



# **PIERCE COUNTY**

## **REQUEST FOR BID**

For

### **FACTORY MANUFACTURED & FIELD INSTALLED -48 VDC TELECOMMUNICATIONS POWER SYSTEMS**

**BIDS DUE**

On

**March 26, 2026**

**3:00 PM**

At

Jamie Feuerhelm  
Pierce County Clerk  
Room 101, Courthouse First Floor  
414 West Main Street  
PO Box 119  
Ellsworth, WI 54011

**Pre-Bid Teleconference:**

**Wednesday, March 11, 2026 at 10:00 AM Central Time**

***For Access Instructions Concerning the Pre-Bid Teleconference***

***Submit Written or email Notice of Intent to Participate to Owner's Agent Identified Below***

**Owner's Agent:** Direct all questions and requests for information to:

Steve Pott  
PSC Alliance Incorporated  
Suite 300 – 7900 International Drive  
Bloomington, MN 55425  
Voice: 651-770-9328

Email: [steve.pott@pscalliance.com](mailto:steve.pott@pscalliance.com)

Issued March 2, 2026

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## INVITATION FOR BIDS

1. Sealed Bids for -48 VDC Power Systems will be received at Jamie Feuerhelm, Pierce County Clerk Room 101, Courthouse First Floor, 414 West Main Street, PO Box 119, Ellsworth, WI 54011 until 3:00 PM March 26, 2026. Bids will be opened and reviewed March 26, 2026 at 3:15 pm in the Pierce County Board Room, Pierce County Courthouse Annex, 124 N. Oak Street, Ellsworth, Wisconsin - Room A142, and, unless obviously non-responsive, read aloud publicly.
2. Bids will be based upon this invitation, the attached sample contract document (Exhibit B), general conditions, supplemental or special conditions, project scope, specifications, drawings and requirements. A single prime contract will be awarded for the Project.
3. Bids will only be accepted on the Bid forms included in the Bid document unless otherwise noted. Fill in all items on the Bid form submitted.
4. Each Bid shall be accompanied by a certified check, cashier's check or corporate surety bond in an amount equal to five thousand dollars (\$5,000), as Bid security, payable to the Pierce County Treasurer.
5. Pierce County reserves the right to reject any or all Bids received and to waive any informalities and irregularities in the Bids.
6. Work shall be awarded to the lowest responsible Bid meeting specified requirements.
7. Bid shall be awarded to the Bid deemed to be in the best interest of Pierce County.
8. Bids may not be withdrawn for a period of ninety (90) days after the opening unless otherwise provided by law.
9. All questions regarding this project will be directed via return response email to the attention of the contact listed below:  
*Steve Pott  
PSC Alliance Incorporated  
Suite 300 – 7900 International Drive  
Bloomington, MN 55425  
Email: [steve.pott@pscalliance.com](mailto:steve.pott@pscalliance.com)  
(651) 770-9328 Voice*
10. All potential Vendors are required to attend a Pre-Bid Telephone Conference Call at the date/time shown on the cover page of this invitation. Instructions for participation in the pre-Bid teleconference will be sent to parties registering for the project as shown on the cover page. Prospective Vendors shall submit notice of their intent to participate in the pre-Bid telephone conference call, in writing or by email, by Tuesday, March 10, 2026, at 4:00 pm.

## Project Overview

Pierce County is building a new radio site, and has purchased a new radio equipment shelter. As part of the project, Pierce County will be installing a DC power system which will be used to provide power to their radio equipment, at the new site. The site is located at 707 Maple Street, Ellsworth, WI 54011.

The desired outcome from this RFB is for a complete Eltek -48 VDC power system, including rectifiers, batteries, rack, cabling, specified inverters, installation, as built documentation, and optimization services, and all other pieces, parts and services required for a fully operational system. One copy of configuration software or web browser application shall be provided. All of the installed components shall have a one year parts and on-site labor warranty.

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**PIERCE COUNTY  
INSTRUCTIONS TO VENDORS**

1. By making a Bid, the Vendor represents that they have read and understand the contract documents and the Bid is for a complete -48 VDC Power Systems package.
2. Vendor further represents that they have been afforded the opportunity to visit the site to personally inspect the conditions, and have been offered the opportunity to review shelter or site plans, at the Vendor's option.
3. The nature of the work demands a thorough review of all contract documents by all prospective Vendor's as a means of determining the extent of work and conditions under which work is to be performed.
4. Additional charges will not be considered for work that, prior to submitting a Bid, could reasonably be inferred as appropriate or required by examination of specifications and closely reviewing the work as indicated above.
5. **Bid Form:**
  - a. Complete and submit two bound, printed copies of the Bid. Include three electronic copies of all documents and exhibits without password protection (USB flash drive preferred). Mark one copy as "original" and place the original Bid Security in this folder. Mark the other copy as "copy"
  - b. All spaces must be filled in. Responses must be typewritten or written in ink.
  - c. Initial any alteration, correction or deletion as approved by the Vendor, or in case of a corporate Bid, by a duly authorized officer prior to submission of Bid. Bid will be rejected if changes are not correctly initialed.
  - d. Bids will be received for the specified material and equipment only.
  - e. Include **all** labor, material, equipment, incidental costs and sales or use taxes for incorporation of unit prices into the base Bid according to the specifications.
  - f. State all prices in writing and in figures on the Bid Form.
  - g. In case of a difference in written words and figures, the amount stated in writing governs.
  - h. Do not stipulate any conditions not contained in the Contract Documents unless the specifications indicate that alternative materials, equipment, or methods will be considered.
  - i. County may waive any informality or reject any and all Bids.
  - j. Identify the date Bid was prepared.
  - k. Any Bid may be withdrawn prior to the scheduled time for opening of Bids or authorized postponement thereof.
  - l. Indicate addendum received on the Bid form. If none - write "**none.**"
  - m. Submit the Bid on the forms furnished in the Bid package to Pierce County on or prior to the stated Bid time and date.
  - n. Bid documents shall be submitted in a sealed envelope **clearly labeled - "SEALED BID ENCLOSED" – "-48 VDC Power Systems"**.
  - o. Bid Security: Each Bid shall be accompanied by a certified check, cashier's check or corporate surety bond in the amount of five thousand dollars (\$5,000) pledging

that the Vendor will enter into a contract with Pierce County on the terms stated in their Bid and will furnish bonds as hereunder described covering the faithful performance of the Contract and the payment of all obligations arising thereunder. The Attorney-in-Fact who executes a surety bond on behalf of the surety shall affix to the bond a certified and current copy of his Power of Attorney.

7. **Availability of Site for Delivery:** The new shelter is expected to be delivered in May or June 2026. The Vendor shall be responsible for all freight fees paid for all of the Vendor's materials to the site in Ellsworth. Inside delivery is required under this Contract. Owner will NOT provide personnel or equipment to unload delivery vehicles at the location. Contractor is wholly responsible to be on site when any deliveries are made. Any damage resulting from movement of materials or equipment shall be repaired by the Contractor at no cost to the Owner.
8. **Consideration of Bids / Vendor Qualifications:** All bids shall be submitted in accordance with the specifications of this Request for Bid. Each bid will be reviewed and analyzed and will be subject to approval by the Building Committee. Selection may be made of the Vendor/Bidder deemed to be most responsive and responsible and best suited among those submitting bids, on the basis of the factors involved in this Request for Bid. Factors to be considered include, but are not limited to, whether the vendor is a responsible vendor and has the capability in all respects to perform fully the scope of work, the cost of the bid, past performance in providing similar services, status and reputation as a provider of required services, evidence that the proposed project staff is sufficient to provide for the effective and efficient delivery of services required. Pierce County reserves the right to investigate the references and credentials of the Vendors/Bidders. Pierce County reserves the right to waive minor irregularities, accept or reject wholly or in part any bids, or call for new bids when such action is in the best interests of Pierce County as determined by the Building Committee. Contract negotiations will be initiated with the top ranked vendor and, if unsuccessful in arriving at a mutually acceptable contract, negotiations will occur with the next highest ranked vendor/bidder and so on, until a mutually acceptable contract is executed. All Vendors/Bidders are hereby notified that the successful bid shall be reduced to a written contract and until such time as said contract is executed by and between the parties, Pierce County shall not be bound to the terms of the proposal in question.

The County reserves the right to:

- Accept any or reject any/all Bids received;
- Waive defects, modify irregularities, informalities, or inconsistencies in any Bid received;
- Select, for contract, or for negotiation, a Bid or any portion of a Bid that appears, in the opinion of the County, to be most advantageous to the Owner;
- Negotiate any aspect of the Bid with any vendor and negotiate with more than one vendor at a time;

- Increase and/or decrease quantities of individual items based upon line item pricing required by this RFB; and/or,
- Terminate negotiations and select the next most responsive vendor, prepare and release a new Request for Bids, or take such other action as the County deems appropriate if negotiations fail to result in an agreement within two (2) weeks of initiation of negotiations.

Pierce County may make such investigation, as it deems necessary to determine the ability of the Vendor to perform the work. The Vendor will be required to furnish to Pierce County all such information and data for this purpose as may be requested. Pierce County reserves the right to reject any Bid if evidence submitted by the Vendor or investigations fail to satisfy the condition that such Vendor is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.

9. **State Excise and Use Tax:** In submitting a Bid, the Vendor shall not include any state sales tax as this procurement is exempt from sales tax within Wisconsin. The Bid amount shall include all applicable fees, permits and licenses.
10. **Notice to Proceed:** The Vendor must agree to commence work on or before a date to be specified by Pierce County in the written "Notice to Proceed" and to complete the Project within the schedule period stated in the Bid Form.
11. **Laws and Regulations:** Vendor's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of the authorities having jurisdiction over construction and completion of this project apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written in full. Any inspections required by any Federal, State or Local agencies will be arranged and paid by the Vendor. Vendor will strictly comply with and follow all applicable Federal, State and Local statutes, laws and ordinances.
12. **Permits, Licenses and Fees:** The Contractor shall be exclusively responsible for securing all inspections of the completed work. Cost for all permits, licenses, and fees shall be included in the Bid price.

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The Pierce County Standard Terms and Conditions take precedence over statements or paragraphs in the General Conditions and Supplementary Conditions to the extent they may be inconsistent therewith.

## **PIERCE COUNTY STANDARD TERMS AND CONDITIONS**

- A. ACCEPTANCE/REJECTION:** Pierce County reserves the right, in its sound discretion, to accept or reject any or all quotes/bids provided in response to bid documents, as well as to waive any errors and omissions as well as any technical failure of any bid to be fully responsive. Such discretion shall be exercised in the best interests of Pierce County and its taxpayers. Pierce County also reserves the right to determine who, among the several bidders, constitutes the lowest, responsible bidder for the project in question.
- B. NON-DISCRIMINATION/AFFIRMATIVE ACTION:** Pierce County is committed to equal employment opportunity and is obligated not to discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age or physical or mental handicap in regard to any position for which qualified. Further, you are advised that as a contractor, subcontractor, vendor or lessee of Pierce County, you may be subject to Executive Order 11246, as amended, and Section 503 of the Rehabilitation Act, as amended. If covered, a successful bidder whose bid has been reduced to a contract shall constitute your agreement that you will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age or physical or mental handicap in regard to any position for which qualified; and that you will comply with other specific requirements of these laws. In the event of noncompliance with the nondiscrimination clause, any resulting purchase order or contract may be canceled, terminated, or suspended in whole or in part and you may be declared ineligible for further contracts or purchase orders.
- C. APPLICABLE LAW:** A successful bid which has been reduced to a contract shall be governed under the laws of the State of Wisconsin and is made at Pierce County, Wisconsin and venue for any legal action to enforce the terms of the agreement shall be in Pierce County Circuit Court.
- D. ASSIGNMENT:** No right or duty of a successful bidder whose bid has been reduced to a contract, may be assigned, in whole or in part, to any other person without the express, written consent of Pierce County, which may withhold such consent at its sole discretion.
- E. CANCELLATION:** Pierce County reserves the right to cancel any contract resulting from the bid submitted, in whole or in part, without penalty, due to the non-appropriation of funds. Additionally, should the successful bidder fail or refuse to fulfill its obligations under said contract, Pierce County reserves all legal and equitable rights to reform, terminate, modify, or seek specific performance of the terms and conditions thereof.
- F. ENTIRE AGREEMENT:** The standard terms and conditions set forth in this document shall apply to any contract awarded on a bid basis by Pierce County. Each bidder is notified that specific terms and conditions for the project in question shall be as are set forth in a separate instrument captioned with the project name (Data Card Technology and

Services Request for Bids), which specific terms and conditions shall govern the bidder's proposed performance. Additionally, **Pierce County reserves the right to reduce the successful bid to a written contract and until such time as said contract is executed by and between the parties, Pierce County shall not be bound to the terms of the bid in question.**

- G. QUALITY LEVEL:** Unless otherwise specified in the Request for Bids, all supplies and materials to be provided by the successful bidder shall meet with all minimum specifications or descriptions set forth herein. No bidder shall, without the express, written consent of Pierce County, or as otherwise specified in the Request for Bids, substitute used or discontinued supplies or materials for those requested in the bid documents.
- H. SAFETY REQUIREMENTS:** Materials, equipment, and supplies provided to Pierce County must comply fully with all safety requirements that are set forth by the Wisconsin Administrative Code, Rules of the Industrial Commission on Safety and all applicable OSHA standards. When furnishing toxic or hazardous materials as defined in sub-part "Z" of the U.S. Occupational Safety and Health Standards, the contractor shall furnish appropriate OSHA Form 20, "Material Safety and Data Sheet", for each item provided.
- I. TAXES:** Pierce County and its Departments are exempt from payment of all federal taxes and Wisconsin state and local taxes on its purchasing except Wisconsin excise tax as described below:
1. Pierce County, including all of its departments, is required to pay a Wisconsin excise or occupational tax on its purchase of beer, liquor, wine, tobacco product, motor vehicle fuel, engine oil, aviation fuel.
  2. However, Pierce County is exempt from payment of State of Wisconsin sales or use tax on this purchase. Pierce County will supply the successful contractor with a tax exempt certificate. Pierce County may be subject to other state taxes on its purchase's dependent upon the laws of that state. Contractors performing construction activities are required to pay other state user tax on the cost of materials.
- J. PATENT INFRINGEMENT:** Bidder agrees to indemnify and hold the County harmless from and against all liability, damage and expense, including reasonable counsel fees, resulting from any actual or claimed trademark, patent, or copyright infringement, or any litigation based thereon, with respect to any part of the supplies covered by this bid, and such obligation shall survive acceptance of the supplies and payment therefor by the County.
- K. WARRANTY:** The successful bidder shall provide Pierce County with all manufacturer warranties applicable to each item of supplies and materials provided in the response to the Request for Bids, together with such other or further warranties as to fitness for purpose, performance or otherwise as may be required of it under the terms and conditions of the Request for Bids. The successful bidder further expressly warrants that the supplies covered by this bid are of merchantable quality and satisfactory and safe for consumer use. Reducing the successful bid to a contract, and the execution of that contract shall constitute an agreement by bidder to indemnify and hold Pierce County

harmless from liability, loss, damage and expense, including reasonable counsel fees, incurred or sustained by Pierce County by reason of the failure of the supplies or materials to conform to such warranties.

- L. GUARANTEED DELIVERY:** The successful bidder shall be required to adhere to any time limits applicable to performance or delivery of supplies and materials and their incorporation into the public work in question, subject to such penalties as may be set forth in the Request for Bids and contract.
- M. QUANTITIES:** Quantities shown on this request for bid are based upon estimated needs. Pierce County reserves the right to increase or decrease quantities to meet actual needs or availability of funds.
- N. SPECIFICATIONS:** Where specifications for supplies and materials are included in the Request for Bid, they shall be utilized by the bidder to establish the design, type, construction, quality, functional capability and/or performance level requested by Pierce County. Although specific manufacturer's brands or models may be used, the bidder may substitute alternates for consideration by Pierce County, designated as such, which are equivalent to that which is specified.
- O. SUBSTITUTIONS:** When substitutes are bid, they must be identified by manufacturer, stock number and other descriptive information to establish equivalencies. Pierce County shall be the sole judge of equivalency.
- P. INTEGRATION:** Pierce County reserves the right to determine what, if any, discussions, preliminary understandings, memoranda and other documentation to include in its final contract as and for the subject matter of the Request for Bids.
- Q. UNILATERAL OFFER NOT TO BE WITHDRAWN:** Each bid submitted in response to the Request for Bids shall constitute a unilateral offer on the part of the bidder and shall not be withdrawn for a period of 90 days next following the date of the opening of the bids by Pierce County. Pierce County, on the other hand, shall not be bound to enter into a contract with a bidder until it has formally accepted its bid and reduces said bid to a written contract.

STANDARDTERMSAND CONDITIONS/CONTRACTS  
7/04

**BID FORM**

BID FOR: Pierce County, WI

PROJECT: **-48 VDC Power Systems**

BID OF: \_\_\_\_\_  
(full corporate name)

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

Name of Project Manager Contact: \_\_\_\_\_

This is a Bid to supply, install and commission one (1) -48 VDC Power Systems and associated equipment for the benefit of Pierce County, Wisconsin. The equipment described in the attached specifications shall be suitable for continuous operation supporting a public safety radio network. All labor and materials furnished shall be in accordance with the attached bid documents, drawings and specifications and upon which this Bid is made. Vendor's shall also include, as an attachment to their Bid, detailed line item pricing that shows how the lump sum amount is calculated. The attachment shall individually identify labor and materials. A response is required for each Bid item.

1. BASE BID:

Ellsworth Site

Total dollar amount to provide all parts, supplies and labor for a complete and operating -48 VDC Power System:

\_\_\_\_\_ Dollars  
Price written out  
( \_\_\_\_\_ )  
Figures

2. Option: Recommended Factory spares - \$ \_\_\_\_\_

3. Amount of time in calendar days to deliver, install and commission DC Power Systems following Notice to Proceed:

\_\_\_\_\_ days

In submitting this Bid, it is understood that Pierce County reserves the right to reject any or all Bids, to waive any informality or irregularity in any Bid received and to accept any alternate (if applicable) in any order or combination. If awarded the Contract, the undersigned agrees to execute an agreement within the specified time for the above stated compensation. Failure to enter into a contract with Pierce County to perform the services for which the Bid is submitted within fourteen (14) calendar days following receipt of notice of Bid award and a contract, shall result in forfeiture of the five thousand dollar (\$5,000) Bid bond or Bid security to Pierce County as liquidated damages.

By signing this Bid, the Vendor understands and agrees to the terms and conditions set forth herein and in the Instruction to Vendor's and General Specifications and drawings. The Vendor further represents that the Vendor has fully examined and carefully prepared the Bid from the plans and specifications and has checked the same in detail before submitting this Bid.

Indicate Addenda received: \_\_\_\_\_

Please print: \_\_\_\_\_  
Legal Name of Company  
\_\_\_\_\_  
Address  
\_\_\_\_\_  
Name and Title of Authorized Agent  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Date

Incorporated in the State of: \_\_\_\_\_

Indicate type of company: \_\_\_\_\_  
Corporation/partnership/sole proprietorship

This document can only be signed by a person authorized to bind the Vendor to a contract.

## **Project Specifications -48 VDC Power System**

This section defines the requirements for the DC Power System. The power system will be used to provide DC power to microwave radios, base station radios, tower obstruction lighting systems, DC to AC inverters, and other equipment typically found at a radio communications site.

### **Items Furnished by Owner**

The following items will be furnished by the Owner to the successful Contractor:

- 120/240 VAC, single phase, breaker protected, power. All power is supplemented by a stand-by, auto start generator suitable for telecommunications applications. An individual 30 amp, 240 VAC circuit will be provided for each rectifier. The circuits will be terminated in pigtail connections carried via ¾" seal-tite flexible conduit, with two circuits in each pigtail.
- A single 20 amp, 120 VAC circuit will be provided for each inverter for the inverter bypass feature. The circuit will be terminated in a pigtail connection carried via ½" seal-tite flexible conduit.
- DC distribution panels for the radio equipment racks will be supplied and installed by others
- Access to site
- Provide and install the building ventilation, heating, and air conditioning equipment in the equipment shelter.

### **Items Furnished by Successful Contractor**

The Successful Contractor shall furnish, on a turnkey basis, all factory manufactured products, shop & field supplies, installation labor, testing, certification, safety supplies, clean up, commissioning and as-built documentation, project coordination and management, freight, warranties, field service, and other plant and labor required for a complete and fully operational project. All details of the required materials and services are not itemized in these specifications.

The Successful Contractor shall be responsible for connecting the AC power pigtails to the rectifiers, using a person qualified to make such connections as allowed by applicable Wisconsin State Statute and Administrative Rules.

Installation of the DC Power Systems shall be performed by manufacturer qualified, trained personnel.

### **Equipment Manufacturer**

Pierce County currently uses Eltek Unity Power System utilizing Flatpack 2 HE Rectifiers. The County has a spare rectifier and controller for the existing systems. The County's desire is to purchase another Eltek Unity Power System utilizing Flatpack 2 HE Rectifiers, to minimize the number of spare parts needed and take advantage of staff familiarity with the current systems. If a

vendor chooses to propose a different Eltek model or a different manufacturer, that request must be made by March 13, 2026 at 4:00 pm, so the request can be addressed in an addendum. The request shall be to the Owner's Agent identified on the cover page of this RFB and shall include all necessary product information necessary to evaluate the request.

The provided system will have 4 rectifiers with a minimum of 200 amps of charging capacity. The system will have a minimum of 16 breaker positions for DC power distribution. The DC chassis shall also include low voltage disconnect and battery string isolation breakers.

### **Price Stability & Additional Quantities**

Prices Bid shall be held firm for a period of 6 months from the date of contract signing. The Owner shall be entitled to purchase additional quantities of material and labor using unit prices quoted during this period.

### **Shelter Information**

The shelter will be manufactured by Thermobond, LLC and will be 12' X 34'. Approximately 9' of the shelter length will house a generator, with the remaining space used for the radio equipment. The DC Power System will be housed in the compartment with the radio equipment.

Grounding:

Attached as Exhibit A is the shelter layout sketch. The Master Ground Bar (MGB) is located directly below the feedline entry port. The reference ground for the DC plant will be attached to the MGB. The reference ground shall be sized for maximum fault current and can be green or black.

Rectifiers & Batteries:

The site will be equipped with a system providing a minimum of 200 amps of charging capacity. The site will also be equipped with three battery strings, each of which will provide a minimum of 200 Ah rating. The successful vendor will provide a 90" tall, 23" wide, two post equipment rack, shelves and mounting accessories for the DC power assembly. Racks for other equipment will be furnished by others.

### **Installation Requirements**

All equipment is to be installed as directed and agreed upon following approval of shop drawings. The successful Contractor is responsible for the following tasks:

- Prepare shop drawings showing final equipment configuration
- Shipment of equipment to the site
- Unload, inventory, document serial numbers, and place equipment in the shelter
- Assemble equipment and rack
- Bolt rack to the floor
- Connect AC power to the rectifiers
- Calculate and properly size redundant power distribution cables.
- Furnish and install power distribution cabling in owner provided overhead cable trays.
- Connect and power battery stacks; charge, test, commission, and document results.

- Ground all equipment to owner provided grounding busses.
- Test and certify equipment; test reports and software
- Permits and inspections

The Contractor will provide and install the DC power bays, battery stacks, and the inter-rack DC wiring to provide -48VDC power to the Owner's equipment, as shown in Exhibit A. There will be an alarm supervised breaker provided and installed in the DC power bay, to remove any battery that fails into a short circuit or low resistance condition. Alarms will activate if the breaker is turned off or tripped under load.

The shelters will have a #2 ground lead running adjacent to the back side (closest to the outside walls) of the cable ladder above the equipment racks, supported by 5" "L" brackets. The Contractor shall use an irreversible compression connector to connect the rack to the ground lead. The contractor will also use these "L" brackets to support the DC power cables. The Contractor shall provide a minimum of 6 additional "L" brackets to be used as needed.

### **DC Rectifier Equipment Specifications**

The site will be equipped with a system providing a minimum of 200 amps of charging capacity. The successful vendor will provide a 90" tall, 23" wide single post equipment rack, shelves and mounting accessories for the DC power assembly. (Compatible racks for other equipment will be furnished by others.)

DC rectifiers for this project shall be commercial grade, continuous duty, and utilize a modular switched mode circuit design. Principal objectives shall be to acquire highly reliable DC power systems with high current capacity in small-footprint rack spaces for both batteries and rectifier assemblies. Rectifier equipment will have the following minimum requirements:

#### Electrical

- Input Voltage      Single Phase 208/240 VAC
- Input Frequency    60 Hz
- Output Voltage     -48VDC
- Output Power      minimum 50 amps per rectifier module

### **DC Power System Batteries**

#### Electrical

- Capacity – 200 Ah minimum
- Battery Type - Valve Regulated Lead-acid
- Design Life – Minimum 10 Years
- Battery Configuration - Front Access
- Battery temperature probes to be supplied and installed

### **Power Distribution**

The system shall be equipped with a minimum of 20 DC distribution breaker positions, and supplied with breakers as shown below. Power distribution shall utilize redundant "A & B" power feeds for the equipment in racks 3,4,5,10 and 12, which will use DC distribution panels (supplied and installed by

others) to power individual pieces of equipment in the racks. Cabling to the other racks will be connected directly to the inverters or other equipment, as shown in Exhibit A. Power cabling between the rectifier rack and the equipment racks shall be included as part of this RFB. Racks will be located as shown in Exhibit A. Contractor is responsible for the acquisition, and installation of DC power distribution cabling. The minimum size of those cables will be: #4 copper AWG wire for the 50 amp circuits, #8 copper AWG wire for the 20 amp circuits, #10 copper AWG wire for the 10 amp circuit and #14 copper AWG wire for the 5 amp circuits. Vendor shall label and coil all DC power leads in the cable ladder directly above the corresponding racks. Coiled cables shall reach a minimum of 3' below the cable ladder for all circuits labeled "A" and "B". All other cables shall reach a minimum of 7' below the cable ladder.

### Circuit Breakers

The following circuit breakers will be supplied with the system:

Qty 3 – 200 amp breakers (used for battery string disconnect, no spare required))

Qty 15 – 50 amp breakers (13 installed and 2 spares)

Qty 4 – 20 amp breakers (1 installed and 3 spares)

Qty 3 – 5 amp breakers (2 installed and 1 spare)

### Tower Lighting DC Circuit

Supply and install one 20 amp -48VDC circuit for the tower lighting controller (included in breaker count above). Adequate cable will be provided to allow the lighting controller to be installed at the feedline entry port near the center of the shelter, 2 feet above the floor.

### Physical

- Rack Size - 23" wide rack
- Rack Height - 90"
- Cable Entrance - Top cable entrance
- Rectifier Type - Hot Swappable Modular
- Vendor shall provide battery trays/equipment shelves and mounting brackets for Vendor's equipment.

## **Monitoring & Alarm**

### Module Alarm

Each rectifier module shall include an alarm that provides both visual and audible notification for the following minimum alarm points:

- High & low voltages
- High temperature
- High output voltage shutdown
- Module failure

### Module Display

Each rectifier module shall include an LED or LCD status display showing current module status. Display shall show the minimum following information:

- Input and output voltages
- Output current
- Current module temperature

#### Alarms

The DC Power System shall be provided with multiple alarm point capabilities utilizing the SNMP protocol. The following minimum alarm points must be available to monitor:

- Rectifier Failure Major
- Rectifier Failure Minor
- Low Voltage Disconnect
- AC Source Failure Major
- AC Source Failure Minor
- High System Voltage
- Low System Voltage
- Battery Temperature
- Low Voltage Battery Disconnect

The Vendor shall demonstrate the performance of the SNMP alarm reporting using a laptop or other method. The Vendor shall supply the MIB files and other information necessary for the County's alarm vendor to integrate the DC Power System SNMP messages to the alarm monitoring system. The County will be responsible for connecting and interfacing to the County Alarm RTU.

In addition, a minimum of 4 dry contact alarm points shall be provided, configurable to report, at a minimum:

- Rectifier Failure Major
- Rectifier Failure Minor
- Low Voltage Disconnect
- AC Source Failure Major

The vendor shall supply and install a standard 66 split punch block equipped with an Amphenol connector, to the plywood surface mounted to the shelter wall. The Vendor shall connect the dry contact alarms from the Vendors equipment to the left side of the 66 block.

#### Low Battery Voltage Disconnect

Equipment shall be provided with a Low Battery Voltage Disconnect (LBVD) as part of the furnished package.

#### Inverters

The site will be equipped with three (3) rack mounted -48 VDC to 120 VAC telecom grade sinewave inverter. Majorsine2000-48-2U or pre-approved equivalent. The minimum capacity of

the inverters will be 2000 watts, each. The inverters will be equipped with a minimum of four (4) 15 amp outlets. The inverters will be equipped with the necessary card or interface to generate SNMP alarms. The inverters will be equipped with a 120 VAC utility power bypass, to keep the equipment operational in the event of a DC power (or power supply) failure. A 120 VAC, 20 amp circuit in ½” seal-tite flexible conduit will be provided, for each inverter, by the County to power the inverter bypass. The inverters will also be equipped with a minimum of 1 dry contact alarm point indicating a failure of the inverter. The radio equipment racks will not be installed prior to the DC Power work. The inverters will be supplied by the successful contractor and left at the site, to be installed by others.

#### Spares – Add-Alternate

The expectation is that the system provided will be an Eltek Unity Power System utilizing Flatpack 2 HE Rectifiers, eliminating the need for additional spares on the shelf. If a vendor chooses to propose a different Eltek model or a different manufacturer, the vendor shall include a minimum quantity of one (1) factory recommended spares necessary to support the systems, as an add-alternate to the Bid.

#### Equipment Warranties

##### DC Power Equipment

Rectifiers shall carry a minimum one year on-site warranty and included service contract. Warranty shall cover all parts, on site labor, travel and shipping during the warranty period.

##### Batteries

Batteries shall carry a minimum one year full product on-site warranty measured from the time of start-up at the Owner’s premises. Warranty shall cover all parts, on site labor, travel and shipping during the warranty period. An extended, ten (10) year prorated battery warranty shall also be quoted.

#### Documentation & Configuration Software (from successful contractor)

One (1) paper and One (1) electronic copy of completed documentation relating to the furnished DC Power system all accessory components shall be bound in a three ring binder(s) and left at the site. Included in the documentation will be the commissioning report showing the parameters and performance of the system including battery jar/cell voltage and resistance readings at time of system turn over to the Owner.

#### Bid Pricing & Submittals

The Bid shall include a copy of Vendor’s labor rates and expense charges attached as an exhibit to the submission.

#### Workmanship

The installation shall be completed with first-class workmanship in every respect. Cabling shall be neatly routed and secured, using common DC industry practices.

## Site Access

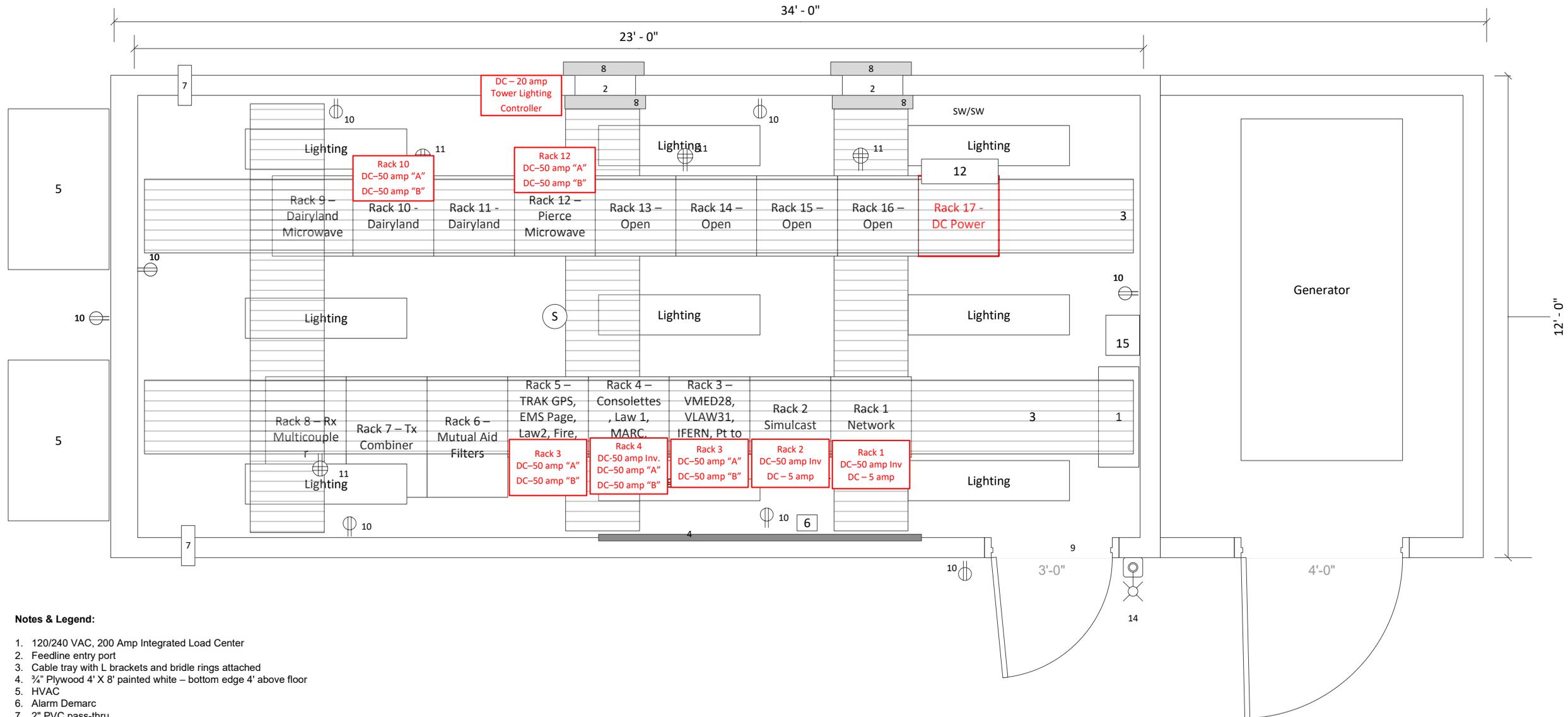
Access to the site will typically be limited to normal business hours. If after-hour access is desired, it shall be coordinated 24 hours in advance.

## Exhibits:

Exhibit A – Ellsworth Shelter

Exhibit B – Sample Contract

**Exhibit 1**



- Notes & Legend:**
1. 120/240 VAC, 200 Amp Integrated Load Center
  2. Feedline entry port
  3. Cable tray with L brackets and bridle rings attached
  4. 3/4" Plywood 4' X 8' painted white – bottom edge 4' above floor
  5. HVAC
  6. Alarm Demarc
  7. 2" PVC pass-thru
  8. Master Ground Bar mounted below entry port – "through the wall" type
  9. Entry door
  10. 120 VAC Duplex Outlet
  11. 120 VAC Quad Outlet with two 20 amp circuits mounted on cable ladder
  12. Qty 4 – 30 amp rectifier drop pigtails
  13. 120 VAC 20 amp drop pigtails for inverters
  14. Exterior wall mounted security light
  15. TVSS Panel
  - S Smoke Detector
  - SW Switch

General: All locations & fixture details subject to shop drawing approval. Racks and rack mounted contents by others.

<b>PSC Alliance Inc.</b> Ste 300-7900 International Dr. Bloomington, MN 55425 Voice (651) 770-9328	<b>Pierce County, WI</b>			
	<b>12' X 34' Equipment Shelter – Ellsworth</b>			
Drawn By: SFP e-mail: steve.pott@psc Alliance.com	SIZE SCALE	FSCM NO 1" = 3'	DWG NO Shelter Layout Feb 5, 2026	REV 1 SHEET 1 OF 1

# Agreement to Purchase Factory Manufactured & Field Installed -48 VDC Telecommunications Power System

Vendor: \_\_\_\_\_  
Address: \_\_\_\_\_  
Term of Agreement: \_\_\_\_\_

Fed. ID# \_\_\_\_\_  
Phone: \_\_\_\_\_  
Date: \_\_\_\_\_  
Amount: \_\_\_\_\_

### ARTICLE 1

Scope: Vendor agrees to supply DC Power System and perform related services at the Ellsworth Radio Site in full compliance with the DC Power System RFB issued by Pierce County, March 2, 2026, attached as Exhibit 1, and Addendum #1, issued March XX, 2026, attached as Exhibit 2.

### ARTICLE 2

Terms: This Agreement shall be based on the terms and conditions found in the RFB and the other contract documents. The Contract Documents consist of the Agreement between County and Contractor, Request for Bid, Bid Response, Bid Bond, Conditions, Specifications, Diagrams, Drawings and Addenda as may be issued prior to execution of the Contract, plus other documents listed in the Agreement and modifications issued after execution of the Contract. If there is conflict between any of the Contract Documents, the order of precedence will be as follows:

- Subsequent executed change orders to this agreement
- This Purchase Agreement
- Addenda issued – if any – Exhibit 2
- RFB issued March 2, 2026 - Exhibit 1
- Original Bid submitted by Vendor - Exhibit 3

### ARTICLE 3

Payment Schedule & Terms: Net 30 days after successful delivery. Past due invoices are subject to late fees billable at a rate of 1-1/2% per month.

### ARTICLE 4

Applicable Law: In the event any dispute arises under this Agreement, venue to resolve the dispute shall be the Pierce County Circuit Court, State of Wisconsin.

### ARTICLE 5

Breach; Waiver/Modifications: Vendor shall be in default if it fails to comply with any provision contained in this Agreement unless the County waives or modifies that specific provision. There shall be no waiver or modification of any provision of this Agreement unless reduced to writing and executed with the same formalities as this Agreement.

### ARTICLE 6

Mandatory Public Contract Terms under Wis. Stat. Ch. 779:

- A. Pursuant to Wis. Stat. § 779.14(1e), the Vendor is a prime contractor, as defined by Wis. Stat. § 779.01(2), and shall be solely responsible for payment of all claims for labor, services, materials, plans, or specifications

performed, furnished, procured, used or consumed that pertain to this public improvement or public work project under this Agreement.

B. Pursuant to Wis. Stat. § 779.14(1e), the Vendor is a prime contractor, as defined by Wis. Stat. § 779.01(2), and shall maintain and provide to the County, to the extent practicable, a list of any and all subcontractors, suppliers and services providers performing, furnishing, or procuring labor, services, materials, plans, or specifications under this Agreement.

C. Pursuant to Wis. Stat. § 779.14(1m), the Vendor shall procure and maintain performance and payment bonds in the amounts required by Wisconsin Statutes for the length of this Agreement.

D. In the event that the Vendor enlists services of subcontractors it shall provide to the County lien waivers in accord with § 779.05, Wis. Stats., from its subcontractors promptly upon request by the County.

**ARTICLE 8**

Authorized Representative: The representative of each party executing this Agreement, as evidenced by the signatures below, has the authority to do so.

**Pierce County**

\_\_\_\_\_/\_\_\_\_\_  
**Jason Matthys, Administrator**      **Date**  
**Pierce County**

\_\_\_\_\_/\_\_\_\_\_  
**Vendor**      **Date**

**Pierce County**

\_\_\_\_\_/\_\_\_\_\_  
**Scott Bjork, Building Committee**      **Date**  
**Chair**  
**Pierce County**

