



DATE: October 8, 2024

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt a Resolution Awarding 3-Year Contracts to Econolite Control Products, Inc., and Western Systems, Inc., for the Battery Backup Program, Project No. 05233 and 05856

RECOMMENDATION

That Council adopts a resolution (Attachment II) authorizing the City Manager to execute 3-year agreements with Econolite Control Products, Inc., (Econolite) and Western Systems, Inc., (WS) to purchase traffic signal equipment to provide signalized intersections with battery backup, for potential power outages, for a term of three years.

SUMMARY

As part of the annual program to replace worn-out signal equipment, a Request for Quote (RFQ) was released on August 1st, 2024 seeking vendors to supply traffic controllers, signal cabinets, and Battery Backup Systems (BBS). Through a competitive bidding process, the evaluation team has selected both Econolite and Western Systems to supply and support installations of these products. Staff recommends that the Council adopt a resolution authorizing the City Manager to execute 3-year agreements with Econolite and WS to provide specified equipment to prepare traffic signals for potential power outages.

BACKGROUND

The City's Public Works & Utilities Department maintains 146 traffic signals and other traffic control devices such as flashing beacons, radar feedback signs, high-intensity activated crosswalk beacons, and rectangular rapid flashing beacon signs. Staff maintain an inventory of all of the City's signals, including detailed information about the infrastructure in place at each signal, the signal controller, and other relevant information that staff use to manage the City's signal assets.

From the signal inventory list, Staff prioritized intersections for new BBS based on street classification and the number of lanes. The top 9 intersections were evaluated to identify

any additional signal equipment needed to implement BBS, such as signal controllers and cabinets.

As part of this program, the City requested pricing for standard signal equipment and BBS currently used by the City. Staff also used this effort to assess a new BBS technology at one intersection that uses hydrogen fuel cells to enable extended operations, as conventional BBS cannot continue signal operations through a power outage that lasts many hours or multiple days. Staff selected a product called Hymax BBS to test as part of this pilot program.

To purchase the identified signal equipment, the City released an RFQ on August 1st, 2024, with bids due on August 30, 2024. Two vendors, Econolite and WS submitted responses on August 30, 2024.

DISCUSSION

The RFQ required vendors to provide costs for items under an initial purchase and optional purchase categories. Initial purchase includes items to be purchased in FY2025 after the agreement is executed. The optional purchase includes items that may be purchased in FY 2026 and FY 2027. Any purchases beyond the initial purchase within the contract term are not guaranteed.

The following two tables summarize costs provided by Econolite and WS for initial purchase and potential purchase.

Initial Purchase FY25			Econolite Control Products, Inc.		Western Systems, Inc.	
Line Item	Description	Quantity	Unit Cost	Total	Unit Cost	Total
1	Alphacell 240XTV BBS	8	\$8,670.00	\$69,360.00	\$12,943.89	\$103,551.12
2	Hymax Fuel Cell Battery BBS	1	N/A	N/A	\$38,856.52	\$38,856.52
3	Traffic Signal Cabinet: P Plus Cabinet	1	\$26,370.00	\$26,370.00	\$30,997.65	\$30,997.65
4	Traffic Signal Controller: Econolite Cobalt	2	\$4,970.00	\$9,940.00	\$15,130.95	\$30,261.90
Total				\$105,670.00		\$203,667.19

Optional Purchase for FY26 & FY27			Econolite Control Products, Inc.		Western Systems, Inc.	
Line Item	Description	Quantity	Unit Cost	Total	Unit Cost	Total
1	BBS: Alphacell 240XTV	1	\$9,410.00	\$9,410.00	\$12,943.89	\$12,943.89
2	BBS: Hymax Fuel Cell Battery, without 56Ah Battery Backup	1	N/A	N/A	\$38,856.52	\$38,856.52
3	BBS: Hymax Fuel Cell Battery, with 56Ah Battery Backup	1	N/A	N/A	\$47,553.33	\$47,553.33
4	Traffic Signal Cabinet: P Cabinet	1	\$23,180.00	\$23,180.00	\$22,416.14	\$22,416.14
5	Traffic Signal Cabinet: P Plus Cabinet	1	\$26,370.00	\$26,370.00	\$30,997.65	\$30,997.65
6	Traffic Signal Controller: Econolite Cobalt	1	\$5,325.00	\$5,325.00	\$15,130.95	\$15,130.95
Total				\$64,285.00		\$167,898.48

Based on the cost provided, staff recommends awarding a contract to WS to supply Hymax Fuel Cell Battery (Initial Purchase line item 2 and Optional Purchase line items 2 and 3) and P Cabinet (Optional Purchase line item 4) and awarding a contract to Econolite to supply all the remaining items under Initial Purchase and Optional Purchase. Additionally, under potential purchases, the P Cabinet from Econolite and the P Plus Cabinet from WS will be awarded as backup in case the awarded vendor for each cabinet type cannot provide the specified cabinets. The total initial purchase amount will be \$144,525.52, which includes (8) Alphacell BBS, (1) Hymax BBS, (1) P Plus cabinet, and (2) Econolite Cobalt controller.

Staff recommends awarding not-to-exceed amount of \$400,000 for Econolite and \$150,000 for WS for the three-year term. This will enable staff to implement the initial and future battery backup system installations over the 3-year contract term.

ECONOMIC IMPACT

Providing battery backup for City signal equipment upgrade will help ensure the continued operation of signals for a limited duration during power outages, which may reduce costs for traffic management and may reduce the likelihood of collisions, which have an economic cost.

FISCAL IMPACT

The funding for this equipment purchase will come from CIP budgets allocated for Traffic Management (Measure BB - Local Transportation, Fund 212, Project No. 05233) and Controller Cabinet Replacement and Battery Backup Program (Transportation System Improvement, Fund 460, Project No. 05856). The allocated project has sufficient balances to support these contracts.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority of Invest in Infrastructure. This item is not specifically related to a project identified in the Strategic Roadmap. Staff is bringing forth this item to enhance the operation of the City’s traffic signals during future power outages.

SUSTAINABILITY FEATURES

This agenda item supports the routine operation of traffic signal infrastructure, which supports the City’s sustainability initiatives by reducing unnecessary vehicle stopping and acceleration, which can reduce emissions.

PUBLIC CONTACT

No public contact has been made related to this agenda item.

NEXT STEPS

If Council approves this request, the City Manager will execute three-year agreements with Econolite Control Products, Inc., in amount not to exceed \$400,000 and Western Systems, Inc. in the amount not to exceed \$150,000.

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Recommended by: Alex Ameri, Director of Public Works

Approved by:



Dustin Claussen, Interim City Manager