interface
    - iv. Shall be capable of monitoring/controlling the following types of inputs/outputs:
      - 1) Digital inputs from dry contact closure, pulse accumulators, voltage sensing.
      - 2) Analog inputs of 4-20 mA, 0-10 Vdc, thermistor and RTD in the range 0 to 350,000 ohm.
      - 3) Digital outputs including Form C relay outputs and Triac outputs.
      - 4) Analog outputs of 4-20 mA and 0-10 Vdc.
    - v. A minimum of 10% spare capacity shall be provided for each point type for future point connection.
    - vi. Any software required for programming shall be unlicensed and openly available.
    - vii. Auto commissioning features shall be available for VAVs and FCUs to schedule automatic testing and record values (air flows, pressures, temperatures, etc.) for different operating modes. The auto commissioning feature shall be able to email reports and run commissioning on a specified schedule.
15. Power and Environmental Requirements:
- a. 24 VAC with local transformer power
  - b. The controllers shall also function normally under ambient conditions of 32 °F [0 °C] to 122 °F [50 °C] and 0% to 90% RH (non-condensing).
  - c. Provide each controller with a suitable cover or enclosure to protect the intelligence board assembly.
16. Code Compliance:
- a. "FIPS 140-2 Level 1 Compliant" cryptographic module
  - b. BACnet Testing Laboratory (BTL listed) using Device Profile BACnet Building Controller (B-BC) with outlined enhanced features.
  - c. UL916 Energy management equipment
  - d. FCC rules part 15, subpart B, class B

### SECTION 3 - SCOPE OF WORK

- e. UL94-V0 flammability rating
  - i. State of California Senate Bill No. 327, Chapter 886, TITLE 1.81.26. SECURITY OF CONNECTED DEVICE

#### 17. ECLYPSE APEX

- a. In addition to providing control capabilities for HVAC equipment the controller shall offer multitasking through quad core microprocessor, an AI (artificial intelligence) coprocessor, larger trend storage capacity, and developer technologies. The controller shall be capable of facilitating interactions with IoT (Internet of Things) devices and allow for advanced processing functionalities using AI (artificial intelligence) technology.
- b. Communication:
  - i. Two Ethernet Ports (Gbps each)
  - ii. Support for IPv4 or Hostname addressing.
  - iii. DHCP support and Auto DNS
  - iv. IP Communication (BACnet/IP)
- c. Web Server Application REST API
  - i. BACnet MS/TP or Modbus RTU Routing via (1) onboard RS-485 communications port or additional communications module
    - 1) Supporting baud rates of 9600, 19 200, 38 400, or 76 800 bps
    - 2) 50 BACnet MS/TP or Modbus RTU controllers per RS-485 port
- d. Modbus TCP support for devices on the same subnet
- e. BACnet / Wi-Fi communication via optional wireless adapter with USB port connection
- f. Memory and Processing
  - i. Quad core 1.6 GHz ARM Cortex A53 64-bit microprocessor operating at a minimum of 1.6 GHz.
  - ii. AI coprocessor with machine learning accelerator
  - iii. 2 GB RAM and 32 GB Flash memory
- g. Controller shall have an embedded web based HTML5 visual interface with the following functionality without reliance on any other controller for access:
  - i. Typical and custom control processes
  - ii. Scheduling
  - iii. Energy management applications
  - iv. Alarm management applications
  - v. Historical/trend data for points specified
  - vi. Maintenance support applications
  - vii. Graphical interface
- h. Onboard Developer Tools:
  - i. Available Docker containers and Azure IoT Edge technologies extend gateway features at the edge and allow IoT/AI third-party developers to embed advanced processing functionalities.
  - ii. On-board AI coprocessor, designed to run AI at the edge, adds intelligence to any building and opens the door to new control applications.
  - iii. Secure boot and additional physical security measures
- i. Shall be capable of monitoring/controlling up to 320 total inputs/outputs via expansion I/O modules:
  - i. Digital inputs from dry contact closure, pulse accumulators, voltage sensing.
  - ii. Analog inputs of 4-20 mA, 0-10 Vdc, thermistor and RTD in the range 0 to 350,000 ohm.
  - iii. Digital outputs including Form C relay outputs and Triac outputs
  - iv. Analog outputs of 4-20 mA and 0-10 Vdc.
- j. A minimum of 10% spare capacity shall be provided for each point type for future point connection.
- k. Any software required for programming shall be unlicensed and openly available
- l. Power and Environmental Requirements:

### SECTION 3 - SCOPE OF WORK

- i. 24 VAC with local transformer power (recommended transformer size of 100VA)
    - ii. The controller shall function normally under ambient conditions of 32 °F [0 °C] to 122 °F [50 °C] and 0% to 90% RH (non-condensing).
    - iii. Provide each controller with a suitable cover or enclosure to protect the intelligence board assembly.
  - m. Code Compliance:
    - i. "FIPS 140-2 Level 1 Compliant" cryptographic module
    - ii. BACnet Testing Laboratory (BTL listed) using Device Profile BACnet Building Controller (B-BC) with outlined enhanced features.
    - iii. UL916 Energy management equipment
    - iv. FCC rules part 15, subpart B, class B
    - v. UL94-5VB flammability rating
    - vi. State of California Senate Bill No. 327, Chapter 886, TITLE 1.81.26. SECURITY OF CONNECTED DEVICE
- 18. ECLYPSE™ Connected Thermostat
  - a. Provides control for new or existing rooftop unit, heat pump unit, fan coil unit and other zone control applications. It features a touchscreen interface, multiple connectivity options (both wired IP and Wi-Fi) for system communication, and Bluetooth low energy (BLE) for mobile connectivity.
  - b. Communications
    - i. Wired Communications
      - 1) Ethernet Connection Speed 10/100 Mbps
      - 2) Addressing IPv4 or Hostname
      - 3) BACnet Profile BACnet Building Controller (B-BC), AMEV AS-A and AS-B
      - 4) BACnet Listing BTL, WSP B-BC (pending)
      - 5) BACnet Interconnectivity BBMD forwarding capabilities.
      - 6) BACnet Transport Layer IP
      - 7) Web Server Protocol HTML5
      - 8) Web Server Application REST API
    - ii. Wireless Communications
      - 1) Bluetooth Version 4.2
      - 2) Bluetooth Frequency 2402 - 2480 MHz
      - 3) Wi-Fi Communication Protocol IEEE 802.11b/g/n
      - 4) Wi-Fi Connection Types Client and Hotspot
  - c. Inputs / Outputs
    - i. Integral Temperature Sensor: Range 32°F to 104°F (0°C to 50°C)
    - ii. Integral Humidity Sensor: Accuracy <math>\pm 3\%</math> RH 0% to 70%
    - iii. 4 UIs (Universal Input)
    - iv. 5 or 3 DOs (Digital Output)
    - v. 3 or 2 DUOs (Digital Universal Output)
  - d. Display
    - i. Type Full color, IPS, backlit,
    - ii. Capacitive LCD touchscreen
    - iii. Display Resolution High definition (320 × 480)
    - iv. Effective Viewing Area (W x H) 48.96 x 73.44 mm
    - v. Effective Viewing Area (W x H) 1.93 × 2.89"
    - vi. Languages: English, French, Spanish, Italian, German, Danish, Dutch, Polish, and Portuguese
  - e. Applications
    - i. Summary View: View equipment information on one screen, at a single glance

### SECTION 3 - SCOPE OF WORK

- ii. Temperature: View ambient temperature and humidity level, and provide instantaneous temperature setpoint adjustment
  - iii. Fan speed: Instantaneous fan speed adjustment
  - iv. HVAC Mode: Quickly select the required HVAC mode of operation
  - v. Custom Actions: Provide up to 8 custom buttons that can be programmed to activate personalized groups of environmental settings
  - vi. Scheduler: View and edit schedules and events. Scheduler supports a dual setpoint schedule as well as special events and can allow for local adjustments and overrides to networked schedules and events.
  - vii. Weather: View current and forecasted weather
  - viii. Mobile App Connectivity: Supports mobile control of environmental parameters from a mobile device via a localized, secure connection (Bluetooth).
  - ix. Custom applications: Develop custom solutions utilizing the built in RESTful™ API and the Cloud Connectivity of ECLYPSE™
- f. Standards and Regulations (pending)
    - i. CE Emission EN61000-6-3: 2007+A1:2011
    - ii. CE Immunity EN61000-6-1: 2007
    - iii. CE Radio EN 300 328 V2.1.1 November 2016
    - iv. FCC Compliance with FCC rules part 15, subpart B, class B
    - v. UL Listed (CDN & US) UL916 Energy management equipment

#### 19. Control Panels

- a. Indoor control cabinets located in offices or dry/dust free environments shall be fully enclosed NEMA 1 Type construction with hinged door, and removable sub-panels or electrical sub-assemblies.
- b. All outdoor control cabinets and control cabinets located in mechanical/electrical rooms shall be NEMA 4.
- c. Control panels containing more than 4 controllers shall be provided with a terminal strip for field wiring. All control wiring inside the panel shall be between a terminal strip and controller inputs/outputs. All field control wiring shall be terminated at the terminal strip. Field control wiring inputs/outputs shall not be run directly to inputs/outputs of controller.
- d. Each BAS control panel shall include 1 Horizon-C Multi-Touch Display

#### E. **PROPOSAL SUBMISSION (Proposals shall not exceed twenty-five (25) one sided pages. The page count does not include Agency required forms in Section 4).**

1. Letter of Transmittal: Include individual/firm name, website, address, telephone number, email, and name and title of person authorized to submit the proposal. If the individual/firm operates from more than one location, please specify the office to which the project will be assigned.
2. Executive Summary: Present in brief, concise terms a summary level description of the contents of the proposal response.
3. Company Background and Experience: Establish the ability of the firm to satisfactorily perform the required work by reasons of experience in performing work of a similar nature, demonstrate competence in the services to be performed, strength and stability of the firm, staffing capability, and record of meeting expectations on similar projects.
4. Project Understanding: Describe how the firm intends to organize its approach to the project. The firm shall discuss how its services meet the Agency's needs, as requested in this RFP. The firm shall relate how it perceives its role in carrying out the responsibilities required by this implementation.

### **SECTION 3 - SCOPE OF WORK**

5. **Project Staffing and Organization:** Identify key personnel who will be assigned to the project. An organization chart for the project shall be provided. The chart shall indicate how the firm intends to structure the project effort and identify the Project Manager and all other key personnel.
6. **Approach to Scope of Services:** Provide a comprehensive description of the approach to providing the Scope of Services and should clearly demonstrate an understanding of the Agency's requirements, the work to be done and the objectives to be accomplished.

**(This space intentionally left blank)**

**SECTION 4 – FORMS**

**PROPOSAL RATE/FEE SCHEDULE**

A. **FEE INCLUSION STATEMENT:** Offerors shall fully complete this Proposal Rate/Fee Schedule and return it with their submittal. All proposed prices and fees shall be held firm-fixed throughout the anticipated contract performance period [other than prevailing wage classifications, which shall be paid in accordance with the current year prevailing wage determination as made by the Department of Industrial Relations (DIR)], and shall include costs associated with all equipment, materials, transportation, overhead, travel, profit insurance, sales and other taxes, licenses, incidentals, and all other related costs necessary to provide the required inspection, certification, load testing, and related services.

Lump sum (Materials) \$ \_\_\_\_\_

Lump sum (Labor) \$ \_\_\_\_\_

Payment/Performance Bonds \$ \_\_\_\_\_

Tax on materials (7.75%) \$ \_\_\_\_\_

TOTAL PROJECT COST \$ \_\_\_\_\_

B. **EXPEDITED PAYMENT DISCOUNT:** Each Offeror shall indicate the availability and the magnitude of any discount related to expedited payment of any or all invoices (i.e., if Net 10, then 2% discount).

i.e., if Net \_\_\_\_\_, then \_\_\_\_\_ % discount

**Warrants:** On behalf of the afore identified “Contractor” company, the undersigned warrants that the Company has the equipment and manpower necessary to successfully complete the described work within the time frame specified within the “Request for Proposal” and that the Company will be ready and able to begin working under such contract within 5 days of receiving notice, whether written or verbal. The Agency reserves the right to accept the Proposal that it determines to be in the best interests of the Agency and to reject any or all Proposals should it determine that to proceed is not in its best interests.

Offeror’s Signature	Company Name
Print Name	Contractor’s License Number & Type
Title	Date

**SECTION 4 - FORMS**

**OFFEROR IDENTIFICATION**

1. Legal name of Offeror: \_\_\_\_\_
2. Street Address: \_\_\_\_\_
3. Mailing Address: \_\_\_\_\_
4. Business Telephone: \_\_\_\_\_
5. Facsimile Telephone: \_\_\_\_\_
6. Email Address: \_\_\_\_\_
7. Type of Business:  
 Sole Proprietor    Partnership    Corporation  
Other: \_\_\_\_\_  
If corporation, indicate State where incorporated: \_\_\_\_\_
8. Business License number issued by the City where the Offeror's principal place of business is located.  
Number: \_\_\_\_\_ Issuing City: \_\_\_\_\_
9. Federal Tax Identification Number: \_\_\_\_\_
10. California Contractor's License Number: \_\_\_\_\_
11. California DIR (Registration) Number: \_\_\_\_\_
12. Offeror's Project Manager: \_\_\_\_\_
13. Project Manager's E-mail Address: \_\_\_\_\_
14. Project Manager's Cell Phone No.: \_\_\_\_\_

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm	_____	Contact Name:	_____
City and State:	_____	Telephone No.:	_____
Email Address:	_____	Approximate Cost:	_____
Project Name:	_____	Start/End Dates:	_____

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm:	_____	Contact Name:	_____
City and State:	_____	Telephone No.:	_____
Email Address:	_____	DIR Registration No.:	_____
License No.:	_____	Check one:	<input type="checkbox"/> Business <input type="checkbox"/> CSLB

Brief description of their services: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 4 - FORMS**

**EXCEPTION FORM**

Please state **ANY AND ALL** exceptions that you are taking to the Agency's contract terms and conditions or any portion of this proposal. Submit the following form with your Proposal. If no exception(s) are taken, enter "NONE" for the first item. Make additional copies of this form if necessary.

Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_

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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

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**SECTION 4 - FORMS**

**NON-COLLUSION AFFIDAVIT**

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ ) ss.

\_\_\_\_\_, being first duly sworn, deposes and says that he or she is , of \_\_\_\_\_ ("Offeror") the party making the foregoing Proposal that the Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Proposal is genuine and not collusive or sham; that the Offeror has not directly or indirectly solicited any other Offeror to put in a false or sham Proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Offeror or anyone else to put in a sham Proposal, or that anyone shall refrain from bidding; that the Offeror has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Proposal fee or the Offeror or any other Offeror, or to fix any overhead, profit, or cost element of the Proposal fee, or of that of any other Offeror, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the Proposal are true; and, further, that the Offeror has not, directly or indirectly, submitted his or her Proposal fee or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, Proposal depository, or to any member or agent thereof to effectuate a collusive or sham Proposal.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Business License Number

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date





**SECTION 4 – FORMS**

**PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION (if applicable)**

Pursuant to Labor Code Sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations (DIR). See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted, nor will any contract be entered into without proof of the contractor's and subcontractors' current registration with the DIR to perform public work.

The Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code Sections 1725.5 and 1771.1 and is currently registered as a contractor with the DIR.

Name of Bidder: \_\_\_\_\_

DIR Registration Number: \_\_\_\_\_

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code Sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Dated: \_\_\_\_\_

**ATTACH COPY OF DIR REGISTRATION**

**SECTION 4 - FORMS**

**OTHER PUBLIC AGENCY "PIGGYBACK CLAUSE"**

Common purchasing practices in government include cooperative or "piggyback" purchasing among various units of government or municipalities. Other public agencies as defined by California Government Code section 6500 may choose to use the terms of this Contract, subject to Contractor's acceptance. If other public agencies decide to use this contract, the agency will issue their own purchasing documents for the good and/or services and deal directly with the vendor concerning contractual disputes, invoicing, and payment.

The Inland Empire Utilities Agency is not liable or responsible for any obligations related to a subsequent agreement between Contractor and another public agency.

**Acceptance or rejection of this clause will not affect the outcome of this bid.**

Piggyback option granted \_\_\_\_\_ (please initial)

Piggyback option not granted \_\_\_\_\_ (please initial)

Exclusions:	
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Offeror Name: \_\_\_\_\_ Date: \_\_\_\_\_

Street Address: \_\_\_\_\_  
City, State, and Zip Code \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

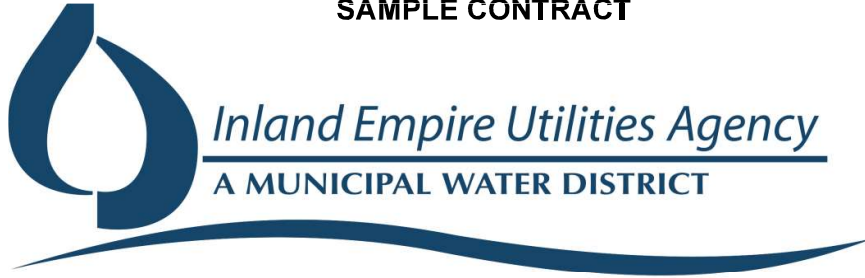
Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH YOUR BID PACKAGE.**

SECTION 5 – ATTACHMENTS

SAMPLE CONTRACT



**CONTRACT NUMBER: 460000XXXX**  
**FOR**  
**PROJECT DESCRIPTION/TITLE**

THIS CONTRACT (the "Contract"), is made and entered into this \_\_\_\_ day of \_\_\_\_\_, xxxx, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter referred to as "Agency"), and (NAME), Inc. of (CITY), California (hereinafter referred to as "Contractor") for contractor's services related to .

NOW, THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties agree as follows:

1. PROJECT MANAGER ASSIGNMENT: All technical direction related to this Contract shall come from the designated Project Manager. Details of the Agency's assignment are listed below.

Project Manager: \_\_\_\_\_  
 Address: Inland Empire Utilities Agency  
 6075 Kimball Avenue, Bldg. ( )  
 Chino, California 91708  
 Telephone: (909) 993-\_\_\_\_\_  
 Email: \_\_\_\_\_

2. CONTRACTOR ASSIGNMENT: Special inquiries related to this Contract and the effects of this Contract shall be referred to the following:

Contractor:  
 Address:  
 Telephone:  
 Email:

3. ORDER OF PRECEDENCE: The documents referenced below represent the Contract Documents. Where any conflicts exist between the General Terms and Conditions, or addenda attached, then the governing order of precedence shall be as follows:

- A. Amendments to Contract Number 460000XXXX.
- B. Contract Number 460000XXXX General Terms and Conditions.
- C. Agency's Request for Proposal (RFP) ( ) dated ( ).
- D. Contractor's Proposal dated ( ).

## SECTION 5 – ATTACHMENTS

4. **SCOPE OF WORK AND SERVICES:** The Contractor has overall responsibility for and shall provide and furnish all materials, equipment, tools, and labor as necessary or reasonably inferable to complete the work, or any phase of the work, in accordance with the Agency's requirements and the terms of the Contract documents with the following:
- A. The Scope of Work and Technical Specifications in accordance with **Exhibit X**.
  - B. Contractor shall provide Agency with a Schedule of Work and Services, documenting the anticipated completion of the work within the timeframe of this contract. The Schedule of Work and Services will be prepared and submitted to the Project Manager, for review and approval.
  - C. Method of Inspection:
    - 1. Work performed under this Contract may be required to undergo monthly, weekly, or daily inspections.
    - 2. The Project Manager will be responsible for the performance of the inspections.
    - 3. If Contractor fails an inspection, the Project Manager will be responsible for providing a written notice to the Contractor explaining the error and a determination of the urgency for the correction of the error (herein referred to as a "Cure Notice").
  - D. Cure Procedure:
    - 1. For a Cure Notice deemed by the Agency to be **urgent**, Contractor shall correct any error of the Work within five (5) calendar days after Contractor's receipt of a Cure Notice, as directed by the Project Manager.
    - 2. For a Cure Notice deemed by the Agency to be **important**, Contractor shall correct any error of the Work within ten (10) calendar days after Contractor's receipt of a Cure Notice, as directed by the Project Manager.
    - 3. If the Project Manager rejects all, or any part of, the Work as unacceptable and agreement to correct such Work cannot be reached without modification to the Contract, Contractor shall notify the Project Manager, in writing, detailing the dispute and the reason(s) for the Contractor's position. Any dispute that cannot be resolved between the Project Manager and Contractor shall be resolved in accordance with the provisions of this Contract.
  - E. The Agency may, at any time, make changes to this Contract's Scope of Work, including additions, reductions, and other alterations to any or all of the Work. However, such changes shall only be made via written amendment to this Contract. The Contract compensation and Schedule of Work and Services shall be equitably adjusted, if required, to account for such changes and shall be set forth within the mutually approved Contract Amendment.

**SECTION 5 – ATTACHMENTS**

5. **TERM:** The initial term of this Contract is for [REDACTED] year(s) and shall extend from [REDACTED] and terminate on [REDACTED] with fixed pricing. Additionally, the Contractor shall agree to allow the Agency, at the Agency's sole discretion, to extend this contract up to [REDACTED] one-year periods for a total aggregate contract term of [REDACTED] years.
6. **PAYMENT, INVOICING, AND COMPENSATION:**
- A. Agency shall pay Contractor's **bi-monthly**, properly executed invoice, approved by the Project Manager, within thirty (30) days following receipt of the invoice.
- B. As compensation for the Work performed under this Contract, Agency shall pay Contractor's invoice, for a total contract price NOT-TO-EXCEED **\$XXXXXX** for all services satisfactorily provided during the term of this Contract.
- C. Additionally, to qualify for payment, the Contractor shall prominently display, on the first page of the invoice, both:
1. The Contract Number – ~~46000XXXXX~~, and
  2. The Contract Release Purchase Order Number – ~~45000XXXXX~~
  3. Contractor **must** accept payment electronically by Automated Clearing House (ACH) and provide Bank Routing information on ACH form provided by Agency

The preferred method of receiving invoices is electronic. The Contractor should submit invoices by email & such invoices shall be submitted as follows:

[APGroup@ieua.org](mailto:APGroup@ieua.org)

Cc: designated Project Manager within one week after bi-monthly provision of services

- D. Concurrent with the submittal of the original invoice to the Agency's Accounts Payable Department, the Contractor shall forward via email a copy of the invoice to the designated Project Manager, identified in Section 1, on Page 1 of this Contract.
- E. No Additional Compensation: Nothing set forth in this Contract shall be interpreted to require payment by Agency to Contractor of any compensation specifically for the assignments and assurances required by the Contract, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract, as approved by the Project Manager.
- F. Contractor may request taking advantage of the Agency's practice of offering an expedited payment protocol to a Contractor who has proposed accepting an invoice amount reduction in exchange for early payment. The Contractor may offer and the Agency may accept, applying a (1%, 2%, or 5%) discount (invoice amount reduction) to a Contractor's invoice in exchange for payment of such invoice within (20, 15, or 10) days, respectively, of the date the invoice is received at the Agency's [APGroup@ieua.org](mailto:APGroup@ieua.org) email address.

## SECTION 5 – ATTACHMENTS

7. CONTROL OF THE WORK: Contractor shall perform the Work in compliance with the work schedule. If performance of the Work falls behind schedule, the Contractor shall accelerate the performance of the Work to comply with the work schedule as directed by the Project Manager. If the nature of the Work is such that Contractor is unable to accelerate the Work, Contractor shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised work schedule.

8. PRICE ADJUSTMENT: RESERVED

9. FITNESS FOR DUTY:

A. Fitness: Consultant on the Jobsite:

1. Shall report for work in a manner fit to do their job;
2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
4. Compliance: Consultant shall advise all Consultant and subcontractor personnel and associated third parties of the requirements of this Contract ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its Subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

B. California Department of Industrial Relations: **For all public works performed in excess of \$1,000.00, SB854 is applicable:**

**Effective January 1, 2015:** The call for bids and contract documents must include the following information:

1. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
2. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

**SECTION 5 – ATTACHMENTS**

3. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. As such, a PWC-100 shall be generated under the direction of the IEUA Project Manager or their designee.
- C. Confined Space Work:
1. Precautions and Programs:
    - a. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work or the activities of subcontractors, suppliers, and others at the work site.
    - b. The Contractors and subcontractors shall comply with the provisions of the Safety and Health Regulations for Construction, promulgated by the Secretary of Labor under Section 107 of the "Contract Work Hours and Safety Standards Act," as set forth in Title 29 C.F.R. If the Agency is notified of an alleged violation of the Occupational Safety and Health Standards referred to in this Section and it is established that there is a violation, the Contractor shall be subject to liquidated damages as provided in the Contract.
    - c. The Contractor and all subcontractors shall comply with the provisions of the Occupational Safety and Health Standards, promulgated by the United States Secretary of Labor under the "Occupational Safety and Health Act of 1970," as set forth in Title 29, C.F.R. Where an individual State act on occupational safety and health standards has been approved by federal authority, then the provisions of said state act shall control.
    - d. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary supervision, control, and direction to prevent damage, injury, or loss to:
      - i. All employees on the work or work site and other persons and organizations who may be affected thereby;
      - ii. All the work and materials and equipment to be incorporated therein, whether in storage or on or off the work site; and
      - iii. All other property at the site.
    - e. Contract work requiring confined space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 - 5158. This regulation requires the following to be submitted to IEUA for approval prior to the start of the project:

## SECTION 5 – ATTACHMENTS

- i. Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157. This regulation also requires the following to be submitted to IEUA for approval prior to the entry of a confined space:
    - ii. A written plan that includes identification of confined spaces within the construction site, alternate procedures where appropriate, contractor provisions, specific procedures for permit-required and non-permit required spaces, and a rescue plan.
  - f. The Contractor must also submit a copy of their Safety Program or IIPP prior to the start of the project for approval by the IEUA Safety Department.
9. **INSURANCE**: During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance.
- A. **Minimum Scope of Insurance**: Coverage shall be at least as broad as:
    1. Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required claim limit.
    2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
    3. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
    4. Professional Liability (Errors and Omissions): Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.
  - B. **Deductibles and Self-Insured Retention**: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

## SECTION 5 – ATTACHMENTS

C. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverage

- a. Additional Insured Status: The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).
- b. Primary Coverage: The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.
- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers.
- d. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
- e. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

The insurer hereby grants to Agency a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Agency by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency.

## SECTION 5 – ATTACHMENTS

- D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, and who are admitted insurers in the State of California.
- E. Verification of Coverage: Consultant shall furnish the Agency with original certificates and amendatory endorsements, or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
- F. Submittal of Certificates: Contractor shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, a Municipal Water District  
Attn: Angela Witte  
P.O. Box 9020  
Chino Hills, California 91709

**PLEASE NOTE:** In lieu of mailing certificates, it is preferable for contractor and/or broker to submit all required insurance certificates and endorsements electronically to Angela Witte at [awitte@ieua.org](mailto:awitte@ieua.org).

### 10. LEGAL RELATIONS AND RESPONSIBILITIES

- A. Professional Responsibility: The Contractor shall be responsible to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.
- B. Status of Contractor: The Contractor is retained as an independent Contractor only, for the sole purpose of rendering the services described herein and is not an employee of the Agency.
- C. Observing Laws and Ordinances: Consistent with the standard of skill and care set forth in 10.A, Professional Responsibility, the Contractor shall keep itself fully informed of all relevant existing state and federal laws and all relevant county and city ordinances and regulations which pertain to structural engineering services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with all such existing laws, ordinances, regulations, orders and decrees, including prevailing wage and shall to the extent of Contractor's negligence, indemnify, but not defend, as required herein, the Agency, its officers, employees against any liability for damages to the extent caused by the violation of any such law, ordinance, regulation, order or decree, whether by the Contractor or its employees.

**SECTION 5 – ATTACHMENTS**

- D. Subcontract Services: Any subcontracts for the performance of any services under this Contract shall be subject to the written approval of the Project Manager.
- E. Grant/Loan Funded Projects: This **is/is not** a grant funded project. *[For grant/loan-funded projects, the Contractor shall be responsible to comply with all grant requirements related to the Project. These may include but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Disadvantaged Business Enterprise (DBE) Requirements, Competitive Solicitation, Record Retention and Public Access to Records, and Labor Compliance and Compliance Review.]*
- F. Work Safety: Contract work requiring confine space entry must follow Cal-OSHA Regulation 8 CCR, Sections 5157 – 5158. This regulation requires the following to be submitted to IEUA, for approval, prior to the Contractor's mobilization to the work site:
- (1) Proof of training on confined space procedures, as defined in Cal-OSHA Regulation 8 CCR, Section 5157; and,
  - (2) A written plan that includes identification of confined spaces within the work site, alternate procedures where appropriate, contractor provisions and specific procedures for permit-required and non-permit required spaces and a rescue plan.
- G. Hours of Labor: The Contractor shall comply with all applicable provisions of California Labor Code Sections 1810 to 1815 relating to working hours. The Contractor shall, as a penalty to the Agency, forfeit \$25.00 for each worker employed in the completion of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code.
- H. Travel and Subsistence Pay: The Contractor shall make payment to each worker for travel and subsistence payments which are needed to complete the work and/or service, as such travel and subsistence payments are defined in an applicable collective bargaining agreements with the worker.
- I. Liens: Contractor shall pay all sums of money that become due from any labor, services, materials, or equipment provided to Contractor on account of said services to be rendered or said materials to be provided under this Contract and that may be secured by any lien against the Agency. Contractor shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- J. Conflict of Interest: No official of the Agency who is authorized in such capacity and on behalf of the Agency to negotiate, make, accept, or approve, or to take part in negotiating, making, accepting, or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.

**SECTION 5 – ATTACHMENTS**

- K. Equal Opportunity and Unlawful Discrimination: During the performance of this Contract, the Contractor shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status, or national origin. The Agency is committed to creating and maintaining an environment free from harassment and discrimination. To accomplish these goals the Agency has established procedures regarding the implementation and enforcement of the Agency's Harassment Prohibition and Equal Employment Opportunity commitments. Please refer to Agency Policies A-29 (Equal Employment Opportunity) and A-30 Harassment Prohibition for detailed information or contact the Agency's Human Resources Administrator. A copy of either of these Policies can be obtained by contacting the Project Manager for your respective Contract. Please advise any of your staff that believes they might have been harassed or discriminated against while on Agency property, to report said possible incident to either the Project Manager, or the Agency's Human Resources Administrator. Please be assured that any possible infraction will be thoroughly investigated by the Agency.
- L. Non-Conforming Work: Consistent with the standard of skill and care set forth in Section 10.A, Professional Responsibility, Contractor represents that the Work and Documentation shall be adequate to serve the purposes described in the Contract. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable, and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Contractor shall notify the Project Manager, in writing, detailing the dispute and reason for Contractor's position. Any dispute that cannot be resolved between the Project Manager and the Contractor shall be resolved in accordance with the Dispute Section of this Contract.
- M. Disputes:
1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. The Contractor shall pursue the work to completion in accordance with the instruction of the Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract, which remain unresolved after the exhaustion of the procedures provided herein, to independent arbitration. Except as otherwise provided herein, arbitration shall be conducted under California Code of Civil Procedure Sections 1280, et. seq, or their successor.
  2. Any and all disputes during the pendency of the work shall be subject to resolution by the Agency Project Manager and the Contractor shall comply, pursuant to the Agency Project Manager instructions. If the Contractor is not satisfied with any such resolution by the Agency Project Manager, they may file a written protest with the Agency Project Manager within seven (7) calendar days after receiving written notice of the Agency's decision. Failure by Contractor to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of the Agency Project Manager's resolution. The Agency's Project Manager shall submit the Contractor's written protests to the

## SECTION 5 – ATTACHMENTS

General Manager, together with a copy of the Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said protest(s). The General Manager shall make his or her determination with respect to each protest filed with the Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Contractor is not satisfied with any such resolution by the General Manager, they may file a written request for arbitration with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of arbitration, the parties hereto agree that there shall be a single neutral Arbitrator who shall be selected in the following manner:
  - a. The Demand for Arbitration shall include a list of five names of persons acceptable to the Contractor to be appointed as Arbitrator. The Agency shall determine if any of the names submitted by Contractor are acceptable and, if so, such person will be designated as Arbitrator.
  - b. In the event that none of the names submitted by Contractor are acceptable to Agency, or if for any reason the Arbitrator selected in Step (a) is unable to serve, the Agency shall submit to Contractor a list of five names of persons acceptable to Agency for appointment as Arbitrator. The Contractor shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
  - c. If after Steps (a) and (b), the parties are unable to mutually agree upon a neutral Arbitrator, the matter of selection of an Arbitrator shall be submitted to the San Bernardino County Superior Court pursuant to Code of Civil Procedure Section 1281.6, or its successor. The costs of arbitration, including but not limited to reasonable attorneys' fees, shall be recoverable by the party prevailing in the arbitration. If this arbitration is appealed to a court pursuant to the procedure under California Code of Civil Procedure Section 1294, et. seq., or their successor, the costs of arbitration shall also include court costs associated with such appeals, including but not limited to reasonable attorneys' fees which shall be recoverable by the prevailing party.
  
5. Joinder in Mediation/Arbitration: The Agency may join the Contractor in mediation or arbitration commenced by a Contractor on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from the Agency's representative to the Contractor.
  
- N. Workers' Legal Status: For performance against this Contract, Contractor shall only utilize employees and/or subcontractors that are authorized to work in the United States pursuant to the Immigration Reform and Control Act of 1986.
  
- O. Prevailing Wage Requirements: Pursuant to Section 1770 and following, of the California Labor Code, the Contractor shall not pay less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations for the locality in which the work is to be performed and for each craft or type of worker needed to execute the work contemplated under the Contract.

## SECTION 5 – ATTACHMENTS

The Contractor or any subcontractor performing part of said work shall strictly adhere to all provisions of the Labor Code, including, but not limited to, minimum wages, workdays, nondiscrimination, apprentices, maintenance and availability of accurate payroll records and any other matters required under all Federal, State and local laws related to labor.

11. INDEMNIFICATION: Contractor shall indemnify the Agency, its directors, employees, and assigns, and shall hold them harmless from all liabilities, demands, actions, claims, losses, and expenses, including reasonable attorneys' fees, which arise out of or are actually caused by the negligence, recklessness or willful misconduct of the Contractor, its directors, employees, agents and assigns, in the performance of work under this contract.
12. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: The Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by the Contractor and/or the Contractor's subcontractor(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to the Agency from the moment of their preparation, and the Contractor shall deliver same to the Agency whenever requested to do so by the Project Manager and/or Agency. The Contractor agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of the Agency.

Said materials and documents shall not be changed or used for purposes other than those set forth in the Contract without the prior written approval of Contractor. If Agency reuses the materials and documents without Contractor's prior written consent, changes or uses the materials and documents other than as intended hereunder, Agency shall do so at its sole risk and discretion, and Contractor shall not be liable for any claims and/or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.

13. TITLE AND RISK OF LOSS:
  - A. Documentation: Title to the Documentation shall pass, subject to payment therefore, to Agency when prepared; however, a copy may be retained by Contractor for its records and internal use. Contractor shall retain such Documentation in a controlled access file, and shall not reveal, display, or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
  - B. Material: Title to all material, field, or research equipment, subject to payment therefore, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Contractor shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
  - C. Disposition: Contractor shall dispose of items to which Agency has title as directed in writing by the Agreement Administrator and/or Agency.

**SECTION 5 – ATTACHMENTS****14. PROPRIETARY RIGHTS:**

- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Contractor in the performance of the Work, shall be governed by the following provisions:
1. Proprietary Rights conceived, developed, or reduced to practice by Contractor in the performance of the Work shall be the property of Agency, and Contractor shall cooperate with all appropriate requests to assign and transfer same to Agency.
  2. If Proprietary Rights conceived, developed, or reduced to practice by Contractor prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Contractor shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.
  3. If the Work or Documentation includes the Proprietary Rights of others, Contractor shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.
  4. Notwithstanding anything to the contrary herein, Contractor's Work and Documentation shall not be changed or used for purposes other than those set forth in the Contract, without the prior written approval of the Contractor. If the Agency reuses the Work or Documentation without Contractor's prior written consent, changes or uses the Work or Documentation other than as intended hereunder, Agency shall do so at its sole risk and discretion, and Contractor shall not be liable for any claims and or damages resulting from use or connected with the release of or any third party's use of the reused materials or documents.
- B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Contractor of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Contractor in complying with this Contract.

**SECTION 5 – ATTACHMENTS**

- 15. **INFRINGEMENT:** Contractor represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trademark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Contractor shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses to the extent of Contractor's negligence for any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Contractor shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

- 16. **NOTICES:** Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green  
 Manager of Contracts and Procurement  
 Inland Empire Utilities Agency  
 6075 Kimball Avenue, Building A  
 Chino, California 91708

Contractor: Name  
 Title  
 Company  
 Address

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

- 17. **SUCCESSORS AND ASSIGNS:** All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon the Agency, the Contractor, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of the Contractor under this Contract may be assigned, transferred, or otherwise disposed of without the prior written consent of the Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of the Agency shall be null, void and of no legal effect whatsoever.
- 18. **PUBLIC RECORDS POLICY:** Information made available to the Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) The Agency's use and disclosure of its records are governed by this Act. The Agency shall use its best efforts to notify Contractor of any requests for disclosure of any documents pertaining to Contractor.

## SECTION 5 – ATTACHMENTS

In the event of litigation concerning disclosure of information Contractor considers exempt from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Contractor has marked “Confidential”, “Proprietary”, or “Trade Secret”, Contractor shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys’ fees, in any action or proceeding arising under the Public Records Act.

19. RIGHT TO AUDIT: The Agency reserves the right to review and/or audit all Contractors’ records related to the Work. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Contractor. The Contractor shall make all records and related documentation available within three (3) working days after said records are requested by the Agency.
20. INTEGRATION: The Contract Documents represent the entire Contract of the Agency and the Contractor as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered, or amended except by written mutual agreement by the Agency and the Contractor.
21. GOVERNING LAW: This Contract is to be governed by and constructed in accordance with the laws of the State of California.
22. TERMINATION FOR CONVENIENCE: The Agency reserves and has the right to immediately suspend, cancel or terminate this Contract at any time upon written notice to the Contractor. In the event of such termination, the Agency shall pay Contractor for all authorized and Contractor-invoiced services up to the date of such termination.
23. CHANGES: The Agency may, at any time, make changes to this Contract’s Scope of Work, including additions, reductions, and other alterations to any or all of the work. However, such changes shall only be made via a written amendment to this Contract. The Contract Price and Work Schedule shall be equitably adjusted, if required, to account for such changes and shall be set forth with the Contract Amendment.
24. FORCE MAJEURE: Neither party shall hold the other responsible for the effects of acts occurring beyond their control, e.g., war, riots, strikes, natural disasters, etcetera.
25. PARTICIPATING PUBLIC AGENCIES: It is intended that any other public agency as defined by Cal. Gov. Code 6500 shall, if authorized by its governing body, have the option to participate in any award made as a result of this solicitation. This option shall extend for the duration of the term of the agreement with IEUA and shall be subject to contractor’s acceptance. The participating public agency shall accept sole responsibility for placing orders, arranging for delivery of services, and making payments to contractor. IEUA will not be liable or responsible for any obligations, including but not limited to financial responsibility, in connection with any participation by another public agency.
26. LIQUIDATED DAMAGES: There are no liquidated damages.

**SECTION 5 – ATTACHMENTS**

- 27. NOTICE TO PROCEED: No services shall be performed or furnished under this Contract unless and until this document has been properly signed by all responsible parties and a Notice to Proceed order has been issued to the Contractor.
- 28. AUTHORITY TO EXECUTE CONTRACT: The Signatories, below, each represent, warrant, and covenant that they have the full authority and right to enter into this Contract on behalf of the separate entities shown below.
- 29. DELIVERY OF DOCUMENTS: The Parties to this Contract and the individuals named to facilitate the realization of its intent, with the execution of the Contract, authorize the delivery of documents via facsimile, via email, and via portable document format (PDF) and covenant agreement to be bound by such electronic versions.

IN WITNESS WHEREOF, the parties hereto have caused the Contract to be entered as of the day and year written above.

**INLAND EMPIRE UTILITIES AGENCY:**  
*(\*A MUNICIPAL WATER DISTRICT)*

**Company Name:**

\_\_\_\_\_  
 Signatory Name (Date)  
 Signatory Title

\_\_\_\_\_  
 Signatory Name (Date)  
 Signatory Title

# EXHIBIT B



Response to:

**Inland Empire Utilities Agency.**  
BAS Controls Upgrade RFP-VC-24-004

Submitted:

February 22, 2024

## Contact Information



**infinite control systems**

13777 Amarillo Avenue  
Chino, CA 91710  
Office: (909) 627-0144  
Fax: (909) 627-0147  
CA License #368633

### Primary Contact

#### **Fred Daniali**

Sales/Service/Support  
Los Angeles Branch Office  
E-mail: [fred.daniali@infinitecontrolsystems.com](mailto:fred.daniali@infinitecontrolsystems.com)  
Mobile: (909) 631-1428

## Introduction Letter

February 22, 2024

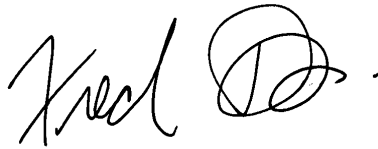
Facilities Management  
Inland Empire Utilities Agency  
6075 Kimball Avenue  
Chino, CA 91710

Dear Facilities Management:

Thank you for your continued interest in Infinite Control Systems, a leading value-added integrator of Distech Controls building automation systems products. We are pleased to respond to your building automation controls needs and to provide services for 200 Pacific Coast Highway.

The attached document outlines the details of Infinite Control Systems' services in response to your request. Although this response is designed to meet or exceed the functional requirements you've requested, Infinite Control Systems hopes to provide further solutions that will enable Inland Empire Utilities Agency to refine and improve its current requirements for functionality and economy.

Sincerely,



Fred Daniali  
Sales/Service/Support  
Infinite Control Systems, Inc.

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## Proposed Solution

After careful review of the existing Distech Controls Niagara based Control System and HVAC system, I have found several key items that would improve the functionality and throughput of the system that is currently installed at the facility. Upon closer inspection, I would like to recommend the following upgrades and to be prepared for future expansion and improvements at the facility.

The following is a short description of the existing HVAC systems.

1. The three buildings are currently served by a primary chilled water system, one central plants with chillers, boilers, and a thermal energy storage system, several unitary air handler units, several rooftop units, and distributed single duct variable air volume boxes for space comfort control.
2. Each building has a combination of each of the units described above.
3. Buildings A and B are served with one chilled water central plant while building RP-1 has it's own chilled water central plant.

Infinite Control Systems understands that Inland Empire Utilities Agency wishes to accomplish the following with a new upgraded Distech Controls building automation control system.

1. A replacement of all base building systems that currently run on the outdated and non-functional CCN, Johnson Controls, and Trane Tracer systems. This system is proprietary and while Infinite Control Systems has been able to somewhat repair and modify this system in the past, it is getting increasingly difficult due to the lack of parts availability. Additionally, the Johnson Controls system is not expandable and will not get the facility to its required goals and objectives.
2. A replacement and upfit of the proprietary central plant control system that will allow custom modifications of the chilled water production capabilities. The controls that were installed are pre-programmed controllers that have no flexibility for any modifications and would require a tremendous amount of work to track the origins of the programmer/ tools to make the necessary changes.
3. After the replacement of the system, it is necessary to assess the current energy requirements and needs of the building.
4. Programming and modifications will need to be made to implement an effective demand management system that will scale back or adjust energy consumption based on time of day and occupancy usage.
5. The implementation of demand ventilation and usage that will both reduce the building's carbon footprint and increase the energy profile of the building. By using this additional equipment and control strategies, Cushman and Wakefield will be able to achieve Platinum energy status which will increase the desirability and profile of the rentable space.

Infinite Control Systems will implement the following strategy to accomplish a complete replacement of the existing building automation system:

1. The current central plant controls systems has a proprietary Niagara System that has no physical or software overrides, no local output indications, no local displays of data or data setpoints, no significant setpoint adjustments or control sequence manipulation capabilities. The central plants also have a series of outdated features such as old actuator valves with status switches that only function half the time, older

protocol gateways that pull information from the older chillers, and a current sequence of operation that doesn't seem to take full advantage of the thermal energy storage system.

2. Installation of an EC-NET 4 server supervisor that will give a centralized graphical representation of all Distech Controls equipment plus provide extensive and long-term trending, usage, and alarming capabilities on a web based centralized platform. We will work with Beacon's security strategy to secure our systems and servers while providing a maximum level of control.
3. Installation of components that will allow for demand ventilation and energy load shed to dramatically use less energy in the building. All three buildings currently have issues with sporadic occupancy that have an over usage of energy. By implementing more occupancy devices, energy consumption will be reduced significantly.
4. Installation and upgrade of new controls for all air handling units that are currently being controlled by the older N2 Johnson Controls system. By upgrading these controllers and pneumatic chilled water valves, Infinite Control Systems will greatly improve the functionality of the air handler units to address the possible humidity and air exchange issues that the building is currently experiencing. Upon closer inspection, it has been revealed that the Niagara system is being utilized to repair some of their lack of functionality.
5. Installation of upgrade of all variable air volume and unitary controllers for space comfort control. The buildings currently have 2 different variable air volume controllers, and a quick glance shows that the Niagara system is being utilized to repair some of their lack of functionality. By upgrading these controllers to Distech, the system will standardize and improve its functionality.
6. Installation of a learning AI engine that will optimize control of the building's setpoints, schedule starts, and central plant functions.
7. Infinite Control Systems will offset the price of the system by implementing a vigorous economizer and outside air strategy for maximum the usage of free cooling.
8. Infinite Control Systems will work with Inland Empire Utilities Agency to implement an afterhours strategy so that all over usage energy can be recuperated.

Infinite Control Systems will provide consultation with the Maintenance Staff for operating instructions, building set-up and adjustments of set points and operating schedules as required, for one full year after the building commissioning.

#### Building Base System

1. Infinite Control Systems will provide all new valve and damper actuators.
2. The base building system shall include all CPU's necessary for a 600 Sq. Ft. per zone density and backbone wiring system to connect and integrate same with BAS.
3. Infinite Control Systems will provide a control points list for the proposed central plant and air handling units' conversion to direct digital. Infinite Control Systems will advise which components will be new, and where existing components will be used. ICS will obtain approval of the Maintenance Staff before proceeding.

#### Fire – Life Safety

Infinite Control Systems will address any interface with fire/life safety systems, including but not limited to fan shut downs and building stair pressurization. Infinite Control Systems will

not install or make modifications to any smoke control equipment or address functions of UUKL sequence under this contract.

## Pricing Information and Project Timeline

***Infinite Control Systems estimates a four-month completion date of the entire project from a start date of approximately March 1<sup>st</sup>, 2024 and an estimated completion date of July 1<sup>st</sup>, 2024. Infinite Control Systems will uphold this completion date commitment provided that all equipment is made available during schedules retrofit commitments. Infinite Control Systems will use the Distech Controls product with an EC-Net Niagara 4 overlay.***

### ***Phase 1: Replacement of Central Plant EASYIO components and migration to the Distech Controls EC-Net 4 IP Based Building Automation System.***

#### ***Headquarters Buildings A and B: Refurbish and Upgrade of 52 Existing Carrier Variable Air Volume controller (typical, may vary).***

- Replace all low voltage control transformers in every associated enclosure.
- Replace and install upgraded IP Distech ECY-VAV Controllers and Unitouch Graphical Space Temperature Sensors to replace existing Carrier Comfort Networks controllers.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide and convert all existing floating reheat valve actuators with new analog reheat valve actuators.
- Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing variable air volume controller.

#### ***Headquarters Buildings A and B: Refurbish and Upgrade of 2 Existing Air Handler Unit programmable controller (typical, may vary).***

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing ECB series controllers with enough IO plus extra 10 percent for spare IO.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Air Handling Units.
- All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

#### ***Headquarters Building A: Upgrade and integration of 3 New Rooftop Units with isolation dampers.***

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.

- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing network as needed to accommodate new RTUs and BACNet MS/TP Carrier card.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

**Headquarters Building B: Upgrade and integration of 2 New Rooftop Units with isolation dampers.**

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing network as needed to accommodate new RTUs and BACNet MS/TP Carrier card.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

**Refurbish and Upgrade of Existing Central Plant Controllers**

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing Niagara 4 series controllers with enough IO plus extra 10 percent for spare IO.
- Replace and install upgraded IP Distech Controllers to replace all non-standard TES related IO controllers including flow stations and 2 AHU units serving mechanical rooms.
- Provide and install new analog reheat valve actuators for AHUs.
- Replace any non-working isolation valve actuators, current sensors, or differential pressure switches to create a working system.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Central Plant.
- Provide full integration of all two-wire and IP Modbus and 3<sup>rd</sup> party protocols for controls of chillers, boiler, and all peripheral devices that currently exist on the system.
- All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

**RP-1 Building MCB: Refurbish and Upgrade of 9 Existing Johnson Controls Air Volume controller (typical, may vary).**

- Replace all low voltage control transformers in every associated enclosure.
- Replace and install upgraded IP Distech ECY-VAV Controllers and Unitouch Graphical Space Temperature Sensors to replace existing Carrier Comfort Networks controllers.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide and convert all existing floating reheat valve actuators with new analog reheat valve actuators.
- Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing variable air volume controller.

**RP-1 Building MCB: Refurbish and Upgrade of 1 Existing Air Handler Unit programmable controller (typical, may vary).**

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing ECB series controllers with enough IO plus extra 10 percent for spare IO.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing point I/O so as to maintain or exceed the functionality of the existing Air Handling Units.
- All IT switchgear and switches that are currently on the existing control panels or in any existing control panels must be repurposed and remounted within the enclosure in a pleasing fashion.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

**RP-1: Upgrade and integration of 2 Existing Rooftop Units with isolation dampers.**

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing network as needed to accommodate new RTUs and BACNet MS/TP Carrier card.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

**RP-1 Management Offices: Upgrade and integration of 1 Existing Trane Rooftop Units with 4 Zone Variable Air Volume System with reheat, attached boiler, and hot water pump.**

- Replace backing plate with new insert complete with new terminal strips, transformers and components. Panel insert will be UL listed and conform to all UL standards.
- Replace and install upgraded IP Distech Controllers to replace existing Carrier controllers for control of isolation dampers.
- Remove and replace all sensors and existing wireless space temperature sensors with Distech controls Unitouch sensors.
- Upgrade and install all new associated sensors, transmitters, switches, and actuators. No existing equipment, including wire and network, will be reused.
- Provide a full replacement of existing network as needed to accommodate the existing RTU and Trane Tracer components.
- Provide and install a UPS system for 30 minutes of reserve power for panel.

## **Supplemental to all portions of work:**

### **Upgrade of Niagara 4 Supervisor License.**

- Provide license requirements for addition of new IP controllers and all associated points and programming fees.

### **Assist on Design Build and Engineering.**

- Provide assistance and recommendations on design assist parameters for controls and controls products to be implemented.
- Provide all necessary drawings and submittal package to be reviewed and approved by IEUA team prior to beginning of work.

### **Commissioning, Training and Turnover of Completed Job.**

- Provide pre air balance verification assistance of all systems to check air requirements.
- Provide post air balance verification assistance to check final air distribution.
- Provide one day worth of training and turnover of job and material to customer.
- Provide commissioning assistance to prove functionality of air handling units, rooftop units, and at least 10 percent of variable air volume units that follows the guidelines and specifications put forward within the contract documents.
- Provide commissioning assistance to prove complete functionality of central plant system to operate as intended per the existing sequence of operation.
- All panels will have a Distech Horyzon-C display as an installation standard with all necessary programming to display, control, and override all and any points that are specific to the panel.
- All work will be performed seamlessly and transparently without any interruption to daily operation or function.
- ICS will provide all O and M documents and drawings for the completion and closeout of the project.
- ICS will provide a 2-year parts and labor warranty for all components and materials associated with this job.

### **Coordination with Life-Safety and Fire Alarm Shut-Down.**

- Provide needed coordination for life-safety shutdown with fire alarm contractor.
- Provide standby for needed Chino city testing for verification of shutdown.

### **Not included in the scope of work for this project are the following:**

- Equipment manufacturer factory start-up and commissioning.
- Fire and smoke dampers/actuators.
- Dampers or installation or dampers or linkages.
- Low or high voltage conduit. All existing conduit and hardware will be used.
- New valves or linkages. All existing valves will be used for this installation.
- Duct smoke detectors.
- 120-Volt AC power other than power that serves DDC cabinets.
- Non-DDC Controls not listed above.

- Alarm panels.
- VFDs
- Anything not listed above or included in this proposal.

## Company Overview

Infinite Control Systems Inc. is an authorized Distech Controls System Integrator that specializes in HVAC, Lighting, Card Access, and CCTV control systems.

Licensed in California, Nevada, and Arizona, we provide interoperable, cost-effective open system products and services that improve indoor environments and energy cost-saving for schools, campuses, hospitals, office buildings and industrial facilities, throughout the western states of the U.S.

### Echelon® Open Systems Alliance Integrator

LonWorks®, developed by Echelon, is a communications protocol embedded on a programmable microchip that, when included in a piece of equipment, such as HVAC, security or lighting, it allows that device to be immediately compatible with any other piece of equipment that shares that technology. The technology not only allows for complete interoperability, it provides for extended access, so that all of the systems within a building or inventory of buildings can be controlled through a single system interface and managed via a desktop PC through an internet browser.

### Building Automation

A properly designed, installed, and maintained building automation system is not only comfortable, but profitable by conserving energy, facilitating management, and rendering a building tenant friendly. To that effect, Infinite Control Systems is committed to providing the maximum quality for building automation efficiency and economy by delivering interoperable cost-effective open system products and services that provide energy cost-saving alternatives for schools, hospitals, banks, studios, arenas, hotels, office buildings and industrial facilities.

### Energy Management, HVAC, & Direct Digital Controls

Web based management, courtesy of the Internet, has revolutionized the way environmental systems in buildings are operated and monitored. With increasing energy prices, web based management of lighting and environmental control systems lowers operating costs, as well as overall energy costs resulting from efficient use.

The experienced team of engineers and technicians at Infinite Control Systems integrate Direct Digital Controls (DDC) for all types and sizes of systems and buildings, using the highest quality manufacturers of these controls, such as Distech, Reliable Controls, Tridium Niagara and others. Infinite Control Systems managers and design engineers have been trained by Distech Control, Reliable Controls, Niagara, and remain abreast with current products and innovations. Working closely with building owners, construction managers, and inspectors, Infinite Control Systems assures schedules are met to achieve the highest customer satisfaction.

## Management Team

Infinite Control Systems Inc., founded in 2001, is a privately held California Corporation. Licensed in California as a general contractor, its mission is to provide interoperable, cost-effective open system products and services that improve indoor environments and energy cost-savings for schools, campuses, hospitals, office buildings and industrial facilities, throughout the western states of the U.S.

Infinite Control Systems' core management team has over 30 years experience in HVAC, control systems, and network programming.

### **Fred Daniali, PHD** *President/CEO Sales/Service/Support and Master System Integrator*

Fred is a California accredited Professional Engineer, specializing in Mechanical Systems. He holds a B.S.M.E. from the University of California, Riverside, A Master's Degree in Industrial Engineering from UCLA, and a PHD in Physics from the California Institute of Technology.

Prior to joining Infinite Control Systems, Fred was the Chief Engineer of 400/450 North Brand in the city of Glendale. There, he acquired considerable knowledge and experience with the programming and development of several controls systems, including the Invensys 350A/350B/DMS-3500, Invensys Lonworks Intelligent Automation, and Barber-Coleman Network 8000 systems.

### **Clara Kechichian, CPA** *Vice President/CFO*

Working closely with other businesses and with over 10 years of experience in financial institutions, Clara brings an air of economic knowledge and understanding to help make Infinite Control Systems a stable financial and service based entity. Previously working at Northshore Engineering (a major engineering and environmental agency), Clara has organized and managed service and construction aspects with close attention to financial detail and fleet management. With a background in accounting from the University of California Riverside and as a California State registered CPA, Clara adds herself as a great asset to the Infinite Control Systems management team.

### **Tyler Heer** *CTO Sales/Service/Support and Master System Integrator*

Tyler is a California accredited HVAC/Controls Specialist and graduated with honors from UTI with an AA Degree in core heating and ventilation design.

Tyler has been employed with Infinite Control Systems since March of 2012 and is a Distech Controls, Carrier Comfort Networks, Niagara, and KMC certified Master System Integrator

Prior to joining Infinite Control Systems, Tyler was responsible for running a service team for a 30 million dollar HVAC company.

### **Shawn Armbruster** *General Foreman and Service/Construction Manager*

Shawn is a graduate of the Mount San Antonio College HVAC program and holds an associates degree in this field.

Shawn has been employed with Infinite Control Systems since January of 2006 and is a Distech Controls, Honeywell, and Niagara certified technician.

Prior to joining Infinite Control Systems, Shawn has worked as a building engineer for Sempra Energy Solutions and ABM Industries where he was responsible for the upkeep and maintenance of several HVAC and control systems.

**Christopher Pullium** *Controls Engineer and Systems Programmer*

Chris is a graduate of the Mount San Antonio College HVAC program and holds an associates degree in this field. Chris also holds a degree in Computer Science from Cal Poly Pomona.

Chris has been employed with Infinite Control Systems since February of 2007 and is a Distech Controls, Honeywell, and Niagara certified technician.

Prior to joining Infinite Control Systems, Chris has worked for Athena Engineering, where he implemented, designed, and programmed complex TAC control systems for high rise buildings, schools, and medical facilities.

## Customer Acceptance

Our customers need depth and breadth of knowledge, and Infinite Control Systems combines a mastery of our industry with deep knowledge of yours. We've worked with many schools and school systems, and we've tailored our expertise to suit the needs of particular industries.

Infinite Control Systems focuses on customers with open systems integration needs and has had proven success with schools, including our marquee clients, the Staples Center and Cal Poly Pomona. Here are just a few who are as proud of our work as we are:

infinite control systems customers		
Entertainment/ Arenas	Property Management	Healthcare
Crypto.com Arena	Cushman and Wakefield	Cedar's Sinai Medical Center
The Peacock Theater	Lincoln Properties	Kidney Center of Thousand Oaks
Dreamworks, SKG	Insignia ESG.	Davis Research Facility
Yaamava Resort and Casino	Legacy Management	
LA Live!	PM Realty Group	
The Palms Resort and Casino	CIM Group	

## Solution Offerings

### Infinite Control Systems Professional Services

We combine strong industry knowledge and an expert blend of top-notch skills to help our customers manage and monitor their lighting, HVAC, security access, and energy management systems.

We integrate Direct Digital Controls (DDC) for all types and sizes of systems and buildings, using the highest quality manufacturers of these controls, such as Circon, TAC, and Distech, and many others. Working closely with facilities managers, building owners, construction managers, mechanical engineers, and inspectors, Infinite Control Systems assures schedules are met to achieve the highest customer satisfaction.

### Infinite Control Systems Software Programming Services

Today's open systems programmable controllers require knowledgeable system programmers versed in compilers, integrations tools, and development tools, and internet based programming tools to allow you to access your network from anywhere in the world.

Our expert team of engineers has extensive experience with a variety of programming tools, including BASIC Compilers, LNS Network Operating Systems, integrations tools, protocol analyzers, NMS and node building development tools, and various Internet based programming tools. Our engineers have been trained in Echelon Lonworks® Open Systems, by Distech Controls, Honeywell, Smart Controls, and continuously remain abreast with current products and innovations.

## Why Infinite Control Systems?

The Infinite Control Systems business model –to work closely with facilities managers, building owners, construction managers, mechanical engineers, and inspectors— assures schedules are met to achieve the highest customer satisfaction.

### Our Customers Need

- Energy management efficiency.
- Hassle-free operations and monitoring.
- Customer support and training.

### Proven Success

- Several schools, property management, medical facilities, and entertainment facilities statewide.
- Solid financial position.
- A Solid and Professional Team.

To learn more about infinite control systems, please visit  
[www.infinitecontrolsystems.com](http://www.infinitecontrolsystems.com)

# Inland Empire Utilities Agency BMS Upgrade

Infinite Control Systems, Inc.

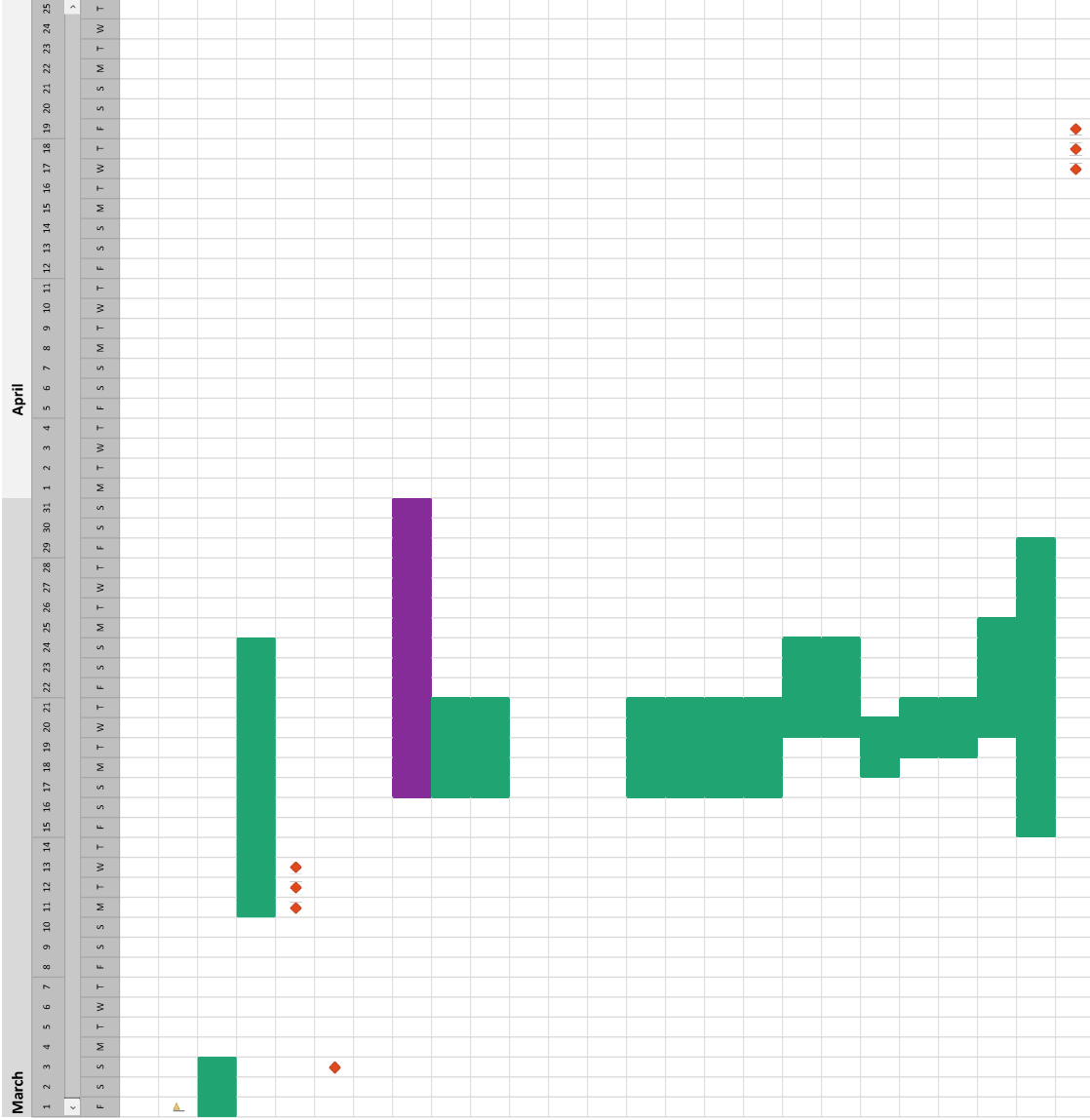
Project Manager: Shawn Armbruster

Project Start Date: 3/1/2024

Scrolling Increment: 0

Legend:

- On Track On Track
- Low risk of Delay Low risk of Delay
- Med Risk of Delay Med Risk of Delay
- High Risk of Delay High Risk of Delay
- Unassigned Unassigned






Wednesday, February 21, 2024

To Whom It May Concern:

Infinite Control Systems, Inc. is a certified Systems Integrator for Distech Controls and employs Distech Controls Certified factory trained individuals who have passed certification exams designed to validate their expertise in implementing Distech Controls tools and technologies as well as their security in accordance with the product warranty. Infinite Control Systems, Inc. has been a Distech Controls System Integrator Partner since 2004 and is currently in good standings with Distech Controls.

For further information, please do not hesitate to reach out directly to me.

  
Kelly Boyd (Feb 21, 2024 10:52 MST)  
Kelly Boyd  
Vice President of Sales US

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Connecting People with  
Intelligent Building Solutions

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[www.distech-controls.com](http://www.distech-controls.com)

Distech Controls Inc.  
4205 place de Java Brossard, Quebec, J4Y 0C4, Canada  
T. +1 450 444 9898 / Toll-Free: +1 800 404 0043  
F. +1 450 444 0770

**SECTION 4 – FORMS**

**PROPOSAL RATE/FEE SCHEDULE**


A. **FEE INCLUSION STATEMENT:** Offerors shall fully complete this Proposal Rate/Fee Schedule and return it with their submittal. All proposed prices and fees shall be held firm-fixed throughout the anticipated contract performance period [other than prevailing wage classifications, which shall be paid in accordance with the current year prevailing wage determination as made by the Department of Industrial Relations (DIR)], and shall include costs associated with all equipment, materials, transportation, overhead, travel, profit insurance, sales and other taxes, licenses, incidentals, and all other related costs necessary to provide the required inspection, certification, load testing, and related services.

Lump sum (Materials)	\$ <u>38,112.91</u>
Lump sum (Labor)	\$ <u>352,140.56</u>
Payment/Performance Bonds	\$ <u>22,500.00</u>
Tax on materials (7.75%)	\$ <u>2,953.68</u>
<b>TOTAL PROJECT COST</b>	<b>\$ <u>415,707.15</u></b>

B. **EXPEDITED PAYMENT DISCOUNT:** Each Offeror shall indicate the availability and the magnitude of any discount related to expedited payment of any or all invoices (i.e., if Net 10, then 2% discount).

i.e., if Net 10, then 1 % discount

**Warrants:** On behalf of the afore identified “Contractor” company, the undersigned warrants that the Company has the equipment and manpower necessary to successfully complete the described work within the time frame specified within the “Request for Proposal” and that the Company will be ready and able to begin working under such contract within 5 days of receiving notice, whether written or verbal. The Agency reserves the right to accept the Proposal that it determines to be in the best interests of the Agency and to reject any or all Proposals should it determine that to proceed is not in its best interests.

	Infinite Control Systems, Inc.
Offeror's Signature	Company Name
Fred Daniali	368633
Print Name	Contractor's License Number & Type
President/CEO	2/22/2024
Title	Date

**SECTION 4 - FORMS**

**OFFEROR IDENTIFICATION**

1. Legal name of Offeror: Infinite Control Systems, Inc.
2. Street Address: 13777 Amarillo Avenue, Chino CA 91710
3. Mailing Address: 13777 Amarillo Avenue, Chino CA 91710
4. Business Telephone: 909-627-0144
5. Facsimile Telephone: 909-627-0147
6. Email Address: fred.daniali@infinitecontrolsystems.com
7. Type of Business:  
 Sole Proprietor    Partnership    Corporation  
Other: \_\_\_\_\_  
If corporation, indicate State where incorporated: California
8. Business License number issued by the City where the Offeror's principal place of business is located.  
Number: 30675   Issuing City: Chino
9. Federal Tax Identification Number: 20-0970636
10. California Contractor's License Number: 368633
11. California DIR (Registration) Number: 1000020782
12. Offeror's Project Manager: Shawn Armbruster
13. Project Manager's E-mail Address: shawn.armbruster@infinitecontrolsystems.com
14. Project Manager's Cell Phone No.: 951-675-0607

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm	<u>LA Arena Company Crypto.com Arena</u>	Contact Name:	<u>Grant Higgins</u>
City and State:	<u>Los Angeles, CA</u>	Telephone No.:	<u>213-329-0439</u>
Email Address:	<u>ghiggins@cryptoarena.com</u>	Approximate Cost:	<u>2,300,000.00</u>
Project Name:	<u>Refresh</u>	Start/End Dates:	<u>1/15/2021 - 1/15/2025</u>

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

Retrofit and modernization of older Distech Controls BAS system to the newest Distech Controls ECY revision. Equipment includes plant controllers, VAV, AHUs, and various other unitary equipment.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm:	_____	Contact Name:	_____
City and State:	_____	Telephone No.:	_____
Email Address:	_____	DIR Registration No.:	_____
License No.:	_____	Check one:	<input type="checkbox"/> Business <input type="checkbox"/> CSLB

Brief description of their services:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm: Yaamava Casino Resort and Casino Contact Name: Josh Avilla  
 City and State: Highland, CA Telephone No.: 909-723-2171  
 Email Address: joshua.avila@sanmanuel.com Approximate Cost: 1,500,000.00  
 Project Name: Casino Distech Controls BAS Upfit Start/End Dates: 3/15/2019-8/15/2019

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

Complete retrofit and upgrade of older Distech Controls BAS system to new IP based ECY controllers.  
Upgrade of existing EC-NET AX system to EC-NET 4. Integration and coordination as System Integrator  
to all other Distech Controls representatives used at project site.

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
 City and State: \_\_\_\_\_ Telephone No.: \_\_\_\_\_  
 Email Address: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_  
 License No.: \_\_\_\_\_ Check one:  Business  CSLB

Brief description of their services:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm: AEG at AEG Live Contact Name: Logan MacPherson  
 City and State: Los Angeles, CA Telephone No.: 213-304-4486  
 Email Address: lmachpherson@aegworldwide.com Approximate Cost: 1,200,000.00  
 Project Name: Buildings A and B Distech BAS Installation Start/End Dates: 5/5/2007-6/30/2009

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

Multi-year new construction project which included to high rise buildings, a parking structure, and many tenants such as Club Nokia, Herbalife, ESPN, and many others for the installation of central plant controllers, VAV, fan coils, and various other unitary controllers.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
 City and State: \_\_\_\_\_ Telephone No.: \_\_\_\_\_  
 Email Address: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_  
 License No.: \_\_\_\_\_ Check one:  Business  CSLB

Brief description of their services:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm: LA Arena Company at the Peacock Theater Contact Name: Mike Culp  
 City and State: Los Angeles, CA Telephone No.: 213-222-5152  
 Email Address: mculp@peacocktheater.com Approximate Cost: 400,000.00  
 Project Name: Distech Controls BAS Installation Start/End Dates: 1/1/2007 - 1/1/2008

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

New construction installation of Distech Controls BAS system which included a central plant with air cooled chillers, several AHUs, VAVs, and various fan coils and unitary equipment. The system has also been recently upgraded to the new Distech Controls ECY system with a new EC-NET 4 server.

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
 City and State: \_\_\_\_\_ Telephone No.: \_\_\_\_\_  
 Email Address: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_  
 License No.: \_\_\_\_\_ Check one:  Business  CSLB

Brief description of their services:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 4 - FORMS**

**REFERENCES AND SUBCONTRACTORS**

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

Name of Firm: 400/450 North Brand Contact Name: Lillian Llainez  
 City and State: Glendale, CA Telephone No.: 626-716-4020  
 Email Address: lillian.llainez@cushwake.com Approximate Cost: 650,000.00  
 Project Name: Distech Controls/Niagara BAS Installation Start/End Dates: 2/15/2011-8/15/2011

**TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)**

Upgrade and retrofit of existing Robertshaw DMS 3500 System to a Distech Controls Lonworks BAS system. Core equipment included two closed looped condenser water systems and over 400 water source heatpump units. The overall project also included a demand shed program to limit current usage during high peak hours.

**SUBCONTRACTOR(S)**

List any subcontractors who worked on your firm's behalf on the above- mentioned referenced project.

Name of Firm: \_\_\_\_\_ Contact Name: \_\_\_\_\_  
 City and State: \_\_\_\_\_ Telephone No.: \_\_\_\_\_  
 Email Address: \_\_\_\_\_ DIR Registration No.: \_\_\_\_\_  
 License No.: \_\_\_\_\_ Check one:  Business  CSLB

Brief description of their services:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION 4 - FORMS**

**EXCEPTION FORM**

Please state **ANY AND ALL** exceptions that you are taking to the Agency's contract terms and conditions or any portion of this proposal. Submit the following form with your Proposal. If no exception(s) are taken, enter "NONE" for the first item. Make additional copies of this form if necessary.

Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

Paragraph Number: \_\_\_\_\_ Exception Taken: None

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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_

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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_

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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_

Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_

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**SECTION 4 - FORMS**

**NON-COLLUSION AFFIDAVIT**

State of California )  
County of San Bernardino ) ss.

Fred Daniali, being first duly sworn, deposes and says that he or she is , of Infinite Control Systems, Inc. ("Offeror") the party making the foregoing Proposal that the Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Proposal is genuine and not collusive or sham; that the Offeror has not directly or indirectly solicited any other Offeror to put in a false or sham Proposal, and has not directly or indirectly colluded, conspired, connived, or agreed with any Offeror or anyone else to put in a sham Proposal, or that anyone shall refrain from bidding; that the Offeror has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Proposal fee or the Offeror or any other Offeror, or to fix any overhead, profit, or cost element of the Proposal fee, or of that of any other Offeror, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the Proposal are true; and, further, that the Offeror has not, directly or indirectly, submitted his or her Proposal fee or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, Proposal depository, or to any member or agent thereof to effectuate a collusive or sham Proposal.

  
\_\_\_\_\_  
Signature

Infinite Control Systems, Inc.  
\_\_\_\_\_  
Company Name

Fred Daniali  
\_\_\_\_\_  
Printed Name

30675  
\_\_\_\_\_  
Business License Number

President/CEO  
\_\_\_\_\_  
Title

2/22/2024  
\_\_\_\_\_  
Date

**SECTION 4 - FORMS**

**WORKERS' COMPENSATION CERTIFICATE**

The Offeror shall execute this form to acknowledge and comply with the requirements of California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my Contractor, I will comply with such provisions before commencing the performance of the work of any contract entered into.



Infinite Control Systems, Inc.

---

Signature

Company Name

Fred Daniali

30675

---

Printed Name

Business License Number

President/CEO

2/22/2024

---

Title

Date


**SECTION 4 - FORMS**

**WAIVER/RELEASE OF LIABILITY**

I, the undersigned, on behalf of Infinite Control Systems, Inc. (hereinafter referred to as Contractor), fully understand that the storage or leaving of any and all Contractor owned equipment, materials, and supplies at the Agency's facilities during the term of the contract, exposes Contractor to the risk of, but not limited to, theft, fire damage, vandalism, water damage, wind damage, and possible personal injury to Contractor's employees. For the privilege of storing/leaving any and all Contract owned equipment, materials, and supplies at the Agency's facilities, Contractor agrees to assume any and all such risks.

In consideration of being able to store/leave said equipment, materials, and supplies at the Agency's facilities, Contractor hereby releases, agrees not to sue, or bring any action against, the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers for any and all liability, claims, or actions for injury or death to Contractor's employees, or damage or theft of said property arising out of or in connection with the storage or leaving of said item(s) for whatever cause, including the active or passive negligence of the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers.

I have carefully read this Waiver/Release of Liability and covenant not to sue, and fully understand its contents, and the possible exposures that the Contractor is agreeing to assume. I am aware that this Waiver/Release of Liability is a full release of any and all liability. I am signing such as the authorized agent of Contractor, and of my own free will.

By:	 _____	2/22/2024 _____
	Representative's signature	Date
	Fred Daniali _____	President/CEO _____
	Print Name	Title

Approved: \_\_\_\_\_

**SECTION 4 – FORMS**

**PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION (if applicable)**

Pursuant to Labor Code Sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations (DIR). See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted, nor will any contract be entered into without proof of the contractor's and subcontractors' current registration with the DIR to perform public work.

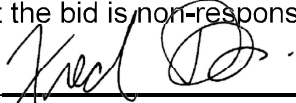
The Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code Sections 1725.5 and 1771.1 and is currently registered as a contractor with the DIR.

Name of Bidder: Infinite Control Systems, Inc.

DIR Registration Number: 1000020782

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code Sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: 

Name and Title: Fred Daniali President/CEO

Dated: 2/22/2024

**ATTACH COPY OF DIR REGISTRATION**

### Contractor Information

### Registration History

**Legal Entity Name**  
INFINITE CONTROL SYSTEMS

**Legal Entity Type**  
Corporation

**Status**  
Active

**Registration Number**  
1000020782

**Registration effective date**  
11/6/2023

**Registration expiration date**  
6/30/2024

**Mailing Address**  
13777 AMARILLO AVE. CHINO 91710 CA United States of America

**Physical Address**  
13777 AMARILLO AVE. CHINO 91710 CA United States of America

**Email Address**

**Trade Name/DBA**

**License Number(s)**  
CSLB:368633

Effective Date	Expiration Date
6/4/2018	6/30/2019
6/15/2017	6/30/2018
7/25/2016	6/30/2017
3/24/2016	6/30/2016
5/4/2015	6/30/2015
7/1/2019	6/30/2020
11/6/2023	6/30/2024

### Legal Entity Information

**Corporation Number:**

**Federal Employment Identification Number:**

**President Name:**  
Clara Kechichian

**Vice President Name:**

**Treasurer Name:**

**Secretary Name:**

**CEO Name:**

**Agent of Service Name:**  
Clara Kechichian

**Agent of Service Mailing Address:**  
13777 Amarillo Ave. Chino 91710 CA United States of America

### Workers Compensation

**Do you lease employees through Professional Employer Organization (PEO)?:** No

**Please provide your current workers compensation insurance information below:**

PEO Information	PEO Name	PEO Phone	PEO Email

Insured by Carrier

**Policy Holder Name:**Infinite Control Systems, Inc.**Insurance Carrier:**State Compensation Insurance Fund**Policy Number:** 92497492022**Inception date:**5/1/2023**Expiration Date:**5/1/2024

**SECTION 4 - FORMS**

**OTHER PUBLIC AGENCY "PIGGYBACK CLAUSE"**

Common purchasing practices in government include cooperative or "piggyback" purchasing among various units of government or municipalities. Other public agencies as defined by California Government Code section 6500 may choose to use the terms of this Contract, subject to Contractor's acceptance. If other public agencies decide to use this contract, the agency will issue their own purchasing documents for the good and/or services and deal directly with the vendor concerning contractual disputes, invoicing, and payment.

The Inland Empire Utilities Agency is not liable or responsible for any obligations related to a subsequent agreement between Contractor and another public agency.

**Acceptance or rejection of this clause will not affect the outcome of this bid.**

Piggyback option granted \_\_\_\_\_ (please initial)

Piggyback option not granted \_\_\_\_\_ (please initial)

Exclusions:	
-------------	--

Offeror Name: Infinite Control Systems, Inc. Date: 2/22/2024

Street Address: 13777 Amarillo Avenue  
City, State, and Zip Code Chino, CA 91710

Phone Number: 909-627-0144 Fax Number: 909-627-0147

Email Address: fred.daniali@infinitecontrolsystems.com

Printed Name: Fred Daniali Title: President/CEO

Signature: 

**THIS FORM MUST BE COMPLETED AND SUBMITTED WITH YOUR BID PACKAGE.**

---

**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Award Construction Contract for the RP-1 Centrate Line Improvement Project

---

**Executive Summary:**

Over the last few years, there has been a consistent decline in the flow capacity in the RP-1 centrate line. Centrate is a byproduct of the dewatering process in wastewater treatment within the centrifuge system, where liquid is separated from the digested sludge. Since centrate contains elevated levels of dissolved organics, nitrogen, phosphorus, etc., the liquid is directly discharged into the Brine Sewer System.

The flow decline in the centrate system is significantly impacting RP-1's dewatering operation. Continuous pipeline cleaning of the systems produced little to no improvement. In 2023, a consultant performed a hydraulic analysis on the existing system and found that extending the system's two parallel conveyance pipeline further towards the discharge point would not only restore the required operating flow rates but add flow capacity of up to 50-percent.

In December 2023, a consultant completed the design plans and specifications to modify the existing centrate line at the northern segment of the system by installing a new 8-inch diameter pipeline over the existing stormwater channel and an additional pipe to the discharge point.

In January 2024, IEUA issued an invitation for bids to the pre-qualified contractors on the under \$2 million list. On March 21, 2024, five construction bids were received. Mladen Buntich Construction Co. Inc. was the lowest, responsive, and responsible bidder, with a bid price of \$1,388,000. The engineer's estimate was \$1,330,660.

---

**Staff's Recommendation:**

Staff recommends that the Committee/Board:

1. Award a construction contract for the RP-1 Centrate Line Improvement, Project No. EN24020, to Mladen Buntich Construction Co. Inc., in the amount of \$1,388,000; and
2. Authorize the General Manager to execute the contract, subject to non-substantive changes.

---

**Budget Impact** *Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval \$1,388,000*

*Account/Project Name:* EN24020/RP1 Centrate Line Improvement Project

***Fiscal Impact (explain if not budgeted):***

The project has an approved FY23/24 budget of \$500,000 and an approved total project budget of \$2,894,353 in the Regional Wastewater Operations and Maintenance (10800) Fund. This action is covered by the approved budget. The funding source for the project includes sewer rates, property taxes, and capital replacement reserves.

---

**Regional Sewerage**    *Technical Committee (Y/N):*

*Policy Committee (Y/N):*

**Prior Board Action:**

In December 2023, a total project budget increase was requested for the RP-1 Centrate Line Improvement, Project No. EN24020 in the amount of \$500,000 from \$2,394,353 to \$2,894,353 (8% increase) in the Regional Operations and Maintenance (10800) Fund.

---

**Environmental Determination:**

Statutory Exemption

---

**Environmental Determination Text:**

The proposed Centrate pipeline installation has been determined to not fall under the jurisdiction of CEQA and the State CEQA Guidelines because these activities fall within the scope of the emergency criteria listed in Section 15269 (b)(c). Therefore, this action qualifies within the requirements for an Emergency Project Statutory Exemption in compliance with Section 15269 (b)(c) of the State CEQA Guidelines.

---

**Attachments:**

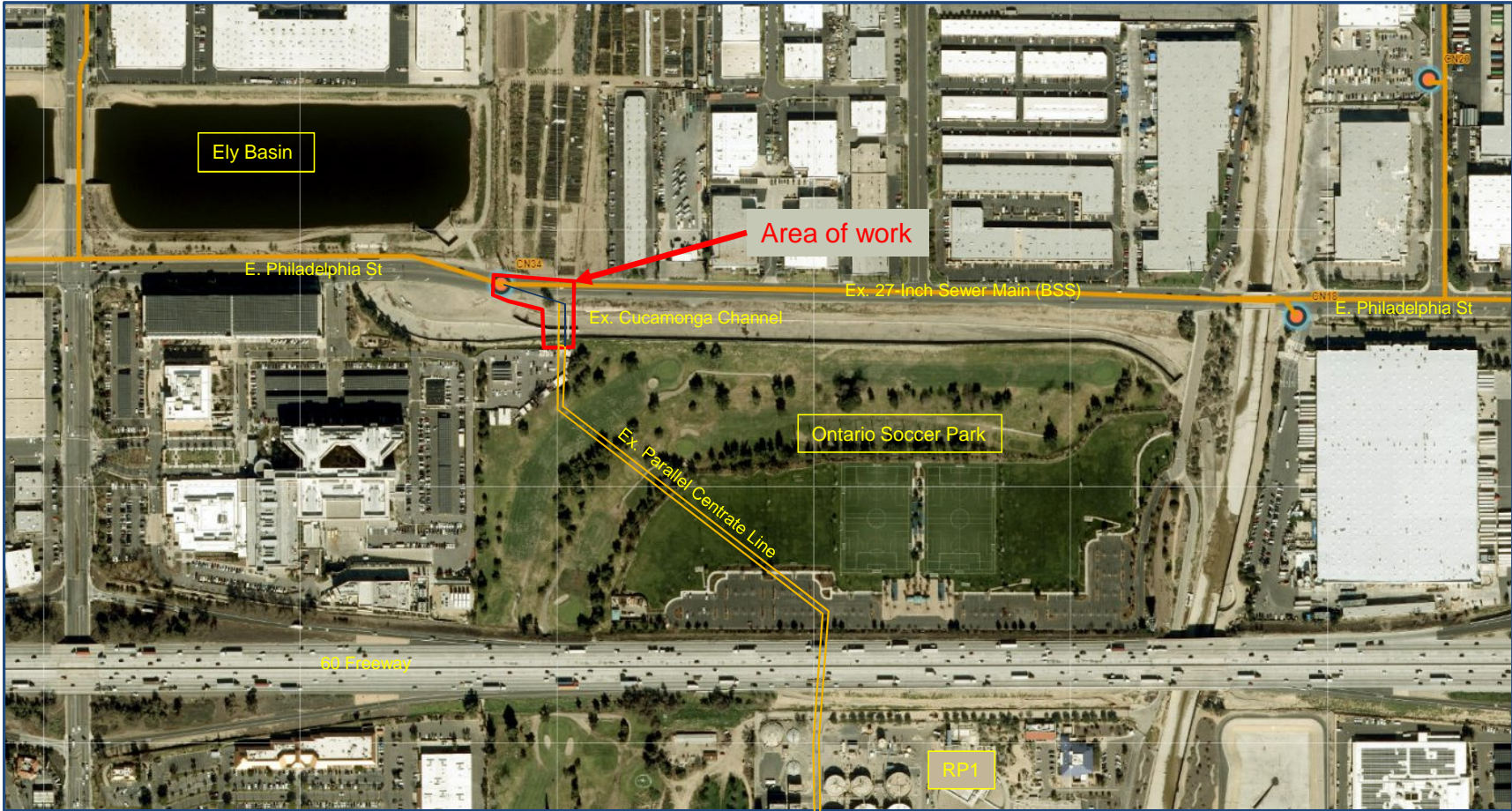
Attachment 1 - [PowerPoint](#)

Attachment 2 - [Contract](#)

# Award Construction Contract for the RP-1 Centrate Line Improvement Project

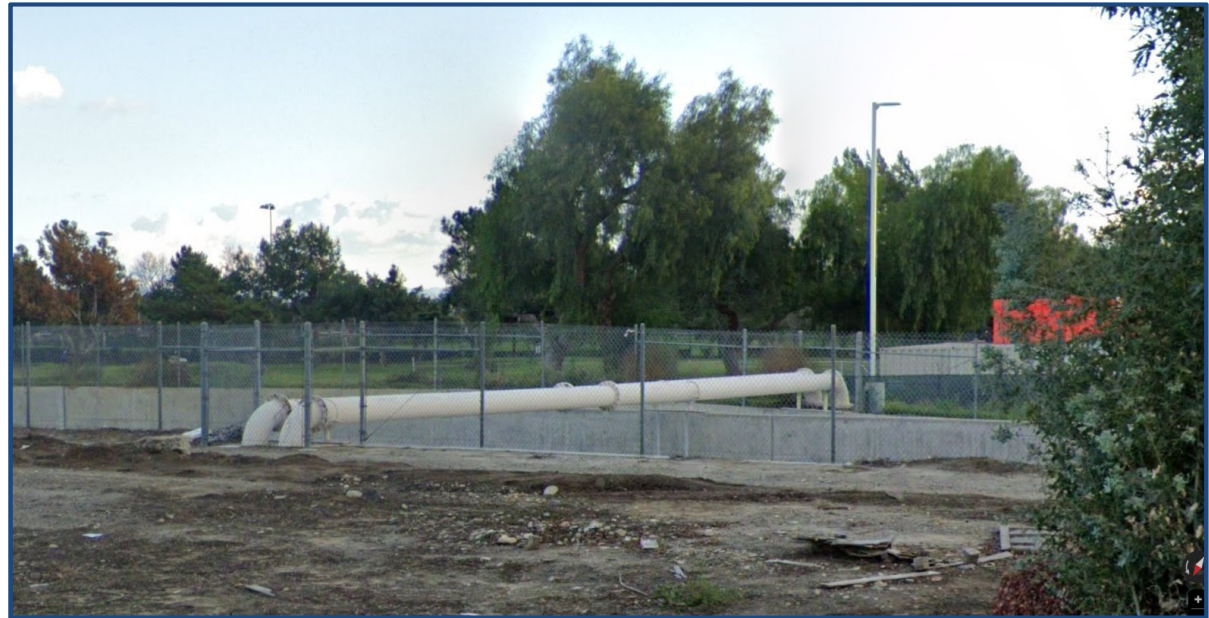
Joel Ignacio, PE  
Senior Engineer  
June 2024

# Location



# Background

- Centrate flow steadily decreasing
- Multiple cleaning had no improvements
- Designed improvements to restore flow with additional flow capacity by 50-percent



Existing Sewer Line Channel Crossing

# Scope

- Construction of a pipeline channel crossing
- Replacement of the existing manhole
- Provide temporary bypass pumping
- Perform Traffic Control
- Acquire City Permits



Centrate Line Plan

# Contractor Selection

- PlanetBids solicitation January 18, 2024
- Five bids received on March 21, 2024
- Mladen Buntich Construction Co. Inc. lowest, responsive, responsible bidder

Bidder's Name	Bid Amount
Mladen Buntich Construction Co. Inc	\$1,388,000
Ferreira Construction Co, Inc	\$1,469,649
Hemet Mfg Co Inc. dba Genesis Const	\$1,479,522
W.A. Rasic Construction Company, Inc.	\$1,863,331
J.R. Filanc Construction Company, Inc.	\$2,448,134
<b>Engineer's Estimate</b>	<b>\$1,330,660</b>

# Project Budget and Schedule

Description	Cost
<b>Design Services</b>	<b>\$336,000</b>
Engineering Services (actual)	\$271,000
Project Management (actuals)	\$65,000
<b>Construction</b>	<b>\$1,797,000</b>
Construct Parallel Centrate Line (this action)	\$1,388,000
10% Change Order Contingency	\$139,000
Engineering Services During Construction	\$131,000
Construction Management	\$139,000
<b>Projected Total Project Cost</b>	<b>\$2,133,000</b>
<b>Total Project Budget</b>	<b>\$2,894,353</b>

Project Milestone	Date
<b>Construction</b>	
Construction Contract Award	June 2024
Construction Completion	June 2025

## Staff's Recommendation

1. Award construction contract for the RP-1 Centrate Line Improvement Project, Project No. EN24020, to Mladen Buntich Construction Co. Inc., in the amount of \$1,388,000; and
2. Authorize the General Manager to execute the contract, subject to non-substantive changes.

The RP-1 Centrate Line Improvement Project is consistent with **IEUA's Business Goal of Wastewater Management**, specifically the Asset Management objective that IEUA will ensure the regional sewer system and treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.

## CONTRACT (DRAFT)

### **1.0 CONTRACT**

THIS CONTRACT, made and entered into this \_\_\_\_ day of June, 2024, by and between Mladen Buntich Construction Co. Inc., hereinafter referred to as "CONTRACTOR," and The Inland Empire Utilities Agency, a Municipal Water District, located in San Bernardino County, California, hereinafter referred to as "IEUA".

#### **WITNESSETH:**

That for and in consideration of the promises and agreements hereinafter made and exchanged, IEUA and the CONTRACTOR agree as follows:

- A.** CONTRACTOR agrees to perform and complete in a workmanlike manner, all Work required under these Bid Documents FOR the RP-1 CENTRATE LINE IMPROVEMENTS PROJECT NO. EN24020, in accordance with the Bid Documents, and to furnish at their own expense, all labor, materials, equipment, tools, and services necessary, except such materials, equipment, and services as may be stipulated in said Bid Documents to be furnished by IEUA, and to do everything required by this Contract and the said Bid Documents.
- B.** For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools and equipment, and doing everything required by this Contract and said Bid Documents; also for all loss and damage arising out of the nature of the Work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the Work until its acceptance by IEUA, and for all risks of every description connected with the Work; also for all expenses resulting from the suspension or discontinuance of Work, except as in the said Bid Documents are expressly stipulated to be borne by IEUA; and for completing the Work in accordance with the requirements of said Bid Documents, IEUA will pay and said CONTRACTOR shall receive, in full compensation therefore, the price(s) set forth in this Contract.
- C.** That IEUA will pay the CONTRACTOR progress payments and the final payment, in accordance with the provisions of the Contract Documents, with warrants drawn on the appropriate fund or funds as required, at the prices bid in the Bidding and Contract Requirements, Section C – BID FORMS and accepted by IEUA, and set forth in this below.

Total Bid Price \$ One million three-hundred eighty-eight thousand Dollars.

and Zero Cents.

- D.** IEUA hereby employs the CONTRACTOR to perform the Work according to the terms of this Contract for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said Bid Documents; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.
- E.** The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractor's License Declaration, Specifications, Drawings, all General Conditions, Special Conditions and all Project Requirements, and all Addenda issued by IEUA with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this Contract, as if fully set forth.
- F.** The CONTRACTOR agrees to commence Work under this Contract on or before the date to be specified in a written "Notice To Proceed" and to complete said Work to the satisfaction of IEUA (365) calendar days after Award of the Contract. All Work shall be completed before final payment is made.
- G.** Time is of the essence on this Contract.
- H.** CONTRACTOR agrees that in case the Work is not completed before or upon the expiration of the Contract Time, damage will be sustained by IEUA, and that it is and will be impracticable to determine the actual damage which IEUA will sustain in the event and by reason of such delay, and it is therefore agreed that the CONTRACTOR shall pay to IEUA the amounts as set forth in General Conditions, Section C – CHANGES TO THE CONTRACT for each day of delay, which shall be the period between the expiration of the Contract Time and the date of final acceptance by IEUA, as liquidated damages and not as a penalty. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by IEUA, and the CONTRACTOR agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the CONTRACTOR agrees that IEUA may deduct the amount thereof from any money due or that may become due to the CONTRACTOR by progress payments or otherwise under the Contract, or if said amount is not sufficient, recover the total amount.
- I.** In addition to the liquidated damages, which may be imposed if the CONTRACTOR fails to complete the Work within the time agreed upon, IEUA may also deduct from any sums due or to become due to the CONTRACTOR, penalties and fines for violations of applicable local, state, and federal law.
- J.** That the CONTRACTOR shall carry Workers' Compensation Insurance and require all subcontractors to carry Workers' Compensation Insurance as required by the California Labor Code.
- K.** That the CONTRACTOR shall have furnished, prior to execution of the Contract, two bonds approved by IEUA, one in the amount of one hundred (100) percent of

the Contract Price, to guarantee the faithful performance of the Work, and one in the amount of one hundred (100) percent of the Contract Price to guarantee payment of all claims for labor and materials furnished.

- L. The CONTRACTOR hereby agrees to protect, defend, indemnify and hold IEUA and its employees, Engineer, agents, officers, directors, servants and volunteers free and harmless from any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (including employees of IEUA and the CONTRACTOR) and damage to property, arising directly or indirectly out of the obligation herein undertaken or out of the operations conducted by the CONTRACTOR, its employees agents, representatives or subcontractors under or in connection with this Contract to the fullest extent permitted by law.

The CONTRACTOR further agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suit at the sole expense of the CONTRACTOR.

IN WITNESS WHEREOF, The CONTRACTOR and the General Manager of Inland Empire Utilities Agency\*, thereunto duly authorized, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

- M. The CONTRACTOR, by signing the contract does swear under penalty of perjury that no more than one final unappeasable finding of contempt of court by a Federal court has been issued against the CONTRACTOR within the immediately preceding two year period because of the CONTRACTOR's failure to comply with an order of a Federal court which orders the CONTRACTOR to comply with an order of the National Labor Relations Board (Public Contract Code 10296).

Inland Empire Utilities Agency\*,  
San Bernardino County, California.

By \_\_\_\_\_  
*General Manager*

CONTRACTOR

By \_\_\_\_\_

\_\_\_\_\_  
*Title*

\* *A Municipal Water District*

---

**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Award Construction Contract for RP-1 Evaporative Cooling for Aeration Blower Building

---

**Executive Summary:**

The aeration blowers serve a crucial role in the biological processes for the activated sludge treatment at RP-1 by providing the necessary oxygen to the microorganisms that break down biological waste in the aeration basins. The aeration blower building houses four 700-horsepower blowers within a room that is not equipped with an air conditioning system. The aeration blowers and their local controls are heat-sensitive. When the room temperature exceeds the equipment's operational limits, the reliability and capacity of the blowers are reduced, and the blowers unexpectedly shut down.

The purpose of this project is to improve the aeration blower's performance and increase its reliability by maintaining optimal temperatures for the equipment. The project will construct an energy-efficient direct evaporative cooling system for the aeration blower building.

On March 27, 2024, IEUA issued an invitation for bids to the pre-qualified contractors on the under \$2 million list. On May 14, 2024, four construction bids were received. Horizons Construction Company International was deemed the lowest, responsive, and responsible bidder, with a bid price of \$1,327,000. The Engineer's estimate was \$1,000,000.

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**Staff's Recommendation:**

Staff recommends that the Committee/Board:

1. Award a construction contract for the RP-1 Evaporative Cooling for Aeration Blower Building, Project No. EN21056, to Horizons Construction Company International, in the amount of \$1,327,000; and
2. Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

---

**Budget Impact** *Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval*

*Account/Project Name:* EN21056/RP-1 Evaporative Cooling for Aeration Blower Building

**Fiscal Impact (explain if not budgeted):**

The project has an approved FY23/24 budget of \$1,398,268 and an approved total project budget of \$2,510,000 in the Regional Wastewater Operations and Maintenance (10800) Fund. This action is covered by the approved budget. The funding source for the project includes sewer rates, property

taxes, and capital replacement reserves.

---

**Regional Sewerage**    *Technical Committee (Y/N):*

*Policy Committee (Y/N):*

**Prior Board Action:**

On November 22, 2021, the Board of Directors awarded a consulting engineering services for RP-1 Evaporative Cooling for Aeration Blower Building, Project No. EN21056, to Kennedy Jenks Consultants for a not-to-exceed amount of \$108,255.

---

**Environmental Determination:**

Categorical Exemption

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**Environmental Determination Text:**

California Environmental Quality Act (CEQA) identifies certain categories of projects as exempt from more detailed environmental review because these categories have been deemed to have no potential for significant impact on the environment. This project qualifies for a Categorical Exemption Class 3 as defined in Section 15303 of the State CEQA Guidelines.

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**Attachments:**

Attachment 1 - [PowerPoint](#)

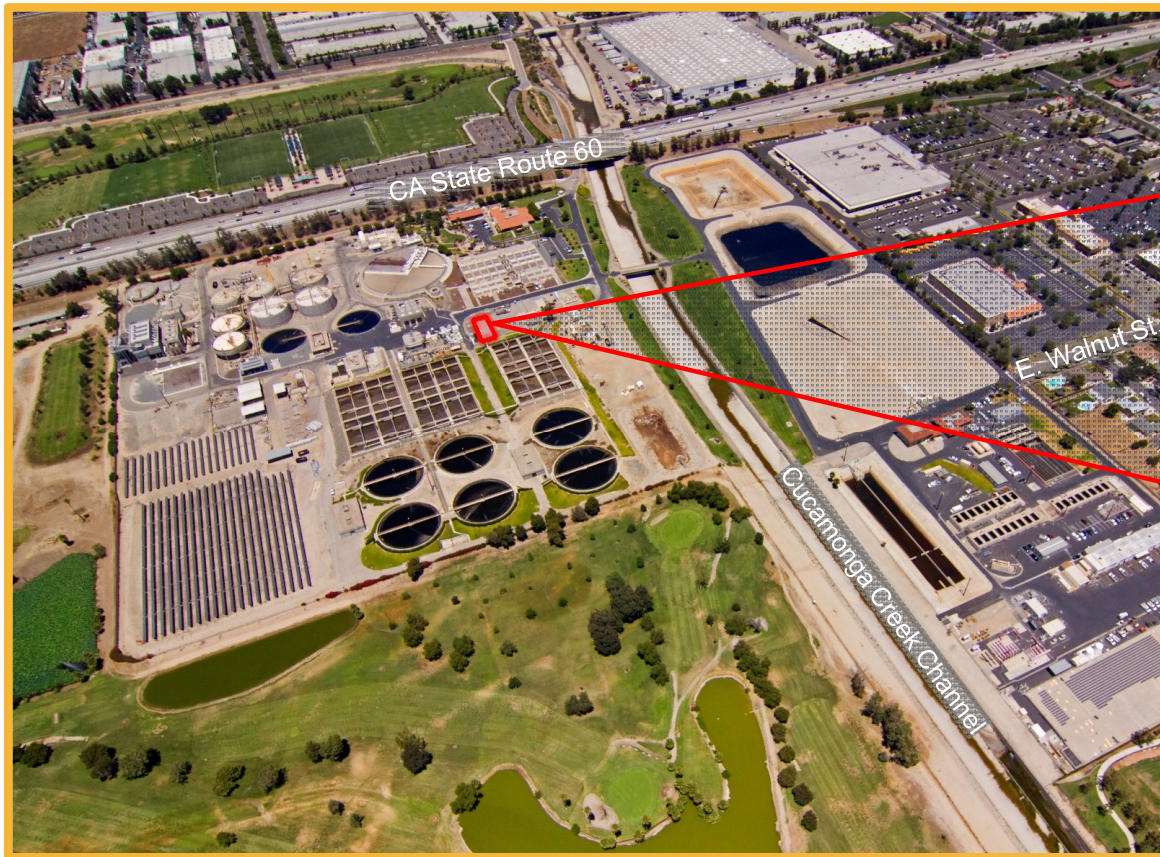
Attachment 2 - [Contract](#)



# Award Construction Contract for RP-1 Evaporative Cooling for Aeration Blower Building Project No. EN21056

Cathy Nhothsavath  
Associate Engineer  
June 2024

# Project Location: Regional Water Recycling Plant No. 1



**Aeration Blower Building**



# Project Background

- Project Purpose
- Existing Blower Room
- Effects on Aeration Blowers



Fig 3.1: Blower Room Temperature Gauge



Fig 3.2: Aeration Blower Building



Fig 3.3: Blower Room

# Project Scope of Work

- Replace existing ventilation system
- Provide grading, equipment pad, and retaining wall
- Install two evaporative cooling units
- Provide humidity and temperature sensors
- Control System connectivity with system alarms



Fig 4.1: Supply Ducts to be Demolished



Fig 4.2: Evaporative Cooling Units Location

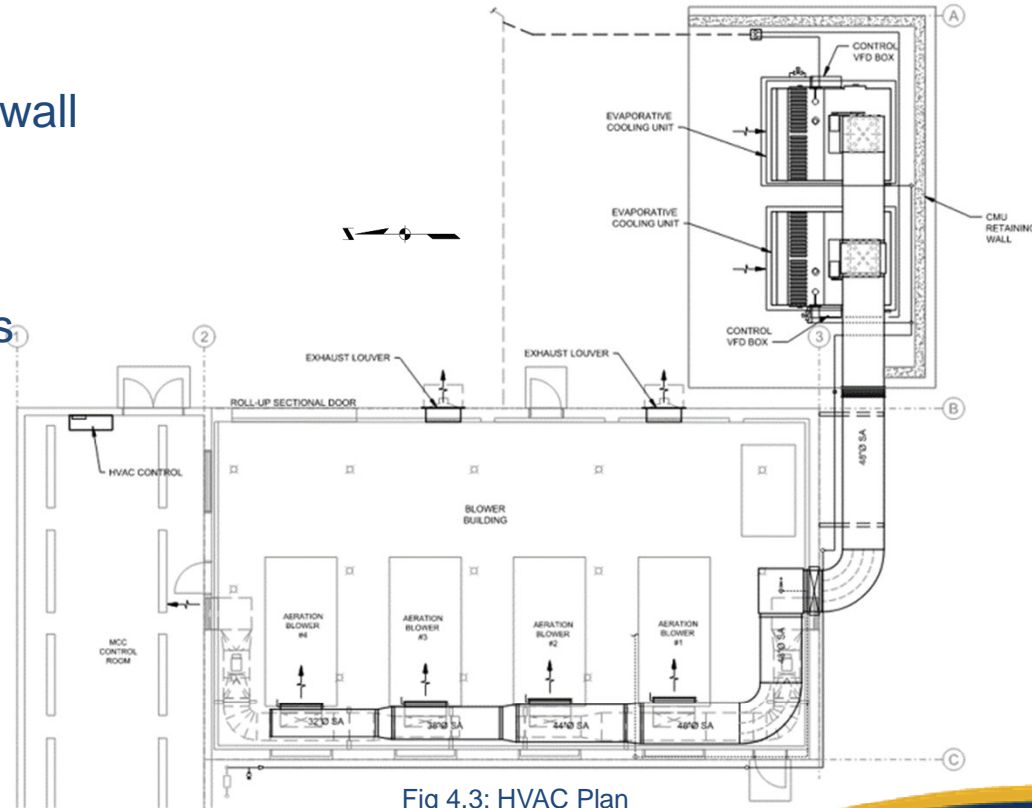


Fig 4.3: HVAC Plan

# Contractor Selection

- March 27, 2024: PlanetBids Solicitation Posted  
—48 calendar days, 33 working days
- May 14, 2024: Four bids were received from pre-qualified contractors

Bidder's Name	Bid Amount
Horizons Construction Company International	\$1,327,000
J.R. Filanc Construction Co., Inc.	\$1,640,000
Innovative Construction Solutions	\$1,675,000
W.A. Rasic Construction Company, Inc.	\$1,676,788
<b>Engineer's Estimate</b>	<b>\$1,000,000</b>

# Project Budget and Schedule

Description	Estimated Cost
<b>Design Services</b>	<b>\$497,005</b>
Design Consultant Contract (actual)	\$266,005
IEUA Design Services	\$231,000
<b>Construction Services</b>	<b>\$1,686,533</b>
Engineering Services During Construction (actual)	\$94,133
Construction Services (~10%)	\$132,700
Construction Contract (this action)	\$1,327,000
Contingency (~10%)	\$132,700
<b>Total Project Costs:</b>	<b>\$2,183,538</b>
<b>Total Project Budget:</b>	<b>\$2,510,000</b>

Project Milestone	Date
<b>Construction</b>	
Construction Contract Award	June 2024
Construction Completion	August 2025



## Staff's Recommendation

1. Award a construction contract for the RP-1 Evaporative Cooling for Aeration Blower Building, Project No. EN21056, to Horizons Construction Company International, Inc., in the amount of \$1,327,000; and
2. Authorize the General Manager to execute the construction contract, subject to non-substantive changes.

The RP-1 Evaporative Cooling for Aeration Blower Building Project is consistent with **IEUA's Business Goal of Wastewater Management**, specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.

**CONTRACT AGREEMENT NUMBER: 4600003485  
FOR  
RP-1 EVAPORATIVE COOLING FOR  
AERATION BLOWER BUILDING PROJECT  
EN21056.00**

**1.0 CONTRACT**

THIS CONTRACT, made and entered into this 19 day of June, 2024, by and between Horizons Construction International, Inc., hereinafter referred to as "CONTRACTOR," and The Inland Empire Utilities Agency, a Municipal Water District, located in San Bernardino County, California, hereinafter referred to as "IEUA".

**WITNESSETH:**

That for and in consideration of the promises and agreements hereinafter made and exchanged, IEUA and the CONTRACTOR agree as follows:

- A.** CONTRACTOR agrees to perform and complete in a workmanlike manner, all Work required under these Bid Documents for RP-1 Evaporative Cooling for Aeration Blower Building, Project No. EN21056.00, in accordance with the Bid Documents, and to furnish at their own expense, all labor, materials, equipment, tools, and services necessary, except such materials, equipment, and services as may be stipulated in said Bid Documents to be furnished by IEUA, and to do everything required by this Contract and the said Bid Documents.
- B.** For furnishing all said labor, materials, equipment, tools, and services, furnishing and removing all plant, temporary structures, tools and equipment, and doing everything required by this Contract and said Bid Documents; also for all loss and damage arising out of the nature of the Work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise during the prosecution of the Work until its acceptance by IEUA, and for all risks of every description connected with the Work; also for all expenses resulting from the suspension or discontinuance of Work, except as in the said Bid Documents are expressly stipulated to be borne by IEUA; and for completing the Work in accordance with the requirements of said Bid Documents, IEUA will pay and said CONTRACTOR shall receive, in full compensation therefore, the price(s) set forth in this Contract.
- C.** That IEUA will pay the CONTRACTOR progress payments and the final payment, in accordance with the provisions of the Contract Documents, with warrants drawn on the appropriate fund or funds as required, at the prices bid in the Bidding and Contract Requirements, Section C – BID FORMS and accepted by IEUA, and set forth in this below.

Total Bid Price **\$1,327,000.00** (One Million Three Hundred Twenty-Seven Thousand Dollars and Zero Cents).

- D. IEUA hereby employs the CONTRACTOR to perform the Work according to the terms of this Contract for the above-mentioned price(s), and agrees to pay the same at the time, in the manner, and upon the conditions stipulated in the said Bid Documents; and the said parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to the full performance of the covenants herein contained.
- E. The Notice Inviting Bids, Instructions to Bidders, Bid Forms, Information Required of Bidder, Performance Bond, Payment Bond, Contractor's License Declaration, Specifications, Drawings, all General Conditions, Special Conditions and all Project Requirements, and all Addenda issued by IEUA with respect to the foregoing prior to the opening of bids, are hereby incorporated in and made part of this Contract, as if fully set forth.
- F. The CONTRACTOR agrees to commence Work under this Contract on or before the date to be specified in a written "Notice to Proceed" and to complete said Work to the satisfaction of IEUA **four hundred thirty (430)** calendar days after Award of the Contract. All Work shall be completed before final payment is made.
- G. Time is of the essence on this Contract.
- H. CONTRACTOR agrees that in case the Work is not completed before or upon the expiration of the Contract Time, damage will be sustained by IEUA, and that it is and will be impracticable to determine the actual damage which IEUA will sustain in the event and by reason of such delay, and it is therefore agreed that the CONTRACTOR shall pay to IEUA the amounts as set forth in General Conditions, Section C – CHANGES TO THE CONTRACT for each day of delay, which shall be the period between the expiration of the Contract Time and the date of final acceptance by IEUA, as liquidated damages and not as a penalty. It is further agreed that the amount stipulated for liquidated damages per day of delay is a reasonable estimate of the damages that would be sustained by IEUA, and the CONTRACTOR agrees to pay such liquidated damages as herein provided. In case the liquidated damages are not paid, the CONTRACTOR agrees that IEUA may deduct the amount thereof from any money due or that may become due to the CONTRACTOR by progress payments or otherwise under the Contract, or if said amount is not sufficient, recover the total amount.
- I. In addition to the liquidated damages, which may be imposed if the CONTRACTOR fails to complete the Work within the time agreed upon, IEUA may also deduct from any sums due or to become due to the CONTRACTOR, penalties and fines for violations of applicable local, state, and federal law.
- J. That the CONTRACTOR shall carry Workers' Compensation Insurance and require all subcontractors to carry Workers' Compensation Insurance as required by the California Labor Code.
- K. That the CONTRACTOR shall have furnished, prior to execution of the Contract, two bonds approved by IEUA, one in the amount of one hundred (100) percent of

the Contract Price, to guarantee the faithful performance of the Work, and one in the amount of one hundred (100) percent of the Contract Price to guarantee payment of all claims for labor and materials furnished.

- L. The CONTRACTOR hereby agrees to protect, defend, indemnify and hold IEUA and its employees, Engineer, agents, officers, directors, servants and volunteers free and harmless from any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (including employees of IEUA and the CONTRACTOR) and damage to property, arising directly or indirectly out of the obligation herein undertaken or out of the operations conducted by the CONTRACTOR, its employees agents, representatives or subcontractors under or in connection with this Contract to the fullest extent permitted by law.

The CONTRACTOR further agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands or suit at the sole expense of the CONTRACTOR.

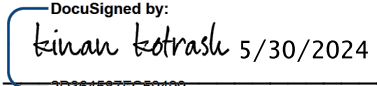
IN WITNESS WHEREOF, The CONTRACTOR and the General Manager of Inland Empire Utilities Agency\*, thereunto duly authorized, have caused the names of said parties to be affixed hereto, each in duplicate, the day and year first above written.

- M. The CONTRACTOR, by signing the contract does swear under penalty of perjury that no more than one final unappeasable finding of contempt of court by a Federal court has been issued against the CONTRACTOR within the immediately preceding two year period because of the CONTRACTOR's failure to comply with an order of a Federal court which orders the CONTRACTOR to comply with an order of the National Labor Relations Board (Public Contract Code 10296).

Inland Empire Utilities Agency\*,  
San Bernardino County, California.

By \_\_\_\_\_  
*General Manager*  
*Shivaji Deshmukh*

CONTRACTOR

By  5/30/2024  
\_\_\_\_\_  
*Vice President*  
*Title*

\* *A Municipal Water District*

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**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Award Master Service Contracts for Supervisory Controls and Data Acquisition Integration Services

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**Executive Summary:**

Consistent with IEUA's Supervisory Control and Data Acquisition (SCADA) Master Plan, the control systems at IEUA's treatment plants are in the final stages of being migrated to a standardized software platform, Rockwell PlantPax. However, there are upcoming projects that will require significant programming efforts once the projects reach construction. These projects include the Recycled Water SCADA Migration Project and the RP-1 Thickening Building Project. In addition, as new capital projects are constructed, it is necessary to update the existing SCADA systems to interface with new equipment. The PlantPax platform requires specific programming strategies to integrate the control hardware into the operation's monitoring system. The scope of services includes having SCADA integration services in accordance with IEUA SCADA Standards, providing support services during ongoing and future construction projects, participating in workshops and meetings, performing necessary site visits, programming, testing, training, and startup services, providing schedules for all support services on each project, and emergency on-call services to troubleshoot, maintain, or modify existing programs.

On February 21, 2024, IEUA released a Request for Qualifications (RFQ) for SCADA integration services. Three proposals were received on April 2, 2024, through PlanetBids. A panel of IEUA staff from the Engineering and Information Technology Departments reviewed and rated each proposal in accordance with the categories in the RFQ. The panel determined that the top two scoring consultants met IEUA's need for SCADA integration services based on evaluating the firm's capability to perform all aspects of the work, qualifications of proposed staff, and most relevant experience. Staff is recommending the award of two master service consultant contracts to Technical Systems Inc. and E Tech Group in the total aggregate amount of \$6,000,000 over a five-year period, with two one-year options to extend.

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**Staff's Recommendation:**

Staff recommends that the Committee/Board:

1. Award master services contracts for System Integration Services to Technical Systems Inc. and E Tech Group for a total aggregate not-to-exceed amount of \$6,000,000 over a five-year period, with two one-year options to extend; and
2. Authorize the General Manager to execute the contracts, subject to non-substantive changes.

**Budget Impact** *Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval 6,000,000*

*Account/Project Name:* Multiple capital projects and department operation and maintenance budgets under various program funds.

***Fiscal Impact (explain if not budgeted):***

There is no direct impact on IEUA's fiscal year budget as a result of this action. These contracts are for work which will be required on various projects and department operation and maintenance budgets. Thus, no separate funding is needed for these contracts.

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**Regional Sewerage** *Technical Committee (Y/N):*

*Policy Committee (Y/N):*

**Environmental Determination:**

Not Applicable

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**Attachments:**

Attachment 1 - [PowerPoint](#)

Attachment 2 - [Contract Technical Systems Inc](#)

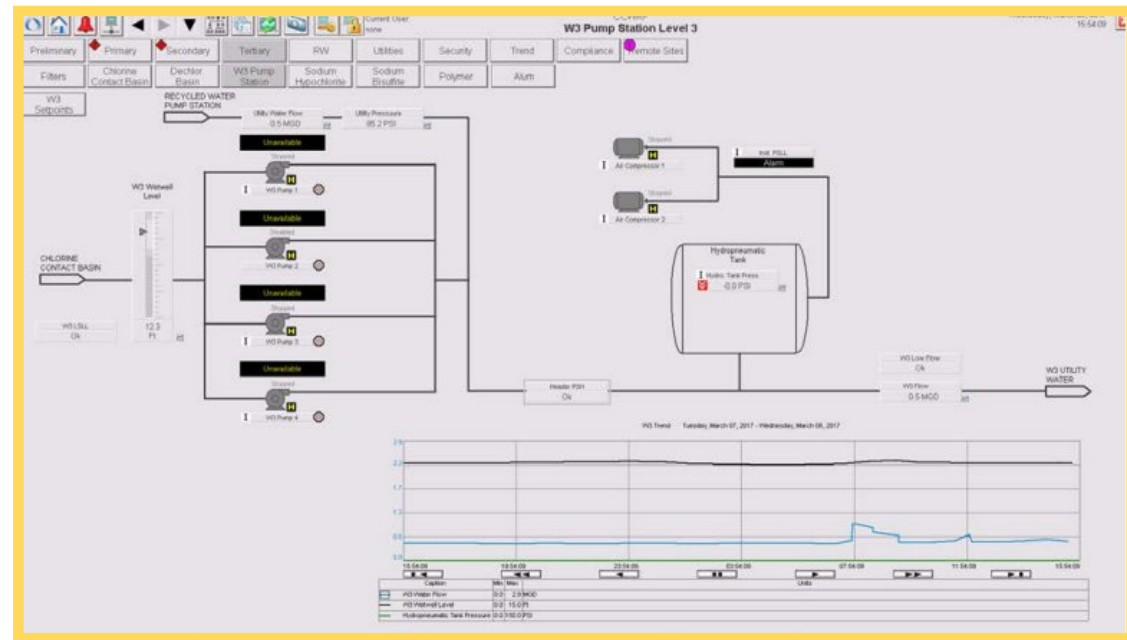
Attachment 3 - [Contract E Tech Group](#)

# Award Master Service Contracts for SCADA Integration Services

Kevin Asprer, P.E.  
Senior Associate Engineer - PE  
June 2024

# Project Background

- Ongoing need for System Integrator services
- Existing master service contract with Technical Systems Inc (TSI)
- On-call task order requests issued on a project-by project basis
- Engineering will ensure parity among system integrators
- Funded by individual project budgets
- \$6 Million aggregate over 5 years



Sample SCADA Screen

# Scope of Services

- SCADA Integration services in accordance with IEUA SCADA Standards
- Provide support services during ongoing and future construction projects
- Participate in workshops and meetings and perform necessary site visits
- Programming, testing, training and startup services
- Emergency on-call services to troubleshoot, maintain, or modify existing programs



Programmable Logic Controllers

# Request for Proposals Summary

- February 21, 2024: PlanetBids solicitation posted
  - 41 calendar days, 28 working days
- April 2, 2024: 3 proposals were received
  - Reviewed by IEUA Panel from Engineering and IT Departments
    - Qualifications and experience of personnel and project team
    - Integrator’s organization, history, reputation, and capability
    - Wastewater treatment plant experience
    - Rockwell Automation recognized and certified

Recommended System Integrators
Technical Systems Incorporated (TSI)
E Tech Group



# Staff's Recommendation

1. Award master services contracts for System Integration Services to Technical Systems Inc. and E Tech Group for a total aggregate not-to-exceed amount of \$6,000,000 over a five-year period, with two one-year options to extend; and
2. Authorize the General Manager to execute the contracts, subject to non-substantive changes.

SCADA Integration Services is consistent with **IEUA's Business Goal associated with Asset Management** objective's that *aspire to ensure that wastewater treatment facilities are well-maintained, upgraded to meet evolving requirements, sustainably managed, and can accommodate changes in regional water use.*





**MASTER SERVICES CONTRACT NUMBER: 4600003487**  
**FOR PROVISION OF**  
**SCADA INTEGRATION SERVICES**

THIS CONTRACT (the “Contract”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2024, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter interchangeably referred to as “IEUA” and “Agency”) and Technical Systems, Inc., with offices located in Lynnwood, Washington, (hereinafter referred to as “Consultant”), in order to establish mutually acceptable terms and conditions which shall hold for and govern all “Task Order” releases subsequently issued under this Master Services Contract.

**RECITALS**

Whereas Agency anticipates future need(s) to retain the services of Consultant to provide on-call environmental consulting services on an “as needed” Task Order assignment basis;

Whereas Consultant is willing to undertake performance of such Task Order assignments for which the terms and conditions set forth herein shall apply;

THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties hereby agree as follows:

1. **ORDER OF PRECEDENCE:** The documents referenced below constitute the Contract Documents and are each hereby incorporated herein. In the event of any conflicts or inconsistencies between any of the Contract Documents, the governing order of precedence shall be as follows:
  1. Amendments to Task Order releases under this Master Services Contract.
  2. Task Order releases under this Master Services Contract.
  3. Amendments to this Master Services Contract.
  4. Master Services Contract Number 4600003487, General Terms and Conditions.
  5. Agency’s Request for Qualifications Number RFQ-JV-24-001 and all germane Addenda.
  6. Consultant’s Schedule of Rates dated April 1, 2024.

2. SCOPE OF WORK AND SERVICES: Consultant shall provide all labor, materials, research, documents, tools, machinery, equipment, and other items and services necessary to properly perform the work (hereinafter referred to as the "Work") as set for in each individual Task Order agreed to and released under this Master Services Contract ("Contract"), including exhibits, addenda, and amendments hereto. The Work shall be carried out in accordance with the Contract Documents in a diligent and workman-like manner, utilizing qualified personnel and good and sufficient materials and equipment. Subject equipment shall be covered by a signed copy of Agency's "Waiver / Release of Liability" form (reference RFQ Forms Section). Further, Consultant shall perform only those work assignments authorized by Task Orders issued in conjunction with this Contract, or as directed by the cognizant Project Manager.

Ordering Provisions and Understandings:

Negotiation of Task Orders: At Agency's request, Consultant shall submit a proposed scope of work, price and term for each specific Task Order. Agency and Consultant each reserve and retain the right to negotiate the Work, price, and term of any specific Task Order. Task Orders shall be developed on a time-and-materials basis with a not-to-exceed limit. However, both parties agree that the various proposed labor and expense rates used to develop each Task Order's price shall be consistent with those specified within Consultant's Schedule of Fees and Rates attached as **Exhibit B** to this Contract. Subject Schedule of Fees and Rates shall constitute the firm-fixed fees and rates established for time-and-material Task Order proposals as outlined in Section 6. of this Contract.

Task Order Price: The price for each Task Order shall be determined on a time-and-material basis with a not-to-exceed limit, addressed and authorized via the content of each specific Task Order.

Task Order Format: Each Task Order issued under this Master Services Contract shall be of similar form to the Example Task Order that is included herein as **Exhibit A** – Sample Task Order.

3. TERM: The term of this Contract shall extend from the date of the contract's award by Agency's Board of Directors, and subsequent full execution, and terminate on June 30, 2029, unless agreed to by both parties, reduced to writing, and formally incorporated as an amendment to this Contract. Agency hereby reserves the right to exercise two (2) one-year options to extend Contract Term at Consultant's prevailing Schedule of Rates.
4. SCHEDULE: Consultant shall complete the Work specified by each Task Order in accordance with the schedule established within said Task Order. All Work shall be fully finished no later than the date specified in said Task Order, unless terminated sooner or extended as provided for herein.
5. INVOICING AND PAYMENT: Consultant's invoices shall be based on Consultant's not-to-exceed price bid for each specified Task Order. Any subsequent field change orders shall

have Consultant's bid approved in advance by Agency's cognizant Project Manager, reduced to writing by Task Order Amendment, and signed by both parties.

Agency shall pay the fully-approved invoice amount within thirty (30) days following receipt of the invoice. Payment shall be withheld for any service which does not meet the requirements of this Contract or the associated Task Order, until such service is revised, the invoice resubmitted, and accepted by the cognizant Project Manager. Consultant's invoices shall include reference to "Contract Number 4600003487" and the associated Task Order Number. All original invoices shall be submitted electronically to [apgroup@ieua.org](mailto:apgroup@ieua.org). Should Consultant engage in any public works activity covered under California prevailing wage laws (California Labor Code §1720 et seq.) in excess of \$25,000.00 in billing value, Consultant shall provide with all public works invoicing certified payroll verifying that Consultant has paid prevailing wage in accordance with the Department of Industrial Relations (DIR) requirements as stipulated in SB854 and SB96 [<http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>].

6. **COMPENSATION AND CHANGES:** For the term of this Contract, all labor and expense rates used to develop each Task Order's price shall be consistent with those specified within Consultant's Proposal Schedule of Fees and Rates submitted in response to herein-referenced Request for Qualifications and attached as **Exhibit B**. Subject Schedule of Fees and Rates shall constitute the firm-fixed fees and rates established for time-and-material Task Order proposals for the first two (2) years of this Contract. Agency may, at any time, make changes to any Task Order Scope of Work, including additions, reductions, and changes to any or all of the Work, as directed in writing via a Task Order Amendment issued by Agency and executed by both Parties. The Task Order Amendment shall, if warranted, convey any associated change to the established Task Order price and/or schedule.

6.1 **PRICE ADJUSTMENTS:** For the first two (2) years of this Contract, there shall be no increases to Consultant's fees. Commencing on June 30, 2026, and continuing each June 30<sup>th</sup> thereafter, those fees provided for as **Exhibit B** shall be adjusted plus or minus equal to the percentage change in the Consumer Price Index (CPI) for All Urban Consumers in the Los Angeles-Anaheim-Riverside, California index area as provided for in this section. The basis for computing the adjustment to those fees in **Exhibit B** shall be the percentage change for the twelve (12)-month period from June to June starting with the period of June 2025 to June 2026 and continuing every twelve months thereafter. Despite any changes in the CPI for any given twelve (12)-month period, adjustments to those fees in **Exhibit B** shall not increase or decrease more than five (5) per cent during any single twelve (12)-month adjustment period.

In the event the CPI is changed so that the base period differs from 1967=100, then the index applied as provided for above shall be corrected in accordance with the conversion factor published by the United States Department of Labor, Bureau of Labor Statistics, or their successor. If the CPI is discontinued or revised, such other governmental index or computation with which it is replaced shall be used in order to obtain substantial result as would have been obtained if the CPI had not been discontinued or revised.

7. CONTROL OF THE WORK: Consultant shall perform the Work in compliance with the Task Order-specified Work Schedule. If performance of the Work falls behind schedule, Consultant shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule for consideration by the Project Manager.

8. FITNESS FOR DUTY:

A. Fitness: Consultant's personnel on the Jobsite:

1. Shall report for work in a manner fit to do their job;
2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
4. Compliance: Consultant shall advise all subconsultant and subcontractor personnel and associated third parties of the requirements of this Contract Section ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its subconsultants and subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.

9. INSURANCE: During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance.

A. Minimum Scope of Insurance: Coverage shall be at least as broad as:

1. Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required claim limit.
2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-

owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.

3. **Workers' Compensation and Employers Liability:** Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
  4. **Professional Liability (Errors and Omissions):** Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.
- B. **Deductibles and Self-Insured Retention:** Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.
- C. **Other Insurance Provisions:** The policies are to contain, or be endorsed to contain, the following provisions:
1. **General Liability and Automobile Liability Coverage**
    - a. **Additional Insured Status:** The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).
    - b. **Primary Coverage:** The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.
    - c. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

d. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

The insurer hereby grants to Agency a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Agency by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, or cancelled by either party, except after thirty (30) days prior written notice has been given to the Agency.

D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, and who are admitted insurers in the State of California.

E. Verification of Coverage: Consultant shall furnish the Agency with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

F. Submittal of Certificates: Consultant shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, a Municipal Water District  
Email [insurance@ieua.org](mailto:insurance@ieua.org)

10. LEGAL RELATIONS AND RESPONSIBILITIES

A. Professional Responsibility: Consultant shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.

- B. Status of Consultant: Consultant is retained as an independent Consultant only, for the sole purpose of rendering the services described herein and is not an employee of Agency.
- C. Observing Laws and Ordinances: Consultant shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. Consultant shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by Consultant or its employees.
- D. Subcontracted Services: Any subcontracts for the performance of any services under this Contract shall be subject to the prior written approval of the Project Manager.
- E. Grant-Funded Projects: Consultant shall be responsible to comply with all grant and/or California State Revolving Funding (SRF) requirements related to any Task Order assignments. These may include but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Competitive Solicitation, Records Retention and Public Access to Records, and Compliance Review. If the Task Order is a Federally-funded project, the Contract Task Order shall have separate, additional Federally-compliant Agency-specific reporting accountability and flow-down requirements on the conditional use of funds.
- Consultant shall inquire for each Task Order issued if work is grant-funded, and shall request to be furnished any special language germane to the cognizant Project Manager's Task Order Request for Proposals.
- F. No Guarantee of Work: Consultant understands that there is no guarantee of subsequent Task Order assignments given or implied by entering into this Master Services Contract.
- G. Liens: Consultant shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Consultant on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against Agency. Consultant shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. Indemnification: Consultant shall indemnify the Agency, its directors, employees, and assigns, and shall defend and hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which

arise out of or are related to the negligence, recklessness or willful misconduct of the Consultant, its directors, employees, agents and assigns, in the performance of work under this Contract, to the extent caused by Consultant's negligence or willful misconduct.

In addition to the above, Consultant will indemnify, defend, and hold Agency, its directors, employees, agents, and assigns harmless from all liabilities, losses, damages, claims, penalties, fines, costs, attorney's fees or other responsibilities incurred by the Agency (an "Indemnified Loss") as a result of the acts, errors or omissions, whether intentional, negligent or otherwise, of Consultant, its employees, and its consultants that result in claims against the Agency by Consultant's employees, consultants, and/or contractors for employment-related claims including but not limited to claims for wages, benefits, insurances, employee misconduct, workplace hostile environment, wrongful termination, discrimination or retaliation. Consultant will not be obligated to indemnify, defend, or hold harmless Agency for any liabilities, losses, damages, claims, penalties, fines, costs, attorney's fees or other responsibilities incurred by the Agency (a "Non-Indemnified Loss") as a result of claims made by Consultant's employees, consultants, and/or contractors against Agency arising out of the negligent, intentional, or reckless acts, errors or omissions of Agency and its employees.

- I. Conflict of Interest: No official of Agency who is authorized in such capacity and on behalf of Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- J. Equal Opportunity: During the performance of this Contract, Consultant shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin.
- K. Extra Work: If at any time during the Task Order assignment, Consultant receives a direction which Consultant feels is outside the Task Order's Scope of Work, Consultant shall immediately notify Agency's Project Manager and obtain written direction. The Consultant shall receive no extra compensation for extra work unless Agency receives timely notification of Consultant's opinion that the work is outside of the contracted scope. If the nature of the direction is such that an investigation is required to determine if the work is outside Consultant's agreed upon scope, Consultant must notify Agency's Contract Administrator that the directed work appears to be outside the scope within fourteen (14) calendar days after receiving the direction from Agency personnel. If Agency does not receive a request for additional compensation within the fourteen (14) calendar days, Consultant shall not receive extra compensation for extra work performed. Extra work performed without authorization shall be at Consultant's sole cost.

- L. Non-Conforming Work: Consultant represents that the Work and Documentation shall meet the standard of care of Consultant's profession. For a period of not less than one (1) year after acceptance of the completed Work, Consultant shall, at no additional cost to Agency, correct any and all agreed-to errors in the Work or Documentation, regardless of whether any such errors are brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error. Upon request of Agency, Consultant shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Consultant's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for Consultant's position. Any dispute that cannot be resolved between the Project Manager and Consultant shall be resolved in accordance with the provisions of this Contract.

The Consultant's liability with respect to any claims arising out of the Work and the Consultant shall bear no liability whatsoever for any consequential loss, injury or damage incurred by the Agency, including but not limited to, claims for loss of use, loss of profits and loss of markets.

M. Disputes:

1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. Consultant shall pursue the work to completion in accordance with the instruction of Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract which remain unresolved after the exhaustion of the procedures provided herein, to mediation.
2. Any and all disputes during the pendency of the work shall be subject to resolution by Agency Project Manager, and Consultant shall comply, pursuant to Agency Project Manager instructions. If Consultant is not satisfied with any such resolution by Agency's Project Manager, they may file a written protest with Agency's Project Manager within seven (7) calendar days after receiving written notice of Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of Agency Project Manager's resolution. Agency's Project Manager shall submit Consultant's written protests to the General Manager, together with a copy of Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said

protest(s). The General Manager shall make his or her determination with respect to each protest filed with Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the General Manager, they may file a written request for mediation with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of mediation, the parties hereto agree that there shall be a single neutral Mediator who shall be selected in the following manner:
  - a. The Demand for a Mediator shall include a list of five names of persons acceptable to Consultant to be appointed as Mediator. Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person shall be designated as Mediator.
  - b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Mediator selected in Step (a) is unable to serve, Agency shall submit to Consultant a list of five names of persons acceptable to Agency for appointment as Mediator. Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
4. Joinder in Mediation/Arbitration: Agency may join Consultant in mediation or arbitration commenced by an agreement mediator on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from Agency's representative to Consultant.

N. Prevailing Wages: The work associated with this Contract shall be subject to the prevailing wage requirements specified within Section 1770 of the California Labor Code, if applicable. The selected Consultant shall not pay its employees assigned to this project less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations, for the locality in which the work is to be performed, and for each craft or type of worker needed to execute the work contemplated under this Contract, should the work be designated as Public Works or a Public Project (CAL PCC Section 22002.) In accordance with the Labor Code, Agency has on file a schedule of prevailing wage rates for the types of work covered by this Contract.

Consultant, or any subConsultant performing part of the Work, shall strictly adhere to all provisions of the Labor Code, including, but not limited to minimum days, workdays, nondiscrimination, apprentices, maintenance, and availability of accurate payroll records and any other matters required under Federal, State, or local laws related to labor.

O. CERTIFICATION UNDER LABOR CODE SECTION 1861 BY CONSULTANT: I, the undersigned Consultant, am aware of the provisions of Section 3700 et seq. of the Labor Code which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Consultant, agree to and will comply with such provisions before commencing the performance of the work of this Contract or any subsequent Task Orders.

11. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by Consultant and/or the Consultant's subConsultant(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to Agency from the moment of their preparation, and Consultant shall deliver same to Agency whenever requested to do so by the Project Manager and/or Agency. Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of Agency. Any reuse of such documents for other than the specific purpose, intended as stated herein, shall be at the sole risk of the user, and without liability or legal exposure to Consultant.

Notwithstanding any provision to the contrary contained in this Contract, Consultant shall retain sole ownership to its preexisting information including but not limited to computer programs, software, standard details, figures, templates and specifications.

When transferring data in electronic media format, Consultant makes no representation as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by Consultant at the beginning of the Project.

Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it shall perform acceptance tests or procedures within sixty (60) days of receipt, after which Agency shall have deemed to have accepted the data transferred. Any errors detected within the sixty days shall be corrected by Consultant at no additional cost to Agency. Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by Agency. The original hard copy of the documents containing the professional engineer's seal shall take precedence over the electronic documents.

12. PUBLIC RECORDS POLICY: Information made available to Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) Agency's use and disclosure of its records are governed by this Act. Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt

from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the California Public Records Act.

13. TITLE AND RISK OF LOSS:

- A. Documentation: Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
- B. Material: Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Consultant shall dispose of items to which Agency has title as directed in writing by the Contract Administrator and/or Agency.

14. PROPRIETARY RIGHTS:

- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:
  - 1. Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.
  - 2. If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation,

including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

3. If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Consultant of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract.

15. INFRINGEMENT: Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trademark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

16. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Agency, a Municipal Water District  
P.O. Box 9020  
Chino Hills, California 91709

Consultant: Mike Long  
Project Manager  
Technical Systems, Inc.  
2303 196<sup>th</sup> Street S.W.  
Lynnwood, Washington 98036

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

17. SUCCESSORS AND ASSIGNS: All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon Agency, Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of Agency shall be null, void and of no legal effect whatsoever.
18. RIGHT TO AUDIT: Agency reserves the right to review and/or audit all Consultants' records related to the work assigned by subsequent Task Orders. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Consultant. Consultant shall make all records and related documentation available within three (3) working days after said records are requested by Agency.
19. INTEGRATION: The Contract Documents represent the entire agreement of Agency and Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by Agency and Consultant.
20. GOVERNING LAW: This Agreement is to be governed by and constructed in accordance with the laws of the State of California. Except as otherwise provided herein, the Parties each irrevocably consent that any legal action or proceeding arising under or relating to this Contract shall be brought in either the federal court of the United States District Court for the Central district, Ninth Circuit of California (or if federal jurisdiction is not available, in state court located in the County of San Bernardino, State of California) and hereby waives any objection which it now or may in the future have to any of such courts as the proper forum for any action arising under or relating to this Contract.
21. TERMINATION FOR CONVENIENCE: Agency reserves and has the right to immediately suspend, cancel or terminate this Agreement at any time upon written notice to Consultant. In the event of such termination, Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination.

- 22. FORCE MAJEURE: Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, et cetera.
- 23. NOTICE TO PROCEED: No services shall be performed or furnished under this Master Services Contract unless and until a Task Order has been issued, properly signed by the responsible parties, and a Notice to Proceed order has been issued to Consultant.
- 24. AGENCY-PROVIDED INFORMATION AND SERVICES: The Agency shall furnish Consultant available studies, reports and other data pertinent to Consultant's services; obtain or authorize Consultant to obtain or provide additional reports and data as required; furnish to Consultant services of others required for the performance of Consultant's services hereunder, all subject to Agency's prior approval, and Consultant shall be entitled to use and rely upon all such information and services provided by the Agency or others in performing Consultant's services under this Agreement.
- 25. THIRD PARTIES: The services to be performed by Consultant are intended solely for the benefit of the Agency. No person or entity not a signatory to this Agreement shall be entitled to rely on Consultant's performance of its services hereunder, and no right to assert a claim against Consultant by assignment of indemnify rights or otherwise shall accrue to a third party as a result of this Agreement of the performance of Consultant's services hereunder.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be entered as of the day and year written above.

**INLAND EMPIRE UTILITIES AGENCY:**  
(a Municipal Water District)

**TECHNICAL SYSTEMS, INC.:**

\_\_\_\_\_  
Shivaji Deshmukh  
General Manager

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Scott Ashton  
Chief Strategy Officer

\_\_\_\_\_  
(Date)

# Exhibit A



Date: July 8, 2020

Task Order Number: 1

Consultant: XXXXXXXXXXXXX

Contract Number: 460000XXXX

Project / Task Description: XXXXXXXXXXXXX

I. RECITALS

This Task Order is issued for the procurement of engineering consulting services needed in support of the Inland Empire Utilities Agency (hereinafter interchangeably “IEUA” and “Agency”) Project Number XXXXX.

Agency and Consultant previously entered into Master Services Contract No. 460000XXXX. Except as otherwise specified herein, all terms and conditions of that Agreement are incorporated into this Task Order via this reference.

II. TASK ORDER AGREEMENTS

1. Scope of Work: Consultant shall furnish the qualified personnel, equipment, materials, and supplies necessary to perform the work as outlined in **Exhibit A**, which is attached hereto, referenced herein, and made a part hereof.
2. Period of Performance: The term of this Task Order shall extend from the date of the Notice to Proceed and shall terminate on completion of the Work as per the cognizant IEUA Project Manager, unless agreed to by both parties, reduced to writing, and amended to this Task Order.
3. Compensation: Authorized total payments to Consultant for performance of this Task Order shall sum to a **not-to-exceed maximum total of \$XXXXX.00** as estimated in Consultant’s proposal, **Exhibit A**, attached hereto, reference herein, and made a part hereof, and as approved by SAP Purchase Requisition 100XXXXX. (NOTE: Labor rates are based on submitted rates included in the Master Contract.)
4. Assigned Personnel: The below-listed named personnel are assigned to direct the performance of this Task Order on behalf of the respective Parties:

PROJECT MANAGER ASSIGNMENT: All technical direction related to this Task Order shall come from the designated Project Manager. Details of Agency's assignment are listed below:

Project Manager: Name  
Address: 6075 Kimball Avenue, Building "B"  
Chino, California 91708  
Telephone: (909) 993-XXXX  
Facsimile: (909) 993-1982  
Email: [@ieua.org](mailto:ieua.org)

CONSULTANT ASSIGNMENT: Special inquiries related to this Agreement and the effects of this Agreement shall be referred to the following:

Project Manager: Name  
Address: XXXX Blank St.  
City, State Zip Code  
Telephone: (999) 999-9999  
Email: [XXXX@XXX.XXX](mailto:XXXX@XXX.XXX)

5. Task Order Modifications: No communication, either written or oral, by other than written and bi-laterally executed change order shall be effective to modify or otherwise affect the provisions of this Task Order.

### III. SIGNATURES

**INLAND EMPIRE UTILITIES AGENCY:**  
**(A Municipal Water District)**

**XXXXXXXXXX:**

\_\_\_\_\_  
Warren T. Green  
Manager of Contracts and Procurement

\_\_\_\_\_  
Name  
Position

Date: \_\_\_\_\_

Date: \_\_\_\_\_

# Exhibit B

# Inland Empire Utilities Agency

Request for Qualifications (RFQ)  
for Provision of SCADA Integration Services



**Owner:** Inland Empire Utilities Agency

**Subject:** RFQ for Provision of SCADA Integration Services dated February 21, 2024

NO. RFQ-JV-24-001

## Contents

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## 1. Introduction

Technical Systems, Inc (TSI) provides extensive experience in similar projects. We believe our team is uniquely qualified to support the Agency's PlantPax SCADA System. TSI installed the first PlantPax software at IEUA back in 2014 at the Carbon Canyon Facility and we have been supporting the Agency ever since. We place a high emphasis on communication, teamwork, and a close partnership with our customers. We have supported IEUA with their PlantPax integrations for the last 10 years, the last 6 as an the sole Integrator under a MSA. In addition to that, our team maintains several ongoing SCADA support services contracts for our water & wastewater customers, and we have a thorough understanding of the need for timely response and teamwork in supporting our customers.

TSI has a history of delivering high quality control systems for the water and wastewater industry for over 50 years. TSI is an employee-owned company with an experienced staff of project managers, engineers, programmers, CAD drafters, technicians, and panel fabricators. TSI has maintained a steady controlled growth pattern with our staffing levels over the past six (6) years increasing from 52 employees in 2016 to our current level of 75 employees today.

- TSI is a certified Rockwell Automation GOLD System Integrator with both the Control and Process technology disciplines in the water and wastewater industry.
- TSI is certified in PlantPax.
- TSI's Bonding capacity is in excess of \$5 million.
- TSI is a certified member of Control System Integrators Association (CSIA) since 2014.
- TSI is a licensed contractor in California: C10 license No. 921522
- TSI is a registered Engineering Corporation and has several licensed Professional Engineers on staff including staff registered in California.
- TSI has three (3) West coast offices located in Oceanside, CA; Sacramento, CA; and Lynnwood, WA.
- TSI is able to provide remote and/or on-site assistance within 4 hours. If the event occurs outside normal working hours, the 4 hour remote response would still apply with the on-site being the next day if needed.







GOLD  
**System Integrator**

A ROCKWELL AUTOMATION PARTNER

# TECHNICAL SYSTEMS INC

Lynnwood, USA

Has achieved Rockwell Automation PartnerNetwork™  
Certification as a **Gold System Integrator**

PROGRAM DISCIPLINES			
 <b>CONTROL</b>	 <b>PROCESS</b>	 <b>POWER</b>	 <b>INFORMATION</b>
• Control	• PlantPax	• MCC	

*Jolene Mueller*

Jolene Mueller  
Director, System Integrator Partner

2024 Annual Membership





## Technical Systems, Inc.

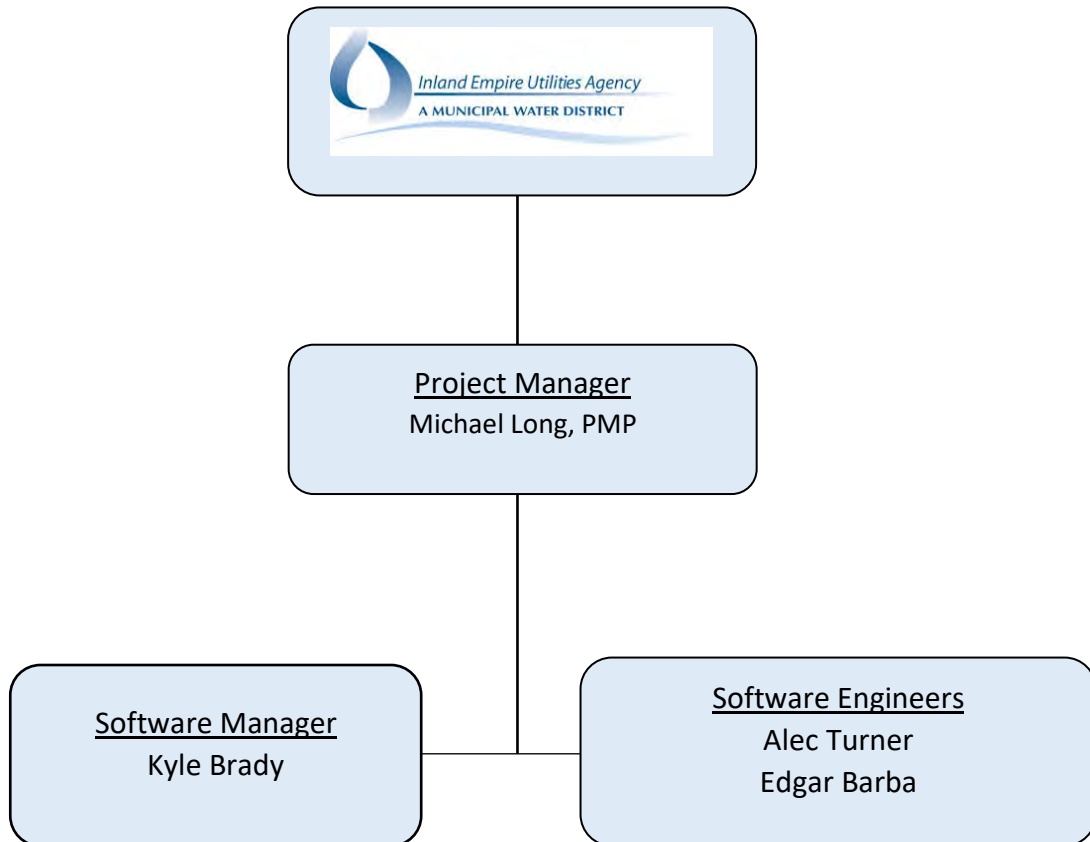
has been audited and conforms to all requirements necessary to be a  
**CSIA Certified Member**

*The certification audit covers the following business and management categories:*

- General Management
- Human Resources Management
- Marketing, Business Development and Sales Management
- Financial Management
- Project Management
- System Development Lifecycle
- Supporting Activities
- Quality Management
- Service and Support
- Information Systems Management and Cyber Security

Date of Certification:	April 4, 2020
Date of Expiration:	April 4, 2026
Certified Member Since:	April 4, 2014
CSIA Member Since:	July 25, 2003

## 2. Team Qualifications



The following roles are the key members of the TSI team.

**Mike Long - Project Manager** – Mike is the current PM on the majority of TSI’s current projects with IEUA and he has over 20 years of experience as a project manager. He has experience in all aspects of project management, scheduling, and commissioning. The project manager’s primary responsibilities will be developing and maintaining the overall project schedule, resource planning, communications with the project team and the Agency’s Project Manager,

**Kyle Brady – Software Manager** – Kyle has been working with the Agency over the past 6 years is responsible for ensuring that all IEUA projects are properly staffed and have all necessary resources for a successful completion. Kyle has designed and configured multiple PLC and SCADA systems including Water Distribution and Wastewater Collection telemetry systems, water and wastewater plants, and city-wide SCADA systems. Kyle has configured multiple virtual server environments using both VMWare

ESXi and Microsoft Hyper-V Hypervisors, he is also a certified ISA 62443 Cybersecurity Expert and is a Professional Engineer in WA (Controls).

**Software Engineers** – It is our intention to maintain the current TSI team on IEUA projects of Alec Turner and Edgar Barba. With the past years of experience, these programmers are able to work in sync with the Agency team.

Alec has spent the past 5+ years working on PlantPax almost exclusively for IEUA. In that time he has developed a keen sense of what it takes to get a project done working with all of the Agency stakeholders.

Edgar joined TSI in 2022 and has been involved on PlantPax projects for the City of Thousand Oaks along with IEUA.

### 3. Firm Experience

#### Project References

The following list of projects provides a small sample of our team’s experience in executing similar projects.

<b>Owner:</b>	<b>Inland Empire Utilities Agency</b>
<b>Project Title:</b>	Master Services Agreement (2017-ongoing)
<b>Project Size:</b>	\$3,985,000 (multiple Task Orders, increasing and ongoing)
<b>Owner Contact:</b>	Travis Sprague (909) 994-1992 4356 Hampton Rd, La Cañada Flintridge, CA

TSI provides ongoing system integration services as the agency implements continuous improvement projects aimed at migrating to and maintaining a modern PlantPax system. These services span a wide array of support, including standard programming and commissioning activities, stand-alone vendor package integration, control narrative creation, and historian and A&E modification, as well as higher level activities, such as PlantPax programming standards development, process library migration, and online, system-wide software update and patch installation. TSI has implemented a hybrid PlantPax solution across several facilities combining multiple process library versions within a single cohesive and evolving SCADA system.

<b>Owner:</b>	<b>City of Thousand Oaks</b>
<b>Project Title:</b>	Hill Canyon SCADA Upgrade
<b>Project Size:</b>	\$277,000 (2021 – 2022)
<b>Owner Contact:</b>	Enrique Perez (805) 891-8101 2100 Thousand Oaks Blvd Thousand Oaks, CA

TSI was the prime contractor and system integrator for this system wide control system upgrade to migrate the Hill Canyon Plant from PlantPax version 3.5 to 4.1. The project consisted of migrating 28 separate PLCs, two HMI servers, FT Directory, 5 clients, VantagePoint Reports, and a historian to the latest version of PlantPax supported by the hardware while the plant continued to operate. WIN-911 Alarm management software was used to provide critical alarm notification to operations.

<b>Owner:</b>	<b>Monterey One Water</b>
<b>Project Title:</b>	Advanced Water Purification Facility
<b>Project Size:</b>	\$4,623,000 (2018-2020)
<b>Owner Contact:</b>	Tom Kouretas, PE (831) 883-6178 5 Harris Court, Building D, Monterey, CA

TSI was the system integrator for furnishing, installing, adjusting, testing, documenting, and commissioning the instrumentation and controls for the post treatment Advanced Water Purification Facility. TSI fabricated, installed, and programmed a single PLC control panel, 9 analyzer panels, and 7 RIO panels which included a mix of ethernet, Profibus, and hardwired I/O into the agencies existing Rockwell/PlantPax architecture. TSI worked with vendors to integrate Ozone, Membrane Filtration, Reverse Osmosis, UV, and chemical systems into the overall system. TSI also provided detailed automated reports via Vantagepoint such that the agency could provide monthly compliance reports to the Division of Drinking Water.

**CURRENT AND PAST  
IEUA PROJECTS**

<b>Project Name</b>	<b>Contract Value</b>	<b>IEUA Project Manager</b>	<b>TSI Team</b>
RP-1 Programming Recycled Water Pump Station Upgrades	\$ 178,630.00	Gary Dix	Mike Long, Leo Rodgers
RP-1 Mech Rest T&M	\$ 221,715.00	Gary Dix	Mike Long, Leo Rodgers
RP-1 1158 EDV Temorary Progammng	\$ 7,090.00	Gary Dix	Mike Long, Leo Rodgers
RP-1 12kV Switchgear T&M	\$ 9,500.00	Gary Dix	Mike Long, Leo Rodgers
RP-1 Generator Controls	\$ 86,182.00	Gary Dix	Mike Long, Leo Rodgers
RP-1 1158 Zone Recycled	\$ 74,500.00	TSI was sub to Davis Electric	Mike Long, Leo Rodgers
RP-4 Influent Screens Programming	\$ 59,000.00	TSI was sub to Davis Electric	Mike Long, Alec Turner
Lower Day basin	\$ 60,650.00	TSI was sub to Davis Electric	Ryan Fox, Alec Turner
RP-4 Primary Clarifiers	\$ 403,426.00	James Spears	Ryan Fox, Alec Turner
RP-1 Flare	\$ 75,000.00	Jamal Zughbi	Ryan Fox, Alec Turner
RP-1 PCN Review	\$ 91,700.00	Travis Sprague	Mike Long, Alec Turner
RP-1 Flare T&M	\$ 76,125.00	Jamal Zughbi	Mike Long, Alec Turner
RP-1 NRW East End Flowmtr	\$ 9,100.00	Megan Trott	Mike Long, Alec Turner
RP-4 SCADA Server T&M	\$ 10,000.00	James Spears	Mike Long, Alec Turner
CCWRF 12KV Backup Gen Control Circuit Improvements	\$ 277,500.00	Ryan Ward	Mike Long, Alec Turner, Edgar Barba
Task 10 RP-5 CCWRF T&M	\$ 10,000.00	James Spears	Mike Long, Alec Turner
Task-11 East RWPS PCN T&M	\$ 11,565.00	James Spears	Mike Long, Alec Turner
RP-1 Disinfection Programming	\$ 182,000.00	James Spears	Mike Long, Alec Turner, Edgar Barba
RP-1 SCADA Amend-4 T&M	\$ 3,711,040.00	James Spears	Mike Long, Alec Turner, Edgar Barba
Task-12 CCWRF PlantPAx T&M	\$ 122,600.00	James Spears	Mike Long, Alec Turner, Edgar Barba
Task-13 RP-3 Diversn T&M	\$ 33,550.00	James Spears	Mike Long, Alec Turner
Task-14 RP-1 Solids T&M	\$ 61,120.00	Kevin Asprer	Mike Long, Alec Turner
RP-1 Headworks Bar Screen T&M	\$ 57,780.00	Justin Tao	Mike Long, Alec Turner, Edgar Barba
Prado Dechlor Prsv LS T&M	\$ 42,040.00	Kevin Asprer	Mike Long, Alec Turner, Edgar Barba
Generator Retrofit T&M	\$ 42,150.00	Kevin Asprer	Mike Long, Alec Turner, Edgar Barba
RP-1 Digesters 6 & 7	\$ 108,700.00	TSI was sub to Big Sky Electric	Mike Yentsch,
Task-17 Recycle Water T&M	\$ 31,200.00	Kevin Asprer	Mike Long, Alec Turner, Edgar Barba
Task-19 RP1 RAS PS VFD TM	\$ 63,000.00	Kevin Asprer	Mike Yentsch, Alec Turner, Edgar Barba
Task-20 RP-1 S Zone RWPS VFD T&M	\$ 50,490.00	Kevin Asprer	Mike Yentsch, Alec Turner, Edgar Barba

## 4. Resumes

## Mike Long

Director of Project Management

**Project Role:** Project Manager

**Expertise:** Experience in project management for municipal water and wastewater control system projects, from conceptual design to final design and implementation.

**Education:** Master of Science in Strategic Management, Colorado State University

**Certifications:** Certified Project Management Professional (PMP)

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Mr. Long has over 20 years of experience as a Project Manager in a wide variety of projects including municipal and industrial wastewater, and water projects. He has experience in control system conceptual, preliminary, and final design, Ethernet and serial SCADA radio communications, low voltage and medium voltage systems, instrumentation, system integration, and start-up. He has managed projects that include Allen-Bradley and Modicon PLCs, ABB DCS, several SCADA systems as well as variable frequency drives and motor control centers. The following projects are examples of this experience:

### **City of Oceanside Water and Wastewater Control System Upgrade**

Oceanside, CA – TSI was the prime contractor and systems integrator for Water & Sewer Major SCADA Upgrade project. The project consisted of fabricating, providing, configuring, and commissioning Schneider Electric Modicon M340 PLC control panels for one filter plant, one reverse osmosis plant, one wastewater plant, and over 65 remote sites consisting mostly of lift stations, pump stations, and reservoirs. TSI upgraded over 100 control panels, including design, installation, and programming. The remote sites communicate over unlicensed 900 MHz radios to SCADA and other sites that TSI provided and configured. The SCADA system uses three groups over Hyper-V virtual host servers, one group at each plant. Wonderware System platform was installed and configured to provide a single, standardized, object-oriented interface for the entire system.

### **Water Replenishment District of Southern California (WRD) Groundwater Replenishment Improvement Project (GRIP)**

Pico Rivera, CA – TSI was the systems integrator for furnishing, installing, adjusting, testing, documenting, and commissioning the instrumentation and controls systems for the WRD GRIP project. The project consisted of 10 Ultrafiltration skids, 4 Recovery Ultrafiltration skids, 4 Primary Reverse Osmosis trains, and 4 Third Stage Reverse Osmosis trains working as a complete system.

Field service activities included installation verification, instrument setup and calibrations, I-O testing, loop check verification, training, start-up, and commissioning.

## Kyle Brady, P.E.

Software Manager

- Project Role:** Software Management and QA/QC
- Expertise:** PLCs, HMI/SCADA, OIT, Networking, Computer Configuration, Virtualization, and Historian Programming Related to Control System Applications in the Water and Wastewater Industry
- Education:** Bachelor of Science in Electrical Engineering, University of Washington
- Certifications:** Professional Engineer in WA (Controls), Wonderware System Platform, Wonderware InTouch, Wonderware Historian, ACP ThinManager, VMWare VTSP, EcoStruxure Control Expert (Formerly Unity Pro), Citect VCCE, ISA 62443 Cybersecurity Expert

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As Software Manager, Mr. Brady is responsible for leading the TSI software team and overseeing system integration, quality control, start-up, operator training, application software development, testing, and documentation. Mr. Brady has configured multiple virtual server environments using both VMWare ESXi and Microsoft Hyper-V Hypervisors. Mr. Brady also has experience with SQL, VS.net, Visual Basic, Java, and Ladder and Function Block logic

Kyle has over 11 years of experience working as a Software Engineer and Manager. He has been involved in numerous projects and has expertise in Wonderware and FactoryTalk SCADA and both Allen Bradley and Modicon PLCs for complex control system projects. The following projects are examples of this experience:

### Central Kitsap Treatment Plant and Collections System

Poulsbo, WA – TSI was the system integrator responsible for furnishing, installing, adjusting, testing, documenting, and commissioning the instrumentation, controls, and SCADA systems for the Plant including 10 CompactLogix PLCs, six Wonderware InTouch SCADA Clients, a Wonderware Historian, and various networking equipment. The MCCs communicate with the PLCs via DeviceNet. TSI coordinated control schemes and commissioning with over 7 vendor packaged equipment over the course of this project.

Field service activities included installation verification, instrument setup and calibrations, I-O testing, loop check verification, training, start-up, and commissioning.

### City of Visalia WWTP

Visalia, CA - TSI was the systems integrator for this plant wide control system upgrade. The project consisted of replacement of the existing PLC-5 and DH+ system with a ControlLogix / CompactLogix and Ethernet system at the city's wastewater treatment plant. TSI fabricated, installed, and programmed 14 PLC control panels and 3 RIO panels as well as integrating 8 existing and new vendor control panels. TSI also supplied, installed, and commissioned over 100 new instruments and upgraded several MCCs and Valves Profibus-DP control. A new fiber optic network communications backbone was installed with new network communication cabinets to provide plant wide control system and replace the DH+ communications. New Wonderware System Platform servers, a Wonderware Historian, InTouch operator workstations, and PanelView OITs were installed across the plant to complete the SCADA system. As operating treatment plants, TSI was responsible for close coordination with city staff to cutover from the existing Control system to the new system for each process area while maintaining plant operation throughout the project.

### **Los Osos Water Recycling Facility**

Los Osos, CA - TSI was the systems integrator for this new wastewater treatment plant. The project consisted of fabricating, providing, configuring, and commissioning two large ControlLogix PLCs, Wonderware System Platform and Historian Servers, four operator workstations, and Cisco fiber optic networking equipment. TSI also coordinated control and commissioning with 8 separate vendor packaged systems.

### **Joint Base Lewis-McChord Water Plant Controls Upgrade**

JBLM, WA - TSI was the systems integrator for this system wise control system upgrade. The project consisted of fabricating, providing, configuring, and commissioning two ControlLogix PLCs with three remote IO racks at the Water Plant and 15 remote Well, PRV, and Reservoir sites that control and maintain the drinking water system for the majority of the base. VMWare ESXi Hypervisor Servers were provided and configured to host dedicated domain and DNS servers, Wonderware System Platform and Historian Servers, and a vCenter server. Desktop and panel mounted operator workstations, fiber optic networking, and DSL networking were used to establish communication between SCADA, the plant PLCs, and the remote sites.

### **Fresno Southeast Surface Water Treatment Facility**

Fresno, CA - TSI was the software systems integrator for this new surface water treatment plant and intake. The project consisted of providing and configuring three VMWare ESXi Hypervisor Hosts with over 14 virtual servers to provide Citect SCADA and support 15 thin clients around the plant. Wonderware Historian Servers and XL Reporter are used to provide state – regulated reports. Topview Alarm management software provides Critical Alarm Reports and remote notification to operations. TSI was also responsible for programming and commissioning 6 different Modicon m340 PLCs that controlled all the MCCs, valves, and vendor packages via Modbus TCP.

### **City of Oceanside Water and Wastewater Control System Upgrade**

Oceanside, CA - TSI was the general contractor for this complete update of the City of Oceanside's water and wastewater control system. The project consisted of fabricating, providing, configuring, and commissioning PLCs for one filter plant, one reverse osmosis plant, one wastewater plant, and over 65 remote sites consisting mostly of lift stations, pump stations, and reservoirs. The remote sites communicate over unlicensed 900 MHz radios to SCADA and other sites that TSI provided and configured. The SCADA system uses three groups over Hyper-V virtual host servers, one group at each plant. Wonderware System platform was installed and configured to provide a single, standardized, object-oriented interface for the entire system.

### **City of Redmond**

Redmond, WA - TSI has an ongoing support contract and has completed several Water and Sewer projects with the City of Redmond including nine new or updated lift stations between 2018-2021. Each lift station has a PLC, managed network switch, OIT, and radio to communicate with SCADA. The hardware includes 2-3 pumps controlled by VFDs with various instruments including flow meters, level transducers, floats, intrusion switches, and power monitors. To harden and secure each site, the switch acts as both a router and is configured to segment local OIT, Local Control, and Remote networks. The OITs have been configured to block or turn off unnecessary services and ports. The radio traffic is encrypted, and password protected.

# Alec Turner

Software Engineer

**Project Role:** Software Engineer

**Expertise:** PLCs, HMI/SCADA, OIT, and Historian Programming Related to Control System Applications in the Water and Wastewater Industry

**Education:** Bachelor of Science in Electrical Engineering, Purdue University

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The role of TSI Software Engineers is the software configuration, programming, testing, and commissioning activities for a project. Responsibilities include PLC programming, Server and Virtual Machine configuration, HMI/SCADA & Historian configuration and programming, OIT programming, system startup, testing, and loop tuning, and operator training. Coordinating with TSI's project manager and the contracting team for testing and startup activities.

Alec has over 10 years of experience working as a Software Engineer. He has been involved in numerous projects and has expertise in Wonderware and Rockwell SCADA/ HMI systems and Allen Bradley PLCs for complex control system projects. The following projects are examples of this experience:

## **Foothill Municipal Water District Controls Upgrade**

La Cañada Flintridge, CA – TSI was the systems integrator for this system wide control system upgrade. The project consisted of supplying, installing, programming, and commissioning a CompactLogix Data Concentrator PLC and 16 remote CompactLogix PLCs, handling remote reservoir, pump station, and member agency controls. A telemetry network was developed to establish communication between the remote site PLCs, central PLC, and the SCADA desktop operator workstations. VMWare Servers were provided and configured to host dedicated domain and DNS servers as well as Wonderware InTouch and Historian Servers. Topview Alarm management software was used to provide critical alarm notification to operations.

## **Inland Empire Utilities Agency Pump Station Upgrade**

Ontario, CA - TSI was the systems integrator for this pump station upgrade. The project consisted of an upgrade of the existing PLC equipment and integration with the existing programming to update the controls strategy of new equipment while maintaining plant operation throughout the project. A Rockwell PlantPAx system was developed and implemented following Agency standards to replace the existing DCS system.

## **City of Escondido MFRO Facility**

Escondido, CA – TSI was the systems integrator for this new treatment plant, responsible for providing and commissioning control panels and instrumentation for the treatment facility and pump stations. TSI programmed and commissioned over 30 Allen Bradley CompactLogix and ControlLogix PLCs and assorted PanelView HMIs in accordance with the city's programming standards and existing library of control objects. A pair of redundant Wonderware I/O servers, an InTouch operator workstation, and additional software licensing was supplied, installed, and configured to expand the city's existing Wonderware System Platform SCADA system to monitor and control the new facility. TSI integrated all PLC programming, including vendor PLCs, into the active SCADA system, with all graphics, alarming, and historization conforming to end-user policies and standards.

## Edgar Barba

Software Engineer

**Project Role:** Software Engineer

**Expertise:** Process and Electrical Controls using PLCs, HMI/SCADA, OIT, and Historian Programming in the Water and Wastewater, and Industrial Controls Industry

**Education:** Bachelor of Science in Electrical Engineering from Southern California Institute of Technology, Anaheim, CA

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The role of TSI Software Engineers is the software configuration, programming, testing, and commissioning activities for a project. Responsibilities include PLC programming, Server and Virtual Machine configuration, HMI/SCADA & Historian configuration and programming, OIT programming, system startup, testing, and loop tuning, and operator training. Coordinating with TSI's project manager and the contracting team for testing and startup activities.

Edgar has over 5 years of experience working as a Software Engineer, Control System Engineer, and Project Controls Engineer. He has been involved in numerous projects and has expertise in a variety of complex control system platforms including:

- Rockwell/Allen-Bradley – A.P.S., Logix and Studio programming software for various PLC models; PlantPAX; FTView SE/ME HMI as well as the older HMI systems; Historian and Vantagepoint
- Aveva/Wonderware System Platform, OMI and InTouch HMIs
- Siemens PLCs, OITs and WinCC HMI
- Omron PLCs.
- Automation Direct PLCs, OITs (CMore)

The following projects are some recent examples of this experience:

**City of Thousand Oaks – Hill Canyon Treatment Plant – SCADA Software and Network Upgrade Project**

Thousand Oaks, CA - The Hill Canyon Treatment plant SCADA control system software and fiber optic network ring components were upgraded to a newer version. The network IP address schema was changed to get away from a common subnet and divided to make use of VLANs on the SCADA network. Rockwell PLC software using Plant PAX was upgraded to take advantage of the updates. Rockwell FactoryTalk View SE and Historian with VantagePoint software and applications were upgraded to match the PLC code upgrades and keeping with general system improvements. Also, the WIN-911 alarm dialer system was upgraded to the latest available version.

Edgar was one of the software engineers responsible for orchestrating the improvements while maintaining the functionality of the operating plant.

**City of Thousand Oaks – Hill Canyon Treatment Plant**

Thousand Oaks, CA - TSI was the prime contractor and systems integrator for this plant wide process control and SCADA system upgrade. The project consisted of the replacement of the existing PLC/HMI control system with a Rockwell PlantPAX system at the City's wastewater treatment plant. TSI replaced and programmed 23 PLC CPUs in existing control panels with existing and new I/O as well as integrating several existing vendor control panels. New redundant servers with Rockwell's PlantPAX SCADA and Historian VMs were installed along with several new FTView workstations. At the operating treatment plant, TSI was responsible for close

coordination with plant staff to coordinate cutover from the existing control system to the new PlantPax system for each process area while maintaining plant operation throughout the project.

Edgar was a software engineer on this project in charge of doing all the PLC and SCADA upgrades.

#### **FKC Allen Bradley to Wonderware Intouch Conversion**

TSI is the I&C OEM for FKC Co. building and installing Screw Press, and Rotary Screen and Drum Thickeners. TSI works with FKC and the end user to provide and integrate the PLC control panels into FKC's customer's SCADA system.

Edgar oversaw converting the FKC application from Allen Bradley to a Wonder Ware Intouch application.

#### **Inland Empire Utilities Agency CCWRF 12KV Backup Generator**

TSI is the preferred integrator of the Inland Empire Utility Agency. We were the prime contractor and system integrator for this upgrade. The project consisted of upgrading the existing PLC and SCADA application from V3.0 of the Plant Pax library to the newest version 5.0. We also had to create a brand new local station HMI for the control of this application.

Edgar was the Software Engineer assigned to this project and oversaw the upgrade.

#### **Sonoma County Water Agency – ELI Booster Station**

TSI was the system integrator for this project. Project consisted in building PLC and OIT programs for the control of a Booster Pump Station. This was programmed with Studio 5000 Revision 33 and OIT was created with Factory Talk View Studio V12. TSI oversaw the communication between the old system and new system while maintaining plant operation.

Edgar was the software Engineer assigned to this project.

#### **Kinetics GCD2 Bulk Media Storage and Distribution System**

Project consisted of building and mounting of 7 remote panels for the 6 new bulk storage tanks and 1 new CIP tank. System included (1) Allen Bradley ControlLogix PLC and (2) Wonderware HMIs. System communicated through a device level ring Ethernet/IP topology. Each remote IO panel consisted of ethernet enabled IO modules and ethernet enabled solenoid valve manifolds to control and monitor all instrumentation. PLC and HMI development followed ANSI/ISA-88 batch control specifications and met all guidelines to include standard recipe building procedures, equipment phases, and recipe phases. System captured all data related to what was produced in each batch using SQL server database management system. Historian data was done through Wonderware Historian.

Edgar was the Software Engineer assigned to this project at a previous employer. He developed all PLC and HMI programming and helped build the panels. Edgar also mounted the panels and helped run the wire from the main Control panel to each of the RIO panels.

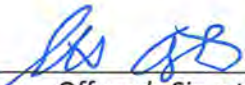
## 5. Completed Attachments

SUMMARY FEE SCHEDULE "A"

Each Offeror shall attach their fully completed fee schedule including Attachment B – Fee Schedule, identifying and including all skill level classifications, as well as any associated administrative (office) fees, if any. All proposed prices shall be stated in terms of a net price to the Agency.

- A. FEE INCLUSION STATEMENT: Offerors shall fully complete this Summary Fee Schedule and return it with their SOQ. All proposed fees will be stated as a NET- PRICE, whereas the NET-PRICE shall represent the total and final cost to the Agency for providing professional services listed. The NET-PRICE shall include all proposed costs associated with all labor, equipment, transportation, overhead, profit, insurance, taxes fees, incidentals, and any/all other related costs necessary to complete the services required. At any time, IEUA may require that these cost components be further broken out, itemized, and disclosed.

**Warrants:** On behalf of the afore identified "Consultant" company, the undersigned warrants that the Company has the equipment and manpower necessary to successfully complete the described work within the time frame specified within the "Request for Qualifications" and that the Company will be ready and able to begin working under such contract within 5 days of receiving notice, whether written or verbal. The Agency reserves the right to accept the SOQ that it determines to be in the best interests of the Agency and to reject any or all SOQs should it determine that to proceed is not in its best interests.

 _____ Offeror's Signature	Technical Systems Inc. _____ Company Name
Scott Ashton _____ Print Name	921522 C-10 _____ Consultant's License Number & Type
Chief Strategy Officer _____ Title	April 1, 2024 _____ Date

Offeror's Phone Number: ( 760 ) 521-5276

## 2024 Project Rates for IEUA Programming Support Services

The following is a list of hourly rates for Project Management and Professional and Project/Software Engineering. **These rates are valid until December 31, 2024.**

Project Manager/Registered Professional Engineer	\$210.00 per Hour
Project Engineer/Software Engineer	\$200.00 per Hour

Services in excess of 10 hours per day, Monday through Friday, will be billed at 1.5 times the hourly rate. Saturdays, Sundays, and all business holidays will be billed at 2 times the hourly rate. Emergency services are billed at a minimum of four (4) hours plus \$100.00 which is paid to the on call technician or engineer. All travel time will be billed, portal to portal, at the hourly rate in effect on the day of travel.

### **General Terms and Conditions**

Services will be billed via invoice, with field service reports, every two (2) weeks. All vehicle travel and meal expenses are included in the hourly rate. All other expenses, (hotel, airline, rental car, etc.), will be billed at documented cost plus 10% service charge. All invoices are Net 30 days.

All prices are net prices and do not include any State, local or use taxes.

### **Standard Warranty Policy**

*Technical Systems Inc.* warrants defects in material and workmanship for all systems supplied by *Technical Systems, Inc.* for a period of one (1) year beginning on the date of shipment. Individual component warranties will be limited to the published warranty for the component purchased and supplied by *Technical Systems Inc.* All published warranties provided by the component manufacturers will be assigned, in their entirety, to the end user. No warranties are verbally expressed or implied. Defective materials or workmanship will be repaired or replaced free of charge during the warranty period. Labor, travel and other expenses to repair or replace components at the end user's facility will be billed to the end user in accordance with the above Standard Labor Policies.



EXCEPTION FORM

Should your firm take exception to **ANY** of the terms and conditions or other contents provided in the Request for Qualifications, submit the following form with your Statement of Qualifications. If no exception(s) are taken, enter "NONE" for the first item. Make additional copies of this form if necessary.

Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_  
Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_  
\_\_\_\_\_  
NONE  
\_\_\_\_\_  
\_\_\_\_\_

Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_  
Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_  
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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_  
Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_  
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Page Number: \_\_\_\_\_ Section Title: \_\_\_\_\_  
Paragraph Number: \_\_\_\_\_ Exception Taken: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## WORKERS' COMPENSATION CERTIFICATE

The Offeror shall execute this form to acknowledge and comply with the requirements of California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my Consultant, I will comply with such provisions before commencing the performance of the work of any contract entered into.

 _____ Signature	Technical Systems Inc. _____ Company Name
Scott Ashton _____ Print Name	921522 _____ Business License Number
Chief Strategy Officer _____ Title	April 1, 2024 _____ Date

(This space intentionally left blank)

## OFFEROR IDENTIFICATION

1. Legal Name of Offeror: Technical Systems Inc.
2. Street Address: 2303 196ht Street SW Lynnwood, WA 98036
3. Mailing Address: Same as above
4. Business Telephone: 425-775-5696
5. Fax Machine Number: 425-775-9074
6. E-mail Address: scotta@tsicontrols.com
7. Type of Business:  
 Sole Proprietor    Partnership    Corporation  
Other: \_\_\_\_\_
8. Business License number issued by the City where the Offeror's principal place of business is located:  
Number: 005333-01-1970   Issuing City: Lynnwood, WA
9. Federal Tax Identification Number: 91-0859628
10. California Consultant's License Number: N/A
11. California DIR (Registration) Number: 1000005441
12. Offeror's Project Manager: Mike Long
13. Project Manager's E-mail Address: mikel@tsicontrols.com
14. Project Manager's Cell Phone No.: 951-331-9269

## BUSINESS OWNERSHIP INFORMATION FORM

Are you a WMDVBE\* certified business?

Yes

No

\*(Women, Minority, Disabled, Veteran Business Enterprise)

Certification must be received from California Public Utilities Commission Clearing House. Call Toll Free: 800-359-7998 or 415-928-6892 for additional information. Please check those that apply:

- |  |  |
|--|--|
| <input type="checkbox"/> Women-Owned Business              | <input type="checkbox"/> African-American-Owned Business       |
| <input type="checkbox"/> Disabled-Owned Business           | <input type="checkbox"/> Veteran-Owned Business                |
| <input type="checkbox"/> Native-American-Owned Business    | <input type="checkbox"/> Hispanic-Owned Business               |
| <input type="checkbox"/> Caucasian-American-Owned Business | <input type="checkbox"/> Underrepresented Asian-Owned Business |

All firms need to be registered with the Agency. Please logon to [www.ieua.org](http://www.ieua.org) and under the heading of Procurements, click on the registration tab. This will allow your firm to access solicitations for the commodities or services that apply. Additionally, other agencies have access to the vendor information in the BidNet system, which will increase your access for available solicitations.

1. Legal Name of Consultant: Technical Systems Inc.
2. Consultant's Street Address: 2303 196th Street SW Lynnwood, WA 98036
3. Consultant's Mailing Address: same as above
4. Consultant's Business Telephone: 425-775-5696
5. Consultant's Fax Number: 425-775-9074
6. Consultant's E-mail Address: scotta@tsicontrols.com
7. Type of Consultant:  

<input type="checkbox"/> Sole Proprietor	<input checked="" type="checkbox"/> Corporation
<input type="checkbox"/> Partnership	<input type="checkbox"/> Other

If corporation, indicate State where incorporated: Washington
8. Business License number by the city where the Consultant's principal place of business is located:  
  
Number: 00-5333-01-1970 Issuing City: Lynnwood, WA
9. Consultant Federal Tax Identification Number: 91-0856928
10. Consultant's Project Manager: Mike Long

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY CONTACT PERSON CITY PHONE NUMBER

PLEASE REFER TO SECTION 3 FOR PROJECT REFERENCE INFORMATION

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

PLEASE REFER TO SECTION 3 FOR DESCRIPTION OF SERVICES PROVIDED ON REFERENCE PROJECTS

Multiple horizontal lines for providing project reference information.

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY CONTACT PERSON CITY PHONE NUMBER

NONE

DIR Registration Number (if applicable):

Business License Number: City:

Insurer:

Brief description of their services:

# Invoice



Technical  
Systems  
Inc.

**Job Address:**  
14950 Telephone Road

Chino CA

**Bill To:**  
Inland Empire Utilities Agency

6075 Kimball Ave HQ-B  
Chino CA 91708

**Remit To:** Corporate Office  
2303 196<sup>th</sup> Street SW  
Lynnwood, WA 98036  
Tel 425.775.5696  
TSIcontrols.com

Date	Invoice Number	Customer PO Number	Customer Number	Net Terms
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11/15/2023	8187-003	4600002467 TASK-14	IEUA00	NET30
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### Description

TSI Job Number 8187 - IEUA Task-14 RP-1 Solids Thickening T&M

Progress billing per the attached schedule of values. This attachment provides a breakdown of costs invoiced.

Invoice Total: \$ 2,670.00

**Pay This Amount:**

\$2,670.00

SCHEDULE OF VALUES				Percent Complete	Invoice #1 04/26/2023	Invoice #2 10/09/2023	Invoice #3 11/15/2023	Invoice #4 [Date]	Invoice #5 [Date]	Invoice #6 [Date]	Invoice #7 [Date]	Invoice #8 [Date]	Total Remaining
ITEM	DESCRIPTION	SUBTOTAL	PRICE										
1	IEUA Task-14 RP-1 Solids Thickening T&M		\$61,120.00										
1.01	Project Management	\$6,400.00		28%	\$1,200.00	\$400.00	\$200.00						\$4,600.00
1.02	Documentation Review and Revisions	\$27,360.00		53%	\$9,690.00	\$2,280.00	\$2,470.00						\$12,920.00
1.03	Meetings	\$27,360.00		0%									\$27,360.00
INITIAL CONTRACT AMOUNT:			\$61,120.00	SUBTOTAL:	\$10,890.00	\$2,680.00	\$2,670.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	SUBTOTAL BILLING
CHANGE ORDER TOTAL:			\$0.00	SUBTOTAL:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	CO BILLING
TOTAL CONTRACT AMOUNT:			\$61,120.00	TOTAL:	\$10,890.00	\$2,680.00	\$2,670.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	TOTAL BILLING
TOTAL BILLED:			\$16,240.00										
TOTAL RETAINAGE HELD:			\$0.00										
TOTAL REMAINING:			\$44,880.00										
PERCENT INVOICED:			26.6%										

INLAND EMPIRE UTILITIES AGENCY - CONSULTING SERVICES INVOICE

Consultant: **Technical Systems Inc.**  
 2303 196th Street.SW  
 Lynnwood, WA 98036



Project Number: **EN22044.00**  
 Project Name: **RP-1 Solids Thickening Project**

Contract No.:	4600002467	Invoice No.:	8187-003	Consult Ref No.:	
PO Number:	4600002467-14	Invoice Date:	11/15/2023		
IEUA Project Manager:	James Simpson				

Contract Name:	RP-1 Solids Thickening Project	Invoice Period:	From: 09/18/2023	To: 10/31/2023
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CONTRACT INCLUDING AMENDMENTS

WBS Element No.	Item Description	Contract \$	Previously Invoiced, \$	This Invoice, \$	Total to Date Including This Invoice, \$	% Spent to Date	Estimated % Complete (Progress to Date)	Remaining Contract Value, \$
	Project Management @\$200/hr	\$6,400.00	\$1,600.00	\$200.00	\$1,800.00	28%	40%	\$4,600.00
	Documentation Review & Revisions @\$190/hr	\$27,360.00	\$11,970.00	\$2,470.00	\$14,400.00	53%	50%	\$12,960.00
	Meetings @\$190/hr	\$27,360.00	\$0.00	\$0.00	\$0.00	0%	0%	\$27,360.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
	Sub-Total Original Contract	\$61,120.00	\$13,570.00	\$2,670.00	\$16,200.00			\$44,920.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
	Sub-Total Phase Amendments	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
			\$0.00	\$0.00	\$0.00	#DIV/0!	0%	\$0.00
	Sub-Total Scope Amendments	\$0.00	\$0.00	\$0.00	\$0.00			\$0.00
	<b>Total</b>	<b>\$61,120.00</b>	<b>\$13,570.00</b>	<b>\$2,670.00</b>	<b>\$16,200.00</b>	<b>27%</b>	<b>0%</b>	<b>\$44,920.00</b>

PAYMENT SUMMARY:

Total Original Contract	\$61,120.00
Total Amendments	\$0.00
Phase	#DIV/0!
Scope	#DIV/0!
Total Contract	\$61,120.00
Total Prior Invoices	\$13,570.00
This Invoice	\$2,670.00
Total Invoiced Including This Invoice	\$16,200.00
Remaining Contract Value	\$44,920.00
Invoices Paid to Date	
Unpaid Invoices Due	\$16,200.00

CONTRACT SCHEDULE SUMMARY:

Contract Start Date:	03/20/2023
Original Contract End Date:	
Amendment No. 1 - New End Date	
Amendment No. 2 - New End Date	
Revised Contract End Date:	

STATUS REPORT:

Consultant to attach a summary report including:  
 Performance this period  
 Next Period planned activities  
 Project issues

Consultant Approval:

Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Inland Empire Utilities Agency Approvals:

Project Engineer: \_\_\_\_\_ Date: \_\_\_\_\_

Manager of Engineering \_\_\_\_\_ Date: \_\_\_\_\_

Project Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Director of Engineering: \_\_\_\_\_ Date: \_\_\_\_\_

Principal Engineer \_\_\_\_\_ Date: \_\_\_\_\_

Deputy General Manager \_\_\_\_\_ Date: \_\_\_\_\_

Inland Empire Utilities Agency  
 6075 Kimball Ave.  
 Chino, CA 91708  
 Contract #: 4600002467  
 Project #: EN22044.00  
 Task Order #: 14  
 Project Name: RP-1 Solids Thickening Project

Invoice #: 8187  
 Progress Payment #: 03  
 Invoice Date: November 15th, 2023

Invoice Amount

**\$ 2,670.00**

**Project Scope**

Week	Resource	Role	Hours	Rate	Extended	Description of Work
<b>10/15/23</b>	Reggie M.	PM	0	\$ 200.00	\$ -	
	Alec T.	Prog.	5	\$ 190.00	\$ 950.00	PCN Review
<b>10/22/23</b>	Reggie M.	PM	1	\$ 200.00	\$ 200.00	Monthly Review/SOV October 2023
	Alec T.	Prog.	8	\$ 190.00	\$ 1,520.00	PCN Review
	Reggie M.	PM	0	\$ 200.00	\$ -	
	Alec T.	Prog.	0	\$ 190.00	\$ -	
	Reggie M.	PM	0	\$ 200.00	\$ -	
	Alec T.	Prog.	0	\$ 190.00	\$ -	


<b>Total:</b>	<b>PM</b>	1	\$ 200.00	\$ 200.00
	<b>Prog.</b>	13	\$ 190.00	\$ 2,470.00

NON-COLLUSION AFFADAVIT



State of California )  
 ) ss.  
County of San Diego )

Scott Ashton, being first duly sworn, deposes and says that he or she is Chief Strategy Officer, of Technical Systems Inc. ("Offeror") the party making the foregoing Statement of Qualifications (SOQ) that the SOQ is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the SOQ is genuine and not collusive or sham; that the Offeror has not directly or indirectly solicited any other Offeror to put in a false or sham SOQ, and has not directly or indirectly colluded, conspired, connived, or agreed with any Offeror or anyone else to put in a sham SOQ, or that anyone shall refrain from bidding; that the Offeror has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the SOQ fee or the Offeror or any other Offeror, or to fix any overhead, profit, or cost element of the SOQ fee, or of that of any other Offeror, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the SOQ are true; and, further, that the Offeror has not, directly or indirectly, submitted his or her SOQ labor rates or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, SOQ depository, or to any member or agent thereof to effectuate a collusive or sham SOQ.


 _____ Signature	Technical Systems Inc. _____ Company Name
Scott Ashton _____ Print Name	005333-01-1970 _____ Business License Number
Chief Strategy Officer _____ Title	April 1, 2024 _____ Date

WAIVER / RELEASE OF LIABILITY

I, the undersigned, on behalf of Technical Systems Inc. (hereinafter referred to as Consultant), fully understand that the storage or leaving of any and all Consultant owned equipment, materials, and supplies at the Agency's facilities during the term of the contract, exposes Consultant to the risk of, but not limited to, theft, fire damage, vandalism, water damage, wind damage, and possible personal injury to Consultant's employees. For the privilege of storing/leaving any and all Contract owned equipment, materials, and supplies at the Agency's facilities, Consultant agrees to assume any and all such risks.

In consideration of being able to store/leave said equipment, materials, and supplies at the Agency's facilities, Consultant hereby releases, agrees not to sue, or bring any action against, the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers for any and all liability, claims, or actions for injury or death to Consultant's employees, or damage or theft of said property arising out of or in connection with the storage or leaving of said item(s) for whatever cause, including the active or passive negligence of the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers.

I have carefully read this Waiver/Release of Liability and covenant not to sue, and fully understand its contents, and the possible exposures that Consultant is agreeing to assume. I am aware that this Waiver/Release of Liability is a full release of any and all liability. I am signing such as the authorized agent of Consultant, and of my own free will.

 _____ Representative's Signature	April 1, 2024 _____ Date
Scott Ashton _____ Print Name	Chief Strategy Officer _____ Title

Approved: \_\_\_\_\_

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# Request for Taxpayer Identification Number and Certification

▶ Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

**Give Form to the  
requester. Do not  
send to the IRS.**

Print or type. See Specific Instructions on page 3.	<b>1</b> Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.		
	<b>2</b> Business name/disregarded entity name, if different from above <b>Technical Systems Inc.</b>		
	<b>3</b> Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.		<b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate		Exempt payee code (if any) _____
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.		Exemption from FATCA reporting code (if any) _____
	<input type="checkbox"/> Other (see instructions) ▶ _____		(Applies to accounts maintained outside the U.S.)
	<b>5</b> Address (number, street, and apt. or suite no.) See instructions. <b>2303 196th Street SW</b>		<b>Requester's name and address (optional)</b>
<b>6</b> City, state, and ZIP code <b>Lynnwood, WA 98036</b>			
<b>7</b> List account number(s) here (optional)			

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

<b>Social security number</b>										
or										
<b>Employer identification number</b>										
9	1		-	0	8	5	9	6	2	8

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶ <u>1/1/2024</u>
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**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

**\*\*END OF ADDENDUM\*\***

**Kevin Asprer**

Digitally signed by Kevin Asprer  
DN: E=kasprer@ieua.org, CN=Kevin Asprer,  
OU=Agency Staff, DC=IEUA, DC=ORG  
Date: 2024.03.26 11:47:15-07'00'

Kevin Asprer, PE  
Senior Associate Engineer  
Inland Empire Utilities Agency

**James Spears**

Digitally signed by James Spears  
DN: E=jspears@ieua.org, CN=James Spears,  
OU=Agency Staff, DC=IEUA, DC=ORG  
Date: 2024.03.26 11:50:27-07'00'

James Spears, PE  
Principal Engineer  
Inland Empire Utilities Agency

Receipt acknowledged and  
Conditions agreed to this  
1st day of Apr 2024  
Company Name: Technical Systems Inc.  
Bidder: Technical Systems Inc.  
By: Scott Ashton

Please sign, date and email/fax a signed copy showing you received this Addendum No. 1.

Signature:  Date: April 1, 2024

Name of Company: Technical Systems Inc.



**MASTER SERVICES CONTRACT NUMBER: 4600003488**  
**FOR PROVISION OF**  
**SCADA INTEGRATION SERVICES**

THIS CONTRACT (the “Contract”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2024, by and between the Inland Empire Utilities Agency, a Municipal Water District, organized and existing in the County of San Bernardino under and by virtue of the laws of the State of California (hereinafter interchangeably referred to as “IEUA” and “Agency”) and E Tech Group, LLC, with offices located in Vacaville, California, (hereinafter referred to as “Consultant”), in order to establish mutually acceptable terms and conditions which shall hold for and govern all “Task Order” releases subsequently issued under this Master Services Contract.

**RECITALS**

Whereas Agency anticipates future need(s) to retain the services of Consultant to provide on-call environmental consulting services on an “as needed” Task Order assignment basis;

Whereas Consultant is willing to undertake performance of such Task Order assignments for which the terms and conditions set forth herein shall apply;

THEREFORE, in consideration of the mutual promises and obligations set forth herein, the parties hereby agree as follows:

1. **ORDER OF PRECEDENCE:** The documents referenced below constitute the Contract Documents and are each hereby incorporated herein. In the event of any conflicts or inconsistencies between any of the Contract Documents, the governing order of precedence shall be as follows:
  1. Amendments to Task Order releases under this Master Services Contract.
  2. Task Order releases under this Master Services Contract.
  3. Amendments to this Master Services Contract.
  4. Master Services Contract Number 4600003488, General Terms and Conditions.
  5. Agency’s Request for Qualifications Number RFQ-JV-24-001 and all germane Addenda.
  6. Consultant’s Schedule of Rates dated April 2, 2024.

2. SCOPE OF WORK AND SERVICES: Consultant shall provide all labor, materials, research, documents, tools, machinery, equipment, and other items and services necessary to properly perform the work (hereinafter referred to as the "Work") as set for in each individual Task Order agreed to and released under this Master Services Contract ("Contract"), including exhibits, addenda, and amendments hereto. The Work shall be carried out in accordance with the Contract Documents in a diligent and workman-like manner, utilizing qualified personnel and good and sufficient materials and equipment. Subject equipment shall be covered by a signed copy of Agency's "Waiver / Release of Liability" form (reference RFQ Forms Section). Further, Consultant shall perform only those work assignments authorized by Task Orders issued in conjunction with this Contract, or as directed by the cognizant Project Manager.

Ordering Provisions and Understandings:

Negotiation of Task Orders: At Agency's request, Consultant shall submit a proposed scope of work, price and term for each specific Task Order. Agency and Consultant each reserve and retain the right to negotiate the Work, price, and term of any specific Task Order. Task Orders shall be developed on a time-and-materials basis with a not-to-exceed limit. However, both parties agree that the various proposed labor and expense rates used to develop each Task Order's price shall be consistent with those specified within Consultant's Schedule of Fees and Rates attached as **Exhibit B** to this Contract. Subject Schedule of Fees and Rates shall constitute the firm-fixed fees and rates established for time-and-material Task Order proposals as outlined in Section 6. of this Contract.

Task Order Price: The price for each Task Order shall be determined on a time-and-material basis with a not-to-exceed limit, addressed and authorized via the content of each specific Task Order.

Task Order Format: Each Task Order issued under this Master Services Contract shall be of similar form to the Example Task Order that is included herein as **Exhibit A** – Sample Task Order.

3. TERM: The term of this Contract shall extend from the date of the contract's award by Agency's Board of Directors, and subsequent full execution, and terminate on June 30, 2029, unless agreed to by both parties, reduced to writing, and formally incorporated as an amendment to this Contract. Agency hereby reserves the right to exercise two (2) one-year options to extend Contract Term at Consultant's prevailing Schedule of Rates.
4. SCHEDULE: Consultant shall complete the Work specified by each Task Order in accordance with the schedule established within said Task Order. All Work shall be fully finished no later than the date specified in said Task Order, unless terminated sooner or extended as provided for herein.
5. INVOICING AND PAYMENT: Consultant's invoices shall be based on Consultant's not-to-exceed price bid for each specified Task Order. Any subsequent field change orders shall

have Consultant's bid approved in advance by Agency's cognizant Project Manager, reduced to writing by Task Order Amendment, and signed by both parties.

Agency shall pay the fully-approved invoice amount within thirty (30) days following receipt of the invoice. Payment shall be withheld for any service which does not meet the requirements of this Contract or the associated Task Order, until such service is revised, the invoice resubmitted, and accepted by the cognizant Project Manager. Consultant's invoices shall include reference to "Contract Number 4600003488" and the associated Task Order Number. All original invoices shall be submitted electronically to [apgroup@ieua.org](mailto:apgroup@ieua.org). Should Consultant engage in any public works activity covered under California prevailing wage laws (California Labor Code §1720 et seq.) in excess of \$25,000.00 in billing value, Consultant shall provide with all public works invoicing certified payroll verifying that Consultant has paid prevailing wage in accordance with the Department of Industrial Relations (DIR) requirements as stipulated in SB854 and SB96 [<http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>].

6. **COMPENSATION AND CHANGES:** For the term of this Contract, all labor and expense rates used to develop each Task Order's price shall be consistent with those specified within Consultant's Proposal Schedule of Fees and Rates submitted in response to herein-referenced Request for Qualifications and attached as **Exhibit B**. Subject Schedule of Fees and Rates shall constitute the firm-fixed fees and rates established for time-and-material Task Order proposals for the first two (2) years of this Contract. Agency may, at any time, make changes to any Task Order Scope of Work, including additions, reductions, and changes to any or all of the Work, as directed in writing via a Task Order Amendment issued by Agency and executed by both Parties. The Task Order Amendment shall, if warranted, convey any associated change to the established Task Order price and/or schedule.

6.1 **PRICE ADJUSTMENTS:** For the first two (2) years of this Contract, there shall be no increases to Consultant's fees. Commencing on June 30, 2026, and continuing each June 30<sup>th</sup> thereafter, those fees provided for as **Exhibit B** shall be adjusted plus or minus equal to the percentage change in the Consumer Price Index (CPI) for All Urban Consumers in the Los Angeles-Anaheim-Riverside, California index area as provided for in this section. The basis for computing the adjustment to those fees in **Exhibit B** shall be the percentage change for the twelve (12)-month period from June to June starting with the period of June 2025 to June 2026 and continuing every twelve months thereafter. Despite any changes in the CPI for any given twelve (12)-month period, adjustments to those fees in **Exhibit B** shall not increase or decrease more than five (5) per cent during any single twelve (12)-month adjustment period.

In the event the CPI is changed so that the base period differs from 1967=100, then the index applied as provided for above shall be corrected in accordance with the conversion factor published by the United States Department of Labor, Bureau of Labor Statistics, or their successor. If the CPI is discontinued or revised, such other governmental index or computation with which it is replaced shall be used in order to obtain substantial result as would have been obtained if the CPI had not been discontinued or revised.

7. CONTROL OF THE WORK: Consultant shall perform the Work in compliance with the Task Order-specified Work Schedule. If performance of the Work falls behind schedule, Consultant shall accelerate the performance of the Work to comply with the Work Schedule as directed by the Project Manager. If the nature of the Work is such that Consultant is unable to accelerate the Work, Consultant shall promptly notify the Project Manager of the delay, the causes of the delay, and submit a proposed revised Work Schedule for consideration by the Project Manager.
8. FITNESS FOR DUTY:
- A. Fitness: Consultant's personnel on the Jobsite:
1. Shall report for work in a manner fit to do their job;
  2. Shall not be under the influence of or in possession of any alcoholic beverages or of any controlled substance (except a controlled substance as prescribed by a physician so long as the performance or safety of the Work is not affected thereby); and
  3. Shall not have been convicted of any serious criminal offense which, by its nature, may have a discernible adverse impact on the business or reputation of Agency.
  4. Compliance: Consultant shall advise all subconsultant and subcontractor personnel and associated third parties of the requirements of this Contract Section ("Fitness for Duty Requirements") before they enter on the Jobsite and shall immediately remove from the Jobsite any employee determined to be in violation of these requirements. Consultant shall impose these requirements on its subconsultants and subcontractors. Agency may cancel the Contract if Consultant violates these Fitness for Duty Requirements.
9. INSURANCE: During the term of this Contract, the Consultant shall maintain at Consultant's sole expense, the following insurance.
- A. Minimum Scope of Insurance: Coverage shall be at least as broad as:
1. Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required claim limit.
  2. Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code

- 1), or if Consultant has no owned autos, covering hired, (Code 8) and non-owned autos (Code 9), with limit no less than \$1,000,000 per accident for bodily injury and property damage.
  3. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.
  4. Professional Liability (Errors and Omissions): Insurance appropriate to the Consultant's profession, with limit no less than \$1,000,000 per occurrence or claim, \$2,000,000 aggregate.
- B. Deductibles and Self-Insured Retention: Any deductibles or self-insured retention must be declared to and approved by the Agency. At the option of the Agency, either: the insurer shall reduce or eliminate such deductibles or self-insured retention as respects the Agency, its officers, officials, employees and volunteers; or the Consultant shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.
- C. Other Insurance Provisions: The policies are to contain, or be endorsed to contain, the following provisions:
1. General Liability and Automobile Liability Coverage
    - a. Additional Insured Status: The Agency, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Consultant including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Consultant's insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).
    - b. Primary Coverage: The Consultant's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13 as respects the Agency, its officer, officials, employees and volunteers. Any insurance or self-insurance maintained by the Agency, its officers, officials, employees, volunteers, property owners or engineers under contract with the Agency shall be excess of the Consultant's insurance and shall not contribute with it.
    - c. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

d. The Consultant may satisfy the limit requirements in a single policy or multiple policies. Any such additional policies written as excess insurance shall not provide any less coverage than that provided by the first or primary policy.

2. Workers' Compensation and Employers Liability Coverage

The insurer hereby grants to Agency a waiver of any right to subrogation which any insurer of said Consultant may acquire against the Agency by virtue of the payment of any loss under such insurance. Consultant agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Agency has received a waiver of subrogation endorsement from the insurer.

3. All Coverages

Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, or cancelled by either party, except after thirty (30) days prior written notice has been given to the Agency.

D. Acceptability of Insurers: All insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, and who are admitted insurers in the State of California.

E. Verification of Coverage: Consultant shall furnish the Agency with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Agency before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Consultant's obligation to provide them. The Agency reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

F. Submittal of Certificates: Consultant shall submit all required certificates and endorsements to the following:

Inland Empire Utilities Agency, a Municipal Water District  
Email [insurance@ieua.org](mailto:insurance@ieua.org)

10. LEGAL RELATIONS AND RESPONSIBILITIES

A. Professional Responsibility: Consultant shall be responsible, to the level of competency presently maintained by other practicing professionals performing the same or similar type of work.

- B. Status of Consultant: Consultant is retained as an independent Consultant only, for the sole purpose of rendering the services described herein and is not an employee of Agency.
- C. Observing Laws and Ordinances: Consultant shall keep itself fully informed of all existing and future state and federal laws and all county and city ordinances and regulations which in any manner affect the conduct of any services or tasks performed under this Contract, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. Consultant shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect and indemnify, as required herein, Agency, its officers, employees and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by Consultant or its employees.
- D. Subcontracted Services: Any subcontracts for the performance of any services under this Contract shall be subject to the prior written approval of the Project Manager.
- E. Grant-Funded Projects: Consultant shall be responsible to comply with all grant and/or California State Revolving Funding (SRF) requirements related to any Task Order assignments. These may include but shall not be limited to: Davis-Bacon Act, Endangered Species Act, Executive Order 11246 (Affirmative Action Requirements), Equal Opportunity, Competitive Solicitation, Records Retention and Public Access to Records, and Compliance Review. If the Task Order is a Federally-funded project, the Contract Task Order shall have separate, additional Federally-compliant Agency-specific reporting accountability and flow-down requirements on the conditional use of funds.
- Consultant shall inquire for each Task Order issued if work is grant-funded, and shall request to be furnished any special language germane to the cognizant Project Manager's Task Order Request for Proposals.
- F. No Guarantee of Work: Consultant understands that there is no guarantee of subsequent Task Order assignments given or implied by entering into this Master Services Contract.
- G. Liens: Consultant shall pay all sums of money that become due from any labor, services, materials or equipment furnished to Consultant on account of said services to be rendered or said materials to be furnished under this Contract and that may be secured by any lien against Agency. Consultant shall fully discharge each such lien at the time performance of the obligation secured matures and becomes due.
- H. Indemnification: Consultant shall indemnify the Agency, its directors, employees, and assigns, and shall defend and hold them harmless from all liabilities, demands, actions, claims, losses and expenses, including reasonable attorneys' fees, which

arise out of or are related to the negligence, recklessness or willful misconduct of the Consultant, its directors, employees, agents and assigns, in the performance of work under this Contract, to the extent caused by Consultant's negligence or willful misconduct.

In addition to the above, Consultant will indemnify, defend, and hold Agency, its directors, employees, agents, and assigns harmless from all liabilities, losses, damages, claims, penalties, fines, costs, attorney's fees or other responsibilities incurred by the Agency (an "Indemnified Loss") as a result of the acts, errors or omissions, whether intentional, negligent or otherwise, of Consultant, its employees, and its consultants that result in claims against the Agency by Consultant's employees, consultants, and/or contractors for employment-related claims including but not limited to claims for wages, benefits, insurances, employee misconduct, workplace hostile environment, wrongful termination, discrimination or retaliation. Consultant will not be obligated to indemnify, defend, or hold harmless Agency for any liabilities, losses, damages, claims, penalties, fines, costs, attorney's fees or other responsibilities incurred by the Agency (a "Non-Indemnified Loss") as a result of claims made by Consultant's employees, consultants, and/or contractors against Agency arising out of the negligent, intentional, or reckless acts, errors or omissions of Agency and its employees.

- I. Conflict of Interest: No official of Agency who is authorized in such capacity and on behalf of Agency to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving this Contract, or any subcontract relating to services or tasks to be performed pursuant to this Contract, shall become directly or indirectly personally interested in this Contract.
- J. Equal Opportunity: During the performance of this Contract, Consultant shall not unlawfully discriminate against any employee or employment applicant because of race, color, religion, sex, age, marital status, ancestry, physical or mental disability, sexual orientation, veteran status or national origin.
- K. Extra Work: If at any time during the Task Order assignment, Consultant receives a direction which Consultant feels is outside the Task Order's Scope of Work, Consultant shall immediately notify Agency's Project Manager and obtain written direction. The Consultant shall receive no extra compensation for extra work unless Agency receives timely notification of Consultant's opinion that the work is outside of the contracted scope. If the nature of the direction is such that an investigation is required to determine if the work is outside Consultant's agreed upon scope, Consultant must notify Agency's Contract Administrator that the directed work appears to be outside the scope within fourteen (14) calendar days after receiving the direction from Agency personnel. If Agency does not receive a request for additional compensation within the fourteen (14) calendar days, Consultant shall not receive extra compensation for extra work performed. Extra work performed without authorization shall be at Consultant's sole cost.

- L. Non-Conforming Work: Consultant represents that the Work and Documentation shall meet the standard of care of Consultant's profession. For a period of not less than one (1) year after acceptance of the completed Work, Consultant shall, at no additional cost to Agency, correct any and all agreed-to errors in the Work or Documentation, regardless of whether any such errors are brought to the attention of Consultant by Agency, or any other person or entity. Consultant shall within three (3) calendar days, correct any error that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error. Upon request of Agency, Consultant shall correct any such error deemed important by Agency in its sole discretion to Agency's continued use of the Work or Documentation within seven (7) calendar days after Consultant's receipt of notice of the error. If the Project Manager rejects all or any part of the Work or Documentation as unacceptable and agreement to correct such Work or Documentation cannot be reached without modification to the Contract, Consultant shall notify the Project Manager, in writing, detailing the dispute and reason for Consultant's position. Any dispute that cannot be resolved between the Project Manager and Consultant shall be resolved in accordance with the provisions of this Contract.

The Consultant's liability with respect to any claims arising out of the Work and the Consultant shall bear no liability whatsoever for any consequential loss, injury or damage incurred by the Agency, including but not limited to, claims for loss of use, loss of profits and loss of markets.

M. Disputes:

1. All disputes arising out of or in relation to this Contract shall be determined in accordance with this section. Consultant shall pursue the work to completion in accordance with the instruction of Agency's Project Manager notwithstanding the existence of dispute. By entering into this Contract, both parties are obligated, and hereby agree, to submit all disputes arising under or relating to the Contract which remain unresolved after the exhaustion of the procedures provided herein, to mediation.
2. Any and all disputes during the pendency of the work shall be subject to resolution by Agency Project Manager, and Consultant shall comply, pursuant to Agency Project Manager instructions. If Consultant is not satisfied with any such resolution by Agency's Project Manager, they may file a written protest with Agency's Project Manager within seven (7) calendar days after receiving written notice of Agency's decision. Failure by Consultant to file a written protest within seven (7) calendar days shall constitute waiver of protest, and acceptance of Agency Project Manager's resolution. Agency's Project Manager shall submit Consultant's written protests to the General Manager, together with a copy of Agency Project Manager's written decision, for his or her consideration within seven (7) calendar days after receipt of said

protest(s). The General Manager shall make his or her determination with respect to each protest filed with Agency Project Manager within ten (10) calendar days after receipt of said protest(s). If Consultant is not satisfied with any such resolution by the General Manager, they may file a written request for mediation with the Project Manager within seven (7) calendar days after receiving written notice of the General Manager's decision.

3. In the event of mediation, the parties hereto agree that there shall be a single neutral Mediator who shall be selected in the following manner:
  - a. The Demand for a Mediator shall include a list of five names of persons acceptable to Consultant to be appointed as Mediator. Agency shall determine if any of the names submitted by Consultant are acceptable and, if so, such person shall be designated as Mediator.
  - b. In the event that none of the names submitted by Consultant are acceptable to Agency, or if for any reason the Mediator selected in Step (a) is unable to serve, Agency shall submit to Consultant a list of five names of persons acceptable to Agency for appointment as Mediator. Consultant shall, in turn, have seven (7) calendar days in which to determine if one such person is acceptable.
4. Joinder in Mediation/Arbitration: Agency may join Consultant in mediation or arbitration commenced by an agreement mediator on the Project pursuant to Public Contracts Code Sections 20104 et seq. Such joinder shall be initiated by written notice from Agency's representative to Consultant.

N. Prevailing Wages: The work associated with this Contract shall be subject to the prevailing wage requirements specified within Section 1770 of the California Labor Code, if applicable. The selected Consultant shall not pay its employees assigned to this project less than the general prevailing wage rates, as determined by the Director of the State of California Department of Industrial Relations, for the locality in which the work is to be performed, and for each craft or type of worker needed to execute the work contemplated under this Contract, should the work be designated as Public Works or a Public Project (CAL PCC Section 22002.) In accordance with the Labor Code, Agency has on file a schedule of prevailing wage rates for the types of work covered by this Contract.

Consultant, or any subConsultant performing part of the Work, shall strictly adhere to all provisions of the Labor Code, including, but not limited to minimum days, work days, nondiscrimination, apprentices, maintenance, and availability of accurate payroll records and any other matters required under Federal, State, or local laws related to labor.

O. CERTIFICATION UNDER LABOR CODE SECTION 1861 BY CONSULTANT: I, the undersigned Consultant, am aware of the provisions of Section 3700 et seq. of the Labor Code which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Consultant, agree to and will comply with such provisions before commencing the performance of the work of this Contract or any subsequent Task Orders.

11. OWNERSHIP OF MATERIALS AND DOCUMENTS/CONFIDENTIALITY: Agency retains ownership of any and all partial or complete reports, drawings, plans, notes, computations, lists, and/or other materials, documents, information, or data prepared by Consultant and/or the Consultant's subConsultant(s) pertaining to this Contract. Said materials and documents are confidential and shall be available to Agency from the moment of their preparation, and Consultant shall deliver same to Agency whenever requested to do so by the Project Manager and/or Agency. Consultant agrees that same shall not be made available to any individual or organization, private or public, without the prior written consent of Agency. Any reuse of such documents for other than the specific purpose, intended as stated herein, shall be at the sole risk of the user, and without liability or legal exposure to Consultant.

Notwithstanding any provision to the contrary contained in this Contract, Consultant shall retain sole ownership to its preexisting information including but not limited to computer programs, software, standard details, figures, templates and specifications.

When transferring data in electronic media format, Consultant makes no representation as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by Consultant at the beginning of the Project.

Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it shall perform acceptance tests or procedures within sixty (60) days of receipt, after which Agency shall have deemed to have accepted the data transferred. Any errors detected within the sixty days shall be corrected by Consultant at no additional cost to Agency. Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by Agency. The original hard copy of the documents containing the professional engineer's seal shall take precedence over the electronic documents.

12. PUBLIC RECORDS POLICY: Information made available to Agency may be subject to the California Public Records Act (Government Code Section 6250 et seq.) Agency's use and disclosure of its records are governed by this Act. Agency shall use its best efforts to notify Consultant of any requests for disclosure of any documents pertaining to Consultant.

In the event of litigation concerning disclosure of information Consultant considers exempt

from disclosure; (e.g., Trade Secret, Confidential, or Proprietary) Agency shall act as a stakeholder only, holding the information until otherwise ordered by a court or other legal process. If Agency is required to defend an action arising out of a Public Records Act request for any of the information Consultant has marked "Confidential," "Proprietary," or "Trade Secret," Consultant shall defend and indemnify Agency from all liability, damages, costs, and expenses, including attorneys' fees, in any action or proceeding arising under the California Public Records Act.

13. TITLE AND RISK OF LOSS:

- A. Documentation: Title to the Documentation shall pass to Agency when prepared; however, a copy may be retained by Consultant for its records and internal use. Consultant shall retain such Documentation in a controlled access file, and shall not reveal, display or disclose the contents of the Documentation to others without the prior written authorization of Agency or for the performance of Work related to the project.
- B. Material: Title to all Material, field or research equipment, and laboratory models, procured or fabricated under the Contract shall pass to Agency when procured or fabricated, and such title shall be free and clear of any and all encumbrances. Consultant shall have risk of loss of any Material or Agency-owned equipment of which it has custody.
- C. Disposition: Consultant shall dispose of items to which Agency has title as directed in writing by the Contract Administrator and/or Agency.

14. PROPRIETARY RIGHTS:

- A. Rights and Ownership: Agency's rights to inventions, discoveries, trade secrets, patents, copyrights, and other intellectual property, including the Information and Documentation, and revisions thereto (hereinafter collectively referred to as "Proprietary Rights"), used or developed by Consultant in the performance of the Work, shall be governed by the following provisions:
  - 1. Proprietary Rights conceived, developed, or reduced to practice by Consultant in the performance of the Work shall be the property of Agency, and Consultant shall cooperate with all appropriate requests to assign and transfer same to Agency.
  - 2. If Proprietary Rights conceived, developed, or reduced to practice by Consultant prior to the performance of the Work are used in and become integral with the Work or Documentation, or are necessary for Agency to have complete enjoyment of the Work or Documentation, Consultant shall grant to Agency a non-exclusive, irrevocable, royalty-free license, as may be required by Agency for the complete enjoyment of the Work and Documentation,

including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation.

3. If the Work or Documentation includes the Proprietary Rights of others, Consultant shall procure, at no additional cost to Agency, all necessary licenses regarding such Proprietary Rights so as to allow Agency the complete enjoyment of the Work and Documentation, including the right to reproduce, correct, repair, replace, maintain, translate, publish, use, modify, copy or dispose of any or all of the Work and Documentation and grant sublicenses to others with respect to the Work and Documentation. All such licenses shall be in writing and shall be irrevocable and royalty-free to Agency.

B. No Additional Compensation: Nothing Set forth in this Contract shall be deemed to require payment by Agency to Consultant of any compensation specifically for the assignments and assurances required hereby, other than the payment of expenses as may be actually incurred by Consultant in complying with this Contract.

15. INFRINGEMENT: Consultant represents and warrants that the Work and Documentation shall be free of any claim of trade secret, trademark, trade name, copyright, or patent infringement or other violations of any Proprietary Rights of any person.

Consultant shall defend, indemnify and hold harmless, Agency, its officers, directors, agents, employees, successors, assigns, servants, and volunteers free and harmless from any and all liability, damages, losses, claims, demands, actions, causes of action, and costs including reasonable attorney's fees and expenses arising out of any claim that use of the Work or Documentation infringes upon any trade secret, trade mark, trade name, copyright, patent, or other Proprietary Rights.

Consultant shall, at its expense and at Agency's option, refund any amount paid by Agency under the Contract, or exert its best efforts to procure for Agency the right to use the Work and Documentation, to replace or modify the Work and Documentation as approved by Agency so as to obviate any such claim of infringement, or to put up a satisfactory bond to permit Agency's continued use of the Work and Documentation.

16. NOTICES: Any notice may be served upon either party by delivering it in person, or by depositing it in a United States Mail deposit box with the postage thereon fully prepaid, and addressed to the party at the address set forth below:

Agency: Warren T. Green  
Manager of Contracts and Procurement  
Inland Empire Utilities Agency, a Municipal Water District  
P.O. Box 9020  
Chino Hills, California 91709

Consultant: Chris Schleich  
Project Manager  
E Tech Group, LLC  
600 E Main Street  
Vacaville, California 95688

Any notice given hereunder shall be deemed effective in the case of personal delivery, upon receipt thereof, or, in the case of mailing, at the moment of deposit in the course of transmission with the United States Postal Service.

17. SUCCESSORS AND ASSIGNS: All of the terms, conditions and provisions of this Contract shall inure to the benefit of and be binding upon Agency, Consultant, and their respective successors and assigns. Notwithstanding the foregoing, no assignment of the duties or benefits of Consultant under this Contract may be assigned, transferred or otherwise disposed of without the prior written consent of Agency; and any such purported or attempted assignment, transfer or disposal without the prior written consent of Agency shall be null, void and of no legal effect whatsoever.
18. RIGHT TO AUDIT: Agency reserves the right to review and/or audit all Consultants' records related to the work assigned by subsequent Task Orders. The option to review and/or audit may be exercised during the term of the Contract, upon termination, upon completion of the Contract, or at any time thereafter up to twelve (12) months after final payment has been made to Consultant. Consultant shall make all records and related documentation available within three (3) working days after said records are requested by Agency.
19. INTEGRATION: The Contract Documents represent the entire agreement of Agency and Consultant as to those matters contained herein. No prior oral or written understanding shall be of any force or effect with respect to those matters covered by the Contract Documents. This Contract may not be modified, altered or amended except by written mutual agreement by Agency and Consultant.
20. GOVERNING LAW: This Agreement is to be governed by and constructed in accordance with the laws of the State of California. Except as otherwise provided herein, the Parties each irrevocably consent that any legal action or proceeding arising under or relating to this Contract shall be brought in either the federal court of the United States District Court for the Central district, Ninth Circuit of California (or if federal jurisdiction is not available, in state court located in the County of San Bernardino, State of California) and hereby waives any objection which it now or may in the future have to any of such courts as the proper forum for any action arising under or relating to this Contract.
21. TERMINATION FOR CONVENIENCE: Agency reserves and has the right to immediately suspend, cancel or terminate this Agreement at any time upon written notice to Consultant. In the event of such termination, Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination.

- 22. FORCE MAJEURE: Neither party shall hold the other responsible for the effects of acts occurring beyond their control; e.g., war, riots, strikes, natural disasters, et cetera.
- 23. NOTICE TO PROCEED: No services shall be performed or furnished under this Master Services Contract unless and until a Task Order has been issued, properly signed by the responsible parties, and a Notice to Proceed order has been issued to Consultant.
- 24. AGENCY-PROVIDED INFORMATION AND SERVICES: The Agency shall furnish Consultant available studies, reports and other data pertinent to Consultant's services; obtain or authorize Consultant to obtain or provide additional reports and data as required; furnish to Consultant services of others required for the performance of Consultant's services hereunder, all subject to Agency's prior approval, and Consultant shall be entitled to use and rely upon all such information and services provided by the Agency or others in performing Consultant's services under this Agreement.
- 25. THIRD PARTIES: The services to be performed by Consultant are intended solely for the benefit of the Agency. No person or entity not a signatory to this Agreement shall be entitled to rely on Consultant's performance of its services hereunder, and no right to assert a claim against Consultant by assignment of indemnify rights or otherwise shall accrue to a third party as a result of this Agreement of the performance of Consultant's services hereunder.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be entered as of the day and year written above.

**INLAND EMPIRE UTILITIES AGENCY:**  
(a Municipal Water District)

**E TECH GROUP, LLC:**

\_\_\_\_\_  
Shivaji Deshmukh  
General Manager

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
Stan Reyna  
Vice President, LS West

\_\_\_\_\_  
(Date)

# Exhibit A



Date: July 8, 2020

Task Order Number: 1

Consultant: XXXXXXXXXXXXX

Contract Number: 460000XXXX

Project / Task Description: XXXXXXXXXXXXX

## I. RECITALS

This Task Order is issued for the procurement of engineering consulting services needed in support of the Inland Empire Utilities Agency (hereinafter interchangeably “IEUA” and “Agency”) Project Number XXXXX.

Agency and Consultant previously entered into Master Services Contract No. 460000XXXX. Except as otherwise specified herein, all terms and conditions of that Agreement are incorporated into this Task Order via this reference.

## II. TASK ORDER AGREEMENTS

1. Scope of Work: Consultant shall furnish the qualified personnel, equipment, materials, and supplies necessary to perform the work as outlined in **Exhibit A**, which is attached hereto, referenced herein, and made a part hereof.
2. Period of Performance: The term of this Task Order shall extend from the date of the Notice to Proceed and shall terminate on completion of the Work as per the cognizant IEUA Project Manager, unless agreed to by both parties, reduced to writing, and amended to this Task Order.
3. Compensation: Authorized total payments to Consultant for performance of this Task Order shall sum to a **not-to-exceed maximum total of \$XXXXX.00** as estimated in Consultant’s proposal, **Exhibit A**, attached hereto, reference herein, and made a part hereof, and as approved by SAP Purchase Requisition 100XXXXX. (NOTE: Labor rates are based on submitted rates included in the Master Contract.)
4. Assigned Personnel: The below-listed named personnel are assigned to direct the performance of this Task Order on behalf of the respective Parties:

PROJECT MANAGER ASSIGNMENT: All technical direction related to this Task Order shall come from the designated Project Manager. Details of Agency's assignment are listed below:

Project Manager: Name  
Address: 6075 Kimball Avenue, Building "B"  
Chino, California 91708  
Telephone: (909) 993-XXXX  
Facsimile: (909) 993-1982  
Email: [@ieua.org](mailto:ieua.org)

CONSULTANT ASSIGNMENT: Special inquiries related to this Agreement and the effects of this Agreement shall be referred to the following:

Project Manager: Name  
Address: XXXX Blank St.  
City, State Zip Code  
Telephone: (999) 999-9999  
Email: [XXXX@XXX.XXX](mailto:XXXX@XXX.XXX)

5. Task Order Modifications: No communication, either written or oral, by other than written and bi-laterally executed change order shall be effective to modify or otherwise affect the provisions of this Task Order.

### III. SIGNATURES

**INLAND EMPIRE UTILITIES AGENCY:**  
**(A Municipal Water District)**

**XXXXXXXXXX:**

\_\_\_\_\_  
Warren T. Green  
Manager of Contracts and Procurement

\_\_\_\_\_  
Name  
Position

Date: \_\_\_\_\_

Date: \_\_\_\_\_

# Exhibit B

Proposal Number 32-0220, Rev 0

**RFQ-JV-24-001 SCADA Integration Services RFQ  
for Capital Improvement Projects**

Prepared For  
**Inland Empire Utilities Agency**



Prepared by:



A PlantPAx Certified Company



**CONFIDENTIAL**

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## COVER LETTER

E Tech Group is pleased to provide **Inland Empire Utilities Agency (IEUA)** with this proposal for **RFQ-JV-24-001 SCADA Integration Services RFQ**. This proposal provides IEUA with an overview of E Tech Group's capabilities and project methodologies which are strongly aligned with IEUA's requested services we offer for the incoming modernization and updates for the PlantPax Control System as well as migrations for the existing Invensys – former Foxboro – System. We are committed to delivering comprehensive services, including:

- ✓ Engineering and Design Services
- ✓ PlantPax Programming and Configuration Services
- ✓ Panel Design, Manufacturing & Installation Services
- ✓ IO/OT Infrastructure and Cybersecurity
- ✓ Start-Up and Testing Services
- ✓ General Electrical/Control systems Consulting Services
- ✓ Project Management

E Tech can provide support from multiple offices in California, with over 100 engineers based in our state, including at least 14 located in Southern California. Additionally, E Tech operates panel shops in Modesto, CA and Longview, TX, both certified to provide UL listings.

### ***About E Tech Group***

[E Tech Group](#) stands as a leading control engineering and systems integration firm, serving North America with unparalleled expertise in delivering seamless automation projects across various platforms.

Our workforce exceeds 600 professionals, with over 130 based in California, ensuring a deep knowledge to adeptly handle automation projects across industries including Mission Critical & Water/Wastewater, Consumer Packaged Goods, Metals/Mining, Material Handling, Life Sciences, and Food & Beverage.

For over 30 years we have been providing engineered process automation solutions for water and wastewater. Here are what we offer to the Inland Empire Utilities Agency:

- **Rockwell Automation Partnership:** E Tech Group is well-versed in cutting-edge technologies such as PlantPax, Logix Controller Family, FactoryTalk software Suites and others.
- **Versatile Solutions:** We can provide a unique advantage by delivering turn-key automation solutions to customized consulting and technical support.
- **Safety Compliance:** We take pride in our exceptional safety record of 1,500,000+ man-hours with zero Lost Time Accidents in the last two years.
- **Supply Capabilities:** Our comprehensive scope encompasses design, engineering, consulting, turnkey project execution, and post-sales services, addressing all your project needs.
- **Technology Solutions:** From manufacturing of control panels to integrating wireless systems, instrumentation, services for DCS, SCADA, and PLC/RTU, and for HMI interfaces.
- **Multiple Certification:** Our CSIA-certified internal quality system reflects our commitment to maintaining high standards. PMP-certified Project Managers successfully manage numerous projects, including multi-million-dollar endeavors.
- **Contractor License:** E Tech Group maintains a C-10 License # 1057289, currently registered under Ind. Automation Group, in progress of being changed to E Tech Group.

### Water & Wastewater Experience

In addition to our 30+ years' experience, it's imperative to recognize the 21+ years of expertise brought by [Glenmount Global Solutions](#) (formally FluidIQs), acquired in 2018, particularly in the Mission Critical and Water & Wastewater industries. Our significant projects and applications in these sectors, both nationally and within our state, underscore our prowess. With over hundreds of projects completed nationwide, we demonstrate our industry-leading capabilities.

### Rockwell Automation Partnership

We're honored to stand out as one of the esteemed [Rockwell Automation PlantPax Certified System Integrators](#) in California. E Tech proudly holds the distinguished title of Gold Solution Partner with Rockwell Automation, underscoring our standing as a premier system integrator within the Rockwell platform.

Rockwell Automation's system integrator program offers varying levels of participation, but the Solution Partner designation is exclusively bestowed upon companies showcasing the requisite knowledge, resources, and expertise to deliver outstanding manufacturing solutions. Our proficiency in Rockwell Automation Technology encompasses PLC, HMI, SCADA, the Factory Talk software family, and PlantPAX.

What truly sets us apart is our dedicated team of over 30 highly experienced and trained local engineers in California, specializing in Rockwell Automation technologies. We also achieved full certification in [PlantPax 5.0 and FTBatch](#), further fortifying our capabilities to provide our clients with state-of-the-art solutions.

E Tech Group bases this proposal's contents on IEUA's Request for Proposal released on 02/21/2024 under the invitation #RFQ-JV-24-001.

#### Revision History

Rev. No.	Date	Proposal Section	Change Description
0	04/02/2024	N/A	Initial Revision.

Please direct any questions concerning this proposal to:

**Chris Schleich**, Director of Operations  
E Tech Group  
Phone: (949) 414-6075  
Email: [cschleich@etechgroup.com](mailto:cschleich@etechgroup.com)



**Patricio Gomez**, Business Development Manager  
E Tech Group  
Phone: (949) 294-4775  
Email: [pgomez@etechgroup.com](mailto:pgomez@etechgroup.com)



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## **1 SECTION 1 – INTRODUCTION**

IEUA is seeking a partner who not only has a clear and intentional project approach but also has the experience to maximize a true integrator-client partnership. E Tech specializes in these areas.

Our approach to all projects is based on a standard methodology developed over the past 30 years. Leveraging its effectiveness, we have earned the trust and credibility required to act as an extension of staff for many of our clients and are routinely called to do so.

We provide full turn-key Instrumentation and Controls engineering packages for our clients. We work closely with our clients' staff to provide a comprehensive design that meets all their process control system requirements.

Along with detailed engineering, we provide our clients with onsite engineering support and construction management. Our team of Instrumentation and Controls engineers can meet your project's needs. Some examples of our scope are:

### **1.1 Core Competencies**

#### **1.1.1 Engineering and Consulting**

- Feasibility Studies and Conceptual Design
- Equipment and Instruments Specifications
- Legacy System Upgrade Studies, Gap Analysis
- Design for Automation system architecture for SCADA/PLC or DCS topologies
- Create and document automation standards for PLC and graphic objects
- IT/OT infrastructure design for VMWare high-availability installations
- Generation of full control panel design package
- I/O list development and IO assignment strategy
- Design of system network infrastructure, loop diagrams and field wiring diagrams
- Design and specification of all motor control hardware and wiring

#### **1.1.2 Control System Deployment**

- Project Management
- PlantPAX DCS Implementation
- Process Automation applications with DCS and PLC and HMI
- Batch and information solutions
- MES Solution implementation and support
- Legacy system upgrades implementation
- Process and document standardization
- OEM Skids and System Integration
- Factory & Site Acceptance Testing, Site Commissioning

### 1.1.3 Services and Support

- Electrician via our Modesto office
- Contracting Services for heavy workload periods
- Staff Augmentation for internal projects
- Documentation Services
- Plant floor cybersecurity.
- Testing and Qualification
- On-Site and Remote maintenance and engineering support
- Construction support
- Safety systems
- 24x7 Ongoing Support
- Customer Training

We are proud to offer our expertise and experience gained from numerous projects and applications in the Water and Wastewater industry. E Tech Group has worked with brand-new facilities as well upgrading legacy control systems. From irrigation water, treatment plants, wastewater plants, distribution, and other applications.

Outdated systems can become liabilities if not replaced or upgraded with modern solutions. E Tech Group can advise and implement an advanced plan to modernize IEUA their legacy system, including:

- Reviewing system, component, network, and architecture designs with the manufacturer,
- Migrating software and firmware
- Modernizing PlantPAX DCS, Legacy PLC and SCADA
- Assessing IT/OT integration and conducting cybersecurity asset risk analysis,
- Creating retrofit design packages for hardware and panel upgrades,
- Developing retrofit commissioning plans for upgraded applications,
- Manufacturing control and I/O panels,
- Programming and configuring automation technology,
- Conducting Site Acceptance Tests, Commissioning, and providing Training,
- Compiling comprehensive System Documentation.

Our commitment is to support our customers in maintaining safe and reliable systems through automated controls and facility upgrades, ensuring that water treatment plants and facilities remain optimal and easily manageable in the long term.

## 2 SPECIALIZED EXPERIENCE AND CAPABILITIES

### 2.1 Core Experience with PlantPAx and Rockwell Automation

We have been Rockwell Automation partner with more than 15 years in different technologies, especially with PlantPAx System. We hold the PlantPAx 5.0 Certification.

We provide 5 certified engineers and more than 10 fully trained in diverse PlantPAx aspects. Many of our team members have 5 or more years of experience in Rockwell Technology. We have executed more than 15 PlantPAx Projects in complex industries such as Life Sciences.

Our experience compresses the following:

- FEED Study
- Road Mapping
- Design & Development
- Implementation
- Consultation
- Embedded Engineers
- Management
- Rockwell Training
- Skid Vendor Collaboration

After several successful installations and completed audits, we are now one of the first integrators to become Rockwell PlantPAx 5.0 certified.

The following are some of the recent PlantPAx Process System project for an average of \$2M each:

- **Life Science Customer (2022)** - designed, programmed, furnished, and commissioned PlantPAx system for chemical Reactors, Hot/Cold System
  - PlantPAx System Design for 1000+ IO, 10 Controllers, 10 HMIs
  - Redundant FT View SE servers
  - FT Historian Integration (Redundant)
  - FT AssetCentre Integration
  - Win-911 Integration
  - Programming
  - Testing
  - Validation
  - Startup

- **Life Science Customer (2023)** - Designed, programmed, furnished, and commissioned PlantPax system for Solvent Distribution and process:
  - FEED
  - PlantPax System Design for 1500+ IO,
  - FT View SE Redundant servers
  - FT Historian Integration (Redundant)
  - FT AssetCentre Integration
  - Programming and configuration
  - Testing and Validation
  - Documentation according to FDA
  - Commissioning and Startup
  
- **Life Science Customer (2022)** Designed, programmed, furnished, and commissioned PlantPax system for Hazardous Monitoring and Control system:
  - PlantPax System Design for 1200+ IO, 150+ Modbus device integration
  - FT View SE Servers
  - FT Historian Integration
  - FT AssetCentre Integration
  - Programming and configuration
  - Testing and Validation
  - Documentation according to FDA
  - Commissioning and Startup
  
- **Cultivated Meat Customer (2022)** - Designed, programmed, furnished, and commissioned PlantPax system for Process of cultivated Meat:
  - PlantPax 5.0 System Design & Control Process Design for 900+ IO
  - FTView SE Servers
  - FTBatch Servers
  - FT Historian Integration
  - FT AssetCentre Integration
  - Programming and configuration
  - Testing and Validation
  - Commissioning and Startup
  
- **Utilities and CIP Upgrade (2022)** - designed, programmed, integrated, and commissioned PlantPax based Process Automation System (PAS) for a new Ambient WFI generation, storage, and distribution system and DeltaV CIP recipes:
  - Design integrates Rockwell PlantPax utilities with DeltaV controls on the CIP.
  - Designed, programmed, and commissioned using PlantPax 5.0 and GMP standard.
  - This effort includes PlantPax configuration, DeltaV configuration, AssetCentre configuration, Historian Configuration, Win911 configuration, OSI-PI interface, construction support, commissioning, and qualification of the AWFI system and CIP recipes.
  - Design supported communication between multiple panels and required coordination with multiple skid and equipment vendors to successfully commission the project.

## **2.2 Water and Wastewater Experience and capabilities**

### **2.2.1 General:**

In 2018, E Tech Group expanded its primary operations by acquiring Glenmount Global Solutions (GGS), headquartered in Austin, Texas and established in 2003. GGS specialized in delivering advanced control and automation solutions tailored for various sectors, including process and discrete manufacturing, as well as municipal and high-reliability applications in the Water and Wastewater industry.

With a track record of over 3000 successful applications and projects, this acquisition bolstered our team with invaluable expertise, solidifying our position in the industry.

Glenmount Global Solutions, provided a range of services including system architecture design, project management, instrumentation, consulting, automation, asset management, staff augmentation, and training. Their focus was on enhancing efficiency, quality, and safety across different industries.

Following the acquisition, Glenmount Global Solutions seamlessly integrated into E Tech Group, continuing its work in automation and controls engineering. This evolution consolidated their commitment to delivering cutting-edge solutions for industrial applications. If you have any business goals or require assistance, our team of experts at E Tech Group is readily available to support you.

Given our extensive experience and expertise in the Water and Wastewater industry, we are well-positioned to offer tailored solutions to meet your specific needs as follow:

- Coordination instrumentation and control design with engineering firms.
- We have many Rockwell PlantPAx certified engineers.
- Control panel design, Motor Control Center design.
- Develop loop and interconnect wiring diagrams.
- SCADA system network configuration.
- Install and commission radio and cellular telemetry solutions.
- We currently support multiple customers that utilize data concentrator PLCs.
- We have AVEVA System Platform certified team members.

We prioritize building and maintaining the relationship with our customers, with quality system deployment. Our team works from a Design-Build approach, working directly with the client to develop the scope of work and design.

### 2.2.2 W/WW Projects:

- **Dublin San Ramon Services District** - designed, programmed, furnished, and commissioned replacement SCADA system:
  - o The system consists of 43 water/recycled water/wastewater remote sites comprised of potable water pump stations, tanks, turnouts, recycled water pump stations, and sewer lift stations.
  - o Configured and commissioned the communication network - 18 GHz microwave radio backbone ring with 4.9 GHz access points and subscriber radios.
  - o Developed the HMI (GE iFix) and PLC (Rockwell Automation) programming standards.
  - o Configured the virtualized environment for the new SCADA system which consists of redundant SCADA servers, three tiered historians, and redundant remote access servers.
  - o We kept the existing system running in parallel with the new system and cutover each site from the old to the new system.
  
- **Kauai Department of Water** - designed, programmed, furnished, and commissioned a Water storage and distribution SCADA system:
  - o Currently contracted to maintain the system and perform the controls work for new projects.
  - o Approximately 100 remote tank/well/booster/valve sites around the Island.
  - o Configured and commissioned the communication network - frame-relay backbone with multiple 900 MHz radio systems and cellular modems.
  - o Developed the HMI (AVEVA InTouch) and RTU (Schneider Electric SCADAPack) programming standards.
  - o Configured the virtualized environments for the new SCADA system which consists of redundant SCADA servers, historian, remote access server, and domain controllers.
  
- **Kauai Department of Public Works** - designed, programmed, furnished, and commissioned a Wastewater collection and treatment SCADA system:
  - o Currently contracted to maintain the system and perform the controls work for new projects.
  - o 4 treatment plants and 17 remote sewer pump station sites around the Island.
  - o Configured and commissioned the communication network - fiber-optic backbone with multiple 900 MHz licensed radio systems and Ethernet extenders.
  - o Developed the HMI (AVEVA System Platform) and PLC (Rockwell Automation) programming standards.
  - o Configured the virtualized environments for the new SCADA system which consists of redundant SCADA servers, historian, remote access server, and clients.

- **Paradise Irrigation District SCADA System Upgrade** – Designed, programmed, furnished, and commissioned an Irrigation System, Upgrade:
  - Develop upgrade design upgrade the MRP main to a redundant PLC.
  - Convert the existing WWP and RWPS L34 controllers to Ethernet/IP remote I/O and move the control logic into the MRP PLC program.
  - Modify the plant air system control panel to allow PLC control of the compressors.
  - Create PIDs in the PLC program for the standpipe level controller and backwash flow controller to be used instead of the physical local PID controllers.
  - Furnish the control panel materials needed to implement the final design.
  - Develop a retrofit commissioning plan detailing the sequence of the work.
  - Submit record drawings upon completion of the retrofit.

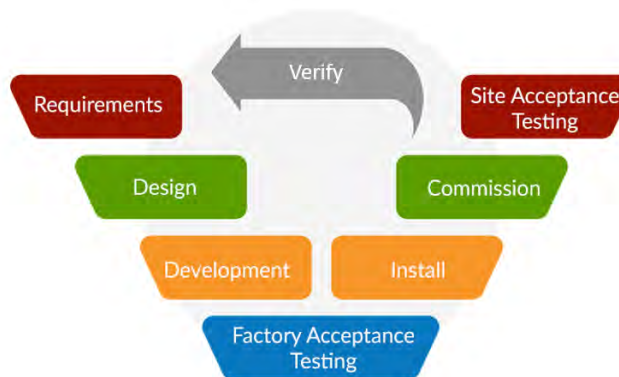
### 2.3 Core Engineering Philosophy

The foundation for E Tech’s exceptional project execution record stems from focus on effective Project Management. E Tech has a Project Management Office (PMO) which standardizes project execution in the framework provided by the Project Management Institute (PMI) and audits active projects for scope, budget, schedule, and risk performance. E Tech screens Project Managers based on their capability to be client-focused, detailed, and proactive.

E Tech's project methodology follows a 'validation framework' for computerized systems, ideal for mission-critical environments where safety, health, and environmental protection are paramount.

This approach ensures analysis before design, transparent project scope, client control over the solution, assured quality, and thorough documentation to support operations long-term. The summary for the framework is simple:

1. Document what you are going to do.
2. Do what you said you would do.
3. Prove you did what you said you would do.



**Figure: Validation Framework for Computerized Systems**

This framework is essential, not a luxury reserved for large organizations. It ensures the quickest, most secure, and most effective approach to developing mission-critical automation systems.

The contrast is stark against System Integrators (SI) without a disciplined methodology – necessary operator functionalities are overlooked, more errors are made, and the end-user often accrues avoidable technical debt. This approach compromises the end-users' capacity for maintenance, troubleshooting, change control, and future expansion.

## 2.1 IEUA Involvement

The assigned Project Manager and Project Technical Lead will be the primary contacts for IEUA: coordinating schedule, organizing submittals, preparing for site visits, and maintaining expectations with IEUA and their other contractors throughout the life of the project.

The following techniques are effective E Tech practices to engage IEUA stakeholders to ensure proposed designs meet IEUA requirements:

### 2.1.1 Documentation Submittals and Feedback Review

For all designs E Tech will submit documentation to our clients to review; typically allowing our client up to two weeks for feedback. In most cases, a review webinar, conference call, or workshop will be scheduled so that our client can discuss the notes from their submittal review. Subsequently, E Tech will incorporate those review notes into the final document.

These submittal and review cycles are taken very seriously as they typically represent an inflection point, where changes to the design after this point become considerably more expensive to execute.

### 2.1.2 Workshops

Client workshops are one of the most productive tools the E Tech project team and PM must collect and discuss client feedback from all key stakeholders and decision-makers associated with a project. Workshops can be held at any stage of a project but are most useful prior to developing design documentation and deployment, so clear execution plans are established for startup. All stakeholders, including consultants and contractors, are expected to attend all relevant workshops.

## 2.2 Quality Assurance Program

The 'E Tech Playbook' is a highly mature and proprietary Quality system that guides E Tech employees through a proven process of project execution. The system includes descriptions of all internal policies and procedures related to human resources, safety, work order execution, office, management, business development, quality, and information systems management.

### 2.2.1 Project Execution

For projects, the **Project Execution** section of E Tech Playbook includes standard operating procedures which are followed to maintain a consistent, repeatable, and controlled process for project execution. The Project Execution section index follows:

#### **Order Processing**

- Project Setup
- Allocation of Resources

#### **Project Deployment**

- Project Management
- Procurement
- Design
- Development
- System Testing
- Startup

#### **Project Completion**

- Project Close-out
- Final Documentation
- Project Narrative
- Client Survey
- Project Review

#### **Project Maintenance**

- Client Complaints
- Document and Software Change Control

**Service and Support**

- Engineering Service Contracts
- Support Contracts
- Preventive Maintenance Contracts
- Documentation Templates
- Project Backups and Archiving
- Instrument Calibration

Quality audits are performed on each project at its initiation, at the 50% completion mark, and at the end of the project. In addition, E Tech mandates monthly safety and quality system training for all staff.

*“We, the associates of E Tech Group, are committed to providing our customers with products and services that meet or exceed their expectations. We shall strive for excellence and continuous improvement in all endeavors. We make every effort to thoroughly understand our customer's requirements and to provide the best solutions to meet those requirements. We will provide a working environment that enables our employees to perform quality work.”*

### 3 COMPANY QUALIFICATIONS

E Tech has an experienced and highly motivated staff available to ensure project tasks are executed consistent with our quality process. The following is the roster of core personnel to assign to IEUA’s projects as required. Additional staff are available and could be allocated as needed. Detailed resumes are provided following this table.

#### 3.1 Rockwell Automation Certification



Having competencies across the Rockwell Automation disciplines developed and maintained through a high level of implementation success, E Tech Group has achieved recognition as a Rockwell Gold System Integrator.

E Tech Group has over thirty years of experience, and thousands of Rockwell installations, giving us the breadth and depth of knowledge on the complete Rockwell technology suite – past and present. Combined with application expertise acquired across multiple key industries, E Tech Group attained the prestigious level of **Rockwell Automation Gold System Integrator**. This level offers E Tech Group the ability to participate in Alpha and Beta testing, receive advanced notification and training on new product releases, and be invited to advanced reviews of cutting-edge offerings. As a result, we can assure our clients that the planning and guidance we offer them is well-informed, researched, and in alignment with Rockwell’s technology roadmap.

E Tech Group is one of the only [Rockwell Gold System Integrators](#) with headquarters in the United States **and** with offices in Southern California.



The Rockwell Automation System Integrator program is crafted to educate and cultivate highly skilled system integrators dedicated to enhancing their competencies and capabilities. Our commitment lies in delivering top-tier technical solutions and customer service, leveraging Rockwell Automation technologies at the forefront.

As a certified Gold System Integrator by Rockwell Automation, we strategically allocate our resources to optimize the advantages of our technologies while mitigating project risks. Our proficiency enables us to achieve exceptional outcomes across varied geographical areas, distinguishing us within the industry.

We align with Rockwell Automation due to our proven competencies and extensive experience in the requisite technologies, qualifying us as a **Recognized System Integrator in the Water and Wastewater Industry**. Our track record speaks volumes, showcasing successful deliveries of water and wastewater applications.

### 3.2 CSIS – Control System Integrators Association



The **Control System Integrators Association (CSIA)** is a non-profit organization that sets standards for the automation industry. Dedicated to the advancement of the automation industry, CSIA supports its members in improving their skills and standards, as well as provides a global forum for sharing industry expertise. Their vision is to provide low-risk, safe, and successful automated systems across all industries. E Tech Group is one of those certified automation firms.

E Tech Group is a CSIA-certified control system integrator providing the best in automation design and end-to-end project coverage to clients across industries. Some of the industries we serve include:

- Mission critical, including data centers and water utilities.
- Life sciences, including pharma, biologics, biotech, and medical devices.
- Food and beverage, including the emerging cultivated meat/alternative protein.
- Manufacturing, including CP, chemical, metals, automotive, OEM, and marine.
- Material handling, including distribution centers and parcel hubs.

And E Tech Group has many capabilities to offer these industries in their automated processes. Hundreds of E Tech Group automation engineers provide clients across North America with a comprehensive understanding of:

- **Continuous and Batch Processing**
  - Process Automation
  - Control System Integration
  - S88 Batch Control Systems
  - Panel Design & Custom Fabrication
  - Specialty Drive Systems
- **Discrete Manufacturing**
  - Motion Control
  - Machine Automation
  - Robotic Automation
- **Operations and Management**
  - Building Automation
  - Safety Systems
- **Cybersecurity and Industrial IT**
  - Industrial IT
  - IT/OT Risk Assessments & Analysis
  - Advanced Software Applications

### 3.3 Other Technical Certifications



Through the Stratus Global System Integrator Program, system integrators gain the training, certification, accreditation, systems, and support to develop automation and control solutions using Edge Computing technology. This enables SI's to implement scalable solutions that are easy to deploy and highly profitable.



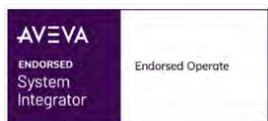
The VMware Certified Professional - Data Center Virtualization 2024 (VCP-DCV 2024) certification validates an individual's knowledge and skills with VMware vSphere solutions, including virtual machines, networking, and storage. Job-roles associated with this certification include virtualization administrators, system engineers, and consultants.



Designed for agility and versatility, the Cisco Certified Network Associate (CCNA) certification showcases ability to manage and optimize today's most advanced networks. CCNA validates a broad range of fundamentals for all IT careers - from networking technologies, to security, to software development - proving you have the skills businesses need to meet market demands.



We are a Certified Alliance Partner of Schneider Electric, distinguishing us as one of the premier system integrators based in California. As an esteemed Alliance Partner, we hold the highest tier among system integrators specializing in Schneider Electric's automation platform. We possess the capability to deliver world-class manufacturing solutions utilizing Schneider Electric automation technology.



We are an endorsed System Integrator for Wonderware SCADA and Batch and OSIsoft, specializing in PI software solutions. As a trusted partner, we provide sales, delivery, and technology expertise to support revenue growth for AVEVA's Monitor & Control, Asset Performance Management, Engineering, and Planning and Operation solutions.



Our robust DeltaV team comprises skilled local engineers who have successfully supported a diverse range of installations and collaborative engineering/design projects in California and nationwide. With 30+ experienced engineers located across the United States, we have delivered hundreds of DeltaV projects, with a significant focus in California.



E Tech Group is proud to be a trusted Siemens Solution Partner. We are certified in both Factory Automation and Drives and Motion. Siemens is highly regarded in the industrial automation and control systems industry. They are known for their flexibility and reliability.



E Tech Group is a Gold Automation Partner to Inductive Automation. We have proven the ability to successfully deliver Ignition solutions across an enterprise and in multiple locations and have achieved Gold level or above in the Integrator Program. We have achieved the recognition as a Gold Certified Integrator.



E Tech Group is a GE Solution Provider with over 10 years of implementing GE iFix solutions. GE Intelligent Platforms forms alliances with industry-leading systems integrators who have proven skill sets and complementary technology application expertise, following technical, operational, and quality evaluations.

### 3.4 Proposed Team Members and Qualifications

Our team is always up for a challenge, and this project presented no shortage of them. As a Rockwell Automation Gold System Integrator our engineers have extensive experience with the Rockwell PlantPax 5.0 building automation system, which proves a top performer in both turnkey control system builds as well as partial upgrades like this one.

We have enough experience and training in the most complex solution from Rockwell Automation, from traditional PLCs to the modern PlantPax, all of this with our extended Water & Wastewater applications.

	Level	Project Role	Competencies						
			PLC	SCADA	PlantPax Certification	Panel Design	Specs Standards	Process Control	W/WW
<b>Chris Schleich</b> Operations Director	Sr. Project Manager	Project Manager	*	*			*		
<b>Nilesh Lal</b> Engineering Director	Principal Engineer	PlantPax Consultant	*	*	*	*	*	*	
<b>Ryan Budd</b> Principal Engineer	Principal Engineer	WWW Industry Consultant	*	*		*	*	*	*
<b>Tom Crowl</b> Principal Engineer	Principal Engineer	PlantPax Lead	*	*	*		*	*	*
<b>Umar Karin</b> Sr. Engineer	Sr. Automation Engineer II	Automation Engineer	*	*	*	*	*	*	*
<b>Zac Beyer</b> Sr. Engineer	Lead Automation Engineer I	Automation Engineer	*	*	*			*	
<b>Anees Chamarty</b> Sr. Engineer	Lead Automation Engineer II	Automation Engineer	*	*	*		*	*	*
<b>Astrid Fleischer</b> Sr. Engineer	Sr. Automation Engineer II	Automation Engineer	*	*		*	*	*	*
<b>Andreas Lang</b> Lead Engineer	Lead Automation Engineer I	Automation Engineer	*	*	*		*	*	*
<b>Bret Wiscomb</b> Sr. Engineer	Sr. Automation Engineer III	WWW Industry Consultant	*	*		*	*	*	*
<b>Dave Voss</b> Sr. Engineer	Sr. Automation Engineer II	WWW Industry Consultant	*	*		*	*	*	*
<b>Sahil Mehta</b> Automation engineer	Lead Automation Engineer II	Automation Engineer	*	*			*		
<b>Kevin Tom</b> Automation Engineer	Lead Automation Engineer I	Automation engineer	*	*			*		

Our experienced team with PlantPax and Rockwell Automation technology provides the following benefits for the ongoing modernization:

- Enhanced customer satisfaction and industry reputation through improved efficiency, quality, and punctuality in deliveries.
- Streamlined supply chain management, leading to reduced inventory costs and faster delivery times.
- Heightened competitiveness by enhanced efficiency, and superior quality.

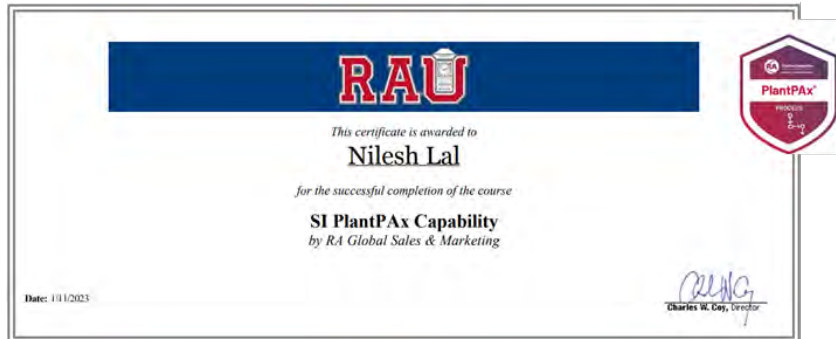
### 3.5 Employee Certifications on PlantPAX

E Tech Group, having accomplished numerous successful installations and audits, stands out as one of California's select system integrators certified in Rockwell PlantPax 5.0. This esteemed achievement is credited to our dedicated and proficient team, demonstrating our commitment to excellence.

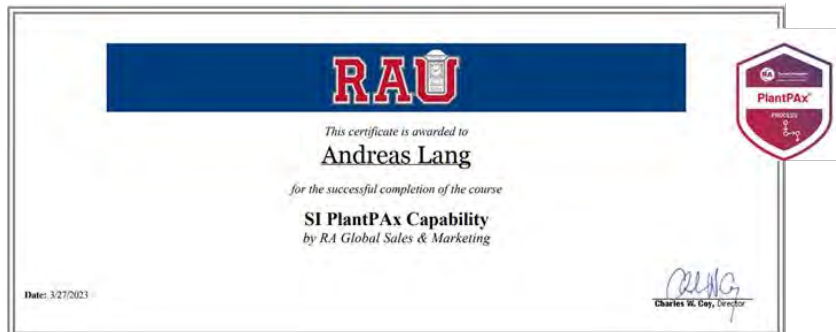


In the following, we show only the PlantPAX certification gotten by our team, in addition to this all these individuals – as well as many others in our engineering team, have the Batch, Control and Visualization certification from Rockwell Automation. Training and knowledge in the newest technology is a must in our organization.

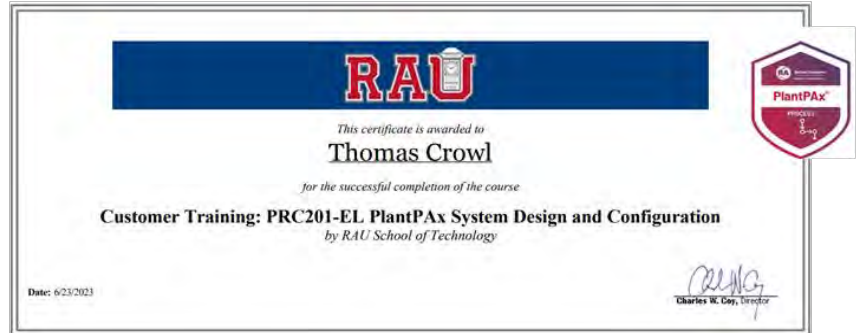
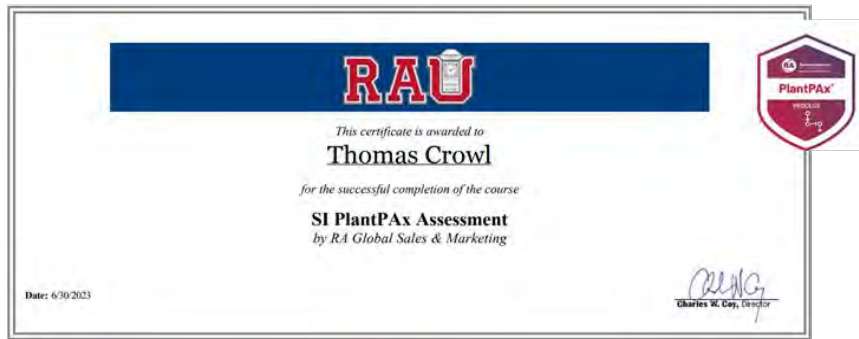
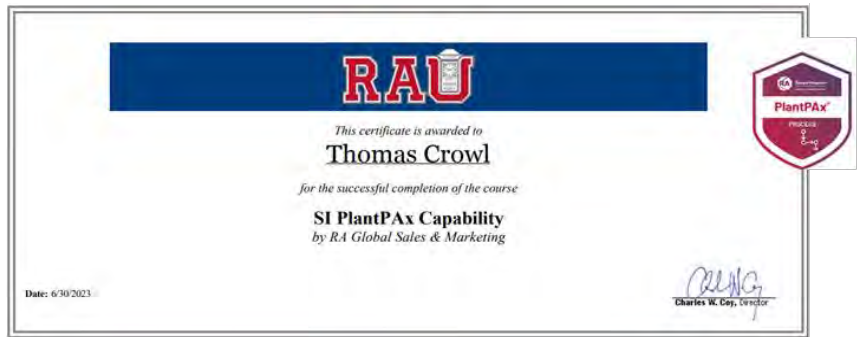
#### Nilesh Lal, Engineering Director



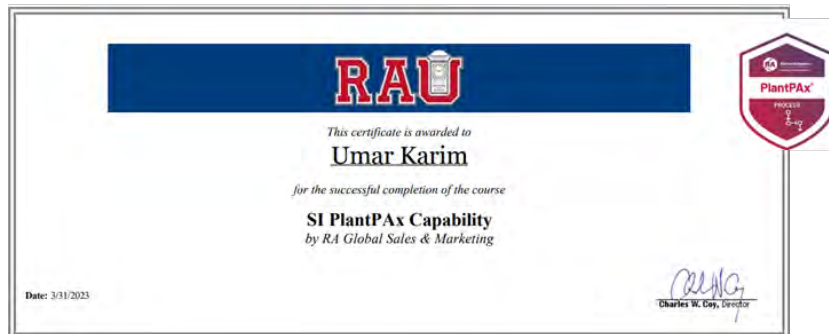
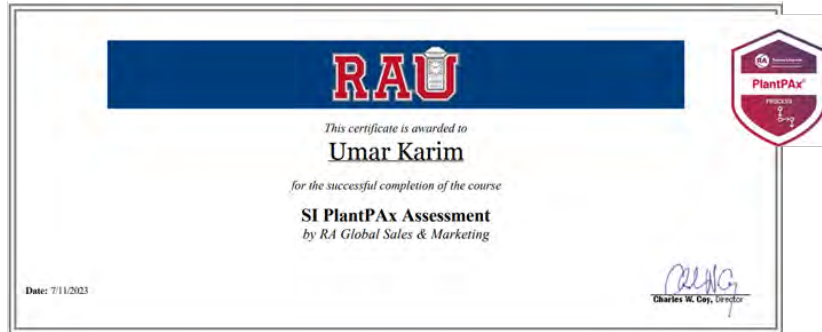
#### Andreas Lang, Sr. Automation Engineer



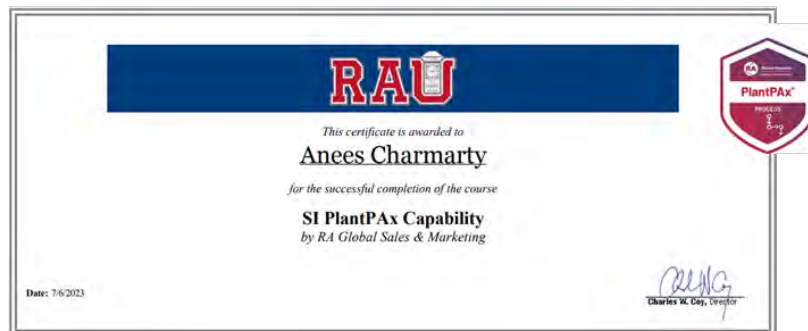
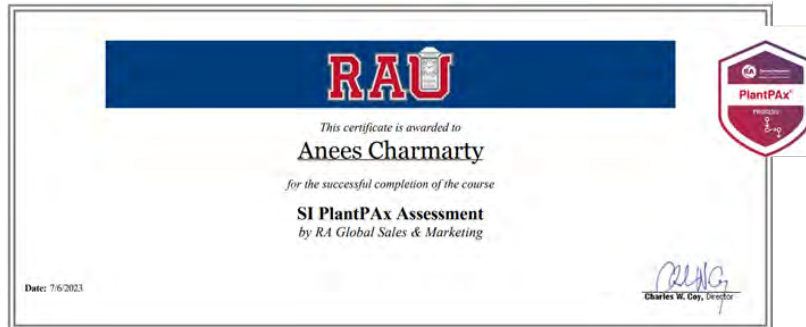
**Thomas Crowl, Principal Engineer**



**Umar Karim, Sr. Automation Engineer**



**Anees Charmarty, Sr. Automation Engineer**



### **3.6 Brief Experience and Capabilities of our proposed team**

Bringing together a wealth of expertise ranging from 9 to 40 years across various technologies and industries, our team specializes in industrial automation, integration, and project management. With a strong focus on Rockwell Automation DCS/PLC/SCADA systems, we excel in technical team management, HMI development, PLC programming, control system design, documentation, startup, testing, and validation. Our proficiency extends to industrial networking, electrical design, and instrumentation, ensuring seamless project execution from conception to completion.

#### **3.6.1 Main competencies**

Our proposed team core competencies encompass technical team management, encompassing HMI development and PLC programming, with proficiency across industry-leading brands such as DeltaV, PlantPAx, Rockwell PLC controls, Siemens Moore APACS, and more.

We specialize in control system design, meticulous documentation, and effective project management, ensuring seamless integration and validation of DeltaV and PLC-based projects. Furthermore, our expertise extends to SCADA systems, where we leverage brands like Wonderware Historian and Stratus Redundant Server System. We are well-versed in virtualization technologies like VMWare and excel in network integration with Ethernet/IP, Modbus TCP, and Profibus DP, offering comprehensive solutions tailored to our clients' needs.

#### **3.6.2 Industries we serve:**

Our expertise extends broadly across various industries, encompassing water and wastewater treatment, pharmaceuticals, biotechnology, medical equipment, water treatment, wastewater treatment, manufacturing, batch chemical, steel, composites, textiles, food, consumer products, oil, explosives, power, and transportation.

Within the water and wastewater sectors, our proficiency is evident, with extensive experience spanning system maintenance, programming, replacement, and commissioning across multiple sites. We have played pivotal roles in enhancing operational efficiencies and delivering tailored solutions to meet the diverse needs of our clients.

#### **3.6.3 Technologies expertise:**

Our proficiency in Rockwell Automation solutions is comprehensive, covering a wide array of platforms and tools. We are skilled in Rockwell PLC controls, including ControlLogix and Compact Logix, as well as in PlantPAx DCS, FactoryTalk Batch, FT Historian, and FactoryTalk View SE for graphical user interface development.

Additionally, we excel in programming various PLC systems such as Modicom M580, Schneider Electric Quantum, Siemens S7, and Allen Bradley ControlLogix. Our expertise extends to HMI development using Wonderware, FactoryTalk View SE, and Siemens InTouch, along with network integration utilizing Ethernet/IP, Modbus TCP, and Profibus DP. We also possess knowledge in network infrastructure and cybersecurity.

#### 3.6.4 Type of Projects:

With decades of collective experience, our team excels in delivering projects for water treatment plants, wastewater treatment facilities, and related infrastructure. Our diverse clientele includes municipal authorities, government agencies, private utilities, and industrial corporations. By harnessing Rockwell Automation technologies, we craft innovative control systems to optimize operations and ensure regulatory compliance.

From integrating field instruments using various protocols to configuring SCADA systems for medium and low voltage switchgear, our team tackles the unique challenges of water and wastewater projects with expertise.

Moreover, we lead commissioning and qualification efforts, manage projects of varying budgets, and contribute to industry standards. Our capabilities extend to DCS design and implementation for biopharma facilities, FEED studies, SCADA upgrades, system integration for biopharmaceutical companies, on-site support for critical projects, and orchestrating system integration for large-scale projects involving multiple vendors and control systems.

#### 3.6.5 Team Capabilities

Our proposed team bring to IEUA the following capabilities:

##### **Automation Systems Design, Engineering and Development:**

- DCS PlantPAx, Rockwell Controllers and SCADA Design and Programming
- DCS/ PLC/ SCADA Migration / Upgrades plans and protocols design.
- Alarms and Events Design and implementation
- System virtualization and network design Configuration
- Industrial Networking with all Rockwell Automation technologies
- Industrial Reporting using Rockwell Automation solutions or others, such Aveva
- Design Document Development (URS, FS, SDS, HDS, I&C Drawings, Instrument Datasheets)
- Field and analytical instrument sizing, selection, and commissioning
- MES development and Integration

##### **Control System Implementation and Commissioning:**


- Integration, Staging and testing.
- Network Integration & Segregation
- Control System Startup, Commissioning
- Test Protocol Development, Execution and Validation
- FAT, SAT documentation and user manuals for SCADA/HMI operation
- Construction and Installation Support Services

##### **Electrical Design and Instrumentation:**

- Control Panel Design
- Enclosure Design
- Medium and low-voltage MCC and solar design
- Intrinsically Safe Design
- Instrument Selection
- Electrical Design under National Electric Code & UL & Isa Standard

## 4 RESUMES

### 4.1 Chris Schleich – Project Manager



<b>Name and Title:</b>	CHRIS SCHLEICH, ASSOCIATE DIRECTOR OF OPERATIONS, PMP, SOCIAL
<b>Control Systems:</b>	<p><u>DCS:</u> Emerson DeltaV (project management only)</p> <p><u>PLC:</u> Allen Bradley Controllogix, CompactLogix, Schneider Electric EcoStruxure</p> <p><u>HMI / Batch / SCADA / Historian:</u> Wonderware, CitectSCADA</p> <p><u>Digitalization/ Business Intel:</u> Microsoft Server, Plantweb Optics</p> <p><u>SIS / F&amp;G / BMS:</u></p>
<b>Communications Protocols:</b>	Ethernet/IP, Modbus RTU, Modbus TCP
<b>Past Client Relationships:</b>	Gilead, Genentech, AbbVie, Thermo Fisher, BBraun, Amgen, JR Simplot
<b>Education and Certifications:</b>	<p>Bachelor of Science, Mechanical Engineering          University of California, Davis</p> <p>Project Management Professional (PMP)          Project Management Institute, ID 2816927</p> <p>State of California, Professional Engineer          Control Systems, ID 7594</p> <p>Control System Integrators Association Rising Star Award Recipient</p>
<b>Skills/Expertise:</b>	<ul style="list-style-type: none"> <li>Project Management</li> <li>Estimating</li> <li>Resource Planning</li> <li>Documentation Management</li> <li>Retention/Hiring</li> <li>Training Curriculum Creation</li> <li>Communication</li> <li>System Expansion</li> <li>Migration / Upgrades</li> <li>Control Systems</li> </ul>

[www.etechgroup.com](http://www.etechgroup.com)



**Project Experience:** Chris Schleich is an engineering leader with 20 years of experience in industrial automation, integration, and project management. Leadership talents include implementing best practices, building engineering-excellence work cultures, mentoring staff, hiring, and management. Core project competencies include clear project kickoffs, responsive communication, risk mitigation, quality control, planning, and execution. Regularly wins repeat project work.

**Professional Highlights:**

- **Polypeptide Group, Torrance, Senior Project Manager**
  - **Nucleotide (proprietary) Suite expansion**  
Executed project to modify PLC, control panel, and GMP documentation for suite retrofit to support manufacturing of new nucleotide.
- **Genentech, Oceanside, Senior Project Manager**
  - **MCS01 DeltaV Split FEED Study**  
Execute project providing FEED for splitting DeltaV manufacturing system into an Upstream and Downstream system. Caltrol sole sourced for follow up project based on FEED project performance.
- **Amgen, Thousand Oaks, Senior Project Manager**
  - **Proprietary Single Use Equipment, Unit 1**  
Implementation and design of DeltaV software for single use harvesting equipment. FS, SDS, remote FAT with international team. Included Amgen DT, ICO, ACO.
  - **Proprietary Single Use Equipment, Unit 2**  
Sole sourced based on high performance on first project.
- **B.Braun Medical, Inc., Irvine, Project Manager**
  - **Project management for PAB Sterilizer control retrofits and improvements.** 18 projects, ~\$2M (90% services) of phased automation projects from 2014-2017.
  - **Sterilizer 2, 3, 5, 7, 8, 9, 10, 13 Upgrades (5 projects)**  
SCADA virtualization, and expansion of Wonderware System Platform / InBatch / SSRS / ControlLogix automation platform. Conversion from Foxboro IA / DEC. Post-SAT support for IQ / OQ.
  - **Single Sterilizer PLC Program**  
Compare differences between legacy PLC programs and standardize to one template for use in all sterilizer conversions.
  - **GMP FAT / SAT Templates**  
Analyze legacy URS, FS, SDS documents for required updates. Build traceability matrix for automation FAT and SAT protocols.

#### 4.2 Nileshe Lal, Principal Engineer



<b>Name and Title:</b>	NILESH LAL, PRINCIPAL ENGINEER
<b>Control Systems:</b>	<p><b><u>DCS:</u></b> Rockwell PlantPax, Emerson DeltaV</p> <p><b><u>PLC:</u></b> Rockwell PLC5/SLC500 / ControlLogix/ CompactLogix, Modicon Quantum/M580, Omron, GE 90-70 Emerson DeltaV Operate, Rockwell FTView SE/ME/RSView 32/ Win View/ Batch/Asset Centre,</p> <p><b><u>HMI / Batch / SCADA / Historian:</u></b> Wonderware InTouch/Citect/System Platform, GE iFix/Fix32/ iBatch</p> <p><b><u>Digitalization/ Business Intel:</u></b> Digital Twin, Industry 4.0, Data Analytics, Kuka Robotics, IIOT, Machine Vision</p> <p><b><u>SIS / F&amp;G / BMS:</u></b> SICK</p>
<b>Communications Protocols:</b>	Ethernet/IP (DLR), ControlNet, DeviceNet, RIO, DH+, Modbus, OPC UA, MQTT
<b>Past Client Relationships:</b>	Gilead Sciences, Genentech, Inc., Biomarin, Alza Corporation, Bionovo, Abraxis BioScience, Baxter BioScience, Novartis, Caliber BioTherapeutics, Upside Foods, Abbott Laboratories, AMPAC Fine Chemicals, XOMA, Chevron Products Co., Monsanto, Heinz Corporation, Flour Mills of Fiji Group of Companies, E&J Gallo, Clorox
<b>Education and Certifications:</b>	<p>Master of Engineering, Mechatronics The University of Auckland</p> <p>Bachelor of Science, Electrical &amp; Electronic Engineering California State University, Sacramento.</p> <p>Post Graduate Diploma, Physics University of the South Pacific, Fiji.</p> <p>Bachelor of Science, Physics &amp; Technology University of the South Pacific, Fiji.</p> <p>Associate Diploma, Electrical &amp; Electronic Engineering St. George College, Sydney, Australia.</p> <p>Professional Engineer Control Systems – State of California</p>
<b>Skills/Expertise:</b>	DCS/PLC Design and Programming HMI/SCADA Design and Development S88 Batch Design and Development Design Document Development (URS, FS, SDS, HDS, I&C Drawings, Instrument Datasheets)



Low-voltage control circuit design  
Field and analytical instrument sizing, selection, and commissioning  
Control System Startup, Commissioning  
Test Protocol Development, Execution and Validation  
Control System migration and upgrades  
Project lifecycle management

**Project Experience:**

Nilesh has over 27 years of experience in the design and implementation of industrial control systems. Nilesh's current responsibilities include Technical team management, HMI development, PLC programming, Control System design, documentation, startup, testing and validation.

Nilesh's previous work experience included engineering positions with Heinz, Carlton Brewery, and Flour Mills of Fiji Limited.

**Professional Highlights:**

- Lead Engineer responsible for design, development, and testing of Recipes and Phases utilizing PlantPax 5.0 objects at a cultivated meat facility in Emeryville, California. E Tech Group installed a 1756-L85EP controller for the process control system. Software applications included FactoryTalk Batch, FactoryTalk View SE, FactoryTalk Historian, and WIN-911.
- Support Engineer for a team that developed and tested multiple DeltaV screens for a Cryo Vessel skid. This skid handles up to 24 bottles simultaneously. Configured a DeltaV VIM2 interface to communicate to a CompactLogix processor and Turck I/O. Integrated weigh scales via serial communications.
- Lead Engineer responsible for migration of obsolete HMIs (ME, PanelView, WinView) to FactoryTalk View SE. Leveraged vendor conversion utilities minimizing documentation and testing efforts without compromising quality.
- Lead Hardware Engineer responsible for conversion of Siemens/Moore APACS DCS to Modicon M580 controllers with X80 IO modules. The responsibilities included Conversion risk assessment, Cabinet layout design, Electrical design, Heat, Power & Weight calculations, Bill of Materials generation, Hardware compatibility assessment, Proof of Concept Lab development, Cutover strategy development, and Network design. The system consisted of 69 redundant controllers and approximately 8000 IO points.
- Lead Engineer for the design, implementation, and testing of two large Rockwell PlantPax Hazardous Monitoring Systems (HMS) for a new Pilot

### 4.3 Ryan Budd, Principal Engineer WWW Consultant



<b>Name and Title:</b>	RYAN BUDD, PRINCIPAL ENGINEER
<b>Years of Experience</b>	20
<b>Control Systems:</b>	<p><u>PLC:</u> Rockwell PLC5/SLC500 / ControlLogix/ CompactLogix, Modicon Quantum/M580, Omron, GE 90-70 Emerson DeltaV Operate, Rockwell FTView SE/ME/ FTViewm RSVIEW 32/ Win View/ Wonderware</p> <p><u>HMI / Batch / SCADA / Historian:</u> InTouch/Citect/System Platform, GE iFix/Fix32/ iBatch</p> <p><u>Digitalization/ Business Intel:</u> Digital Twin, Industry 4.0, Data Analytics, Kuka Robotics, IIOT, Machine Vision</p>
<b>Communications Protocols:</b>	Ethernet/IP (DLR), ControlNet, DeviceNet, RIO, DH+, Modbus, OPC UA
<b>Past Client Relationships:</b>	Kaua'i Department of Water Metropolitan Water Distric
<b>Education and Certifications:</b>	BS, Mechanical Engineering – Cal Poly, San Luis Obispo
<b>Skills/Expertise:</b>	PLC Design and Programming HMI/SCADA Design and Development Design Document Development (URS, FS, SDS, HDS, I&C Drawings, Instrument Datasheets) Database Reporting Alarm Notifications Industrial Networking Control Panel Design Field and analytical instrument sizing, selection, and commissioning Control System Startup, Commissioning Test Protocol Development, Execution and Validation Control System migration and upgrades. Project lifecycle management
<b>Industry Expertise</b>	20+ years in Water and Wastewater Industry, Production Facilities, Data Center
<b>Previous Experience</b>	Glenmont Global Solutions, an E Tech Group Company since 2018

#### 4.4 Thomas Crowl, Principal Engineer



<b>Name and Title:</b>	TOM CROWL P.E., PRINCIPAL ENGINEER	
<b>Control Systems:</b>	<u>DCS:</u>	Rockwell PlantPAx / Emerson DeltaV / Honeywell, Experion DCS / Honeywell TDC 3000/ Siemens, (Moore) APACS DCS/ Fisher PROVOX,
	<u>PLC:</u>	Rockwell PLC/ ControlLogix PLC/ CompactLogix PLC/ MicroLogix PLC/ Allen Bradley PLC5/ Allen Bradley SLC500/ Moore APACS/ Siemens S7/ Modicon PLCs micro84 to M580/ Cytiva Unicorn/ Sartorius Biostat DCU/ Moore 324 programmable sequence controller/
	<u>HMI / Batch / SCADA / Historian</u>	AVEVA ArchestrA System Platform/ Wonderware InTouch/ AVEVA InBatch and Direktor/ FactoryTalk View SE/ FactoryTalk View ME/ PanelView/ S88 FactoryTalk Batch/ Rockwell RSBatch- S88 / OpenBatch- S88 / Honeywell TPB- S88 / Emerson DeltaV Batch - S88 / Siemens WinCC SCADA/ Siemens SIMATIC Batch/ GE iFIX/ GE iBatch/ RTAP SCADA/ FactoryTalk Historian/ OSI PI
	<u>Digitalization/ Business Intel</u>	AssetCentre/ OSI PI / POMSnet MES/ Emerson Syncade MES/ Siemens SIMATIC IT MES/ WIN911
	<u>SIS / F&amp;G / BMS:</u>	Moore Quadlog SIS
<b>Communications Protocols:</b>	OPC UA, OPC DA , EthernetIP, DH+ , DH485, Modbus, Profibus	
<b>Past Client Relationships:</b>	Upside Foods, ABEC, AMPAC Fine Chemicals, AVEVA, BASF, Bayer, Biogen, BioMarin, Boehringer Ingelheim, Cambrex, Chevron, Centocor, Ciba, Cytiva, Dow, DuPont, Degussa, Denali Therapeutics, Edwards Life Sciences, Eli Lilly, Genentech, Gilead, Glaxo-SmithKline, Immunex, Inland Steel, Lubrizol, MedImmune, Memphis Meats, Meta Data Center, Merck, Mission Barns, Pfizer, Polaris Pharma, Procter & Gamble, Rentschler Biopharma, Reichhold, Roche, Sartorius, Sinopec, Sutro Biopharma, Union Carbide, and Wyeth	
<b>Education and Certifications:</b>	Bachelor of Science, Chemical Engineering Drexel University, Philadelphia, PA Professional Engineer in Control System Engineering, State of California CS7407 BIFI Automation Engineer-DeltaV BIFI Idea for CON Author\Signatory	
<b>Skills/Expertise:</b>	Design, startup, commissioning, and validation of automation systems PLC and DCS Programming/HMI Development/Batch Manager Development/ MES development Biotech plant design Simulated Moving Bed Chromatography Project Management	



System upgrades of PLC5, SLC50x, DH+, PanelView, and obsolete VFDs  
System replacement of Moore APACS, Moore 352, Moore 324, and RTAP SCADA.  
Honeywell TDC to Experion migrations and Experion upgrades.  
ProSoft/ Kepware/ Matrikon/ DH+/ VFDs/ Moore 352 single loop digital controller/ drum sequencers/ NOR logic gates/ pneumatic controls  
Biotech  
GMP Regulations, 21 CFR Part 11, and control system validation training  
Microsoft Office Suite  
Windows, UNIX, Linux, VMware, SQL, Oracle, C++, Visual Basic, Forth, Pascal, COBOL, Fortran

**Project Experience:**

Tom has over thirty years of experience in control systems engineering as a DCS vendor, biotech end user, and a systems integrator. Tom managed all aspects of development of control systems for various industries including pharmaceutical, biotech, batch chemical, steel, composites, textiles, food, consumer products, oil, explosives, water, wastewater, and power industries. Tom's current responsibilities include project management, control system design and validation of DeltaV and PLC based projects.

**Professional Highlights:**

- Contributing author to the ISA S88 Batch Control Standard and voting member on SP88 committee since 1993.
- Beta tester for Rockwell PlantPAx 5.0 Beta for application in batch and life science markets. Compared and contrast features of the GEMS library with the PlantPAx.
- Led DeltaV training program for internal training of E-Tech Life Sciences West employees.
- Technical lead for projects for E-Tech including:
  - Design of a new manufacturing facility for producing cultured meat products for human consumption. Construction of this first of a kind manufacturing plant included interactive design sessions with process scientists translating evolving lab scale processes into Functional Specifications. Functional specifications were translated into PlantPAx control logic, phase logic, and FactoryTalk Batch configuration. Plant includes media preparation, small scale cell culture, production scale cell culture, new technology tissue growth vessels, centrifuge, CIP, SIP, and supporting utility systems. The design includes many evolving new process operations that have never been automated at a production scale before.



- Development of Functional Specifications and Software Design Specifications for the installation of a new Ambient WFI generation, storage, and distribution system including the design of new CIP phases and recipes. Design integrates Rockwell PlantPAx utilities with DeltaV controls on the CIP. This effort includes PlantPAx, DeltaV configuration, AssetCentre configuration, Historian Configuration, Win911 configuration, OSI-PI interface, construction support, commissioning, and qualification of the AWFI system and CIP recipes. Follow on projects included integration of Chemical Distribution System (CDS) skid and Clean Compressed Air (CCA) skid into SCADA, AssetCentre, Historian, OSI-PI, and Win911.
  - Development of Functional Specifications and Software Design Specifications for the installation of a new Buffer Prep and distribution system including the design and configuration of new Buffer Prep and CIP phases and recipes. Design integrates Rockwell PlantPAx utilities with Rockwell PLC controls on the CIP skid and WFI skid. This effort included design and implementation of a SQL based custom recipe manager and PlantPAx configuration of a custom batch manager to drive the phases on the controller using the standard FactoryTalk batch phase interface.
  - Solvent dispensing, waste collection, and Hazards Monitoring System on a Rockwell PLC/SCADA for a large laboratory with integration to Siemens BMS and Win911
  - Upgrade of PLC5 1771 series remote I/O to ControlLogix 1756 I/O.
  - Design, development, installation, configuration, and validation of new OSI PI historian for a biotech start-up transitioning to phase 3 clinical trials with integrations to OEM skids using Rockwell, Siemens, SciLog B&R, GE Unicorn, iFix, and Wonderware systems. Project included upgrade of SLC504 and panel view to CompactLogix and ViewSE with thin client HMI. Design, document update, installation, and qualification of 4 Sartorius Biostat<sup>®</sup> RM wave bioreactors remotely controlled by DeltaV and DeltaV Batch recipes with integration to OSI PI.
  - Commissioning and qualification of Modicon M580 controllers and associated I/O for a large data center in Huntsville, AL.
- 
- Automation Engineering Manager for Genentech CCP2 with five direct reports and over 30 contract staff. System Owner accountable for the CCP2 Manufacturing Control System (MCS) which includes the Honeywell Experion DCS, ControlLogix utility controls, Total Plant Batch (OEM RSBatch), POMSnet MES, and the CCP2 review by



exception system BHDS2. Led effort to reduce discrepancies in CCP2 due to automation related issues by improving the design review, configuration, and testing process. Automation related discrepancies were reduced 92% from the first three runs to the last three qualification runs. Led effort to reduce nuisance alarms and total alarm count was reduced over 80% from the first quarterly alarm report to a year later. Managed over 8000 hours of work on CAPAs and compliance risk items during the PAI readiness effort. Primary automation SME for FDA licensure inspection which was successfully completed with no 483's.

- Led Genentech CCP2 Return to Service (RTS) project to virtualize and migrate the CCP2 DCS and MES software and replace the underlying server and network hardware infrastructure of both systems. Cutover to the new system hardware and software was completed successfully in 2014. After completion of the migration and cutover changes to over 1000 software objects were specified, configured, and tested as part of the CCP2 RTS project.
- Control system architect of Genentech's CCP1 bulk manufacturing facility. Managed a team of over 30 engineers, responsible for resource loading, schedule, budget, design, configuration, installation, and validation of control system for the largest flexible biotech plant in the world. Plant system consisted of RTAP SCADA with an integrated Direktor batch manager over APACS controllers.
- Performance Lead on Genentech project CURE (CCP1 Upgrade Replacement and Enhancement) SCADA and Direktor batch manager upgrade from RTAP and Direktor to Archestra System Platform and InBatch. Responsible for system design, control layer interface, and management of global issues that affect infrastructure, InBatch, Archestra, and business systems interfaces.
- Principal Design Engineer for the development of the Siemens Moore APACS control system. Responsible for product design for the APACS control system and Direktor/InBatch batch manager. Managed the software design of the APACS product. Led a team of 10-15 software developers to design, build, and test the code behind the Ladder Logic, Sequential Function Chart, Structured Text, and Batch Phase Logic Interface (PLI) Function Blocks that the application engineers and end users would use to configure the control system.
- Development team member for the Direktor and InBatch batch supervisor package. Member of the design teams for Siemens SIMATIC batch and SIMATIC IT products.
- Assisted in the product launch for the PID (later Sequencia) OpenBatch (later Rockwell RSBatch/FT Batch) product developing an OpenBatch PLI for APACS and an Intouch/OpenBatch pea soup demo



system integrated with the APACS controller. Introduced APACS/OpenBatch/InTouch integration simultaneously in both the PID booth and the Moore Products Co. booth at the ISA/94 show in Anaheim.

- Provided consulting services to user companies. Services consist of front-end engineering design including all engineering design activities for a capital project. Other services include process automation studies, process engineering design, alarm analysis and remediation, controller loop tuning, process analytical measurement studies, 21 CFR part 11 remediation, and computer system validation.
- Led over 50 automation projects in career from small to over 30 million in budget. Responsible for all phases of a project including estimation, quotation, budget, project management, control system design, hardware layout, termination/wiring drawings, software configuration, customer support, and start-up assistance. Experience includes projects in the batch chemical, pharmaceutical, steel, composites, textiles, food, consumer products, oil, explosives, water, wastewater, and power industries.
- Author of numerous articles and technical papers.
- Instructor of ISPE control system validation course.
- Instructor of PDA 21 CFR Part 11 course.
- Past program chairman for the World Batch Forum.

#### 4.5 Umar Karim, SR. Automation Engineer II



<b>Name and Title:</b>	UMAR KARIM, SENIOR AUTOMATION ENGINEER II
<b>Control Systems:</b>	<p><u>DCS:</u> Rockwell PlantPAx, Emerson DeltaV, ABB 800xA, Honeywell TDC 3000 / TPS, Yokogawa Centum CS-3000.</p> <p><u>PLC:</u> PLC5 / SLC500 / ControlLogix / CompactLogix, Modicon Quantum / M580, GE Rx3i / Pack 8000</p> <p><u>HMI / Batch / SCADA / Historian:</u> DeltaV Operate / Live / Batch, Rockwell FT View SE / ME / Batch, ABB 800xA, AVEVA InTouch, Honeywell Experion / TPS, GE iFix, Inductive Automation Ignition</p> <p><u>Digitalization/ Business Intel:</u> AVEVA PI, Aspen InfoPlus.21 / DMC Plus, Emerson Plantweb, Rockwell FT VantagePoint / ViewPoint</p> <p><u>SIS / F&amp;G / BMS:</u> Schneider Triconex Trident / Tricon, Emerson, Rockwell Integrated Guard Logix / Guard PLC</p>
<b>Communications Protocols:</b>	Ethernet/IP (DLR), ControlNet, DeviceNet, RIO, DH+, Modbus, Modbus TCP/IP, Profibus, Foundation Fieldbus
<b>Past Client Relationships:</b>	Gilead Sciences, Upside Foods, Synthego, Kite Pharma, Edwards, Boehringer Ingelheim, Hershey, Tyson Foods, Shell Petroleum, Chevron, ARAMCO, Schlumberger, Fauji Fertilizer, W.R. GRACE, KOC, Arkema, KOCH Methanol, Flint Hills Resources, Toyota
<b>Education and Certifications:</b>	Bachelor of Engineering, BE-Mechatronics Professional Engineer – Control System (P.E.) Project Management Professional (PMP) Functional Safety Engineer TÜV RHEINLAND (TUV FS Eng)
<b>Skills/Expertise:</b>	DCS / PLC design and programming HMI /SCADA design and development Digitalization, Data Acquisition, and Analytics design and solution S88 Batch design and development Document development (URS, FS, SDS, HDS, I&C Drawings, Datasheets) Medium and low-voltage MCC and solar design Field and analytical instrument sizing, selection, and smart commissioning Control system commissioning, startup, test protocol development, execution, verification and validation Control system migration and upgrades Virtualization and Network design, configuration, integration, staging, and testing Project development and lifecycle management



**Project Experience:**

Umar has over 15 years of experience in automation and control systems for the pharmaceutical, biotech, chemical, fertilizer, food, consumer products, oil & gas, power, and transportation industries. He has been project manager or lead engineer in over fifty projects ranging in sizes from small to large with varying responsibilities in estimation, quotation, budgeting, control system design, hardware layout, termination/wiring drawings, software configuration, customer support, and start-up assistance. His most recent responsibilities have included HMI development, PLC /DCS programming, control system design, instrument sizing and selection, documentation, startup, testing, and validation.

**Professional Highlights:**

- Managed and led a team of up to five engineers for a PlantPAx (version 5.1) pharma project for an oligo production facility. The project scope included design, implementation, verification, and commissioning of process control system and field instrumentation. He adopted the use of Rockwell Automation's bulk development tool ACM during this project. He oversaw and supported the development of documentation (URS, FS, SDS, HDS), instrument data sheets, instrument schedules, cable schedules, control panel schedules, junction box and hookup drawings, PLC and HMI programs, and FAT.
- Managed and led a DeltaV pharma project for the addition of single-use Mixers to increase pilot plant capacity. He was responsible for documentation (URS, FS, SDS, HDS), control panel drawings, application development (code instantiation, control modules, equipment modules, phase and unit classes), testing, and HMI. He also conducted FAT and supported commissioning, SAT, and startup activities.
- Worked as an application engineer on a PlantPAx based solution for a cutting-edge biotech facility equipped for ready-to-cook meat derived from a cell culture process. He was responsible for the development of equipment modules, phases, and recipes for Media Prep and Bioreactors. Also generated Functional Specification and Pin Chart diagrams for phase and recipe functionality as part of FEED. Supported FAT, SAT, and commissioning activities.
- Led a pharma project that involved DeltaV DCS, multiple ControlLogix PLCs, OSI PI historian, and integration between the systems. The project included adding a new AWFI and HWFI generation system to the facility. He was responsible for the development of documentation (FS, SDS, HDS), testing procedures (FAT and SAT), DeltaV application development (control modules, equipment modules, phases, and recipes), testing, and commissioning.



- Led a Caverns Control System upgrade project for a crude oil storage complex. The project involved calculating the SIL requirements for the process, upgrading PlantPax DCS, migrating equipment from standalone PLCs to PlantPax, designing Rockwell AAdvance SIS system based on SIL study, selection and sizing of instrumentation and valves required for implementing SIS.
- The system had over 2000 IOs and required hot cutover of one unit at a time with no downtime. He was responsible for documentation and drawings, developing DCS, SIS, HMI applications, conducting FAT, SAT, commissioning, and hot cutover coordination.
- Worked as Project / Program Engineer for a DCS & SIS upgrade program encompassing 16 projects and 4 project teams working in parallel. The program consisted of upgrading PROVOX DCS to DeltaV, and Triconex SIS to DeltaV SIS migration. The multi-million-dollar brownfield refinery program spread over three years and included multiple projects running at a time, each project involving single unit upgrades and hot cut over for critical units. The project also involved the integration of DeltaV asset management system, AspenOne (Aspen DMC Plus and ASPEN InfoPlus 21) as a business intelligence and digitalization system, and DeltaV Enterprise as historian. As program engineer, he was the technical authority for the program and projects, and was responsible for each unit's FEED study, complete technical solution, documentation, drawings, and application development. Furthermore, he liaised between electrical, instrument, and control teams, as well as between multiple projects, and reported to the Program Manager.
- Managed and led a team of four people on multiple small-scale GMP food projects. These projects involved Allen-Bradley ControlLogix, CompactLogix, Integrated GuardLogix PLCs, and FT View SE as HMI. New equipment was added to the manufacturing lines, which required updating GMP documentation, PLC application, HMI application, and recipes to be modified. He also implemented the E-stop safety circuits through the new SIS hardware.
- Worked as Lead Engineer on multiple mid-sized greenfield projects for petrochemical and chemical sites to implement DCS / SIS / F&G system. Project design followed ISAB88 standard for batch on the DeltaV versions 13.3.1 and 14.3.1, along with DeltaV Operate / Live HMI, DeltaV Enterprise historian and DeltaV AMS. He was responsible for the technical solution, including system design, network design, controls hardware design, enclosures design, documentation, DCS / SIS application development, integration to plant ERP system, FAT, and SAT.



- Worked as Project Engineer on a Siemens PCS-7 and Honeywell TDC-3000 migration project to Emerson DeltaV DCS / SIS and Ovation Turbo Machinery control system. Projects involved refinery control system migration and batch chemical controls migration. Projects also involved vibration monitoring through Ovation and speed protection through CSI 6500 speed protection system. SIL calculations were performed for the selection of new instrumentation and control valves, when required. He was directly responsible for the technical solution that included developing FRS, HDS, SDS, SRS and control schemes for the DeltaV DCS / SIS based on detailed investigation of existing code and documentation for legacy DCS , as well as configuration and programming of the DeltaV DCS / SIS system. He also oversaw the overall development and performed the verification and validation of the Ovation Turbo machinery control system and speed protection system.
- Led a team of 20 engineers in a multi-million-dollar project for a greenfield gas processing facility and thirty well sites. Project involved FEED, details design, implementation, application development, fabrication of control and wellhead control panels, solar power system, communication towers and wireless communication over a radius of 200 miles. Control system for gas processing facility included ABB 800xA DCS, ABB 800xA High Integrity SIS, Rockwell ControlLogix for Turbo Machinery Control, Bently Nevada Vibration Monitoring and Speed protection system, Schneider Chloride UPS and Allen-Bradley medium and low voltage MCC's. Wellhead RTU system included thirty terminals, wellhead control panels, solar systems, UHF wireless communication, control system for compressor stations and meeting systems. He also created a new library for DCS / RTU / SIS as per customer requirements, UHF communication and wellhead control panel design.
- Led a team of up to twelve engineers in a brownfield chemical (fertilizer) DCS / SIS upgrade project. The existing control system was based on ABB Baily Infi-90 DCS and HIMA H51 SIS and required a preliminary detailed investigation of as-built documentation before the upgrade could be performed. The FEED study involved system investigation and analysis, modification of existing documentation, facilitating LOPA, and performing SIF calculations. Details design, implementation, and application development were done for the ABB 800xa based DCS with AC800M controllers and Schneider Triconex based SIS. The system had over 3,000 IO's and SIS was commissioned and integrated during the annual turn around.
- Engineer responsible for the integration of eight RTU/wellhead control panels in high temperature conditions for an early production greenfield facility. The system included ABB 800xA based DCS /



SCADA, RTU's with S900 Remote IO's, wellhead control pneumatic and hydraulic equipment, solar system, and fiber optic communication. He was responsible for the complete project lifecycle beginning with early conception, feasibility study, FEED, detailed design, implementation, application development, fabrication, FAT, installation, SAT and commissioning.

- Led multiple teams of up to four-hundred engineers and technicians at different project stages for a multi-million-dollar large scale installation of a highly redundant control system for an Early Production Facility at remote locations for two-hundred oil wells in high temperature and high concentration of H2S conditions. Control hardware included a HIMA H51qe HRS as SIS, GE PAC8000 as RTU, Rockwell Automation PlantPax with FactoryTalk View SE (DCS SCADA/HMI, Historian), FT View VantagePoint as Business intelligence system, and FactoryTalk AssetCentre as device manager. Well sites consisted of SIS / F&G (SIL III), RTU (PLC SIL II), as well as field instrumentation, control and shutdown valves, F&G detectors, wellhead control panel, solar system, early warning system, PZT cameras and communication over radio with virtualized SCADA solution.
- Led a team of 4 engineers on a Honeywell TDC3000 brownfield and greenfield expansion project for a 3rd level filtration system to increase production capacity and cycle efficiency along with a new product loading area. His responsibilities included rewriting from scratch the existing batch procedure and application and the addition of IO's for additional equipment. The new IO's were integrated with AspenOne (Aspen MTell, DMC Plus and InfoPlus 21).
- Led a team of 3 engineers on a DCS upgrade project for a chemical facility. A Honeywell TDC3000 was upgraded to Honeywell Experion PKS. The project consisted of replacing the existing TDC3000 ControlNet network with a fiber optic network, installing the Experion Server Cabinet along with Orion Consoles (HMI), HMI application (development and testing), migration from EHPM to C300 controllers, HMI objects update, and onsite testing and commissioning.
- Managed, designed, developed, and delivered two RTU/wellhead concept designs for specific user and environmental requirements and developed over twenty control panel projects for multiple customers based on the concept designs. Development of concept included documentation, drawings, application, and proof of concept, and fabrication. Replicas of the concepts required design replication, application instantiation, fabrication, testing, and commissioning.
- Worked as Application Engineer in designing and developing applications for multiple small-scale PLC / DCS / SIS expansion



projects. These projects included Bailey Infi 90, Honeywell TDC3000, Honeywell Experion PKS / LX, Yokogawa Centum CS 3000 DCS systems, Triconex Trident / Tricon, HIMA HiQuad SIS, GE Rx3i, and Modicon Quantum / M580 PLCs.

- Worked on multiple Alarm and Information Management projects for rationalizing alarms per ISA 18.2, developing business level dashboards and reports to collect alarm data from the control system and visualize it at the enterprise level. Systems included Factory Talk SE, Wonderware ArchestrA System Platform, Wonderware InTouch, OSI Pi, Microsoft BI, and Tableau business level visualization, digitalization, and intelligence system.
- Designed, delivered, and commissioned multiple electrical, instrumentation, and metering skid projects. He was directly responsible for the selection, sizing, configuration, hookup and commissioning of field and analytical instruments, MCCs, VFD's, Gas Chromatographs, RTU's, and flow computers. He also managed a team of 8 engineers and up to 27 technicians responsible for skid structural and mechanical / piping design, fabrication, and installation.

**4.6 Zac Beyer, Lead Automation Engineer I**



<b>Name and Title:</b>	ZAC BEYER, LEAD AUTOMATION ENGINEER I	
<b>Control Systems:</b>	<u>DCS:</u>	Rockwell PlantPax 5.0, Rockwell GEMS
	<u>PLC:</u>	Rockwell/Allen-Bradley: SLC500, Micrologix, Micro800 Series, ControlLogix, Compactlogix Controllers
		Siemens: S7-1200, S7-1500 Controllers
	<u>HMI / Batch / SCADA / Historian:</u>	Rockwell FactoryTalk View SE, FactoryTalk View ME Siemens: WIN CC Comfort/Advanced, Aveva Edge,
	<u>Digitalization/ Business Intel:</u>	Rockwell Factory Talk Historian, OSI PI
	<u>SIS / F&amp;G / BMS:</u>	Vmware Workstation Pro
<b>Communications Protocols:</b>	Ethernet/IP, Modbus, Serial Communication	
<b>Past Client Relationships:</b>	Northrup-Grumman, Synthego, PolyPeptide Group, Gilead Sciences	
<b>Education and Certifications:</b>	Bachelor of Science, Mechanical Engineering (May, 2017) California State University, Chico Affiliated with the International Society for Pharmaceutical Engineering (ISPE)	
<b>Skills/Expertise:</b>	PLC and HMI/SCADA design and programming Document development (URS, FS, SDS, HDS, Datasheets) Intrinsically Safe Design Instrument Selection Control System startup Commissioning Test protocol development Execution Verification and validation. GDP/GMP	

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[www.etechgroup.com](http://www.etechgroup.com)



**Project Experience:** Zac has over 6 years of experience managing/maintaining GMP-compliant control systems and designing, programming, and implementing control systems designs (GMP and non-GMP).

Zac previously worked as a Site Engineer for PolyPeptide Group in Torrance, CA.

**Professional Highlights:**

- Automation Project Engineer for Gilead Sciences Clinical Flex Fill Line 2 in La Verne, Ca. Responsibilities include GMP client-side integration responsibilities for new equipment and modifications to existing GMP Process Control Systems including design, document review (CS, HDS, SDS, FDS), and implementation (FAT, Commissioning, SAT).
- Automation Engineer for the Synthego Oligonucleotide Pilot-GMP Manufacturing facility's 'Solvent Distribution and Waste Removal System' based on PlantPAx 5.1. Responsibilities included process design to generate SoO, control system design for intrinsically safe requirements, instrument selection, and on-site support for installation, commissioning, and SAT activities.
- Automation project engineer for new High-Hazard Purification Process Suite that included 5 process skids, 2 process columns and communication with existing site infrastructure (waste, compressed gases, process heating, fire alarm panel). Responsibilities included project management (specification, drawing, and submittal review/approval) control sequence specification, instrument installation/startup, loop-checks, validation, and end-user turnover.
- Automation engineer for Telstar Lyophilizer Control System modernization and revalidation. Included upgrade from SLC 500 to CompactLogix controller, replacement of Wonderware SCADA/Data Historian computer, Vacuum PID Loop-Tuning for multiple load configurations.
- Project automation/project engineer for many smaller projects including: (2) Micro800 series based USP Water Generation/Distribution skids, QC Lab BMS Startup, alarm panels additions for Modicon controller based solvent distribution system, cellular-based alarm/notification system for critical systems, TFF skid instrument replacement & revalidation, chromatography skid sequence of operations modification, and others.
- Automation engineer for Rockwell PLC and HMI program changes for custom aerospace manufacturing equipment to improve equipment function according to customer requirements.
- Experience with automation and construction project design process including submittal, specification, and drawing review for compliance with site requirements and compatibility with existing infrastructure.

#### 4.7 Anees Chamarti, Lead Automation Engineer II



<b>Name and Title:</b>	ANEES CHAMARTY, LEAD AUTOMATION ENGINEER II, PMP
<b>Control Systems:</b>	<u>DCS:</u> Rockwell PlantPax <u>PLC:</u> Rockwell ControlLogix , CompactLogix <u>HMI / Batch /</u> Rockwell FTView SE, ME, FT Batch, Wonderware, <u>SCADA / Historian:</u> ThinManager, INTOUCH, OSI PI, FactoryTalk Historian, Win 911, TopView <u>Digitalization/</u> <u>Business Intel</u> <u>SIS / F&amp;G / BMS:</u>
<b>Communications Protocols:</b>	ControlNet, Ethernet/IP, OPC, Modbus
<b>Past Client Relationships:</b>	AbCellera Biologics, Upside Foods, Turtle Tree, Gilead Sciences, Boehringer Ingelheim, Sutro Biopharma, Genentech, Merck, AstraZeneca, BBraun, BI
<b>Education and Certifications:</b>	Master of Science, Mechanical Engineering Certified Scrum Master Project Management Professional (PMP) Rockwell PlantPax Certified
<b>Skills/Expertise:</b>	Project Management DCS / PLC Design and Programming HMI /SCADA Design and Development Digitalization, data acquisition, and analytics design and solution S88 Batch Design and Development Design Document Development (URS, FS, SDS, HDS, I&C Drawings, Instrument Datasheets) Control System Commissioning, Startup, Test Protocol Development, Execution and Validation Control System migration and upgrades System virtualization and network design Configuration Integration Staging and testing Project development and lifecycle management



**Project Experience:**

Anees has over 20 years of industry experience in control system applications. Over the past 5 years, Anees has gained hands on experience in the configuration/integration of Rockwell PLCs and is a proven technical lead for small – mid scale projects involving Process automation, PlantPax DCS utilizing ControlLogix, Compact Logix PLCs, FactoryTalk Batch, FT Historian, and Graphical user interface development/deployment using FactoryTalk View SE.

During her course at ETG Anees has also managed projects both from a technical and customer oriented standpoint.

Anees's current responsibilities include: Project Management of small-mid scale projects, SCADA upgrade (PlantPax DCS), PLC/Batch programming, HMI development, Functional/Software Design Specifications development, Test Protocol development, Startup support/Testing and Proposal /Labor Estimate development.

**Professional Highlights:**

- Automation Implementation, Biopharma green field facility: Lead engineer and project manager for the design and implementation of the Distributed Control System (DCS) for the automation of EMS and Clean Utilities systems. Lead and coordinate hardware design, procurement, and panel fabrication teams. Responsible for the entire project life cycle from concept to commissioning.
- FEED Study for a biopharma green field facility: Technical lead for a FEED study leading to an automation solution for DCS infrastructure and monitoring systems. Effort involved technical workshops and focused sessions with PCS OEM and client. Performed systematic analysis of software platforms leading to the preliminary design of network architecture and detailed scope of work for system integration. Responsible for stakeholder engagement, earned value management, and value delivery.
- Alternative Protein Process Automation: Performed a feed study for a cultivated meat start-up and generated User Requirement Specification for their Pilot Plant. Collaborated with the client Process Science team to design and develop the Process Automation Software Design specification.

Developed Pin Charts to define Units, Operations, Phases, Valve Alignments and Equipment Modules which in turn were used to program the components for the Pilot Plant's Process Control System.

Configured Control Modules. Performed Batch configuration and programming to integrate PLC based Phase Logic with FT Batch. Performed onsite equipment tests, loop tuning and incremental PLC (ControlLogix L85 EP) code updates to support installation and start-up activities.



- PlantPax DCS: Performed a feed study for client's AWFJ facility and put together a high level network architecture for a new SCADA system based on Rockwell's PlantPax technology. Developed the HMI using PlantPax library and configured Logix-based alarming. Configured the SCADA to integrate additional skids. Ensured that the system met Rockwell's PlantPax audit requirements.
- Project Management (various small scale projects): Scope management, leadership, time/labor estimates - weekly reports, schedule updates, resource planning, procurement, project tracking, and periodic cadence.
- Integrated four VOC Gas monitoring (RKI sensor) analog signals into the existing Hazard monitoring system of a Biopharma facility. Effort involved updating electrical schematics using AutoCAD, PLC programming, HMI configuration, startup (SAT), and interactive testing involving an existing BMS system.
- To aid a new Biopharma facility charted out the scope for its new process control equipment, performed a feed study, and designed a scalable SCADA system based on Rockwell controllers with an interface to the existing DeltaV control system – studied P&IDs (piping and instrumentation diagram), developed functional, software design and hardware design specifications.
- Performed a SCADA upgrade on an existing centrifuge system by migrating the existing PanelBuilder HMI to FactoryTalkView SE. Created User Requirements Specifications and Functional Specifications for a new SCADA system compliant with 21 CFR Part 11. Implemented a new SCADA architecture with scope to include future system upgrades. Configured a new Alarm and Event database and implemented screen security. Developed FAT and SAT documents under GMP.
- As part of a Data Historian upgrade project at Biopharma facility, configured KepWARE OPC to facilitate data flow from the existing Control Systems into a new OSiPi Interface. Coordinated activities between the client and the automation team – leading to problem solving and procurement of key information for project advancement. Developed URS, FS, and SDS documents for the Data Historian to chart out the new design and architecture of the OSI PI system. Configuration of Dream Report software to poll historized data from PI Server to generate Batch reports.
- Provided SAT support on an upgrade project at a Biopharmaceutical facility. Responsible for supporting Instrumentation Check-Out and Automation Check-Out activities for a skid, which included Recipe tests and PLC troubleshooting using RSLogix 5000.
- Modified existing PLC and HMI software to integrate a new skid in an existing chromatography system. Devised a process to perform Batch modifications with minimal intrusion to the existing area model. Updated



documentation and generated compare reports to support validation. Developed IQ/OQ protocols. Performed FAT execution under GMP.

- Updated tag attributes in the exported GEMS spreadsheet to address deviations and Design Change Requests during the SAT. Modified screens in the HMI using objects from the GEMS library. Utilized the PlantPax checklist and verification tools to analyze the system to be PlantPax compatible. Performed Loop Tuning on Temperature control loops for bioreactors as part of SAT. Performed loop checks on field devices and instruments (Pressure/Temperature Transmitters, Control Values, Block Valves) as part of SAT under GMP. Performed Control Panel and Field wiring checks. Generated deviation reports and documented design change reports.
- Updated parameters for Protein Inactivation on multiple Rockwell RSBatch recipes. Created a methodical process in a spreadsheet to provide step by step implementation leading to no errors. Configured Rules in a compare tool to reduce the formatting effort by half in generating compare reports.

#### 4.8 Astrid Fleischer, Sr. Automation Engineer II



<b>Name and Title:</b>	ASTRID FLEISCHER, SENIOR AUTOMATION ENGINEER
<b>Control Systems:</b>	<p><u>DCS:</u> Modicon M340, M580, Quantum; Siemens TIA, Simatic S7, Simatic S5, Siemens MMC; Rockwell ControlLogix, CompactLogix</p> <p><u>PLC:</u> Wonderware InTouch, Wonderware Historian, Wonderware Active Factory; Siemens WinCC</p> <p><u>HMI / Batch / SCADA / Historian:</u></p> <p><u>Digitalization/ Business Intel</u></p> <p><u>SIS / F&amp;G / BMS:</u></p>
<b>Communications Protocols:</b>	Modbus RTU, Modbus TCP/IP, Ethernet/IP, Profinet, Profibus
<b>Past Client Relationships:</b>	Sartorius AG, AMPAC Fine Chemicals, City of San Diego Public Utilities Department, City of Oceanside Water Utilities, Eastern Municipal Water District, Los Angeles County Waterworks Districts, Water Replenishment District of Southern California, Orange County Water District, Serrano Water District, State of California Department of Toxic Substances Control, City of Santa Ana Municipal Utilities Services, City of Santa Monica Public Works Water Resources, Mesa Water District, Carlsbad Poseidon Water, Ventura County Waterworks District, City of Lakewood Water Utilities, City of Long Beach Water Department, City of Paramount Water Division, West Basin Municipal Water District, ThyssenKrupp Steel AG, US Steel, ArcelorMittal, Wieland Metal Services, Erdemir
<b>Education and Certifications:</b>	Bachelor of Science, Electrical Engineering Georg Simon Ohm University, Nuremberg, Germany. Professional Engineer in Control System Engineering, State of California CS7440 Siemens Certified Factory Automation Application Engineer EcoStruxure Plant: Eco Struxure Control Expert Certification
<b>Skills/Expertise:</b>	PLC Design and Programming, HMI Design and Development, General Control Panel Design, Control Network Design Version Control Systems GITBash, Subversion Design Document Development and QAQC (P&ID Drawings, Electrical Drawings, Network Drawings, Control Strategies, Motor Control Schematics (I&C Specifications) Control System Startup, Test Protocol Development, Execution and Validation Construction Support Services (Vendor Submittal Reviews Control Panel Reviews, Responses to RFIs, FAT Witnessing)



**Project Experience:** Astrid has 30 years of experience in the design and implementation of industrial and municipal control systems. Astrid's current responsibilities include PLC programming, Control System design, documentation, startup, testing, and validation.

**Professional Highlights:**

- Development of code for the Sartorius AG BioBrain Automation platform. The BioBrain platform supports, among others, Biostat STR single-use bioreactors, Sartoflow Expert single-use tangential flow filtration (TFF) systems, Sartoflow Rocker Modules (RM), BioPAT instruments.
- Commissioning, startup, and support for a CIP system in North Carolina
- Programming and startup of the Schneider Electric Modicon M580 control system for the construction of two new Clearwells and two Chlorine Contractor Chambers at the City of San Diego's Miramar Water Treatment Plant. Designed the control panel (general design) and network modifications to integrate the new M580 controllers into the existing Quantum control system. Programmed the new hot standby M580 controllers and the PLC modifications to the existing Quantum controllers, developed the new HMI screens, and integrated the control additions with the existing Wonderware HMI, Wonderware Historian, and network management application. Performed the startup and the tuning of the control system and PID loops. Performed the client training and wrote the SCADA Operations and Maintenance (O&M) manual.
- At the City of San Diego Otay Water Treatment Plant, designed the electrical control panel (general design) modifications and wiring diagrams, converted the Concept program to Unity Pro, modified the AutomationDirect C-More OIT application, the Wonderware SCADA and Historian applications to communicate with the new M580 controllers, and performed the startup for replacing the failing and obsolete Schneider Electric Quantum PLC controller for the chlorine dioxide system with two hot standby redundant M580 controllers and associated RIO.
- For the design and construction of the Pure Water Oceanside Advanced Water Purification Facility for the City of Oceanside, performed P&ID development, general control panel design, and electrical pump controls design (VFD and motor starters). Electrical network design for Modicon M580 Controllers with RIOs, Ethernet/IP and Modbus TCP capable instrumentation, and Smart Motor Control Centers (MCC). Designed the electrical integration of new equipment such as primary sludge collectors and pumps, secondary clarifiers, and RAS/WAS pumps into the existing Modicon Quantum Control System. Performed I&C, Control Panel, and Electrical submittals reviews including but not limited to submittals for instrumentation, PLC and SCADA, valve operators, pumps with appurtenant motors and variable frequency drives, and MCCs.



- For the design and construction of the PFAS Treatment Plants for the Serrano Water District and the Orange County Water District, designed the electrical motor control schematics, new PLC control panels (general design) and modifications to existing PLC control panels. Designed the electrical integration of the new control system components (such as HMIs, PLCs and VFDs) in the existing plant control network. Participated in the development of piping and instrumentation diagrams (P&ID) and electrical schedules. Prepared I&C specifications. Reviewed Contractor submittals and RFIs.
- The Well #32 Rehabilitation Project for the City of Santa Ana places the Well #32 back into service and incorporates it into the City's nitrate blending plant at John Garthe Reservoir site. Designed electrical motor control schematics for the VFDs with soft starter bypass and for motor starters and generated electrical schedules for the replacement of the existing MCC with a new smart MCC.
- The Moreno Valley Main Treatment Facility project of the Eastern Municipal Water District includes the construction of three new wells and a treatment plant that is comprised of GAC vessels for PCE removal, Perchlorate removal through a single use IX train, nitrate removal through a staggered bed regenerable IX system, a booster pump station and sodium hypochlorite and liquid ammonia sulfate chemical treatment. Designed electrical motor control schematics, PLC control panels (general design), the control system plant network, P&IDs, instrumentation specifications and electrical conduit schedules.
- The Wells #201, #202, #203 and #205 and Treatment Plant project of the Easter Municipal Water District is comprised of horizontal media pressure filters designed to remove iron and manganese, filter backwash system, forebay reservoir and booster pump station, and sodium hypochlorite treatment at the treatment plant. Responsibilities included designing electrical motor control schematics, PLC control panels (general design), the control system's plant network, P&IDs and generation of specifications and electrical schedules.
- For the City of San Diego Public Utilities Alvarado Water Treatment Plant (WTP), Miramar WTP, and Otay WTP, prepared a feasibility report to upgrade the existing SCADA system's hardware and software, which has reached end of life, to a current generation SCADA system infrastructure. Developed the strategy for transitioning the existing Stratus everRun FT servers and the SCADA system's Wonderware applications to current versions.
- For the City of Southgate's Water Facilities Chlorination Systems upgrades, designed the control panel modifications for adding the chlorine system upgrades to the existing Schneider Electric SCADA Pack



RTU control panels at Well #26, Well #27, Well #28, Park Reservoir, and Hawkins Reservoir.

- For the Ventura County Waterworks District No. 16's PIRU Wastewater Treatment Plant Phase II Tertiary Treatment Facility, designed the integration of the new tertiary feed pump station, acid feed, and the vendor packaged desalination system into the existing wastewater treatment plant control system. The control system uses Allen Bradley hot standby redundant PLC controllers and a Wonderware HMI SCADA.
- For the State of California, Department of Toxic Substances Control's Pyrite Canyon Treatment Facility, reviewed I&C and Electrical Submittals from vendor supplied packaged systems, such as filter presses, bag presses, air compressors, booster pumps, inclined plate clarifiers, flocculating clarifiers, and other systems. Reviewed control panel design submittals and electrical drawings for the equipment, which included the Allen Bradley-based ControlLogix control system with PowerFlex VFDs and a GE IFIX HMI. Responsible for keeping project documents up to date, including documentation for P&IDs, PLC input/output lists, Master Equipment Lists, as well as conduit and cable schedules. Preparation of Functional Specifications. Preparation of O&M Manual content and startup testing procedures.
- For the Water Replenishment District of Southern California's Albert Robles Center for Water Recycling and Environmental Learning, responsibilities included P&ID development, electrical design for Ethernet network and Profibus for integrating Modicon M580 Controllers, Modicon RIOs with Ethernet/IP, Modbus TCP or Profibus DP capable instrumentation, Siemens Smart Motor Control Centers (MCC) and the Wonderware System Platform 2014 redundant servers. Reviewed Instrumentation & Control, Control Panel, Building Facility, and Electrical Submittals including but not limited to submittals for instrumentation, PLC and SCADA, valve operators, pumps with appurtenant motors, security system, access control system, solar system, HVAC system, motor control center, variable frequency drives, and lighting. Responsible for keeping project documents up to date, including documentation for P&IDs, PLC input/output lists, specifications, and conduit and cable schedules.
- For the County of Los Angeles Department of Public Works' Alamitos Barrier Telemetry System Upgrade, specified the project's Siemens S7-1200 control system and network equipment. Designed the project's control and instrumentation panels, including panel load calculations, and design of the photovoltaic power supply for the control panels. Prepared conduit schedules, drawings, and specifications.
- For the County of Los Angeles, Department of Public Works Water Resources Division's Spreading Grounds Telemetry System Upgrade



Services Project, updated the Siemens TIA S7 PLC program and the Wonderware InTouch 2012 R2 HMI application. Updated the O&M Manual and the project drawings.

- For the City of San Diego Public Utilities Water Department provided under the As-Needed Consultant Emergency Support Services for Process Control Systems Contract as-needed consultant emergency support services for process control systems for the City of San Diego's three water treatment plants: Miramar, Alvarado, and Otay. Prepared the scope of services tasks and cost estimates for the emergency support services contract. Coordinated project task work with Public Utilities Water Department and project budget management. Reviewed and upgraded existing plant control processes such as backwash sequence, chemical feed systems, and alarm management. Reviewed and designed changes to the plant's fiber optic Ethernet and remote IO Coax networks to establish redundancy and increase performance. Added fiber optic repeaters, firmware upgrades, network terminators, and others. Selected and installed network management applications (ConneXium Network Manager) with integration into the visualization on the plant's Human Machine Interfaces (HMI, Wonderware InTouch). Supported the redundant Marathon Endurance Server System during server performance issues. Implemented software upgrades to the plant's Wonderware HMI, Wonderware Historian, and Stratus Redundant Server System.
- For the City of San Diego Otay Water Treatment Plant's upgrade with a chlorine dioxide generator and contactor, pumped backwash, new flocculation and sedimentation basin, replacement of filters, and SCADA system upgrade, programmed the PLC and the Wonderware HMI application for filter level control and automated backwash sequence. Developed a comprehensive model of the plant in PICS Simulation Software to use for an in-depth system test and simulation.
- For the ThyssenKrupp Steel AG Continuous Galvanizing Line #1 in, Germany, programmed the revamp of the drives control and plant control from SIPRO MMC to SIMATIC S7 using Siemens Variable Frequency Drives SINAMIC. Responsible for the redesigning the 10 old plant PLCs' functionality on four SIMATIC S7 controllers.
- For the Erdemir Continuous Pickling Line in Eregli, Turkey, programmed the revamp of the process control from SIPRO MMC to SIMATIC S7 using Siemens SIMOVERT variable frequency drives. Project included performing a parallel-run during production with the real process data and simulated drives prior to the installation of the new control system.

#### 4.9 Andreas Lang, Lead Automation engineer I



<b>Name and Title:</b>	ANDREAS LANG, LEAD AUTOMATION ENGINEER I
<b>Control Systems:</b>	<u>DCS:</u> Rockwell PlantPax <u>PLC:</u> Studio 5000, RSLogix 500, Siemens STEP 7, TIA Portal, EcoStruxure Control Expert <u>HMI / Batch / SCADA / Historian</u> FactoryTalk View SE, GE iFix, TIA Portal, WinCC, Studio 5000 View Designer, FactoryTalk View ME, InTouch, AVEVA System Platform, Proficy Historian, AVEVA Historian, Fix32, Ignition.
<b>Past Client Relationships:</b>	Novo Nordisk, Bavarian Nordic, Chr. Hansen, Aalborg Hospital Nord, Hyperion Water Reclamation Plant / LASan, JB Latham Treatment plant/SOCWA, Gilead, Kite Pharma, PolyPeptide Group, Thermo fisher
<b>Education and Certifications:</b>	Bachelor of Science, Electrical and Electronics Engineering Denmark Technical University College, Ballerup, Denmark Siemens Certified Factory Automation Application Engineer
<b>Skills/Expertise:</b>	Process Control CAD/Electrical/P&ID Review DCS System Design and Programming PLC System Design and Programming HMI System Design and Programming Batch System Design and Programming Control System Startup Instrumentation GDP/GMP Design Documentation



**Project Experience:** Andreas has 9 years of experience in process control automation projects with responsibilities, design, configuration, testing, and process startup in biotech/pharmaceutical and wastewater industries.

**Professional Highlights:**

- Gilead, Systems integrator role for Space planning tenant improvement project. PLC and life cycle document generation.
- Gilead, Support on L50 Expansion: Design review, QMS control, tracking and supporting various projects.
- Kite Pharma, Skid startup and integration between DeltaV and Rockwell PLC.
- PolyPeptide Group, Lyophilizer startup and integration.
- El Segundo Mission Critical on-site support, assisting electrical wiring installation.
- Hyperion MBR Pilot Plant- Bioreactor Pilot Plant: Lead system integrator for project estimated cost worth ~\$18 million. Integrating 6 vendors FactoryTalk View ME OITs into a uniform FactoryTalk View SE PlantPAx 3.5.0 platform and communicating with their respective AB Controllers. In charge of programming process controls in collaboration with process design to supply MBR's with influent. Collecting information to create project wide loop drawings and assist electrical contractor during startup with termination.
- JBLatham SOCWA Wastewater treatment plant: On site representative responsible for creating test documentation, client relations, startup, handover for 4 Digesters, 1 Hopper, and Waste activated sludge pump delivery system.
- Autoclave upgrade: Upgraded an old Fix32 system to newer iFix 5.0, responsible for leading a small team of 2 other people.
- Bavarian Nordic FMS: Responsible for setting up iFix SCADA platform and network for large scale FMS system, and interfacing with existing customer control systems.
- Novo Nordisk Formulation: Make changes to formulation system ActiveX OCX Objects built in VB6 studio.
- Novo Nordisk China virtualization: Virtualization for 4 different PC's to VMWare
- Aalborg Hospital FMS: Create a large-scale SCADA platform to handle logging, reporting, and troubleshooting in iFix.
- Carson Stormwater Capture: Took over previous system integrator's project, developing new HMI and PLC control.
- Padre Dam: Developed BOM and Panel equipment for customer's new back panel upgrade.
- Internally developing a program using Microsoft Access to generate generic modules for both the PLC and SCADA platform, specifically for Facility Monitoring Systems.

#### 4.10 Bret Wiscomb, Sr. Automation engineer – WWW Consultant



<b>Name and Title:</b>	BRET WISCOMB, SENIUOR ENGINEER III
<b>Year of Experience</b>	40+
<b>Control Systems:</b>	<p><u>PLC:</u> Rockwell PLC5/SLC500 / ControlLogix/ CompactLogix, Modicon Quantum/M580, Omron, GE 90-70 Emerson DeltaV Operate, Rockwell FTView SE/ME/ FTViewm RSVIEW 32/ Win View/ Wonderware</p> <p><u>HMI / Batch / SCADA / Historian:</u> InTouch/Citect/System Platform, GE IFix/Fix32/ iBatch</p> <p><u>Digitalization/ Business Intel:</u> Digital Twin, Industry 4.0, Data Analytics, Kuka Robotics, IIOT, Machine Vision</p>
<b>Communications Protocols:</b>	Ethernet/IP (DLR), ControlNet, DeviceNet, RIO, DH+, Modbus, OPC UA
<b>Education and Certifications:</b>	DCE, Industrial Automation Program, University of Utah
<b>Skills/Expertise:</b>	<p>PLC Design and Programming HMI/SCADA Design and Development Design Document Development Alarm Notifications Industrial Networking Control Panel Design Field and analytical instrument sizing, selection, and commissioning Control System Testing, Startup, Commissioning Test Protocol Development, Execution and Validation Control System migration and upgrades. Project lifecycle management</p>
<b>Industry Expertise</b>	40+ years in Water and Wastewater, Material Handling, Energy Management Systems
<b>Projects Highlights</b>	<p>Kaua'i Department of Water</p> <ul style="list-style-type: none"> <li>• Member of the team that maintains the SCADA system and works on improvement projects.</li> <li>• OIT programming and replacement, all sites.</li> </ul> <p>Kaua'i Department of Public Works</p> <ul style="list-style-type: none"> <li>• Member of the team that programmed and commissioned the island-wide wastewater SCADA system.</li> <li>• Member of the team that maintains the SCADA system and works on improvement projects.</li> </ul>
<b>Previous Experience</b>	Glenmont Global Solutions, an E Tech Group Company since 2018

#### 4.11 Dave Voss, Sr. Automation Engineer II



<b>Name and Title:</b>	DAVE VOSS, SENIOR ENGINEER II	
<b>Years of Experiences</b>	27	
<b>Control Systems:</b>	<u>DCS</u> <u>PLC:</u> <u>HMI / Batch / SCADA / Historian:</u> <u>Digitalization/ Business Intel:</u>	Emerson DeltaV Rockwell PLC5/SLC500 / ControlLogix/ CompactLogix, Modicom Quantum/ General Electric PLC Rockwell FTView SE/ME/ FTView/ RSVIEW 32 View/ Wonderware InTouch/Citect/System Platform, GE iFix/Fix32/ iBatch Digital Twin, Industry 4.0, Data Analytics, Kuka Robotics, IIOT, Machine Vision
<b>Communications Protocols:</b>	Ethernet/IP (DLR), ControlNet, DeviceNet, RIO, DH+, Modbus, OPC UA	
<b>Education and Certifications:</b>	Associate, Natural Science & Mathematics, Napa Valley College UL 508A – Industrial Control Panels & Short Circuit Current Ratings UL 698A – Industrial Control Panels Relating To Hazardous Areas OSHA 30 Hour – Construction Outreach Program Safety Training	
<b>Skills/Expertise:</b>	Electrical Design under National Electric Code & UL & Isa Standard AutoCAD w/Custom VBA Programming PLC Design and Programming HMI/SCADA Design and Development Design Document Development Industrial Networking Control Panel Design Field and analytical instrument sizing, selection, and commissioning Control System Testing, Startup, Commissioning Test Protocol Development, Execution and Validation Control System migration and upgrades. Project lifecycle management	
<b>Industry Expertise</b>	27+ years in Water and Wastewater Treatment Plants, Pharmaceutical, Production Line, Energy Management Systems, Telecommunications and Telemetry	
<b>Projects Highlights</b>	Project Engineer for the Equinix SV14-17 BMS upgrade project consisting of new redundant PLC control panels and dozens of local RIO control panels, DLR networks, and building instrumentation. Project Engineer for the Meta DCI-351 project consisting of the demolition of various control system and process instrumentation components related to existing DX systems at various data centers.	
<b>Previous Experience</b>	Glenmont Global Solutions and FluidIQS, an E Tech Group Company since 2018	

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#### 4.12 Kevin Tom – Lead Automation engineer I



<b>Name and Title:</b>	KEVIN TOM, LEAD AUTOMATION ENGINEER I
<b>Control Systems:</b>	<p><u>DCS:</u> APACS 4-MATION, Honeywell Experion PKS, POMSnet MES, Emerson DeltaV DCS, Rockwell PlantPAX</p> <p><u>PLC:</u> Allen-Bradley ControlLogix, CompactLogix, and PLC-5 Systems, Rockwell Global Engineering Modularity Standards (GEMS), Rockwell Process Objects, Rockwell PowerFlex VFDs</p> <p><u>HMI / Batch / SCADA / Historian:</u> Wonderware InBatch, Honeywell TotalPlant Batch, Rockwell FactoryTalk View SE/ME, Rockwell FactoryTalk AssetCentre, Proficy iFix, WIN-911</p>
<b>Communications Protocols:</b>	EtherNet/IP, Common Industrial Protocol (CIP)
<b>Past Client Relationships:</b>	Regeneron, Genentech, Alza, Bayer, Anheuser-Busch, Gilead Sciences
<b>Education and Certifications:</b>	Bachelor of Science, Biochemical Engineering University of California, Davis
<b>Publications:</b>	<p>Tom, K. &amp; Clayton, C. (2022, August 16). <i>Best Practices for Effective Automation Applications</i> [Webinar]. Control Engineering. <a href="https://www.controleng.com/webcasts/best-practices-for-effective-automation-applications/">https://www.controleng.com/webcasts/best-practices-for-effective-automation-applications/</a></p> <p>Tom, K. (2022). Control System Case study: Redesign the Process First. <i>Control Engineering</i>, 69(7), 24-25.</p>
<b>Skills/Expertise:</b>	PLC Programming GDP/GMP Documentation AutoCAD HMI Programming Startup/Installation Ladder Logic Structured Text Function Block Diagram Sequential Function Chart MATLAB Visual Basic



**Project Experience:**

Kevin has been a part of the E Tech Group team for over 6 years, during which time his experience as an automation engineer has included control panel design, PLC programming, HMI development, design and test documentation, control system installation, validation, and debug/field support. He regularly works on projects in the highly regulated life sciences industry, incorporating current good manufacturing practices (cGMP), good documentation practices (GDP), and good automated manufacturing practices (GAMP) into his work daily.

**Project Highlights**

- Integrated isolated suites of vendor graphic applications into a centralized FactoryTalk View SE distributed system for the upstream process of a pre-clinical biopharmaceutical manufacturing facility in Tarrytown, NY. The upstream operations consisted of over 70 bioreactors, both stainless steel and single-use, with additional equipment for media and CIP. Main responsibility was spearheading the HMI development which included reverse engineering and integrating vendor code, developing new graphics, and creating custom code, including a navigation search feature to directly access any number of graphics for any of the 70+ bioreactors and their auxiliary equipment.
- Integrated vendor vacuum pump skid controls and monitoring into a centralized Process Control System (PCS) for an Active Pharmaceutical Ingredient (API) Pilot Lab and Lab Building in Foster City, California. Responsibilities included PLC and HMI programming, modifying the Historian, updating design specifications, and assisting with Profibus module modifications.
- Designed and implemented two tech transfers at a cGMP biopharmaceutical manufacturing plant in Vacaville, CA. Responsibilities included leading a cross-functional design team, updating design documentation, modifying the DCS control layer, creating new and updating existing recipes, updating the model and material databases, and authoring change control documentation.
- Team lead on a manufacturing control system upgrade project from Honeywell Experion PKS to Emerson DeltaV DCS at a cGMP biopharmaceutical manufacturing plant in Vacaville, CA. Responsibilities included establishing programming standards for the new DeltaV control system as well as leading a team of engineers to review composites, control modules, equipment modules, phases, recipes, unit classes, and MES interfacing modules for consistency, functional equivalence with the Honeywell source code, and accurate implementation of process changes designed to increase the production run rate.
- Provided debug/field support for a fast-paced tech transfer at a cGMP biopharmaceutical manufacturing plant in Vacaville, CA. This large Honeywell-based S88 batch control system underwent substantial design changes at breakneck speeds, including changes to equipment,



batch recipes, and phase logic. Responsibilities included real-time debug, technical assessments, and execution of change requests and discrepancy actions across the DCS, Batch Manager, and MES levels for upstream, downstream, and auxiliary operations.

- Team member on a Hazards Monitoring System (HMS) upgrade project at an Active Pharmaceutical Ingredient (API) Pilot Lab in Foster City, California. E Tech Group modified one of the HMS control panels to allow for routine instrumentation calibration and preventive maintenance without interruption of the entire system. Responsibilities included project estimation, hardware design, and test development.
- Team member on a data integrity upgrade project for an aqueous coater at a pharmaceutical manufacturer in Vacaville, California. Project focus was to implement 21 CFR Part 11 requirements and migrate from iFix 5.1 to 5.8. Responsibilities included updating design specifications, migrating, and modifying HMI software, and setting up 21 CFR Part 11 features such as an audit trail and user authentication.
- Team member on a remote I/O upgrade project at a Central Utilities and Water for Injection (WFI) site in Berkeley, California. E Tech Group fabricated a new remote I/O control panel with Allen-Bradley ControlLogix hardware to replace outdated Siemens hardware. Responsibilities included project estimation, assisting with control panel drawings, updating design specifications, migrating the I/O points in the PLC programs, SAT generation and execution, startup, and validation.
- Team member on a fermentor CO2 exhaust system upgrade at a brewery in Fairfield, CA. The distributed control system included ControlLogix and PLC-5 controllers that utilized a database-backed sequencer. Responsibilities included designing an inter-processor FIFO queue, updating design specifications, developing FT View SE screens, test generation and execution, and startup.
- Lead engineer on a Temperature Control Unit (TCU) upgrade project at an Active Pharmaceutical Ingredient (API) Pilot Lab in Foster City, California. The 21 CFR Part 11-compliant distributed system included redundant FT View SE and FT Historian servers, and a WIN-911 alarm notification system. Responsibilities included updating design specifications, developing FT View SE screens, adding points to FT Historian and WIN-911, SAT generation and execution, startup, and validation.
- Team member on an I/O point migration project at an Active Pharmaceutical Ingredient (API) Pilot Lab in Foster City, California. The 21 CFR Part 11-compliant distributed system included CompactLogix controllers and redundant FT View SE and FT Historian servers. Responsibilities included project estimation, control panel drawings, updating design specifications, Rockwell GEMS PLC programming, assisting with development of FT View SE screens, updating the alarm and events database, SAT generation and execution, startup, and validation.



- Team member on a Process Control System (PCS) installation project at a new Active Pharmaceutical Ingredient (API) Pilot Lab and Lab Building in Foster City, California. E Tech Group installed a 21 CFR Part 11-compliant distributed system of ControlLogix controllers, Strongarm touchscreen operator interfaces, and virtual data servers with a redundant FT View SE set-up, FT AssetCentre, redundant FT Historian servers, and a WIN-911 alarm notification system. Responsibilities included control panel drawings, generating software design specifications, creating instrument submittals, instrumentation procurement, Rockwell GEMS PLC programming, equipment module PLC programming, development of FT View SE screens, alarm and events database generation, configuration of FT AssetCentre, configuration of WIN-911, PowerFlex VFD program modification, control panel FAT generation and execution, software FAT and SAT generation and execution, loop tuning, and startup.
- Team member on a Hazards Monitoring System (HMS) installation project at a new Active Pharmaceutical Ingredient (API) Pilot Lab and Lab Building in Foster City, California. Responsibilities included control panel drawings and SAT generation.
- Supported Disaster Recovery Plan project at an Active Pharmaceutical Ingredient (API) Pilot Lab in Foster City, California. Guided customer through set-up and installation of virtual back-up servers.

#### 4.13 Sahil Mehta, Lead Automation Engineer II



<b>Name and Title:</b>	SAHIL MEHTA, LEAD AUTOMATION ENGINEER II
<b>Control Systems:</b>	<u>DCS:</u> Rockwell PlantPAx, Metso DNA (FbCAD and SqCAD) <u>PLC:</u> Rockwell PLC 5, SLC 500, ControlLogix, CompactLogix, Modicon M340/M580, Premium PLC <u>HMI / Batch / SCADA / Historian:</u> Rockwell FactoryTalk View SE / ME / Batch, Wonderware INTOUCH, Power Scada Expert (Citect Scada), OSI PI  <u>Digitalization/ Business Intel SIS / F&amp;G / BMS:</u>
<b>Communications Protocols:</b>	Modbus, IEC-61850 standard, RIO, Ethernet/IP (DLR)
<b>Past Client Relationships:</b>	Genentech, Lawrence Livermore National Labs, Polaris Pharmaceuticals, Upside Foods, Synthego, Sutro BioPharma, Gilead Life Science, Biomarin, Merck, Lonza Biologics, Anheuser-Busch, Smuckers, Clorox, Abengoa Solar, BASF Chemicals, Chevron Phillips, Facebook
<b>Education and Certifications:</b>	MS in Electrical Engineering Colorado State University, Fort Collins, CO (Dec 2011)
<b>Skills/Expertise:</b>	DCS Programming Enclosure Design PLC Design and Programming HMI Design and Development GMP Design Document Development (FS, SDS, HDS) FAT, SAT documentation and user manuals for SCADA/HMI operation Network Integration & Segregation



**Project Experience:**

Sahil has over 12 years of experience in the design and implementation of industrial control systems. Sahil's current responsibilities include HMI development, PLC programming, Control System design, documentation, startup, testing and commissioning, test protocol development, and execution.

**Professional Highlights:**

- Automation Engineer for IT/OT segregation project to separate corporate and automation networks for a pharmaceutical ingredient production company. Responsibilities included updating infrastructure, network survey and investigation, managing third party contractors, and day to day IT issue troubleshooting.
- Automation Engineer for a cybersecurity focused project to separate corporate and automation networks for a pharmaceutical company. Responsibilities included panel upgrades, PLC/HMI programming, documentation update, test development & execution and electrical contractor management.
- Lead Automation Engineer for Hardware FEED Study for conversion of legacy DCS platform to Modicon platform for a biotechnology company.
- Lead Automation Engineer for PLC5 to ControlLogix conversion project for national labs.
- Lead Automation Engineer for troubleshooting and providing support for Rockwell family of products for a pharmaceutical company.
- Lead Automation Engineer for batch programming, commissioning, startup, and SAT for cultured meat manufacturing facility.
- Project Engineer for ControlLogix and PLC5 (Updating CO2 exhaust system for fermenters) for a brewery.
- Automation Engineer for controller upgrade from SLC to CompactLogix which included panel upgrade, programming, documentation, testing, and Kepware configuration for all skids (OPC communication with PI) for a biotechnology company.
- Automation Engineer for CIP Programming changes, documentation updates, test development, and execution for a pharmaceutical company.
- Automation Engineer for Electrical Design for custom panels for Controllers and remote IO (Legacy upgrade) for a pharmaceutical manufacturing company.
- Automation Engineer for ControlLogix, Factory Talk SE distributed application programming and configuring GEMS (Global Engineering Modularity Standards from Rockwell) of Hazardous Monitoring System for a life science company. Design Specification (functional/software design) documentation and commissioning.
- Wrote documentation for a pharmaceutical manufacturing company including Functional Specification, Software Design Specification for



different utilities by reverse engineering existing PLC code and HMI. Wrote PLC Hardware and Software Programming Standard document for a pharmaceutical manufacturing company.

- Automation Engineer to provide support for PLC/SCADA changes involving Power SCADA expert for a social media company.
- Project Engineer for ControlLogix and Factory Talk View SE Update (Addition of Craft Trap filter) for a brewery.
- Project Engineer for PLC5 and Factory Talk View SE HMI changes for Tank Temperature Control Project for a pharmaceutical manufacturing company.
- Automation Engineer for Electrical Design for custom panels and pushbuttons for a pharmaceutical manufacturing company.
- Project Engineer for ControlLogix and RSView 32 HMI changes for Home Care Line for a consumer product manufacturing company.
- Project Engineer developing SCADA and screens for medium voltage and low voltage switchgear for a chemical company. Also designing the HMI cabinet for the same using Power SCADA Expert.
- Controls Engineer responsible for developing/configuring IO list and programming Modicon premium PLCs using SFC (Sequential Functional Charts) in Unity Pro XL including control logic specification/documentation for an international cargo port.
- Controls Engineer for Solar power plants (Solana Power Generating Station, Arizona, and Mojave Power Generating Station, California). Responsibilities include – DCS logic design using Metso DNA Programming (using FbCAD and SqCAD), Metso Picture Designer, logic change request implementation and documentation, Modbus communication configuration, I/O troubleshooting, fiber optic communication troubleshooting and configuration of Level 2 (Advanced Head unit from Telvent) tied to the DCS for solar field implementation and training client about Metso DCS logic changes and troubleshooting.
- Controls Engineer for Bioethanol plant. Responsibilities included Metso DNA Programming (using FbCAD and SqCAD), Metso Picture Designer, field instrument integration into control system using various protocols (Foundation fieldbus, Modbus and DeviceNet).

5 IEUA FORMS ATTACHED

5.1 Summary Fee Schedule – A

SUMMARY FEE SCHEDULE "A"

Each Offeror shall attach their fully completed fee schedule including Attachment B – Fee Schedule, identifying and including all skill level classifications, as well as any associated administrative (office) fees, if any. All proposed prices shall be stated in terms of a net price to the Agency.

- A. FEE INCLUSION STATEMENT: Offerors shall fully complete this Summary Fee Schedule and return it with their SOQ. All proposed fees will be stated as a NET- PRICE, whereas the NET- PRICE shall represent the total and final cost to the Agency for providing professional services listed. The NET-PRICE shall include all proposed costs associated with all labor, equipment, transportation, overhead, profit, insurance, taxes fees, incidentals, and any/all other related costs necessary to complete the services required. At any time, IEUA may require that these cost components be further broken out, itemized, and disclosed.

**Warrants:** On behalf of the afore identified "Consultant" company, the undersigned warrants that the Company has the equipment and manpower necessary to successfully complete the described work within the time frame specified within the "Request for Qualifications" and that the Company will be ready and able to begin working under such contract within 5 days of receiving notice, whether written or verbal. The Agency reserves the right to accept the SOQ that it determines to be in the best interests of the Agency and to reject any or all SOQs should it determine that to proceed is not in its best interests.

<u>Stan Reyna</u> Offeror's Signature	<u>E Tech Group</u> Company Name
<u>Stan Reyna</u> Print Name	<u>Business # 038041</u> Consultant's License Number & Type
<u>Vice Preseident LS West</u> Title	<u>02.04.2024</u> Date

Offeror's Phone Number: ( 855 ) 202-1444

## 5.2 Proposed Hourly Rate

The following Hourly Rates are based on the understanding that IEUA will issue this Master Services Agreement for an initial term of five years, with the option for two additional one-year extensions, bringing the total potential contract duration to seven years.

The proposed rates are all-inclusive of internal overhead and local travel expenses. E Tech does not invoice for administrative overhead.

Role Level	Base Rates (Through June 2026)
CADD	\$104.00
Assoc. Automation Engineer	\$104.00
Automation Engineer I	\$135.00
Automation engineer II	\$149.00
Automation Engineer III	\$161.00
Lead Automation Engineer I	\$168.00
Lead Automation Engineer II	\$175.00
Lead Automation Engineer II	\$180.00
Sr. Automation Engineer I	\$205.00
Sr. Automation Engineer II	\$216.00
Sr. Automation Engineer III	\$226.00
Project Manager	\$202.00
Sr. Project Manager	\$222.00
Principal Engineer	\$229.00

- Period of Price:** the schedule of fees for key personnel and mileage rates to be submitted with the Integrator’s SOQ, under separate cover, will remain firm-fixed for the entire term until June 2026, with adjustments based on the Consumer Price Index (CPI) permitted after the initial two years on contract.
- For Time and Material Contracts:** materials will be billed at cost plus 15%. Expenses will be invoiced at cost. Mileage allowance when applicable will be in accordance with current IRS rates.
- Out-of-Town travel expenses** for engineers travelling outside of the Southern California will be billed at cost for work assignments pre-approved by IEUA.
- Outstanding invoices** over 60 days are subject to an interest charge of 18% annually.
- Non-business hours:** A surcharge of 1.5 times the applicable rate will be billed for all services on non-business days and for services on business days between 5 p.m. and 7 a.m.
- Emergency services:** For emergency services requested with less than 2 days' notice during normal business hours, there will be a surcharge billed at 2 times the regular rate. Additionally, there is a minimum charge of four hours for any call-outs.
- Cancellations/Delays:** The Customer may cancel or delay prearranged work by prior written notice provided within a reasonable period in advance of the planned work.
- Payment Terms:** We provide monthly billing and invoices with payment terms set at Net 30 days, in accordance with the IEUA Service Agreement.

### 5.3 Exception Form

#### EXCEPTION FORM

Should your firm take exception to **ANY** of the terms and conditions or other contents provided in the Request for Qualifications, submit the following form with your Statement of Qualifications. If no exception(s) are taken, enter "NONE" for the first item. Make additional copies of this form if necessary.

Page Number: Page 370 Section Title: 1 General Liability and Aut. Liability  
Paragraph Number: C Exception Taken: Delete Paragraph

~~Delete: "c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Agency, its officers, officials, employees or volunteers."~~

Page Number: Page 371 Section Title: 3. All coverages  
Paragraph Number: 3 Exception Taken: Replace as follow

~~Delete: "Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Agency."~~

Replace With: "Each insurance policy required by this contract shall be endorsed to state that coverage shall not be suspended, voided, or canceled by either party, except after thirty (30) days prior written notice has been given to the Agency."

Page Number: 374 Section Title: L. Non-conforming Work  
Paragraph Number: L Exception Taken: Replace as follow

~~Delete: "Consultant shall within three (3) calendar days, correct any error that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of error"~~

Replace With: "Consultant shall within three (3) calendar days, correct any error solely made by consultant against the approved requirements that renders the Work or Documentation dysfunctional or unusable and shall correct other errors within thirty (30) calendar days after Consultant's receipt of notice of the error."

Page Number: Page 379 Section Title: 21. Termination for Convenience  
Paragraph Number: 21 Exception Taken: \_\_\_\_\_

~~Delete: "Agency reserves and has the right to immediately suspend, cancel or terminate this Agreement at any time upon written notice to Consultant. In the event of such termination, Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination."~~

Replace With: "Agency reserves and has the right to suspend, cancel or terminate this Agreement at any time upon a 10-day written notice to Consultant. In the event of such termination, Agency shall pay Consultant for all authorized and Consultant-invoiced services up to the date of such termination."

#### 5.4 Works Compensation Certificate

### WORKERS' COMPENSATION CERTIFICATE

The Offeror shall execute this form to acknowledge and comply with the requirements of California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and on behalf of my Consultant, I will comply with such provisions before commencing the performance of the work of any contract entered into.

<u>Stan Reyna</u>	<u>E Tech Group, LLC</u>
Signature	Company Name
<u>Stan Reyna</u>	<u>038041</u>
Print Name	Business License Number
<u>Vice President LS West</u>	<u>02.04.2024</u>
Title	Date

(This space intentionally left blank)

### 5.5 Offeror Identification

#### OFFEROR IDENTIFICATION

1. Legal Name of Offeror: E Tech Group, LLC
2. Street Address: 600 E Main St, Vacaville, CA-95688
3. Mailing Address: 600 E Main St, Vacaville, CA-95688
4. Business Telephone: (855) 202-1444
5. Fax Machine Number: N/A
6. E-mail Address: contracts@etechgroup.com
7. Type of Business:  
 Sole Proprietor    Partnership    Corporation  
Other: \_\_\_\_\_
8. Business License number issued by the City where the Offeror's principal place of business is located:  
Number: 038041   Issuing City: Vacaville, CA
9. Federal Tax Identification Number: 31-1375827
10. California Consultant's License Number: N/A
11. California DIR (Registration) Number: # 1057289, C-10 License, currently registered under Ind. Automation Group, in progress of being changed to E Tech Group.
12. Offeror's Project Manager: Chris Schleich
13. Project Manager's E-mail Address: cschleich@etechgroup.com
14. Project Manager's Cell Phone No.: (949) 414-6075

### 5.6 Business Ownership Information

#### BUSINESS OWNERSHIP INFORMATION FORM

Are you a WMDVBE\* certified business?  Yes  No  
\*(Women, Minority, Disabled, Veteran Business Enterprise)

Certification must be received from California Public Utilities Commission Clearing House. Call Toll Free: 800-359-7998 or 415-928-6892 for additional information. Please check those that apply:

- |  |  |
|--|--|
| <input type="checkbox"/> Women-Owned Business              | <input type="checkbox"/> African-American-Owned Business       |
| <input type="checkbox"/> Disabled-Owned Business           | <input type="checkbox"/> Veteran-Owned Business                |
| <input type="checkbox"/> Native-American-Owned Business    | <input type="checkbox"/> Hispanic-Owned Business               |
| <input type="checkbox"/> Caucasian-American-Owned Business | <input type="checkbox"/> Underrepresented Asian-Owned Business |

All firms need to be registered with the Agency. Please logon to [www.ieua.org](http://www.ieua.org) and under the heading of Procurements, click on the registration tab. This will allow your firm to access solicitations for the commodities or services that apply. Additionally, other agencies have access to the vendor information in the BidNet system, which will increase your access for available solicitations.

1. Legal Name of Consultant: E Tech Group, LLC
2. Consultant's Street Address: 600 E Main St, Vacaville, CA 95688
3. Consultant's Mailing Address: 600 E Main St, Vacaville, CA 95688
4. Consultant's Business Telephone: (855) 202-1444
5. Consultant's Fax Number: N/A
6. Consultant's E-mail Address: contracts@etechgroup.com
7. Type of Consultant:  
 Sole Proprietor  Corporation  
 Partnership  Other OH  
If corporation, indicate State where incorporated: \_\_\_\_\_
8. Business License number by the city where the Consultant's principal place of business is located:  
Number: 038041 Issuing City: Vacaville, CA
9. Consultant Federal Tax Identification Number: 31-1375827
10. Consultant's Project Manager: Chris Schleich

**5.7 References and subconsultants**

5.7.1 Reference 1

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Kaua'i Dep Public Works	Donn Kakuda	Kaua'i HI	1-808-241-4084

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

Wastewater Division SCADA Upgrade

1. New SCADA servers, workstations, and tablets for the four wastewater treatment plants and data center
2. Upgrade of the software versions – VMware, Windows, AVEVA System Platform, SQL Server Reporting Services (SSRS)
3. Replacement of WIN911 alarm notification software
  - Submit product cutsheets for review and approval.
  - Furnish the materials and licensing needed to implement the final design.
  - Setup and configure the hardware and virtual environment.
  - Upgrade the AVEVA System Platform galaxy and create new TopView applications.
  - Bench test new components to the extent possible
  - Develop a cutover commissioning plan.
  - Install the new equipment onsite.
  - Onsite system verification
  - Decommission the SCADA equipment that was replaced.
  - Update system O&M documentation

**SUBCONSULTANT(S) or SUBCONTRACTOR(S)**

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.2 Reference 2

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Paradise Irrigation Distr	Bill Taylor	Paradise	1-530-591-0791

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

- Project management and administration of E Tech scope items
- Develop a final upgrade design that incorporates the following items:
  1. Upgrade the MRP main PLC to be redundant.
  2. Develop a design to replace the coaxial cable and Ethernet radio network infrastructure with fiber optic and Ethernet cables.
  3. Replace the existing ControlNet modules with Ethernet/IP modules.
  4. Replace the control panel power supplies.
  5. Convert the existing WWP and RWPG-L34 controllers to Ethernet/IP remote I/O and move the control logic into the MRP PLC program.
  6. Add missing alarm annunciator panel points to the HMI.
  7. Modify the plant air system control panel to allow PLC control of the compressors.
  8. Create PIDs in the PLC program for the standpipe level controller and backwash flow controller to be used instead of the physical local PID controllers.
- Furnish the control panel materials needed to implement the final design.
- Create a control panel retrofit design package that reflects the necessary modifications to each panel.
- Submit product cutsheets and the control panel retrofit design package for review and approval.
- Provide oversight/coordination of the network infrastructure modifications (conduit/cable) to be performed by the district.
- Bench test new components to the extent possible
- Develop a retrofit commissioning plan detailing the sequence of the work.
- Perform the field retrofits and system verification.
- Submit record drawings upon completion of the retrofit.

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.3 Reference 3

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Kaua'i DEp. Water	Ryan Smith	Lihu, HI	rsmith@kauaiwater.org

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

- Designed, programmed, furnished, and commissioned a Water storage and distribution SCADA system:
- Currently contracted to maintain the system and perform the controls work for new projects.
- Approximately 100 remote tank/well/booster/valve sites around the Island.
- Configured and commissioned the communication network - frame-relay backbone with multiple 900 MHz radio systems and cellular modems.
- Developed the HMI (AVEVA InTouch) and RTU (Schneider Electric SCADAPack) programming standards.
- Configured the virtualized environments for the new SCADA system which consists of redundant SCADA servers, historian, remote access server, and domain controllers.

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.4 Reference 4

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Gilead - Foster city	Andy Chong	Foster City	(650) 356-2028

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

PlantPAX Process Control Systems, Scope

- Hardware Design
- 1000+ IO, 10 Controllers, 10 HMIs
- Redundant FT View SE servers
- FT Historian Integration (Redundant)
- FT AssetCentre Integration
- Win-911 Integration
- Programming
- Testing
- Validation
- Startup

Application & Equipment

- Chemical Reactors
- TCUs
- Hot/Gold-Sythem Distribution
- EMS
- Vendor Skid Integratin

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.5 Reference 5

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Gilead Foster City	Andy Chong	Foster City, CA	(650) 356-2028

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

PlantPAx System DCS for Hazardous Monitoring

Scope

- Hardware Design
- 1200+ IO, 2 Controllers, 150+ Modbus Devices
- Programming
- Testing
- Startup

Application & Equipment

- Solvent Distribution
- Solvent Waste Collection
- Vendor Skid Integratio

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.6 Reference 6

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Upsides Food	Vladmir Rajkovic		(415) 336-1656

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

- Scope:
  - FEED
  - Process Design
  - Hardware Design
  - Batch Development
  - PLC/SCADA
  - Programming
  - Recipe Development
  - Start-up
- Application and Equipment
  - Bioreactors
  - CIP, SIP, HWS
  - Centrifuge
  - Harvest
  - Media Prep
  - RODI
  - Compressed Air

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.7 Reference 7

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Synthego	Trevor Longbottom	San Francisco	(650) 224-5207

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

PlantPAx 5.0 DCs with the following scope:

- o FEED Study, cGMP Design Documentation, Programming
- o FAT, SAT, Site Commissioning, Panel Fabrication,
- o Supply and Installation of Instrumentation,
- o Low-Voltage Wiring Terminations

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.7.8 Reference 8

REFERENCES AND SUBCONSULTANTS

Provide at least three (3) references for the "Project" for which you would like to be considered, where you or your firm provided similar services within the last five (5) years. (Please copy this form as many times as needed.)

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
Boehringer Ingelheim	Eliud Perez	San Francisco	eluid.perez-adrover@boehringer-ingelheim.com

TYPE OF SERVICES PROVIDED (Note: Please attach a "typical" invoice, for the services provided.)

Utilities and CIP Upgrade Project

Designed, programmed, integrated, and commissioned PlantPax based Process Automation System (PAS) for a new Ambient-WFI generation, storage, and distribution system and DeltaV CIP recipes:

- o Design integrates Rockwell PlantPax utilities with DeltaV controls on the CIP.
- o Designed, programmed and commissioned using PlantPax 5.0 and GMP standard.
- o This effort includes PlantPax configuration, DeltaV configuration, AssetCentre configuration, Historian Configuration, Win911 configuration, OSI-P1 interface, construction support, commissioning, and qualification of the A/WFI system and CIP recipes
- o Design supported communication between multiple panels and required coordination with multiple skid and equipment vendors to successfully commission the project.

SUBCONSULTANT(S) or SUBCONTRACTOR(S)

List any sub-consultants who performed services, on your firm's behalf, at the referenced project described above.

COMPANY	CONTACT PERSON	CITY	PHONE NUMBER
N/A			

DIR Registration Number (if applicable): \_\_\_\_\_

Business License Number: \_\_\_\_\_ City: \_\_\_\_\_

Insurer: \_\_\_\_\_

Brief description of their services: \_\_\_\_\_

5.8 None-collusion Affidavit

NON-COLLUSION AFFADAVIT

State of California )  
 ) ss.

County of Solano )

Mr. Stan Reyna, being first duly sworn, deposes and says that he or she is Vice President, of E Tech Group, LLC ("Offeror") the party making the foregoing Statement of Qualifications (SOQ) that the SOQ is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the SOQ is genuine and not collusive or sham; that the Offeror has not directly or indirectly solicited any other Offeror to put in a false or sham SOQ, and has not directly or indirectly colluded, conspired, connived, or agreed with any Offeror or anyone else to put in a sham SOQ, or that anyone shall refrain from bidding; that the Offeror has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the SOQ fee or the Offeror or any other Offeror, or to fix any overhead, profit, or cost element of the SOQ fee, or of that of any other Offeror, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the SOQ are true; and, further, that the Offeror has not, directly or indirectly, submitted his or her SOQ labor rates or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, SOQ depository, or to any member or agent thereof to effectuate a collusive or sham SOQ.

*Stan Reyna*

Signature

Stan Reyna

Print Name

Vice Presidente, LS West

Title

E Tech Group, LLC

Company Name

Business # 038041

Business License Number

02/04/2024

Date

### 5.9 Waiver/Release of Liability

#### WAIVER / RELEASE OF LIABILITY

I, the undersigned, on behalf of E Tech Group, LLC (hereinafter referred to as Consultant), fully understand that the storage or leaving of any and all Consultant owned equipment, materials, and supplies at the Agency's facilities during the term of the contract, exposes Consultant to the risk of, but not limited to, theft, fire damage, vandalism, water damage, wind damage, and possible personal injury to Consultant's employees. For the privilege of storing/leaving any and all Contract owned equipment, materials, and supplies at the Agency's facilities, Consultant agrees to assume any and all such risks.

In consideration of being able to store/leave said equipment, materials, and supplies at the Agency's facilities, Consultant hereby releases, agrees not to sue, or bring any action against, the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers for any and all liability, claims, or actions for injury or death to Consultant's employees, or damage or theft of said property arising out of or in connection with the storage or leaving of said item(s) for whatever cause, including the active or passive negligence of the Inland Empire Utilities Agency, its officers, employees, agents, representatives, and volunteers.

I have carefully read this Waiver/Release of Liability and covenant not to sue, and fully understand its contents, and the possible exposures that Consultant is agreeing to assume. I am aware that this Waiver/Release of Liability is a full release of any and all liability. I am signing such as the authorized agent of Consultant, and of my own free will.

*Stan Reyna*

Representative's Signature

02.04.2024

Date

Stan Reyna

Print Name

Vice President LS West

Title

Approved:

*Stan Reyna*

(This space intentionally left blank)

5.10 W-9

<p><b>Form W-9</b> (Rev. March 2024) Department of the Treasury Internal Revenue Service</p>	<p><b>Request for Taxpayer Identification Number and Certification</b></p> <p>Go to <a href="http://www.irs.gov/FormW9">www.irs.gov/FormW9</a> for instructions and the latest information.</p>	<p>Give form to the requester. Do not send to the IRS.</p>																																																						
<p><b>Before you begin.</b> For guidance related to the purpose of Form W-9, see <i>Purpose of Form</i>, below.</p>																																																								
<p>Print or type. See Specific Instructions on page 3.</p>	<p><b>1</b> Name of entity/individual. An entry is required. (For a sole proprietor or disregarded entity, enter the owner's name on line 1, and enter the business/disregarded entity's name on line 2.)</p> <p><b>E-Technologies Group, Inc</b></p>																																																							
	<p><b>2</b> Business name/disregarded entity name, if different from above.</p> <p><b>E-Technologies Group, LLC</b></p>																																																							
	<p><b>3a</b> Check the appropriate box for federal tax classification of the entity/individual whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.</p> <p><input type="checkbox"/> Individual/sole proprietor    <input checked="" type="checkbox"/> C corporation    <input type="checkbox"/> S corporation    <input type="checkbox"/> Partnership    <input type="checkbox"/> Trust/estate</p> <p><input type="checkbox"/> LLC. Enter the tax classification (C = C corporation, S = S corporation, P = Partnership) . . . . .</p> <p><b>Note:</b> Check the "LLC" box above and, in the entry space, enter the appropriate code (C, S, or P) for the tax classification of the LLC, unless it is a disregarded entity. A disregarded entity should instead check the appropriate box for the tax classification of its owner.</p> <p><input type="checkbox"/> Other (see instructions)</p>																																																							
	<p><b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):</p> <p>Exempt payee code (if any) _____</p> <p>Exemption from Foreign Account Tax Compliance Act (FATCA) reporting code (if any) _____</p> <p><i>(Applies to accounts maintained outside the United States.)</i></p>																																																							
	<p><b>3b</b> If on line 3a you checked "Partnership" or "Trust/estate," or checked "LLC" and entered "P" as its tax classification, and you are providing this form to a partnership, trust, or estate in which you have an ownership interest, check this box if you have any foreign partners, owners, or beneficiaries. See instructions . . . . . <input type="checkbox"/></p>																																																							
	<p><b>5</b> Address (number, street, and apt. or suite no.). See instructions.</p> <p><b>8614 Jacquemin Drive</b></p>																																																							
	<p><b>6</b> City, state, and ZIP code</p> <p><b>West Chester, OH 45069</b></p>																																																							
<p><b>7</b> List account number(s) here (optional)</p>																																																								
<p><b>Part I Taxpayer Identification Number (TIN)</b></p> <p>Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i>, later.</p> <p><b>Note:</b> If the account is in more than one name, see the instructions for line 1. See also <i>What Name and Number To Give the Requester</i> for guidelines on whose number to enter.</p>																																																								
		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="9" style="text-align: center;">Social security number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="3" style="text-align: center;">-</td> <td colspan="3" style="text-align: center;">-</td> <td colspan="3"></td> </tr> <tr> <td colspan="9" style="text-align: center;">or</td> </tr> <tr> <td colspan="9" style="text-align: center;">Employer identification number</td> </tr> <tr> <td style="width: 20px; height: 20px;">8</td> <td style="width: 20px; height: 20px;">2</td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;">3</td> <td style="width: 20px; height: 20px;">9</td> <td style="width: 20px; height: 20px;">2</td> <td style="width: 20px; height: 20px;">4</td> <td style="width: 20px; height: 20px;">6</td> <td style="width: 20px; height: 20px;">1</td> </tr> </table>	Social security number																		-			-						or									Employer identification number									8	2		3	9	2	4	6	1
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<p><b>Part II Certification</b></p> <p>Under penalties of perjury, I certify that:</p> <ol style="list-style-type: none"> <li>The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and</li> <li>I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest and dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and</li> <li>I am a U.S. citizen or other U.S. person (defined below); and</li> <li>The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.</li> </ol> <p><b>Certification instructions.</b> You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and, generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.</p>																																																								
<p><b>Sign Here</b></p>	<p>Signature of U.S. person _____</p>	<p>Date _____</p>																																																						

**General Instructions**

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

**What's New**

Line 3a has been modified to clarify how a disregarded entity completes this line. An LLC that is a disregarded entity should check the appropriate box for the tax classification of its owner. Otherwise, it should check the "LLC" box and enter its appropriate tax classification.

New line 3b has been added to this form. A flow-through entity is required to complete this line to indicate that it has direct or indirect foreign partners, owners, or beneficiaries when it provides the Form W-9 to another flow-through entity in which it has an ownership interest. This change is intended to provide a flow-through entity with information regarding the status of its indirect foreign partners, owners, or beneficiaries, so that it can satisfy any applicable reporting requirements. For example, a partnership that has any indirect foreign partners may be required to complete Schedules K-2 and K-3. See the Partnership Instructions for Schedules K-2 and K-3 (Form 1065).

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS is giving you this form because they

**5.11 Promotional Literature**

**E TECH GROUP**  
 www.etchgroup.com  
 (513) 935-0100

**"E Tech Group has served the District well over the many years of their engagement with us. Their control system and radio frequency communication technical and project management expertise added great value to our operational excellence."**

*Project Manager, Large Water Supply District*

**20,000+**  
 SUCCESSFUL PROJECTS

**500+**  
 TEAM MEMBERS

**30+**  
 YEARS OF SUCCESSFUL IMPLEMENTATIONS

E Tech Group is one of the largest engineering and system integration firms in the United States providing automation, control, and information solutions to Mission Critical, Life Sciences, Metals, Food & Beverage, Material Handling, Consumer Products and Manufacturing industries.

E Tech Group pairs deep industry knowledge with integration best practices. Our diverse offerings, and depth of knowledge have made ETG a sought-after partner with Fortune 1000 customers who are seeking single-source, turnkey design and automation partners.

**OUR REACH**



*Additional Locations in Hawaii, Mexico and Canada*

ETG has cultivated a large ecosystem of partners, contractors and suppliers. This reduces risk and costs while ensuring standards are not only developed, but they are also managed and adhered to throughout the typical ten-year life cycle of critical automation and control systems. Our national scale allows us to help our clients develop and implement standardized solutions at any physical location.

We have the capability to bring together a large teams of diverse professionals to provide turnkey projects, as well as offer professional project and program management, procurement, panel builds at one of our two UL508-rated panel and fabrication shops, site and subcontractor supervision, installation, commissioning services, and more.

**PARTNERS**

csia CERTIFIED

RA System Integrator

AVEVA

ABB

SIEMENS

Alliance Certified

ISA

TÜV FS Engineer

Microsoft CERTIFIED

vmware PARTNER

**250+**  
MISSION CRITICAL PROJECTS  
DELIVERED

**\$200M+**  
IN MISSION CRITICAL PROJECTS  
DELIVERED

**50+**  
"ZER0 DEFECT" PROJECTS  
SINCE INITIATION

### MISSION CRITICAL BUSINESS UNIT OVERVIEW

Our dedicated Mission Critical Team has developed a reputation for having exceptional technical talent. In only the past three years, E Tech Group has delivered over 50 projects on-time, to budget, and with our Zer0Defects™ methodology: no punch-list items post-Integrated System Testing. Mission Critical is one of our areas of Industry expertise and our team has executed projects ranging from \$25K to \$30M in the United States, Mexico and Canada.

Our projects have included the design, implementation, testing, installation, startup, and commissioning of mission critical applications.

The work for your project will be completed by members of our dedicated Mission Critical Team, our manufacturing team, and additional administration, project management and support personnel pulled from across the broader E Tech Group organization, as required.

### WATER/WASTEWATER & DATA CENTER

#### PROJECT SERVICES

- Program & Project Management
- Design and Development
- Installation
- System Commissioning Support

#### SYSTEM DESIGN

- Low Voltage Control
- Industrial Networking

#### TURNKEY SYSTEM DEVELOPMENT

- Treatment Plant SCADA Systems
- Wireless Telemetry Systems
- Building Management Systems(BMS)
- Electrical Power Monitoring Systems (EPMS)

### MAINTENANCE & SUPPORT

#### ONGOING SERVICES

- Post Project Support
- Firmware Revisions
- Scheduled Maintenance
- Emergency Support
- Staff Augmentation
- Training Services
- Asset Management
- Software Revision Upgrades
- Plant Operations Support
- Project Data Enhancements
- Remote Monitoring Services
- Network Management Services

### PROJECT EXAMPLES

- Island-wide wastewater collection and treatment system | County of Kaua'i
- Island-wide water distribution system | County of Kaua'i
- Water Treatment Plant retrofit from ControlNet to Ethernet/IP | Paradise Irrigation District
- 100+ Mw Hyperscale Data Center Campus for Fortune 200 Global Technology Leader
- Global Headquarters Campus Central Plant, Cogen, Data Center | Fortune 200 Telecomm Technology Manufacturer
- Central Plant | One of the 10 Largest High-Performance Computing Facilities in the World

### ONE OF THE MOST TRUSTED NAMES IN MISSION CRITICAL OPERATIONAL TECHNOLOGY CONTROL & MONITORING SOLUTIONS



www.etechgroup.com | (513) 935-0100

## 6 ATTACHMENT A – E TECH GROUP TERMS & CONDITIONS

These general terms and conditions of sale (the “Agreement”) govern all work performed by Seller for Client notwithstanding any provision in Client’s purchase order or any other Client document to the contrary. Client’s consent to Seller to work on any project shall itself constitute an agreement to these terms and conditions.

### 1. Definitions.

- a. “Seller” will denote E-Technologies Group, LLC, unless otherwise noted in the proposal.
- b. “Client” will denote the individual, individuals, or organization which agrees to purchase goods or services from Seller.
- c. “Conditions” will denote the General Terms and Conditions set out in this document and any Special Terms and Conditions agreed to in writing by both the Seller and Client.
- d. “Products” will denote the inclusion of, without limitation, third-party hardware, firmware, and software components, software, programming, engineering, documentation, manufacturing, training, parts, and field services.
- e. “Statement of Work” will denote the document specifying, without limitation, the scope, objective, and time frame of the work that Seller will perform for Client.

2. General — These Conditions (along with any directly associated written Seller technical specification or quotation) exclusively will govern the sale or licensing of Seller Products furnished hereunder. These Conditions supersede all previous and contemporaneous agreements, proposals and representations, written or oral, concerning such matters. No addition or modification to these Conditions will be binding on Seller unless agreed to in writing signed by an authorized representative at Seller’s headquarters. Any additional, conflicting or inconsistent Client terms (whether set forth in a request for proposals, purchase order or acknowledgement or in any other document) are expressly rejected by Seller and are not a part of the agreement for the project. Unless otherwise provided below, these Conditions take priority over any contrary terms of the Statement of Work except to the extent that the Statement of Work itself specifies that one or more of its terms takes priority.

3. Client Obligations — Client shall make available in a timely manner to Seller all drawings, technical data, measurements, or other information and resources reasonably required for performance of contracted services. Client assumes risk of any problems resulting from content, accuracy, completeness, and timeliness of delivery of these items identified in the Statement of Work. Inability to or delays in providing needed information, direction, or decisions may result in delayed deliveries and associated costs. Client will provide two weeks’ notice for any delays in beginning or continuation of work to the Seller. Unannounced days resulting in cost increase for the Seller will be charged to Client at estimated daily billing rate of unoccupied employees minus any amount recovered through substitute assignments.

4. Resource Selection — To allow Seller to effectively manage participation in the project, Seller reserves the right to determine the personnel to perform the work. Seller, in its sole discretion, will attempt to honor Client’s requests for specific personnel.

5. Payment Terms — All payments are due and payable thirty (30) days from date of invoice with ongoing approved credit as determined by Seller. Seller reserves the right to suspend any further performance under this Agreement or otherwise in the event payment is not made when due. No payment by offset is

permitted unless approved by Seller. All payments thirty (30) days in arrears will be subject to a finance charge of one and a half percent (1.5%) per month on the outstanding balance or the maximum rate permitted by law, whichever is less, will be added to such invoice until paid in full. Proposals which are priced based upon a fixed cost shall have payment terms governed by the terms of the proposal. There is an 8-hour minimum for on-site engineering.

Unless otherwise specified in the proposal, the following services shall be invoiced as follows:

- a. Time and Material Work: Payment is due upon receipt of invoice. Time and Material projects will be billed bi-weekly and upon the completion of work.
  - b. Site Assessment: One hundred percent (100%) of the contract price will be billed upon completion of the report. All payments are due and payable thirty (30) days from date of invoice.
  - c. Preventative Maintenance/Service Agreement: One hundred percent (100%) of the contract price will be billed upon commencement. All payments are due and payable thirty (30) days from date of invoice.
6. Expenses (General, Travel, Material) — Travel and expenses for all work performed by Seller will be billed at cost plus ten percent (10%) with mileage cost at the current IRS standard rate per mile. Material costs will be billed at cost plus twenty percent (20%). Meals will be reimbursed at cost, including reasonable and customary tips. All travel will be conducted in accordance with Seller's internal policies.
7. Delivery Terms — Acknowledged shipping dates are dependent on prompt receipt of all necessary information from the Client. Seller shall not be liable for shipping delays caused by Client's failure to provide any and all documentation required by the Conditions. Delivery terms are Ex Works with respect to shipping costs, risk of loss and title transfer, except that title to all intellectual property rights and/or copyrights associated with the Products, remain with Seller or the original intellectual right holder.
8. Ownership of Intellectual Property — All intellectual property rights for the application software and all other Products remain with Seller, except those components of Products explicitly sublicensed to Client from the original intellectual right holder, in which case Client is subject to any third-party licenses at its own costs. Upon payment of the agreed compensation to Seller, Seller will grant to Client a personal, paid-up, perpetual non-exclusive, non-transferable license to use the Products, including the application software in the application for which the software was designed in conjunction with the specified equipment. Seller retains ownership, exclusive title to and use of intellectual property, including all design, programming and implementation methodologies for the system provided, patents, copyrights, mask works, industrial property rights, trademarks, trade secrets and other rights and information of a similar nature worldwide. Any component of Products having associated intellectual rights, whether property of Seller or otherwise, are licensed only for use by Client pursuant to this Agreement, or other Seller license agreement or third-party sublicense agreement. Client may not sell, sublicense, assign or transfer its license to the Products provided by Seller without the prior written consent of Seller, nor may Client reverse engineer or make derivative works from the Products.
9. Warranty.
- a. Software and Manufacturing: Seller warrants all equipment manufactured by Seller to be free from material defects and workmanship under normal use and service for a period of twelve (12) months from date of shipment. All parts or products not manufactured by Seller will be covered only by the express warranty of the manufacturer. The warranty does not extend to (a) damage or wear caused by Client misuse, negligence, accident, corrosion, faulty installation, loss of product, or tampering in a manner to impair normal operation of the equipment; (b) any

modifications to any services or deliverables made by anyone other than Seller; (c) normal wear and tear; (d) any data loss or corruption or personal information data breach; or (e) any alleged defects in any services or deliverables that arise from Seller's compliance with designs or other criteria or requirements provided by or through Seller.

b. Hardware: Seller does not warrant and will not be liable for failure of hardware components, subsystem peripherals, or other product not manufactured by Seller, whether or not supplied by Seller. Any warranty applicable to such hardware Products will be limited solely to the warranty, if any, extended by the original manufacturer or vendor other than Seller to the extent permissible thereunder.

c. Software: Any modification or change to code not performed by Seller may change the fundamental purpose or functionality of the software. Any warranty implied by law or expressly granted by some other instrument governing this relationship shall be rendered void should any individual who is not an employee of Seller make modifications or changes to any code delivered through the scope of this Agreement.

d. Field Service: Seller warrants that Products comprised of services, including engineering and custom application programming services, whether provided on a fixed cost or time and material basis, will be performed in accordance with generally accepted industry practices to the extent such services are subject to written acceptance criteria agreed to in advance by Seller. All other warranties relative to provided services are disclaimed.

e. Client Specifications: Seller does not warrant and will not be liable for any design, materials or construction criteria furnished or specified by Client and incorporated into the Products or for Products made by or sourced from other manufacturers or vendors specified by Client. Any warranty applicable to such Client-specified Products will be limited solely to the warranty, if any, extended by the original manufacturer or vendor other than Seller to the extent permissible thereunder.

f. General: Warranty satisfaction is available only if (a) Seller is promptly notified in writing and (b) Seller's examination discloses, to its satisfaction, that any alleged defect has not been caused by Client misuse; neglect; improper installation, operation, maintenance, repair, alteration or modification; accident; or unusual deterioration or degradation of the Products or parts thereof due to physical environment or electrical or electromagnetic noise environment. Client shall promptly notify Seller in writing within twenty (20) days of its discovery of such obligation and in no event later than ninety (90) days after completion of the applicable services or deliverables. Seller shall have the sole right to determine whether, in fact, a warranty situation exists.

g. Remedies: Satisfaction of the above warranties will be limited, at Seller's option, to the replacement, repair, re-performance or modification of, or issuance of a credit for the purchase price of the Products involved, and where applicable, only after the return of such Products with Seller's consent. Such performance by Seller is Client's sole and exclusive remedy in the event of a warranty obligation of Seller or any other failure of Seller to comply with its contract obligations. Replacement Products may be new or reconditioned. Any warranty service (consisting of time, travel and expenses related to such services) performed other than at Seller's facility, will be at Client's expense. Expendable items are specifically excluded from this warranty. SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ANY OTHER WARRANTIES (INCLUDING

WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, TITLE/AGAINST INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE) ARE EXPRESSLY DISCLAIMED BY SELLER TO THE FULLEST EXTENT PERMITTED BY LAW.

10. Limit of Liability — IN NO EVENT WILL SELLER BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL, SPECIAL, UNFORESEEN, EXEMPLARY OR PUNITIVE DAMAGES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, DIMINUTION OF VALUE, LOST PROFITS, LOSS OF GOODWILL, BUSINESS REPUTATION OR OPPORTUNITY OR LOSS OF USE. SELLER'S MAXIMUM CUMULATIVE LIABILITY RELATIVE TO ALL OTHER CLAIMS AND LIABILITIES, INCLUDING THAT WITH RESPECT TO DIRECT DAMAGES AND OBLIGATIONS UNDER ANY INDEMNITY, WHETHER OR NOT INSURED, WILL NOT EXCEED AMOUNTS PAID BY CLIENT TO SELLER FOR THE PRODUCTS GIVING RISE TO THE CLAIM OR LIABILITY. ANY ACTION AGAINST SELLER MUST BE BROUGHT WITHIN EIGHTEEN (18) MONTHS AFTER THE CAUSE OF ACTION ARISES. THESE DISCLAIMERS AND LIMITATIONS OF LIABILITY WILL APPLY REGARDLESS OF ANY OTHER CONTRARY PROVISION OF THE AGREEMENT AND REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT OR OTHERWISE. EACH PROVISION IN THE AGREEMENT WHICH PROVIDES FOR A LIMITATION OF LIABILITY, DISCLAIMER OF WARRANTY OR CONDITION OR EXCLUSION OF DAMAGES IS SEVERABLE AND INDEPENDENT OF ANY OTHER PROVISION AND IS TO BE ENFORCED AS SUCH.

11. Non-Solicitation of Employees — During the term of the project, Client shall not directly Solicit for employment, employees of Seller within the business unit in which Seller has provided services to Client under that particular scope of work, without Seller's prior written consent. For the purpose of this Agreement, "Solicit" does not include contact where Seller's employee makes the initial contact with Client, or where the contact results from indirect means such as a public advertisement, placement firm searches or similar means not directed specifically to an individual. The parties agree that, in the event Client solicits and subsequently hires an employee of Seller in violation of this provision, the damages to be paid by Client shall be 50% of the individual's annual salary, not to exceed \$75,000, excluding benefits and/or stock options.

12. Packing & Marking — Client-specified packing or marking may be subject to additional charges not otherwise included in the price of the Products.

13. Quotations — Written quotations are valid for 30 days from issue unless otherwise stated or withdrawn by Seller in writing. Verbal quotations expire the same day they are made. All typographical and clerical errors are subject to correction. Any request by Client for modifications or adjustments shall nullify prior proposals unless otherwise stated. All Client orders are subject to acceptance by Seller at time of order.

14. Prices — Prices and other information shown in any Seller publication (including brochures) are subject to change without notice and confirmation by specific quotation. Such publications are not offers to sell and are maintained only as a source of general information. Prices contained in any proposal, quotation, purchase order or contract are exclusive of all federal, state, municipal, or other government, excise, sales, use, export/import tariffs (duties), or like taxes. An exempt certificate is to be provided at the time a purchase order is issued, unless taxes are included and are explicitly broken out. Client will pay or reimburse Seller for all sales, use, excise or similar taxes. Products comprised of time and material services will be provided in accordance with Seller's published service rates (including applicable overtime and travel expenses) in effect as of the date such services are provided, unless otherwise confirmed by Seller's written quotation or order acknowledgment. Billable service time includes travel time to and from the job site and all time Seller's representatives are available for work and waiting (whether on or off the job site) to perform the services. Client will be liable for all incurred stand-down charges resulting from

delays attributable to Client or Client's representatives. Products comprised of fixed-bid agreements will be subject to stand-down charges, above and beyond purchase order price, at a time and material services rate when Seller's representatives are available for work and waiting (whether on or off the job site) to perform the services.

15. Price Escalation — Client acknowledges that there are significant industry-wide price fluctuations affecting essential materials necessary for the work that may materially impact the cost of the work and such price escalation is neither predictable nor controllable by either party. Client further acknowledges that there are significant supply-chain disruptions and manufacturing delays, including but not limited to, shortages or unavailability of materials, unusual delays in transportation, and shipping delays that may delay the work. Seller has provided the pricing in good faith based upon market conditions as of the effective date of the applicable proposal, quotation, purchase order or contract. Given the uncertainty of the current market conditions, Seller reserves the right (without penalty) to adjust projected delivery dates and/or pricing if material impacts due to third-party suppliers or the market necessitate such action. During the course of the work, Seller reserves the right to adjust shipment schedules and/or apply surcharges relating to significant commodity price increases beyond Seller's control, and directly affecting products purchased to complete the work. Seller will take commercially reasonable steps to meet Seller's original price estimates and delivery schedules.

16. Changes — Client-requested order changes, including those affecting the identity, scope and delivery of the Products, must be documented in writing and are subject to Seller's prior approval and adjustments in price, scheduling and other affected conditions. Seller reserves the right to reject any change that it deems unsafe, technically inadvisable or inconsistent with established engineering or quality guidelines and standards, or incompatible with Seller's design or manufacturing capabilities.

17. Order Cancellation — Unless a different order cancellation procedure is specified in a Statement of Work, an order may be canceled by Client (prior to shipment only) effective upon ten (10) days' written notice and upon payment to Seller within that ten (10) day period of reasonable charges incurred by reason of the cancellation, including reimbursement for direct costs, plus allowances for disruption. Cancellation charges associated with orders for custom Products or Products specifically manufactured to the Client's specification may equal the actual selling price of the Products. Seller has the right to cancel an order for cause at any time by written notice, and Seller will be entitled to cancellation charges as identified above.

18. Suspension and Termination — If Client fails to comply with its obligations under the proposal or these Conditions (including without limitation the full and timely payment to Seller), Seller may provide written notice of such default to Client and may thereafter suspend further performance until such default is cured by Client. When such default is cured by Client, the amount to be paid for the scope of work will be equitably increased to account for Seller's damages arising from such suspension (including without limitation demobilization and remobilization expenses and increased costs of performance) and Seller the time for Seller to complete the scope of work will be equitably extended to account for such suspension. If Client fails to cure such default within thirty (30) days of its receipt of such notice from Seller, Seller may terminate its agreement with Client by providing written notice to Client and in such an event, Client will pay Seller for all portions of the scope of work performed (in whole or in part) through the date of such termination, Seller's demobilization expenses and other reasonable costs incurred by reason of the termination, the amount of expected overhead and profit Seller would have earned on the cancelled portions of the scope of work if not for Client's default, and any collection costs (including attorneys' fees, expert fees and other litigation costs) incurred by Seller in obtaining payment for its services and deliverables from Client.

Client may terminate this order and/or cancel any Work Order with respect to Services that have not yet been performed, upon written notice to Seller which termination shall be effective immediately upon receipt of notice, with respect to the occurrence and continuation of any one or more of the following events: (a) an event of force majeure prevents Seller's performance of the Services for a period of thirty (30) days or more; (b) Seller fails to remedy any material deficiency or non-performance with respect to the Services provided for in the referenced quotation or proposal within forty-five (45) business days after

receipt of notice of such deficiency or non-performance; (c) Seller fails to remedy a material breach of any provision of the Conditions within forty-five (45) business days after receipt of notice of such breach; or (d) Seller becomes insolvent, is subject to a bankruptcy proceeding, makes an assignment for the benefit of creditors, or ceases or suspends its normal business operations. If Client should so terminate the order or any applicable work release or deliverable, then the compensation due Seller shall be the compensation owed Seller under the applicable work release or deliverable for work performed prior to the effective date of termination less any monies previously paid to Seller for such work.

19. Cybersecurity — Seller's scope of work does not include creating, modifying or ensuring compliance with Client's cybersecurity policies. Although Seller will not intentionally violate Client's cybersecurity policies or intentionally cause a security breach of Client's systems, Client acknowledges that Client is responsible for the creation, implementation, enforcement and adequacy of its cybersecurity policies and that Client retains the risk of data theft or destruction and the impacts of malware and ransomware, whether arising from Seller's work or access to Client's systems or otherwise. Client will have Seller's work reviewed and approved at appropriate times by Client's information technology (IT) and operational technology (OT) personnel to ensure that any cybersecurity policies (such as connectivity availability and monitoring, multi-factor authentication, data import/export screening, network segmentation, and unescorted user screening, training and monitoring) implemented at Client's direction are sufficient to adequately protect Client's systems from improper access or use. In accordance with the foregoing, to the fullest extent permitted by law, Client shall defend, indemnify and hold harmless Seller and its subcontractors, agents and employees from and against all claims, losses, and expenses of any nature, including but not limited to reasonable attorneys' fees, arising out of or related to any actual or alleged improper access to or use of Client's systems, except to the extent the relevant security breach was determined to be caused solely by Seller's intentional improper access or use of Client's systems.

20. Force Majeure — Seller will not be liable for any loss, damage or delay arising out of its failure to perform hereunder due to causes beyond its reasonable control, including without limitation, acts of God or the Client, acts of civil or military authority, fires, strikes, floods, epidemics, pandemics, quarantine restrictions, war, riots, delays in transportation, or transportation embargoes. In the event of any such delay, Seller's performance date(s) will be extended for that length of time as may be reasonably necessary to compensate for the delay.

21. Disputes — The parties will attempt in good faith promptly to resolve any dispute arising out of this Agreement by negotiations between representatives who have authority to settle the controversy. If unsuccessful, the parties further will attempt in good faith to settle the dispute by non-binding third-party mediation, with fees and expenses of such mediation apportioned equally to each side. Any dispute not so resolved by negotiation or mediation may then be submitted to a court of competent jurisdiction in accordance with the terms of this Agreement. These procedures are the exclusive procedures for the resolution of all such disputes between the parties.

22. Assignment — This Agreement may not be assigned by either party without the written consent of the other; provided, however, consent will not be required for (i) Seller's transfer or assignment to an entity acquiring, directly or indirectly, a majority of the stock or all or substantially all of the assets of Seller

or (ii) Seller's transfer or assignment to a parent corporation, subsidiary or affiliate, which shall include any party controlling, controlled by or under common control with Seller.

23. Indemnity — Client hereby undertakes and agree to defend, indemnify and save harmless Seller, its officers, directors, and employees, and any of their partners, joint ventures, representatives, members, designees, officers, directors, shareholders, employees, agents, successors, and assigns, from and against any and all claims for bodily injury, death or damage to property, demands, actions, liability, loss, damage,

suits, debts, claims, and expenses (including but not limited to investigative and repair costs, attorneys' fees and costs, and consultants' fees and costs) whatsoever arising from (i) this Agreement or any ensuing agreement including any patent, copyright, trade secret, or trademark infringement claim; or (ii) Client's obligations to maintain the health and safety of its premises, facility, equipment, fixtures, practices and procedures, employees, agents, and independent contractors, or to the extent arising from the pre-existing conditions of Client's premises, facility, equipment, fixtures, or practices and procedures, or to the extent arising from the conditions of Client's premises, facility, equipment, fixtures, or practices and procedures.

24. Confidentiality — Client acknowledges that its use of the Seller Products to be provided hereunder, and Client's use of Seller as a source for such Products, constitute important trade secret information of Seller, and Client agrees that it will not disclose to any third party (except to the extent that disclosure to employees of Client is necessary for the performance of this Agreement) the fact that Seller furnished or will furnish Client with the Products, unless Client first obtains written consent thereto by an authorized representative of Seller. All information obtained by Client from Seller (including, without limitation, confidential information of a third party) which is identified as confidential or proprietary by Seller or is acquired by Client under circumstances reasonably considered to impose an obligation of confidentiality shall be received in confidence, shall remain the property of Seller, shall not be disclosed to a third party, and shall be used by Client only to the extent necessary for the use of Products. This obligation shall survive the termination or expiration of this Agreement. Client shall deliver all data and information to Seller upon Seller's request or upon the completion of all work hereunder or the termination or expiration thereof, whichever shall first occur, and shall be fully responsible for the care and protection thereof until such delivery.

25. Third Party Beneficiaries — Nothing contained herein in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against Seller. Products and services are being provided solely for Client's benefit, and no party or entity shall have a claim against Seller because of this Agreement or the provision or non-provision of products and services.

26. Independent Contractors — Each party will be and act as an independent contractor and not as an agent or partner of, or joint venture with, the other party for any purpose related to this Agreement or the transactions contemplated by this Agreement, and neither party by virtue of this Agreement will have any right, power, or authority to act or create any obligation, expressed or implied on behalf of the other party.

27. Governing Law — The Agreement will be governed by and interpreted in accordance with the laws of the state where the project is located without regard to its conflicts of law provisions. Any litigation or enforcement of an award must be brought in the appropriate court in the state where the project is located. Each party consents to personal and subject matter jurisdiction and venue in such courts and waives the right to change venue. Client further consents to the exercise of personal jurisdiction by any such court with respect to any such proceeding. The parties acknowledge that all directions issued by the

forum court, including injunctions and other decrees, will be binding and enforceable in all jurisdictions and countries.

28. Entire Agreement — Any ensuing Conditions, together with these Conditions, constitutes the entire agreement of the parties with respect to its subject matter, supersedes all prior or contemporaneous agreements (written or oral), if any, of the parties with respect to its subject matter, and may not be amended except in writing signed by both parties.

29. Marketing — The Seller may use its experience or details associated with this project in marketing materials. At no time will the Client's name or any confidential information be included in these marketing materials unless approval is obtained in writing.

30. No Waiver — The failure of any party at any time or times to require the performance of any provisions of these Conditions or any ensuing agreement shall in no manner affect the right to enforce the same; and no waiver by any party of any provision (or of a breach of any provision) of these Conditions, whether by conduct or otherwise, in any one or more instances, shall be deemed or construed either as a further or continuing waiver of any such provision or breach or as a waiver of any other provision of these Conditions.

31. Severability — It is the intention of all the parties hereto that each provision of these Conditions or any ensuing agreement is severable and, if for any reason any provision is held to be invalid or unenforceable, neither the validity or enforceability of the remaining provisions of these Conditions shall be affected thereby.

32. Attorney's Fees — In the event that any party should institute suit for any relief under these Conditions or any ensuing agreement against the other party, the losing party shall pay to the prevailing party all reasonable expenses and court costs, including reasonable attorneys' fees, incurred by the prevailing party, which shall be deemed to have accrued on the date such suit is instituted and shall be enforceable even though such suit is not prosecuted to judgment.

**END OF DOCUMENT**

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**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Approve RP-1 Photovoltaic System Partial Decommissioning Agreement

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**Executive Summary:**

The RP-1 Solids Thickening Project will improve the processes upstream of the digesters and will increase the overall treatment capacity to meet projected demand. A major component of the project will be the construction of a new solids thickening building to house the rotary drum thickener units. Due to safety, vehicular access, and construction requirements, the solids thickening building will be built at the same location as the northern section of the existing photovoltaic system located on the west side of RP-1, which will require the removal of a portion of the existing solar panels. In 2008, IEUA entered into a 20-year power purchase agreement (PPA) with Solar Star California V, LLC, the owner of the RP-1 photovoltaic system. The photovoltaic system partial decommissioning will be implemented consistent with the 2008 PPA terms and the Photovoltaic System Partial Decommissioning Agreement. As result, IEUA will pay Solar Star California V, LLC: decommissioning costs for a not-to-exceed amount of \$234,608, and the present value of IEUA's purchase obligations in respect of the solar array decommissioned, for a not-to-exceed amount of \$209,119. The total termination value of the proposed decommissioned solar array will not exceed \$443,727.

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**Staff's Recommendation:**

Staff recommends that the Committee/Board:

1. Approve the Photovoltaic System Partial Decommissioning Agreement between Solar Star California V, LLC and IEUA for the not-to-exceed amount of \$443,727; and
2. Authorize the General Manager to execute the agreement, subject to non-substantive changes.

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**Budget Impact** *Budgeted (Y/N): Y Amendment (Y/N): N Amount for Requested Approval*

*Account/Project Name:* EN22044 RP-1 Solids Thickening Project

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**Regional Sewerage** *Technical Committee (Y/N):*

*Policy Committee (Y/N):*

**Prior Board Action:**

In January 2024, the Board of Directors approved a consultant contract amendment to Carollo Engineers, Inc. for the not-to-exceed amount of \$998,163, increasing the total contract value to \$15,907,171 and a construction management services contract to Arcadis U.S., Inc. for the not-to-exceed amount of \$11,821,431.

In April 2023, the Board of Directors approved a consultant contract amendment to Carollo Engineers, Inc., for the not-to-exceed amount of \$351,112 increasing the total contract value to \$14,909,008.

In July 2022, the Board of Directors approved a consultant contract amendment to Carollo Engineers, Inc., for the not-to-exceed amount of \$880,393 increasing the total contract value to \$14,557,895.

In December 2017, the Board of Directors approved a consultant contract to Carollo Engineers, Inc. for the not-to-exceed amount of \$13,637,633.

In June 2008, the Board of Directors approved the Power Purchase Agreement and Site Lease Agreement with Solar Start V, LLC.

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**Environmental Determination:**

Program Environmental Impact Report (Finding of Consistency)

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**Environmental Determination Text:**

Staff is currently completing a Finding of Consistency with IEUA's Program Environmental Impact Report.

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**Attachments:**

Attachment 1 - [PowerPoint](#)



# Approve RP-1 Photovoltaic System Partial Decommissioning Agreement

Pietro Cambiaso, P.E.  
Manager of Compliance & Sustainability  
June 2024

# RP-1 Solids Thickening Project Background

- Construct three acid phase digesters and ancillary equipment
- Demolish gravity thickeners and one dissolved air flotation thickener
- Install a new boiler
- Install backup generation
- Expand the RP-1 12kV electrical system
- Construct the solids thickening building for the rotary drums thickeners (RDT)
  - Partial decommissioning of existing photovoltaic system
    - Safety
    - Vehicular access
    - Construction requirements

# RP-1 Solids Thickening Project Location



# Photovoltaic System Power Purchase Agreement (PPA) Background

- 20-year PPA with Solar Star California V, LLC (2008)
  - Owned, operated, and maintained by third-party
  - Power purchased by IEUA at set rates
- PPA expires end of 2028
  - Demolish by owner
  - Extend PPA 5 years
  - IEUA purchase
- System size: 831 kW



# Photovoltaic System Partial Decommissioning

- Demolish northern section
  - 182 kW
- Photovoltaic system partial decommissioning agreement
  - Consistent with 2008 PPA early termination terms
    - Early termination value (\$443,727)
      - Decommissioning costs (\$234,608)
      - Purchase obligation (\$209,119)
  - Timeline:
    - Estimated Start Date: July 1, 2024
    - Estimated End Date: September 6, 2024



# Project Budget & Schedule

Description	Estimated Cost
<b>Design Services</b>	<b>\$11,896,541</b>
Design Consultant Contract	\$8,696,541
IEUA Design Support	\$3,200,000
<b>Construction Services</b>	<b>\$19,321,431</b>
Engineering Services During Construction (~5%)	\$5,500,000
Construction Management Services	\$11,821,431
Other Construction Services (~2%)	\$2,000,000
<b>Construction</b>	<b>\$126,642,364</b>
Construction Contract (estimate)	\$112,000,000
Contingency, (10%)	\$11,200,000
Rotary Drum Thickeners	\$2,998,637
Photovoltaic System Partial Decommissioning	\$443,727
<b>Total Project Cost:</b>	<b>\$157,860,336</b>
<b>Total Project Budget:</b>	<b>\$160,565,672</b>

Project Milestone	Date
<b>Design</b>	
Consultant Design Contract Award	October 2021
30% Design Completion	March 2022
60% Design Completion	January 2023
90% Design Completion	August 2023
Final Design Completion	April 2024
<b>Construction</b>	
Construction Bid Phase	May 2024
Construction Contract Award	August 2024
Project Completion	June 2027



## Staff's Recommendation

1. Approve the Photovoltaic System Partial Decommissioning Agreement between Solar Star California V, LLC and IEUA for the not-to-exceed amount of \$443,727; and
2. Authorize the General Manager to execute the agreement, subject to non-substantive changes.

*The RP-1 Photovoltaic System Partial Decommissioning and RP-1 Solids Thickening Project are consistent with IEUA's **Business Goal of Wastewater Management** specifically the Asset Management objective that IEUA will ensure the treatment facilities are well maintained, upgraded to meet evolving requirements, sustainability managed, and can accommodate changes in regional water use.*

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**Date:** June 12, 2024

**To:** The Honorable Board of Directors      **From:** Shivaji Deshmukh, General Manager

**Committee:** Engineering, Operations & Water Resources; Finance & Administration

**Staff Contact:** Christiana Daisy, Deputy General Manager

**Subject:** Adopt Resolution No. 2024-06-11, Establishing Regional Industrial Pretreatment Program Services

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**Executive Summary:**

The new Regional Sewage Service Contract (Regional Contract) and Ordinance No. 114 were entered into and adopted on November 1, 2023, and December 20, 2023, respectively. These documents contain the terms and conditions under which IEUA provides sewage treatment services to the Sewer Collection Agencies (SCAs). Both the new Regional Contract and Ordinance No. 114 identify IEUA as the sole owner and operator of the Regional Sewerage System facilities and holder of the National Pollutant Discharge Elimination System permit as regulated by the Regional Water Quality Control Board.

With the original Regional Contract between IEUA and the SCAs set to expire in December 2022, Resolution No. 2022-12-5 was adopted to ensure IEUA's continued performance of the Regional Industrial Pretreatment Program (Program) by IEUA across the service area.

Resolution No. 2024-06-11 is proposed for adoption to update references to Ordinance No. 114, the new Regional Contract, and language for the ongoing cooperative implementation of the Program for the service area.

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**Staff's Recommendation:**

Staff recommends that the Committee/Board Adopt Resolution No. 2024-06-11, Establishing Regional Industrial Pretreatment Program Services.

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**Budget Impact** *Budgeted (Y/N):*    *Amendment (Y/N):*    *Amount for Requested Approval*

---

**Regional Sewerage**    *Technical Committee (Y/N):*

*Policy Committee (Y/N):*

**Prior Board Action:**

On December 21, 2022, the IEUA Board adopted Resolution No. 2022-12-5 to incorporate the requirements of the previous Regional Pretreatment Agreements due to the expiration of the original Regional Contract.

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**Attachments:**

Attachment 1 - [PowerPoint](#)

Attachment 2 - [Resolution No. 2024-06-11](#)



# Adopt Resolution No. 2024-06-11, Establishing Regional Industrial Pretreatment Program Services

Ken Tam, P.E.  
Manager of Environmental Resources  
June 2024

# Regional Pretreatment Program Services

- The original Regional Sewage Service Contract (Regional Contract) incorporated Pretreatment Agreements (Agreements) with the Sewer Collection Agencies in 1994 for oversight of the Regional Pretreatment Program (Program).
- In 2005, the Agreements were updated to recognize IEUA's control authority over the Program per the Regional Water Quality Control Board.
- In December 2022, Resolution No. 2022-12-5 was adopted along with Ordinance No. 111 as the original Regional Contract was set to expire on January 1, 2023.
- Proposed Resolution No. 2024-06-11 recognizes the new Regional Contract (entered on November 1, 2023) and adoption of Ordinance No. 114.

# Staff's Recommendation

- Adopt Resolution No. 2024-06-11, Establishing Regional Industrial Pretreatment Program Services.

*The adoption of Resolution No. 2024-06-11 is consistent with **IEUA's Business Goals** of **Wastewater Management** and **Environmental Stewardship** by ensuring the documents and procedures meeting federal, state, and local pretreatment regulations within the IEUA service area and safeguarding public health and the environment.*

**RESOLUTION NO. 2024-6-11**

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE  
INLAND EMPIRE UTILITIES AGENCY\*, SAN BERNARDINO  
COUNTY, CALIFORNIA, ESTABLISHING REGIONAL  
INDUSTRIAL PRETREATMENT PROGRAM SERVICES**

**WHEREAS**, it is necessary for Inland Empire Utilities Agency (Agency) to establish the responsibilities of the Sewage Collection Agencies (SCA) and the Agency with respect to compliance with the National Pollutant Discharge Elimination System (NPDES) Industrial Wastewater Pretreatment Program, administered by the Regional Water Quality Control Board, Santa Ana Region (RWQCB), by the authorities granted under the Federal Clean Water Act (CWA) and its 1987 amendments under the Water Quality Act (WQA); and

**WHEREAS**, Congress in 1982 adopted the Federal Clean Water Act (33 U.S.C.A. 1342(p)), to require the Federal Environmental Protection Agency to promulgate regulations for permits under the NPDES program for Publicly-Owned Treatment Works (POTW) for the discharge of effluent into waters of the USA; and

**WHEREAS**, Agency owns and operates regional water recycling plants that are regulated in accordance with NPDES permit issued by the RWQCB, and which are subject to discharge limitations and requirements; and

**WHEREAS**, said permit regulations and discharge limitations require the control and restriction of the discharge of industrial wastewater, and imposes pretreatment requirements on Significant Industrial Users (“SIUs”); and

**WHEREAS**, the Agency has NPDES Permit No. CA 8000409, Order No. R8-2022-0041, for the Agency’s Regional Water Recycling Plants Nos. 1, 4, and 5 and Carbon Canyon Water Recycling Facility, specifically require the Agency to implement pretreatment regulations in all jurisdictions tributary to these regional plants; and

**WHEREAS**, the Agency has a Regional Pretreatment Program (Program) approved by the RWQCB; and

**WHEREAS**, the Agency has adopted Ordinance No. 109 establishing the availability and use of the Regional Sewerage System in compliance with requirements of the approved Program; and

**WHEREAS**, the Agency has adopted Ordinance No. 114 and entered into the Regional Contract (signed November 1, 2023), establishing regulations governing the collection, treatment, and disposal of sewage to the Regional Sewerage System; and

**WHEREAS**, this Resolution and its terms shall supersede and replace all terms and conditions in the Resolution 2022-12-5.

**NOW, THEREFORE**, the Board of Directors hereby RESOLVES, DETERMINES, AND ORDERS the following to be effective upon adoption, and remain in effect until rescinded by a new resolution:

1. The SCAs shall have the responsibility to identify, locate, and correctly categorize all SIUs existing within its jurisdiction. The SCAs shall furnish a list of SIUs to the Agency, and immediately report to the Agency, any and all SIU list adjustments.
2. Prior to approval of any project plans by the SCA, that are subject to national categorical pretreatment standards, or have the potential for classification as a SIU, the SCA shall submit, for review and approval by the Agency, sewer and plumbing plans for SIU development and tenancies or occupancies.
3. The Agency shall have the responsibility of implementing and conducting the approved Program functions for all SIUs within the SCA, including the responsibility to ensure all SIUs fully comply with all applicable Federal and State Pretreatment Standards and Requirements which include permitting, inspection, surveillance, Control Authority monitoring, and enforcement.
4. The Agency shall immediately notify and advise the SCA upon the Agency becoming aware of any SIU discharge that constitutes a threat to the health and welfare of the general public or environment within the SCA.
5. When requested by the Agency, the SCA shall provide assistance, to the fullest extent possible, in any and all Program activities to the Agency, at no expense to the Agency.

ADOPTED this 19<sup>th</sup> day of June 2024.

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Marco Tule  
President of the Inland Empire Utilities  
Agency\* and of the Board of Directors  
thereof

ATTEST:

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Steven J. Elie  
Secretary/ Treasurer of the Inland Empire  
Utilities Agency\* and of the Board of  
Directors thereof

\*A Municipal Water District

STATE OF CALIFORNIA )  
COUNTY OF ) SS  
SAN BERNARDINO )

I, Steven J. Elie, Secretary/Treasurer of the Inland Empire Utilities Agency\*, DO HEREBY CERTIFY that the foregoing Resolution being No. 2024-06-11, was adopted at a regular Board Meeting on June 19, 2024, of said Agency by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

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Steven J. Elie  
Secretary/Treasurer of the Inland Empire  
Utilities Agency\* and of the  
Board of Directors thereof

(SEAL)

\*A Municipal Water District



# RP-5 to RP-2 Sludge Line Repair on El Prado Road Update

Project No. EN24064

Vicky Salazar  
Senior Associate Engineer  
June 2024

# Project Location: El Prado Road

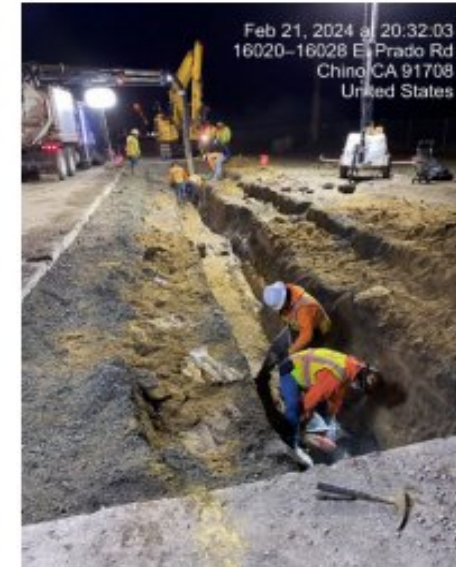
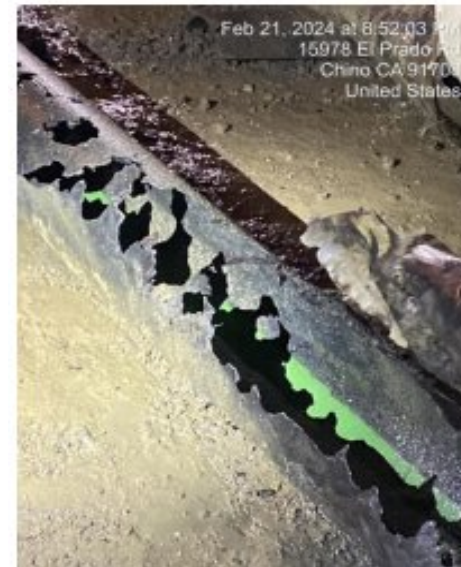


# Project Background

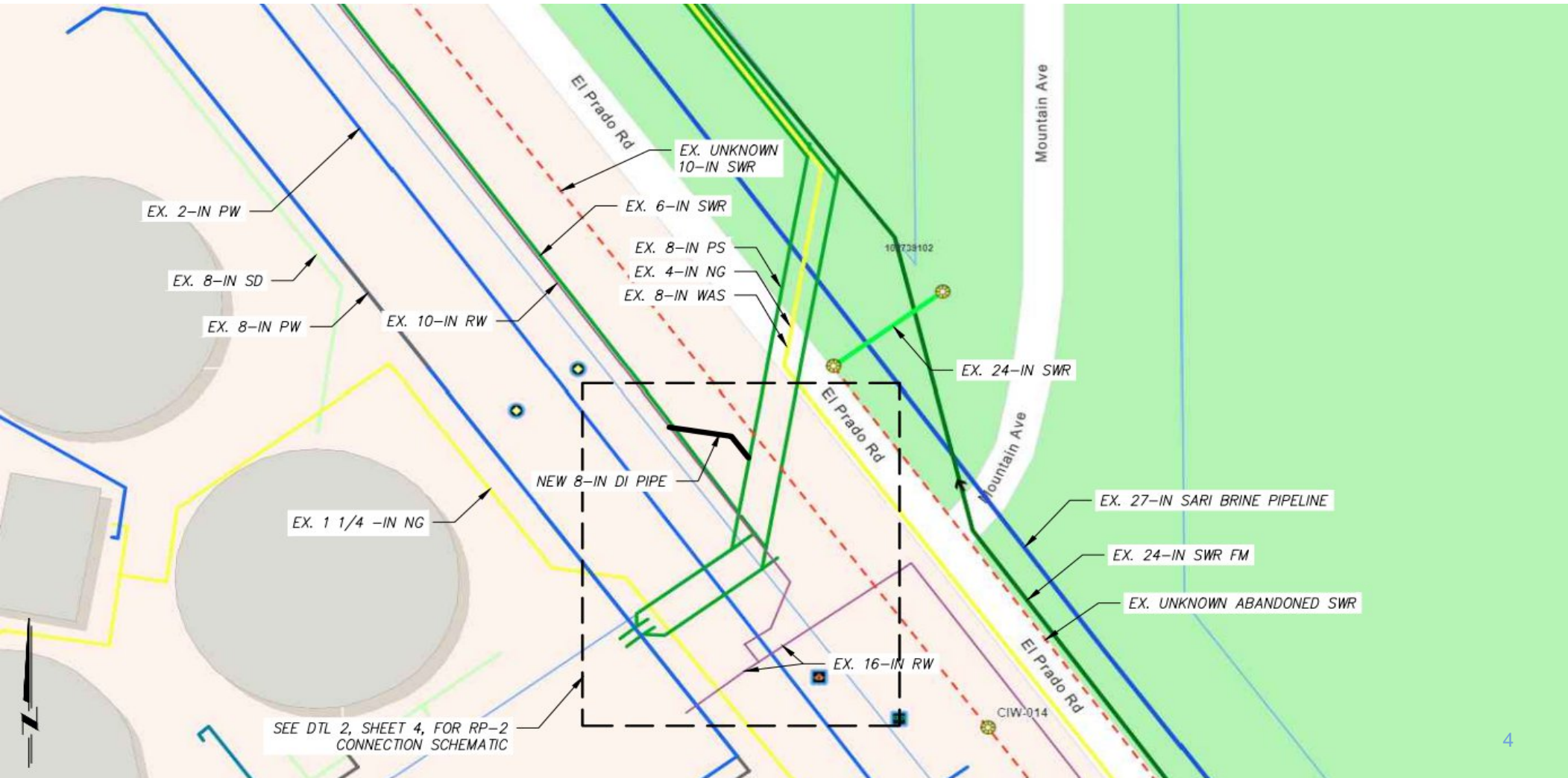
- 8-inch Primary Sludge (PS) Line failed twice
- Operations temporarily used existing Waste Activated Sludge (WAS) line
- Consultant investigated four alternatives:

Alternative	Cost	Duration
1. Dig & Replace	\$2.7M	12.5 months
2. Liner Rehab	\$2.5M	8.5 months
3. Highlining	\$1.7M	11 months
4. 10-inch Recycled Water Line	\$730K	4-6 weeks

- Issued Level 3 Emergency for **Alternative 4**



# Alternative 4: Utilize Existing 10-inch Recycled Water Line



# Contractor Selection

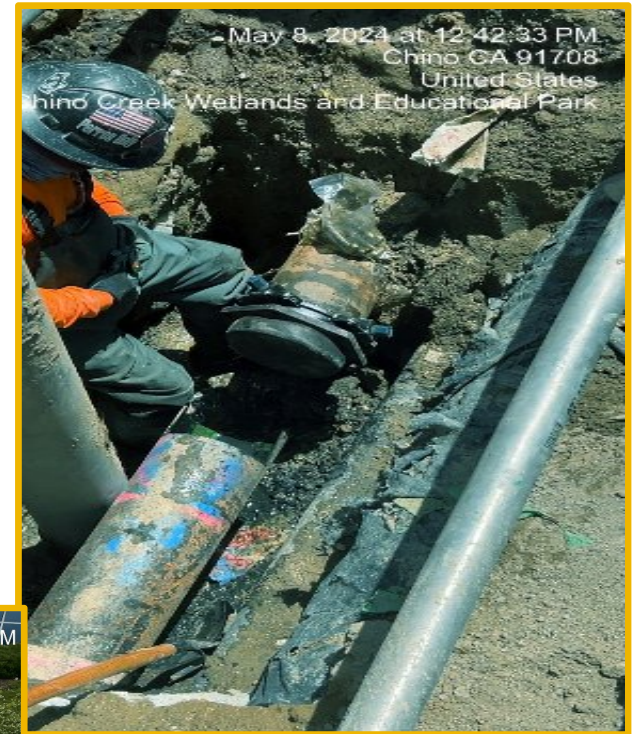
- On April 26, 2024, issued a Level 3 Emergency
- On April 29, 2024, held a job walk for the first five (5) responding contractors
- On May 1, 2024, received two (2) Lump Sum bids
- IEUA selected Norstar Plumbing and Engineering, Inc.
- Work began on May 3, 2024, and full closure of El Prado Road on May 6, 2024

Bidder's Name	Final Bid Amount
Norstar Plumbing and Engineering, Inc.	\$623,200
<i>Engineer's Estimate</i>	<i>\$730,000</i>



# Project Scope of Work

1. Traffic control and emergency permit with City of Chino
2. Cut and cap all connections to existing 10-inch Recycled Water (RW) line
3. Construct connection from 8-inch to 10-inch existing line
4. Connect two businesses to fire hydrant
5. Connect RP-2 Septage Station to RW
6. Repair Landscape



# Path Forward

- Repurposed RW line online by May 10, 2024
- Paved and opened road by May 17, 2024
- Solids performance greatly improved at RP-5 and RP-2
- IEUA reimbursing potable water costs for impacted businesses
- 10-inch RW will be returned to RW service at end of RP-5 Expansion Project



# Thank You

- RP-5 Operations
- RP-2 Operations
- Recycle Water Operations
- CCWRF Operations
- Collections
- Pretreatment & Source Control
- Engineering & CM
- IEUA Inspection
- External Affairs
- Finance
- McKesson & Paiho
- City of Chino – Permits, Inspection, Billing





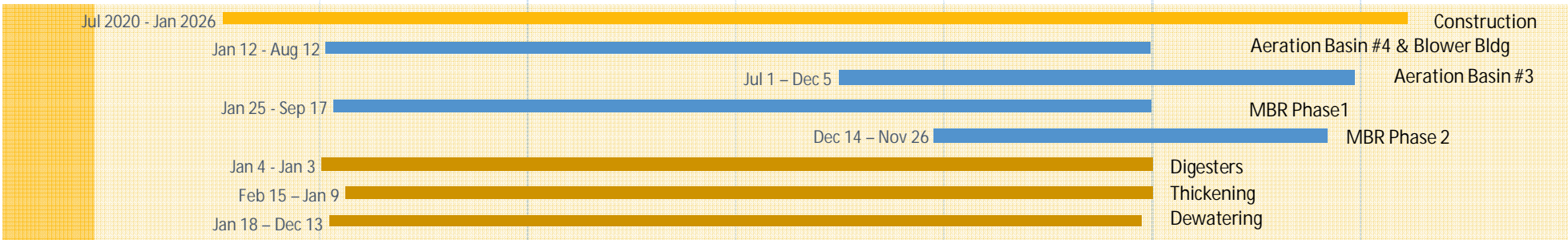
# RP-5 Expansion Project Update June 2024

Project Nos. EN19001 and EN19006

Vicky Salazar  
Senior Associate Engineer  
June 2024

# RP-5: Project Status

Day 1385 of 2005 = 69%



Role	Firm	Contract	This Month's Payment	Total Paid	% Complete
Contractor	WM Lyles	\$339,188,519	\$1,713,050	\$271,660,701	80%
Designer	Parsons	\$40,551,961	\$329,471	\$36,721,154	90%
Construction Management	Arcadis	\$21,125,523	\$375,424	\$16,480,212	78%

Data date: 5/31/24



# Electrical and SCADA Status Update

## ✓ COMPLETED

- Factory Acceptance Testing (FAT) ongoing for Remote Input/Output Panels (IRIOs)
  - IRIO 40071, 40071A, 400743, 40074A, 40075, 40076

## ! CHALLENGES AHEAD

- Electrical Subcontractor: SCE Cut Over
  - Temporary Generator Installation: Week of June 3rd
  - New SCE Circuit Installation: Week of June 10th
  - New Generator System Testing: Week of June 17th
- Programming Subcontractor
  - Upcoming planned shut-downs for Primary, Secondary, Tertiary Logic Reorganization



## RP-5: Major Activities



**Membrane Bioreactor (MBR)**

# RP-5 Major Activities



## Gas Digestors

# RP-5 Major Activities



**Thickenning Building**

# RP-5 Major Activities



## Dewatering Building

# RP-5 Flyover: March 2024



# Questions