CITY OF UNALASKA
UNALASKA, ALASKA

RESOLUTION 2025-29

A RESOLUTION OF THE UNALASKA CITY COUNCIL AUTHORIZING THE CITY MANAGER TO SOLE SOURCE ELECTRIC POWER SYSTEMS, INC. (EPS) FOR UPGRADES TO THE SCADA AND REPORTING SYSTEMS AT THE POWERHOUSE IN AN AMOUNT NOT TO EXCEED $157,126

WHEREAS, the City must meet regulatory reporting requirements from ADEC, EPA, and EIA;

WHEREAS, the current reporting system is outdated and no longer reliable;

WHEREAS, EPS has worked with City Staff to identify reporting issues and solutions to correct such deficiencies;

WHEREAS, EPS has a long history with the City's electric infrastructure and SCADA systems;

WHEREAS, using a new vendor would increase costs and delay progress;

WHEREAS, EPS has proposed to complete the upgrades for $157,126;

NOW THEREFORE BE IT RESOLVED the Unalaska City Council authorizes the City Manager to sole source Electric Power Systems, Inc. (EPS) to perform the necessary SCADA and reporting system upgrades at the Powerhouse, in an amount not to exceed $157,126.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on May 12, 2025.

Vincent M. Tutiakoff, Sr.
Mayor

ATTEST:

Estkarlen P. Magdaong, CMC
City Clerk

SEAL

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members
From: Erik Hernandez, Acting Utilities Director
Through: William Homka, City Manager
Date: May 12, 2025
Re: Resolution 2025-29: Authorizing the City Manager to sole source Electric Power Systems, Inc., (EPS) to upgrade the existing SCADA and reporting systems software at the Powerhouse.

SUMMARY: Through Resolution 2025-29, Staff seek approval for the City Manager to sole source Electric Power Systems, Inc. (EPS) to perform critical upgrades to the Supervisory, Control, and Data Acquisition (SCADA) and reporting systems at the Powerhouse. The proposed upgrades, totaling $157,126, are necessary to ensure regulatory compliance. With a long-standing and successful history supporting the City's electric infrastructure, EPS brings proven expertise and familiarity with existing systems, making them the most efficient and cost-effective choice for this work.

PREVIOUS COUNCIL ACTION: Council approved Ordinance 2024-08, on June 11, 2024, adopting the FY25 Operating and Capital Budget, allocating $150,000 for this project from the Electric Utility Proprietary Fund.

Council approved Ordinance 2025-03, on March 11, 2025, allocating an additional $20,000 from the Electric Proprietary Fund.

BACKGROUND: The City is required to comply with State and Federal regulations set forth by agencies such as the Alaska Department of Environmental Conservation (ADEC), and the U.S. Environmental Protection Agency (EPA), and the Energy Information Agency (EIA). To meet these requirements, the City developed an in-house reporting system. However, since then, Microsoft has discontinued support for Windows Server 2008, the platform on which the system was built. A newer version Windows Server (2022) is now available, offering improved security, reliability and performance.

The porting system was originally designed to support compliance with ADEC, EPA, and EIA regulatory requirements. Over time, server updates and changes began to compromise the system's ability to generate accurate and timely reports. City Staff and contractors attempted to address the issues, but many remained unresolved. In early 2024, the City brought in EPS to assess the situation. EPS was able to identify the root causes of the reporting failures, and the City has since partnered with them to conduct a complete overhaul of the system.

DISCUSSION: The City has worked with EPS for over two decades on a wide range of electric utility projects. Through competitive bidding process, EPS has been awarded contracts for consultation, design, and construction services, including the New Powerhouse, Alyeska Intertie, and the 2018 Electric Utility Master Plan. EPS continues to provide essential engineering services and support the City's Electric generation and distribution divisions. These services include SCADA support and maintenance, data analysis and troubleshooting.

Given EPS' deep understanding of the City's electric infrastructure and current SCADA and reporting system needs, bringing a new firm would not only increase costs, but also introduce inefficiencies and delays due to the learning curve involved. EPS' longstanding involvement ensures a seamless and informed approach to the necessary upgrades.

EPS' proposal for their services totals $157,126.

ALTERNATIVES: Council may choose to approve or disapprove this sole sourcing request.

FINANCIAL IMPLICATIONS: None, there are ample funds in project EL22D (Powerhouse SCADA and Reporting Upgrades)

LEGAL: None.

STAFF RECOMMENDATION: Staff recommends approval of Resolution 2025-29.

PROPOSED MOTION: I move to adopt Resolution 2025-29

CITY MANAGER COMMENTS: I support staff's recommendation.

ATTACHMENTS:

EPS Proposal

April 9, 2025

City of Unalaska
Attention: Louis Aguilar/Erik Hernandez
P.O Box 920608
Dutch Harbor, AK 99692

Subject: SCADA & Reporting Systems - Software Upgrades

Mr. Aguilar/Mr. Hernandez,

The following is an estimate from Electric Power Systems Inc. (EPS) to upgrade the existing SCADA and Reporting systems software at the City of Unalaska (COU) powerhouse. The current SCADA HMI servers run on Microsoft Windows Server 2008 as the operating system, and the hardware was installed in 2014. As Microsoft ended the support for Windows Server 2008 in January 2020, we recommend that new virtual machines (VMs) be configured to run on Windows Server 2022 as it is the more recent secure and reliable version of Windows Server that supports all required SCADA software. This upgrade of the SCADA system will include installing Windows Server 2022 and the current versions of AVEVA (formerly Wonderware) InTouch and Kepware KEPServerEX on the HMI servers. Also on the HMI server, Canary Labs Trending software, Axiom, will be installed to replace Canary's older software, Trend Link. The upgrade includes installing a Windows 11 VM with the current version of Proficy Machine Edition for the PLC software, and Microsoft Excel to handle the PLC software for the existing plant RX3i PLCs.

There is an existing Windows XP VM on one of the servers for Schneider Electric's Modicon Concept PLC software that will be transferred to one of the new servers. The existing Modicon Quantum PLC has been discontinued since 2015 and Schneider Electric ended support for the software at that time and is not supported on newer Windows operating systems. Proposals to upgrade the Wartsila Modicon PLCs have been provided in the past with the most recent proposal attached. Please let us know if an updated proposal is needed.

The eleven production reports and twelve operations reports will be duplicated with Inductive Automation's Ignition reporting software. The software will utilize MSSQL database data (same as the existing reporting system) and will be easier to build and support the reports. The reports will be emailed automatically as per the existing system. This proposal will include having the two reporting server VMs reside on the same physical servers as the SCADA server, so there is redundancy but eliminates two of the physical servers. The Dell PowerEdge R350 redundant physical servers

recommended in this quote have additional memory to handle the reporting servers. This configuration will be more cost-effective than purchasing additional servers and easier to maintain and support. The Ignition reporting software is straightforward enough that we could train one of your technicians to make minor modifications to the reports.

The redundant physical servers recommended will be procured by the City. The associated software, Windows OS, Remote Desktop User CALs (10), Microsoft Excel, InTouch, Kepware, Canary, and Proficy, will be procured by EPS and configured by us at our office. Following configuration and testing, the servers will be shipped to Unalaska for installation. Remote support will be provided for server installation and start-up. The new servers will initially run in parallel with the existing servers to minimize interruption of processing plant operations. Once data is verified over a period of time and operations are comfortable with the servers, the existing servers will be decommissioned and removed. Both existing servers do not need to be replaced simultaneously. The upgrades can be staged to spread out the costs with no change in the overall price.

This project does not include the upgrade or replacement of other devices including thin clients, monitors, keyboards, mice, switches, or cables. This quote does not include on-site installation support but can be combined with another project or a training/maintenance trip by a SCADA engineer.

The scope of work and breakdown of costs for this project is provided below.

EPS Scope of Work

- Procure all SCADA software as listed below.
- Configure domain servers as needed for both primary and backup servers
- Configure the primary and backup HMI VMs with upgraded licenses of Windows Server 2022, Aveva Intouch, Kepware KEPServer (GE Suite, Modbus Suite, Automation Direct), Canary Labs Axiom/Historian, and 10 Remote Desktop Services User CALs for each server
- Configure the PLC development (DEV) VM with upgraded licenses of Windows 11 Pro, Proficy Machine Edition, and Microsoft Excel.
- Configure Windows 11 VM with Inductive Automation Ignition reporting software and SQL databases, duplicate the 23 existing reports for both servers, and set up automatic emailing of reports.
- Transfer Windows XP VM with Modicon Concept PLC software to one of the servers.
- Transfer over the InTouch application, configuration files, and existing historical data from the current servers to the new servers
- Establish and test communications between various field devices (e.g., PLCs) and/or software applications and test functionality of SCADA system
- Provide remote support during and after installation to monitor the system and make any

adjustments as needed to complete commissioning
- Update SCADA manual with updated and new software

Customer Scope of Work:

- Procure new SCADA servers (full specification and Dell quote provided separately)
  - Each Dell PowerEdge R360 to include Intel Xeon E-2486G 3.5GHz CPU, redundant power supplies, 128GB of UDIMM RAM, (2) 2.4TB hot-plug hard drives with RAID 1 (mirrored)
- Provide installation of SCADA servers including connections to SCADA network
- Provide onsite/offsite assistance to configure new SCADA Servers

SCADA Server Upgrade		
Item	Description	Cost
1	Engineering/Programming/Procurement	$33,849
2	Software	$67,874
3	Server Hardware Shipping	$1,495
	Total	**$103,219**

Reporting Server Upgrade		
Item	Description	Cost
1	Engineering/Programming/Procurement	$38,608
2	Software	$15,299
	Total	**$53,907**

This estimate is provided on a **Time and Materials** basis for an **estimated cost of $157,126.** This estimate is valid for 60 days based on the current fee schedule. Items not specifically listed in the proposal are out of scope and may increase the cost of the proposal. This estimate will not be exceeded without the approval of the client. If you have questions or need any additional information, please call me at (907) 646-5146 or email me at rabe@epsinc.com.

Sincerely,

Ryota Abe
SCADA Engineer