

TO: The City Council

FROM: Rahat Bari, City Engineer

DATE: January 21, 2021

RE: Resolution 21-004-R: Approving Task 4 with Schweitzer Engineering Laboratories, Inc. (SEL) in the amount of \$204,200 to develop wiring diagrams and procurement of five fabricated control and relay panels for Paramount Distribution Substation

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**Background:**

In recent years, the City of Batavia Electric Department has experienced problems with the outdoor medium voltage switchgear buildings at Paramount Substation. Paramount has two transformers and two switchgear buildings. The older one was installed in the late 1980s and is over thirty years old. The newer one was installed in 2000 and is 18 years old. The City completed a new distribution substation within the premise of existing Northeast Substation to replace the older transformer and switchgear. The newer transformer at Paramount substation is being reused to rebuild the Paramount Park Substation. The City Council already approved the construction contract through Resolution 20-136-R. The work at Paramount Substation will commence in February 2021 and expected to complete by summer of 2021.

**Discussion**

The scope of this project includes the development of wiring diagrams and procurement of five (5) fabricated control and relay panels for the new Paramount distribution substation. The new solid-state relays provide electrical protection, self-health check, alarming, telemetry, fault and event recording, and other advanced features. In our newer substations, North East, South East, McKee, Cherry Park and Main Street, we have used the SEL solid state relays and communication equipment. We will install this equipment with the Ethernet portion of our fiber network. Once these SEL equipment are installed, Paramount distribution substation will operate and have capabilities like the other new substations. This equipment will monitor itself and let us know something is wrong. The City has used SEL equipment in all other substations hence a formal bidding was not invited for this portion of Paramount substation rebuild.

Paramount substation design and construction engineering consultant Power System Engineering (PSE) has reviewed the proposal and is recommending approving it. Staff has also reviewed the proposal and agree that it to be complete and the proposed cost is in line with other similar projects. Funds for this expenditure is included in 2021 Budget.

Following is the expenditure table showing the budget, bid prices and expenditure so far for Paramount Substation rebuild project. The paramount substation rebuild project is still on target to be completed under budget.

Item	Budget	Bid/Estimated Amount	Savings/Deficit
Design Engineering	\$420,000	\$416,573	\$3,427
Substation Construction	\$1,750,000	\$1,772,483	(\$22,483)
Construction Inspection	\$500,000	\$244,344	\$255,656
Steel and Materials Package	\$130,000	\$91,768	\$38,232
Breakers	\$1,320,000	\$1,116,650	\$203,350
Relay Equipment	\$250,000	\$204,200	\$45,800
Capital Supplies (Wire etc.)	\$225,000	N/A	N/A
Fiber Building Design	\$30,000	\$30,351	(\$351)
Fiber Building Construction	\$400,000	\$243,433	\$156,567
Testing and Commissioning	\$100,000	N/A	N/A
Total	\$5,125,000	\$4,119,802	\$680,198

### **Budget**

The relay equipment purchase is budgeted in 2021 under the account 21-61-6435

### **Staff Recommendation**

The City has successfully worked with SEL on past projects including NE 138 kV Substation Construction, SE 138 kV Substation Construction, McKee Substation, Main Substation and Cherry Park Substation. Based on past interaction, staff determines that SEL is a responsive and responsible supplier for control and relay panels. Staff feels comfortable recommending Resolution 21-004-R: Approving Task 4 with Schweitzer Engineering Laboratories, Inc. (SEL) in the amount of \$204,200 to develop wiring diagrams and procurement of five fabricated control and relay panels for Paramount Distribution Substation.

Attachment:

1. Resolution 21-004-R
2. Task Order #4
3. Cost Proposal
4. Recommendation letter from PSE

**CITY OF BATAVIA, ILLINOIS  
RESOLUTION 21-004-R**

**AUTHORIZING TASK 4 WITH SCHWEITZER ENGINEERING LABORATORIES, INC. (SEL)  
FOR AN AMOUNT NOT TO EXCEED \$204,200 TO DEVELOP WIRING DIAGRAM AND  
PROVIDE 5 FABRICATED CONTROL AND RELAY PANELS FOR PARAMOUNT  
DISTRIBUTION SUBSTATION**

**WHEREAS**, the City of Batavia owns and operates an electric utility whereby it purchases wholesale power and resells same to its citizens; and

**WHEREAS**, the City of Batavia owns and operates an electric transmission and distribution network; and

**WHEREAS**, the City of Batavia has identified the need to rebuild the Paramount Substation; and

**WHEREAS**, New control and relay panels are necessary to operate the transformer and switchgear; and

**WHEREAS**, SEL has the expertise to provide the control and relay panels; and

**WHEREAS**, SEL has submitted the price of \$204,200 to perform the work; and

**NOW, THEREFORE, BE IT RESOLVED**, by the Mayor and City Council of the City of Batavia, Kane and DuPage Counties, Illinois, as follows:

**SECTION 1:** That the Mayor and City Clerk are hereby authorized to execute Task 4, attached hereto as Exhibit 1, with SEL to develop wiring diagrams and procurement of five fabricated control and relay panels for Paramount Distribution Substation for an amount not to exceed \$204,200.

CITY OF BATAVIA, ILLINOIS RESOLUTION 21-004-R

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PRESENTED to the City Council of the City of Batavia, Illinois, this 1<sup>st</sup> day of February 2021.

PASSED by the City Council of the City of Batavia, Illinois, this 1<sup>st</sup> day of February 2021.

APPROVED by me as Mayor of said City of Batavia, Illinois, this 1<sup>st</sup> day of February 2021.

\_\_\_\_\_  
Jeffery D. Schielke, Mayor

Ward	Aldersperson	Ayes	Nays	Absent	Abstain	Aldersperson	Ayes	Nays		Absent	Abstain
1	O'Brien					Baerren					
2	Callahan					Wolff					
3	Meitzler					Chanzit					
4	Malay					Knopp					
5	Uher					Beck					
6	Cerone					Russotto					
7	McFadden					Miller					
Mayor Schielke											
VOTE:		Ayes		Nays		Absent		Abstentions			
Total holding office:		Mayor and 14 aldermen									

ATTEST:

\_\_\_\_\_  
Ellen Posledni, City Clerk

# Exhibit 1

EXHIBIT "1"

TASK ORDER NO. 4

REGARDING GENERAL AGREEMENT BETWEEN CITY OF BATAVIA

AND

Schweitzer Engineering Laboratories

Project Description: Paramount Distribution Substation-Provide Wiring Diagram and five control and relay panels

Scope of Services: Attached project proposal by SEL.

Time of Performance: Work to be completed by August 31, 2021.

Estimated Fee for Services: Not to Exceed \$204,200

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

Approved: \_\_\_\_\_ Date:  
City of Batavia



# Proposal for City of Batavia

## *Paramount Park Substation - Relay Panels*

SEL ES Project #: 021588.000.00 (Rev. 3)

Submitted: 14 January 2021

## City of Batavia Contact Information

**Robert Rogde**  
**Senior Project Engineer**

City of Batavia  
 200 N. Raddant Road  
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 Fax: 630.454.2351  
 Email: rrogde@cityofbatavia.net

**Andrew Kachmarsky, P.E.**  
**Senior Substation Engineer**

Power System Engineering  
 1532 West Broadway  
 Madison, WI 53713  
 Office: 608.268.3553  
 Cell: 906.361.1357  
 Email: kachmarskya@powersystem.org

**Seth Packwood, P.E.**  
**Substation Design Engineer**

Power System Engineering  
 1532 West Broadway  
 Madison, WI 53713  
 Office: 608.268.3558  
 Cell: 608.222.9378  
 Email: PackwoodS@powersystem.org

## SEL ES Contact Information

**SEL Engineering Services, Inc.**  
**Detroit Branch**

USA  
 Phone: 509.334.811  
 Fax: 734.927.9610

**Brian Kennedy, P.E.**  
**Project Engineer III – Protection Lead**  
**Project Manager**

14492 North Sheldon Road, Suite 320  
 Plymouth, MI 48170  
 Office: 509.334.8103  
 Email: brian\_kennedy@selinc.com

**Nate Boos, P.E.**  
**Engineering Manager | Detroit Branch**

Office: 50.334.8112  
 Cell: 313.530.8166  
 Email: nate\_boos@selinc.com

## Sales Representative Contact Information

**Erik Hansen**

A Star Electric  
 Office: 847.439.0373  
 Cell: 847.452.1512  
 Email: erik@astareg.com

Document Revision Table

Rev.	Issue Date	Notes
3	01/14/2021	Corrected RTAC part number
2	01/11/2021	Revised to include touchscreen SEL-735, and some minor wiring changes
1	2020	Provided “2020” proposal to allow for extended consideration time
1	02/13/2020	Revised Proposal to the City of Batavia – Changed SEL-751 Part Number per Request
0	02/12/2020	Initial Proposal to the City of Batavia – Paramount Park Substation – Relay Panels



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# 1 Scope of Services

SEL Engineering Services, Inc. (SEL ES) is providing this document in response to a request for a revised quote from Andrew Kachmarsky on ~~29 January 2020~~ 21 December 2020 for relay panels at the City of Batavia's Paramount Park Substation, Batavia, Illinois.

Service Description	Price
The scope of this project includes the development of wiring diagrams and procurement of five (5) fabricated control and relay panels.	
<p><b>Equipment Procurement – Control Panels</b></p> <p>The control panels and their associated equipment are per the Bill of Materials (BOM) in Attachment 1.</p> <ul style="list-style-type: none"> <li>• Relay Panel RP1</li> <li>• Relay Panel RP2</li> <li>• Relay Panel RP3</li> <li>• Relay Panel RP4</li> <li>• Relay Panel RP5</li> <li>• <del>Cables Shown on Port Assignment Drawings #24-03 and #24-04</del> <ul style="list-style-type: none"> <li>○ <del>Thirty Five (35) C605A Cables</del></li> <li>○ <del>One (1) C972 Cable</del></li> <li>○ <del>One (1) CAT5e Cable</del></li> </ul> </li> </ul> <p>Per discussions with PSE and Batavia, cables will be procured by the general contractor during installation</p>	<p>\$211,175.00</p> <p><del>\$200,135.00</del></p> <p>\$190,200.00</p>
<p><b>Engineering Design</b></p> <p>Scope includes:</p> <ul style="list-style-type: none"> <li>• Five (5) Wiring diagrams, one per panel.</li> <li>• Five (5) Nameplate drawings, one per panel</li> <li>• Project management and project administration.</li> </ul>	\$14,000.00
<b>Total</b>	<p><del>\$225,175.00</del></p> <p><del>\$214,135.00</del></p> <p>\$204,200.00</p>

All quoted prices are exclusive of any sales, use, value-added, or similar taxes, which will be added, if applicable, at the statutory rate(s) at the time of invoicing.

## 1.1 Deliverables to Customer

### 1.1.1 Equipment

SEL ES will provide the following equipment to City of Batavia (“Customer”):

- Attachment 1, Bill of Materials (BOM)

- ~~Miscellaneous Cables~~

## 1.1.2 Documentation

SEL ES will provide the following documentation to the Customer:

- An initial set of drawings for the Customer to review, comment, and approve consisting of the following:
  - Panel structural layouts
  - Panel Wiring Diagrams
  - Panel Nameplate Drawings
- A final set of the above drawings that have been approved by the Customer
- A relay instruction manual for each relay provided in CD format

Note: All drawings will be provided in AutoCAD format (.dwg) version 2013 unless otherwise noted.

## 1.2 Deliverables to SEL ES

The Customer will provide the following items to SEL ES:

- Kick-off meeting attendance by phone conference.
- Collaboration and approval of project schedule.
- A review and approval of the initial drawing package.
- An Issued for Construction and approved drawing set that includes the following:
  - Drawing index or drawing transmittal sheet that includes drawing number, revision number, and description.
  - Panel layouts with BOMs.
  - AC elementary drawings.
  - DC elementary drawings.
  - Cable schedule (showing internal panel-to-panel and control house-to-panel wiring).
- Approvals and comments for submitted reports.
- Project sign-off indicating completion of project.
- Project review meeting – review of project brief document supplied by SEL ES to summarize our effort and collaboration on (a) what was done well and (b) what can be improved.

## 1.3 Change in Scope

In the event of a change in scope, the contract amount and schedule shall be equitably adjusted. The party identifying a potential change in scope will request the change of scope to the other in writing (fax, email, or letter). SEL ES will identify any budget or schedule impact and submit it for approval. SEL ES will proceed with the work as soon as SEL ES receives written approval, in accordance with established contract provisions.

## 2 Payment and Work Schedule

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### 2.1 Purchase Order Instructions

We request that the Customer consider the following when issuing a Purchase Order (P.O.). This will ensure that SEL ES, Inc. is able to accept the P.O. and the project team is able to provide a timely commitment to the project schedule:

Purchase Order must be made out to SEL Engineering Services, Inc. SEL Engineering Services, Inc. represents the services and solutions provider division of Schweitzer Engineering Laboratories, Inc. (SEL).

- Purchase Order must reference SEL standard T&Cs, or previously agreed contract T&Cs.
- Purchase amount must be for full amount of proposed project plus any selected options.
- Purchase Order can be issued to the contact(s) listed in the SEL ES Contact Information section in this proposal.

### 2.2 Payment Milestones

Milestone Activity	Price
1. Award of contract	\$25,000.00
2. Approval of panel structural drawings	\$50,000.00
3. Order of equipment	\$50,000.00
4. IFC Wiring Diagrams sent to customer	\$50,000.00
5. Shipment of panels	<del>\$39,135.00</del> \$29,200.00
<b>Total</b>	<del>\$214,135.00</del> <b>\$204,200.00</b>

All quoted prices are exclusive of any sales, use, value-added, or similar taxes, which will be added, if applicable, at the statutory rate(s) at the time of invoicing.

This price does not include any field service or special services.

Unless indicated otherwise in this proposal, the price does not include the cost of any payment, performance, and/or warranty security instrument.

SEL ES proposals are valid for 60 days. SEL ES reserves the right to withdraw this offer if mutually accepted credit terms cannot be agreed upon.

~~SEL ES acknowledges the extended time required for proposal review due to distancing requirements and provides validity of this proposal for 2020.~~

## 2.3 Payment and Credit Terms

If your company does not have established credit terms sufficient to cover this purchase, SEL ES reserves the right to require any of the following: credit information, prepayment, letter of credit, or progress payments prior to acceptance.

Work cannot be initiated until adequate credit terms have been established.

Payment Terms: Net 30 days after date of invoice.

## 2.4 Schedule

Delivery of approval drawings is four weeks after receipt of purchase order and agreed upon terms.

Delivery of equipment shall be 14 to 16 weeks after approval of design drawing(s).

The panel fabrication schedule is based on the following:

- Customer approval of the panel structural and panel layout drawings
- Customer approval of the panel BOMs
- A one-time review of drawings, BOMs, and nameplate lists

Drawings will be transmitted electronically by encrypted communications to expedite approval turnaround time.

SEL ES will furnish a schedule for engineering, drawings for approval, manufacture, test, and shipment within one week after receipt of a purchase order and agreed upon terms.

Failure to supply requested information in a timely manner will affect the schedule and will subject the Customer to additional charges as set forth in Section . If a project is delayed or suspended, the revised project schedule will be based on present workload and staff availability.

Proposed schedules are based on present workloads and, if applicable, material and equipment deliveries. The schedule may change depending upon the start date and the impact of work that may be awarded to SEL ES between the date of this proposal and the date of the award.

Schedule is subject to acceptable payment and credit terms.

The schedule will be equitably adjusted in the event of changes in scope or in the event of delays attributable to the Customer or Customer's separate contractors, unforeseen conditions, or causes beyond the control of SEL ES.

## 2.5 Work Suspension

### 2.5.1 Demobilization and Remobilization

In the event that a delay involves a demobilization and remobilization, whether the same is due to a Customer request, a lack of information, Customer has been unresponsive for 30 days, or otherwise, SEL ES will charge and the Customer agrees to pay the greater of \$1,000 or 5% of the contract value to demobilize from the Project.

After the Project has been demobilized, SEL ES will charge and the Customer agrees to pay 2% of the contract value to remobilize the project per Customer directive and per a mutually approved schedule. If a project is remobilized, the revised project schedule will be based on present workload and staff availability.

### **2.5.2 Suspension of Work**

Any Project delayed or demobilized beyond a reasonable period (as determined in SEL's sole discretion and including, but not limited to, the Customer being unresponsive for 30 days or the project being suspended for a period of 180 days or more) shall be treated as terminated by Customer and Customer shall be responsible for payment of all outstanding invoices, any actual costs incurred up to the date of termination, and a 20% cancellation fee on the remaining unbilled balance.

## 3 Clarifications and Exceptions

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SEL ES developed the scope of work, schedule, and price based on the information provided to us as listed in this proposal. Should additional or changed work be required, including such work resulting from unusual conditions or for any other reasons that are not evident from the information provided, changes to the price or schedule may result.

SEL ES will assign a project manager to the project. The project manager will oversee and maintain the schedule within SEL ES. The project manager will also be the point of contact with the Customer in order to maintain a smooth flow of information.

For safety reasons, SEL ES service personnel will not plan to work more than 10 hours per day. Should job requirements dictate work hours in excess of 10 hours per day, SEL ES and the Customer must review the requirements and agree on an appropriate plan that addresses safety concerns and the reasonableness of the hardship that the excessive hours place on SEL ES personnel.

### 3.1 Clarifications

- No installation or wiring is included in this scope of work.
- Relay settings will be done by others.
- Internal panel wiring diagrams to be provided by SEL ES. They are to be similar to a previous design and the cost of the design reflects this. If there are major deviations from this previous design, a change order will be needed.
- Panel layouts, BOM, AC and DC Schematics, as well as a cable schedule showing internal panel-to-panel and external connections will be provided by others.
- This proposal does not include any on-site commissioning support by SEL ES. On-site commissioning is to be performed by others.
- Control panels are provided by SEL ES.

#### **Control Open Racks**

- Equipment, materials, and accessories will be furnished, mounted, and connected as indicated on the drawings. Equipment, materials, and accessories listed by catalog number will be furnished as specified.
- SEL will provide miscellaneous nuts and screws, cable ties, insulated ring tongue connectors, cable troughs for horizontal wiring, wire, and nameplates required to complete the panel.
- The color of finish will be ANSI No. 61 Light Gray.
- Insulated compression-type ring tongue or ferrule connectors will be used for all terminations.
- There will be no splices in the wiring.
- #10 AWG wire will be used to wire all CT circuits. All other circuits will be wired using #12 AWG wire. Other wire gauges will be used at SEL ES's discretion, where required by

manufacturing specifications. Green wire will be used for all ground wires. All other wire will be gray.

- SEL ES will provide complete factory wiring for the control panel and equipment mounted in the panel. Wire and cable will be type SIS, rating 600 volts, 90°C.
- All internal wiring and cabling will be heat-shrink labeled at both ends with the destination of the wire.

## 3.2 Exceptions

None

## 3.3 Compliance

SEL ES will comply with state and local codes, standards, rules, regulations, and laws insofar as they do not exceed national codes, standards, rules, regulations, and laws.

In the event that a part, other than protective relays, is not obtainable or develops a lengthy lead time, SEL ES will consult with the Customer to determine if the project deadline can be extended or if the part can be substituted with an alternate manufacturer's model that will meet or exceed the specifications of the original part.

All panels require storage in a dry, temperature-controlled building. Improper storage will void manufacturer's warranty.

## 3.4 Cybersecurity – Project Passwords

To maintain security during the processes of engineering, fabrication, factory tests, shipment, delivery, onsite testing, and commissioning, the electronic devices in this system are assigned project passwords. They are specific to this project and are controlled at SEL ES on a strict need-to-know basis.

As part of the final deliverables from SEL ES, the Customer will receive documentation identifying the project passwords in each of the delivered products. SEL ES recommends that the Customer change the project passwords to Customer-defined passwords upon receipt of their products.

SEL ES policy is to change passwords; however, SEL ES will follow the Customer policy regarding passwords as advised.



# 4 Project Quality Plan

SEL maintains a documented quality system that meets the requirements of ISO 9001.

SEL ES strives to design, develop, and deliver dependable, quality solutions that exceed Customer expectations by applying the example SEL ES Project Procedure illustrated in Figure 1. The procedure and subordinate work instructions encompass a sequential, phase-gate design process that is tailored to the specific scope of the project. The primary goal is to design in quality from the beginning of the project. Time spent early on to ensure that customer project requirements and the design basis are correct saves time and effort in later phases for the customer, the project team, and others involved.

The SEL ES Project Procedure for a typical project has phases for planning, definition, development, testing/validation, commissioning, and close out. Detailed design reviews of requirements and deliverables by competent technical reviewers from SEL ES authorized reviewer lists ensure the quality of deliverables. Testing and validation processes prove the performance of the solution for the customer’s application.

The customer has an important role in the process. Throughout the project, SEL ES will communicate project status and provide opportunities to define requirements, review deliverables, and provide feedback on SEL ES performance. Additionally, when customers define hold/witness points or approval requirements, SEL ES will include the requirements in its detailed project plans to guarantee compliance.

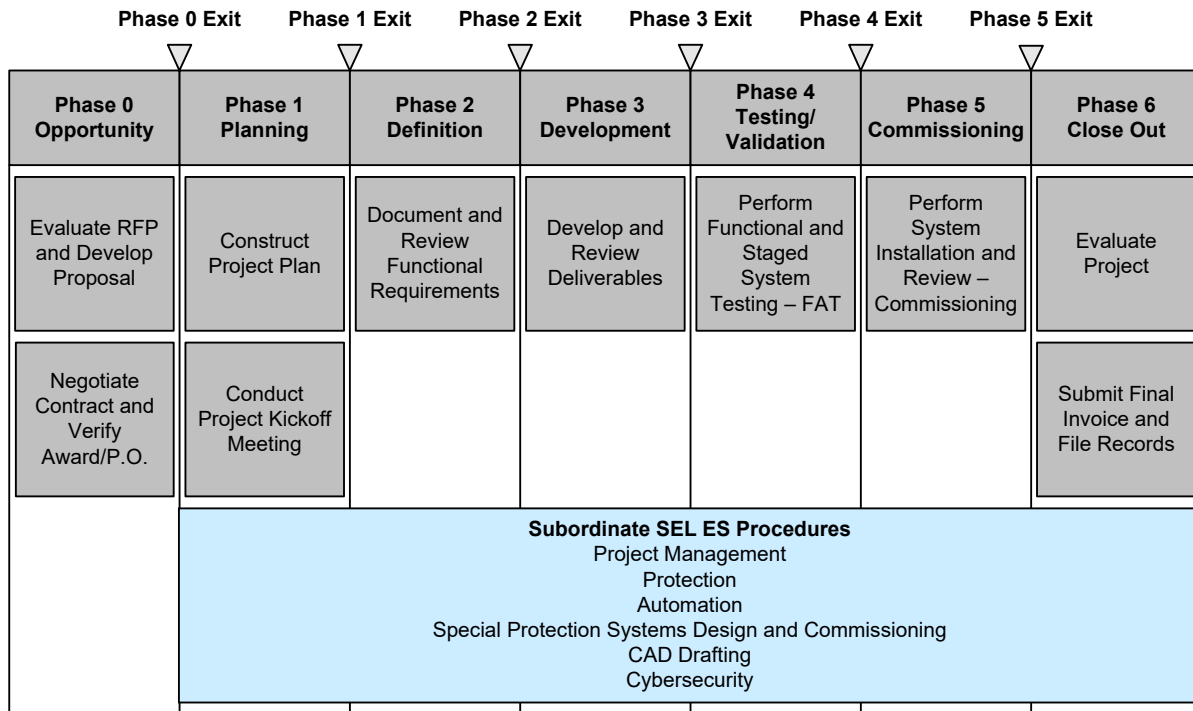


Figure 1: Example SEL ES Project Procedure Diagram

## 5 SEL ES Terms and Conditions

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To accept this proposal, please return this sheet, signed and dated. All purchase orders shall be issued to **SEL Engineering Services, Inc.**

City of Batavia (“Customer”)

200 N. Raddant Road

Batavia, IL 60510-2292

USA

FAX: 608.222.9378

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

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

SEL Engineering Services, Inc. (“SEL ES”)

14492 North Sheldon Road, Suite 320

Plymouth, MI 48170

USA

FAX: 734.927.9610

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

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

Contract Information (to be completed by client):

Contract Amount: \$ \_\_\_\_\_

Client PO/

Reference/Contract#: \_\_\_\_\_

Ship To Address: \_\_\_\_\_

Bill To Street Address: \_\_\_\_\_

Bill To Email Address: \_\_\_\_\_

Work on this project will be governed by the Master Services Agreement between SEL ES and City of Batavia.

# Attachment 1 Bill of Materials (BOM)

**Table 1. Buss Diff RP1 BOM**

Item	Qty	Manufacturer	Part/Model Number	Description
1	3	SEL	0587Z0X315H12XX	High-Impedance Differential Relay
2	1	SEL	TBD	30"W x 90"H x 24"D Panel, 19" Rack, Hinged Door, 3-Point Latch
3	3	Electroswitch	<del>78PB05MU</del> 78PB5NR	<del>Lockout Relay</del> Manual reset Lockout relay, 5 decks
4	3	ABB	FRXG014001001B	FT-19R SWITCH, 3U LOW MNT, 014-001-001, BLK CVR
5	1	ABB	FRXG001001001B	FT-19R SWITCH, 3U LOW MNT, 018-001-001, BLK
6	<del>20</del> 16	GE	EB25B12	TERM BLK, 12 POLE, 600V, EB-25
7	<del>3</del> 4	GE	EB27B04S	TERM BLK, 4 POLE, 600V, W/CVR, EB-27
8	3	Bussman	H25030-2S	FUSE BLK, 2 POLE, 30A, 250V, CLASS H
9	6	Bussman	NON-10	FUSE, 10A, 250V, ONE TIME, NON
10	1	Hoffman	LED24V15	RELAY PANEL LIGHT – 2700K (800 LUMENS) 9 WATT LED A19 LIGHT BULB WITH PORCELAIN FIXTURE AND GUARD, MOUNTED AT TOP.
11	1	Hoffman	ALFSWD	DOOR SWITCH, REMOTE, HOFFMAN LIGHT
12	1	Eaton	TRSGF15W	RECEPT, GFCI CONV OUTLET,
13	1	SEL	TBD	Misc Blank Plates
14	1	SEL	TBD	Ground Bar

**Table 2. Tri-Breaker RP2 BOM**

Item	Qty	Manufacturer	Part/Model Number	Description
1	1	SEL	735#0302 735#D2B9	Power Quality and Revenue Meter
2	4	SEL	751401ADADA7085AF20 751#9JJK	Feeder Protection Relay
3	1	SEL	TBD	30"W x 90"H x 24"D Panel, 19" Rack, Hinged Door, 3-Point Latch
4	4	ABB	FRXG014001001B	FT-19R SWITCH, 3U LOW MNT, 014-001-001, BLK CVR
5	<del>20</del> 16	GE	EB25B12	TERM BLK, 12 POLE, 600V, EB-25
6	<del>6</del> 4	GE	EB27B04S	TERM BLK, 4 POLE, 600V, W/CVR, EB-27
7	<del>3</del> 4	Bussman	H25030-2S	FUSE BLK, 2 POLE, 30A, 250V, CLASS H
8	<del>6</del> 8	Bussman	NON-10	FUSE, 10A, 250V, ONE TIME, NON
9	1	Hoffman	LED24V15	RELAY PANEL LIGHT – 2700K (800 LUMENS) 9 WATT LED A19 LIGHT BULB WITH PORCELAIN FIXTURE AND GUARD, MOUNTED AT TOP
10	1	Hoffman	ALFSWD	DOOR SWITCH, REMOTE, HOFFMAN LIGHT
11	1	Eaton	TRSGF15W	RECEPT, GFCI CONV OUTLET,
12	1	SEL	TBD	Misc Blank Plates
13	1	SEL	TBD	Ground Bar
14	4	SEL	915900436	Ring Terminals for SEL-751

**Table 3. Dual-Breaker RP3&4 BOM**

Item	Qty	Manufacturer	Part/Model Number	Description
1	2	SEL	<del>751401ADADA7085AF20</del> 751#9JJK	Feeder Protection Relay
2	1	SEL	TBD	30"W x 90"H x 24"D Panel, 19" Rack, Hinged Door, 3-Point Latch
3	2	ABB	FRXG014001001B	FT-19R SWITCH, 3U LOW MNT, 014-001-001, BLK CVR
4	<del>20</del> 18	GE	EB25B12	TERM BLK, 12 POLE, 600V, EB-25
5	4	GE	EB27B04S	TERM BLK, 4 POLE, 600V, W/CVR, EB-27
6	2	Bussman	H25030-2S	FUSE BLK, 2 POLE, 30A, 250V, CLASS H
7	<del>4</del> 6	Bussman	NON-10	FUSE, 10A, 250V, ONE TIME, NON
8	1	Hoffman	LED24V15	RELAY PANEL LIGHT – 2700K (800 LUMENS) 9 WATT LED A19 LIGHT BULB WITH PORCELAIN FIXTURE AND GUARD, MOUNTED AT TOP
9	1	Hoffman	ALFSWD	DOOR SWITCH, REMOTE, HOFFMAN LIGHT
10	1	Eaton	TRSGF15W	RECEPT, GFCI CONV OUTLET,
11	1	SEL	TBD	Misc Blank Plates
12	1	SEL	TBD	Ground Bar
13	2	SEL	915900436	Ring Terminals for SEL-751

**Table 4. SCADA RP5 BOM**

Item	Qty	Manufacturer	Part/Model Number	Description
1	1	SEL	24070001B	Satellite-Synchronized Clock
2	1	SEL	91610054	Touchscreen Monitor Kit (19 in ELO Monitor PN: E331019, DisplayPort VGA HDMI, Rack-Mount Bracket, 120/240 Vac 125/250 Vdc)
3	1	SEL	<del>3555#7JJ6</del> <del>3555#6MN6</del>	RTAC
4	1	SEL	91610049	Rack-Mount USB Keyboard/Drawer with Integrated Trackball
5	1	SEL	24402H11A1A11630	DPAC Discrete Programmable Automation Controller
6	1	SEL	TBD	30"W x 90"H x 24"D Panel, 19" Rack, Hinged Door, 3-Point Latch
7	1	ABB	FRXG001001001B	FT-19R SWITCH, 3U LOW MNT, 018-001-001, BLK
8	<del>20</del> 10	GE	EB25B12	TERM BLK, 12 POLE, 600V, EB-25
9	4	<del>GE</del>	<del>EB27B04S</del>	<del>TERM BLK, 4 POLE, 600V, W/CVR, EB-27</del>
10	<del>3-8</del>	Bussman	H25030-2S	FUSE BLK, 2 POLE, 30A, 250V, CLASS H
11	<del>6-16</del>	Bussman	NON-10	FUSE, 10A, 250V, ONE TIME, NON
12	1	Hoffman	LED24V15	RELAY PANEL LIGHT – 2700K (800 LUMENS) 9 WATT LED A19 LIGHT BULB WITH PORCELAIN FIXTURE AND GUARD, MOUNTED AT TOP
13	1	Hoffman	ALFSWD	DOOR SWITCH, REMOTE, HOFFMAN LIGHT
14	1	Eaton	TRSGF15W	RECEPT, GFCI CONV OUTLET,
15	1	SEL	TBD	Misc Blank Plates
16	1	SEL	TBD	Ground Bar
17	1	MajorPower	Majorsine 1000-125-2U	UTILITY INVERTER, MAJORPOWER CORP
18	<del>2</del> 1	<del>Dymec</del> Transitions Networks	<del>3350HRT-H</del> M/E-PSW-FX-02	<del>CONVERTER, GARRETTCOM, 3350HRT-H, FIBER LINK</del> Mini fast ethernet media converter - 10/100 Base-TX to 100 Base FX

January 20, 2021

City of Batavia  
Mr. Rahat Bari  
200 N. Raddant Rd.  
Batavia, IL 60510

***Subject: Relay Panel Bid Recommendation – Paramount Park Substation***

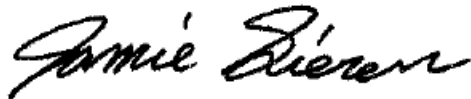
Dear Rahat,

I am sending you this letter with the recommendation for awarding relay panels at Paramount Park Substation. The revised bid was received on January 14, 2021.

We have reviewed the quote from SEL and it contains the relay panels and materials as requested. The quoted amount of \$204,200.00 is acceptable for the requested items for this project. I recommend Batavia purchase the relay panels from SEL.

Please contact me with any questions or comments.

Sincerely,



Jamie Sieren  
Power System Engineering, Inc.

Attachments: 20210114 021588 City of Batavia Paramount Park Relay Panels

Cc: Robert Rogde, City of Batavia  
Andrew Kachmarsky, PSE  
Darren Westby, PSE