



## **Request for Proposal (RFP) CPE Material and Network Equipment**

### *Important Dates*

\*\*All Times are COB

RFP Posted: 10/6/2025

Written Questions Due: 10/20/2025

Response to Questions Sent: 10/27/2025

Final Submission Due: 11/3/2025

Award Date: 12/15/2025

## Introduction

Northwest Vermont Communication Union District, doing business as “NWX”, is seeking qualified suppliers to provide Customer Premise Equipment (CPE) and fiber optic network materials for its network build spanning 4 towns in Northwestern Vermont. The scope of this Request for Proposals (RFP) covers materials needed for the first 1000 customer installations which is expected to be completed within one year.

The network architecture is a Passive Optical Network (PON) designed around Fiber Service Areas (FSAs) and Backbone Routes:

- FSAs are geographic areas organized to serve customers. They are independent of town boundaries and generally limited to fewer than 300 premises.
- Backbone Routes follow well-maintained roads to interconnect facilities providing services to the FSAs. A portion of these routes will reside outside an FSA.
- Points of Presence (POPs) serve FSAs by housing network equipment for transmission and distribution. There are seven POPs, consisting of three core and four access locations.

Equipment requirements are divided into two sections: Customer Premise Equipment (CPE) and Network Equipment. Project totals of all equipment and hardware are presented in the accompanying exhibits.

- Monthly orders with the winning vendor will be placed in quantities that support the pace of construction, which may vary due to seasonal or other factors.
- Delivery pacing is flexible and open to negotiation with bidders.

**NWX encourages women-owned enterprises and small and minority-owned businesses to submit proposals in response to this RFP.**

## Organization Information

NWFX is a Communications Union District established in 2020, currently comprising 22 member towns in Northwestern Vermont.

A Communications Union District is a municipal district solely focused on providing high-speed broadband to areas underserved by commercial providers. NWFX is governed by a Governing Board, with one appointed representative from each member town.

Through legislation in 2015, 2019, and 2021, the state of Vermont:

- Established the legal framework for Communications Union Districts.
- Designated these districts as the primary vehicle for delivering high-speed broadband to unserved and underserved areas.
- Provided seed funding and technical support for initial planning.
- Established the Vermont Community Broadband Board (VCBB) to manage the distribution of federal funds (ARPA, BEAD and IIJA).

In 2024, the VCBB awarded NWFX \$20.2 million in grants, with additional awards expected in 2026.

NWFX intends to build, own, and operate a fiber optic broadband network. To accomplish this, NWFX has contracted Great Works Internet (GWI) of Biddeford, ME, to provide professional services, including design, engineering, and construction management.

- GWI will manage RFP issuance, proposal evaluation, and commercial negotiation on behalf of NWFX.
  - The Governing Board retains the authority to make all final decisions regarding proposal selection and contract terms.
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# Project Goals and Deliverables

The goals of this project are focused on securing, managing, and delivering the necessary equipment and materials to support NWFx's fiber optic network construction.

The key objectives include:

## 1. **Acquire Equipment**

Obtain all relevant equipment needs from the Bill of Material (BOM) estimates, as depicted in the following exhibits:

- Exhibit 1: Customer Premise Equipment
- Exhibit 2: Network Equipment  
All acquisitions must honor the priority set forth by NWFx, including ordering sequence and stocking requirements.

## 2. **Quarterly Equipment Orders**

Establish and maintain a quarterly ordering schedule with NWFx, managing and anticipating lead times in alignment with construction needs and pacing.

## 3. **Fixed Pricing**

Obtain a fixed cost per item throughout the contract term to ensure budget predictability.

## 4. **Lead Time Management**

Acquire lead times on all equipment and adjust order quantities as needed to mitigate potential delays.

## 5. **Timely Ordering Setup**

Develop a timely ordering process based on estimated project totals, allowing suppliers to anticipate and stock material needs to avoid supply chain delays or other deviations.

## 6. **Initial Stockpile**

Create and supply a larger initial order to serve as a warehousable stock of equipment, providing resilience against potential material delays.

## 7. **One-Off Sourcing**

Allow for alternative sourcing via other vendors if the primary supplier is unable to fulfill scheduled orders or if prolonged delays occur.

## 8. **Substitute Materials**

Ensure the ability to source substitute, comparable, compatible, and compliant materials should the original selection be unavailable, with full supplier backing and warranty.

9. **Flexible Ordering**

Maintain flexibility in ordering quantities based on design changes, engineering modifications, and materials provided by construction contractors.

10. **Industry Standards Compliance**

All materials supplied in each category must meet or exceed relevant industry standards.

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## Hardware and Material Categories

The hardware and material needs for this project are broken down into two primary categories:

1. Fiber Access and Customer Premise Equipment (CPE)

This category includes, but is not limited to:

- Enclosures
- Premise network equipment, including fiber access nodes and optics

2. A full list of requirements is detailed in Exhibit 1. Quantities are based on the initial first year take rate for the project and are averaged according to quarterly construction rates.

3. Network Equipment

This category includes, but is not limited to:

- Routers, switches, and optics
- Supporting fiber jumpers
- All other hardware necessary to install and operate the network equipment

4. A full list of requirements is detailed in Exhibit 2. Quantities are based on a per-location basis, including spares. The ordering pace for this equipment will be determined by the lead times provided by the winning bidder.

5. All chosen equipment must meet ARPA Grant compliance and be Build America, Buy America (BABA) compliant.

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## Ordering Notes

- Quarterly equipment quantities apply to Customer Premise Materials only.
  - Network Equipment quantities are based on a per-location instance and will be paced according to current lead times, as negotiated with the supplier.
  - Bidders must indicate the quantities of materials they propose to provide. At a minimum, bidders must provide:
    - Per-item pricing
    - Lead times
    - Ability to anticipate, store, and supply consistent material quantities based on projected needs and ordering schedules'
    - Freight costs
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## RFP Instructions and Procedures

### Confidentiality

All information provided to potential contractors/vendors is confidential and proprietary to NWFX. Any information relating to this RFP—including this document—or NWFX's organizational/business practices may only be used for the purpose of preparing a proposal. Release of such information without written permission is prohibited.

Biddeford Internet Corp. dba GWI is an independent telecommunications company contracted by NWFX to manage this RFP process. Unless otherwise disclosed, GWI will act as the single point of contact for this process and will collaborate with both NWFX and participating bidders. Refer to Exhibit 4 for a detailed description of the NWFX RFP process, including timelines and key dates.

All submitted proposals are prepared at the bidder's expense and are considered valid for three (3) months. NWFX will not reimburse any costs incurred during the RFP process.

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## **Proposal Submission Requirements**

Bidders should include, at a minimum, the following:

1. Sample Contract or Scope of Work
2. Use of numbering convention (if applicable) from this RFP when formatting the response
3. Detailed explanation of how the bidder will satisfy each of the project goals
4. Clear narrative that demonstrates a thorough understanding of the project and the proposed solution. Alternative formats are encouraged if they better suit the narrative
5. Description of any required functions that cannot be performed
6. Professional references from projects of similar size and scope
7. Clearly marked "Confidential" pages, if any part of the response should be considered confidential

NWFX reserves the right to seek clarification, conduct interviews, and make a selection based on the proposals received.

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## **Proposal Format**

For consistency and clarity, proposals should follow the structure below:

1. Table of Contents
2. Executive Summary
3. Company Information
4. Experience and References

5. Key Personnel (description of roles, responsibilities, and experience)
  6. Project Approach
  7. Detailed Pricing
  8. Resource Availability and Expected Timeframe to Completion
  9. Miscellaneous (conflicts of interest, exclusions, etc.)
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## Vendor Selection Criteria

NWFX will evaluate proposals based on the information provided by the bidder, focusing on the organization's goals. Proposals will be weighted as follows:

1. Quality and Completeness of Response – **10%**
2. Available Resources for Project Completion – **40%**
3. Project Approach – **10%**
4. Cost – **40%**

While budget considerations are important, NWFX reserves the right to select the **best value**, which may **not be the lowest cost**.

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## Evaluation, Contract, and Bid Delivery Instructions

### Evaluation and Award

NWFX shall have the authority to evaluate responses and select the bidder(s) determined to be in the best interest of NWFX and consistent with the goals and performance requirements outlined in this RFP. NWFX reserves the right to obtain clarification or additional information necessary to properly evaluate a proposal.

Failure of a bidder to respond to a request for additional information or clarification may result in rejection of that bidder's proposal.

To secure an arrangement deemed in the best interest of NWFx, NWFx reserves the right to:

- Accept or reject any and all bids, in whole or in part, with or without cause
- Waive technicalities in submissions
- Make purchases outside of awarded contracts if deemed in the best interest of NWFx

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## Required Contract Provisions

All contractual agreements must contain the following clause

Vendors are required to add in:

- State of Vermont – Terms Supplement. The Parties agree to the terms in the State of Vermont Federal Terms Supplement hereto attached. The Parties agree to provisions 10, 11, 12, 14, 16, 18, 20, 22, 30, and 32.A of the State of Vermont Attachment C: Standard State Provisions for Contracts and Grants hereto attached. Notwithstanding anything in this Agreement to the contrary, in the case of any conflict or inconsistency between the specific provisions of this Agreement, relevant attachments, federal requirements or the Application, any conflict or inconsistency shall be resolved as follows: (a) State of Vermont Federal Terms Supplement; (b) State of Vermont Attachment C provisions identified; (c) this Agreement.

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## Bid Delivery Instructions

### 1. E-Mail Bids

- E-mailed bids will be accepted via submission to: [NWFx-Request@staff.gwi.net](mailto:NWFx-Request@staff.gwi.net)
- Bids must consist of a single email with a single, digitally searchable PDF attachment containing all components of the bid
- Multiple emails and/or multiple attachments may not be accepted

- Attachment size limit: 25MB. It is the bidder's responsibility to compress the PDF to meet this limitation

**2. Fax Bids**

- Faxed bids will **not** be accepted

**3. U.S. Mail**

- Paper bids will **not** be accepted due to delivery delays and staffing constraints

## EXHIBIT 1

### Fiber Access and Customer Premise Equipment (CPE)

*Based on an averaged per-FSA take rate and construction pace of two (2) FSAs per month and 24 FSAs per year. Home network equipment is based on every customer receiving a router.*

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#### CPE Equipment

Part	Description	QTY
Indoor ONT	XGS Equivalent or Better. Requires at least 1 WAN/LAN 2.5GE/10GE Port, at least 1 POTS Port, American AC Power	800
Outside ONT	XGS Equivalent or Better. Environmentally Hardened for Outdoor use. Must fit chosen ONT enclosure. Requires at least 1 WAN/LAN 2.5GE/10GE Port, at least 1 POTS Port. Additional specifications as denoted below	200
Power Options	Below two options are interchangeable for Outside ONT powering. Total of 200 power adapters OR battery backup units required (mix possible).	250
Power Adapter	AC/DC power adapter with adapter cord for outside ONT	250
UPS (Battery Backup)	Uninterruptible power supply, wall mountable, indoor, for either ONT option above Lead acid stand alone or LiON Stackable Units	250
UPS to ONT Power Cable	UPS power/telemetry cable, appropriate for ONT chosen above. Reels or 25ft length. May be included in UPS quote or separate	5000 FT

Indoor Wireless Router	Requires at least 2.5G/10G LAN/WAN, Wi-Fi 6 or 7 Certified, extendable via Repeater/Mesh Unit	1000
Wireless Extenders	Requires at least 2.5GE LAN/WAN port, wired or wireless backhaul, Wi-Fi 6 Certified, compatible with chosen wireless router	500
Outside ONT Enclosures	Weather tight, with splice tray, required to fit the chosen outside ONT	1000

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### Fiber Access Equipment

Part	Description	QTY
Fiber Access Chassis	Minimum 1RU unit, Redundant DC powered, NEBS-3 compliant, Environmentally hardened	3
Fiber Access XGS PON Line Card	XGS-PON or better equivalent. At least 8 XGS-PON ports, 4 SFP+ ports, 2 QSFP-DD ports per line card. Environmentally hardened	5
PON OLT	XGS-PON or better equivalent, 1577-TX/1270-RX nm, I-TEMP, 20 and 40 km options, Minimum split ratio 1:64	16
10GB SFP+ MM	850nm, I-TEMP	8
10GB SFP+ SM	1550nm I-TEMP	6
Multimode Fiber Jumpers	LC/LC Multimode 1.5M, 2M, 3M, 4M	10 each
Singlemode Fiber Jumpers	LC/SC-A Singlemode 1.5M, 2M, 3M, 4M	10 each
Singlemode Fiber Jumpers	SC/A-SC/U Singlemode 1.5M, 2M, 3M, 4M	10 each

## EXHIBIT 2

### Network Equipment

Network equipment is broken down into seven (7) individual Point of Presence (POP) locations. The sequence of orders will be established with feedback on lead times from the winning proposal.

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#### Core Routers

Part	Description	QTY
Core Router	Redundant DC Powered, NEBS-3 Compliant, At least 10 ports 10Gb SFP+, Multiple BGP Sessions with Full Internet Routing Table Support, Optional Support for CGNat, All licensing and support included with 3 and 5 year options.	3
10GB SFP+ MM	850nm, I-TEMP	8
10GB SFP+ SM	1310nm, I-TEMP	3

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#### Server Farm

Part	Description	QTY
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ThinkEdge SE450 Server	Must be DC Powered	2
Proxmox Standard	Subscription for Proxmox	1
Minisforum MS-01 Storage	-	1
Micron 7450 Pro 3.84TB SSD	For storage	2

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## POP-1 Equipment

Part	Description	QTY
Telco Equipment Rack	Standard 19" x 7' size, welded, include all hardware to anchor and install	3
Compact Rectifier Shelf	80 amps usable per shelf, Input 195–277 VAC / 195–250 VDC, Output 43.5–57.6 VDC, 1800W+ rectifiers, Battery disconnect breakers required, Appropriate power cables with L6-30P	2
Lithium Ion Battery	100AH, required to run under full load for 4 hours	2
Horizontal Fiber Guides	1RU x 19" Horizontal Fiber Guide	5
Horizontal Fiber Guides	2" x 2" x 7'	2
Vertical Fiber Optic Guides	2" x 2" x 7', include downspouts, 90° drops and connectors	5
6AWG Gray Power Wire	TELCOFLEX®, Class I modified bunched, Mylar tape separator, limited smoke, non-halogenated	500 ft
6AWG Green Ground Wire	TELCOFLEX®, Class I modified bunched, Mylar tape separator, limited smoke, non-halogenated	100 ft
2AWG Gray Power Wire	TELCOFLEX®, Class I modified bunched, Mylar tape separator, limited smoke, non-halogenated	500 ft
2AWG Green Power Wire	TELCOFLEX®, Class I modified bunched, Mylar tape separator, limited smoke, non-halogenated	100 ft
10AWG Red Power Wire	XLP/USE-2/RHH/RHW-2 Building Wire	250 ft
10AWG Black Power Wire	XLP/USE-2/RHH/RHW-2 Building Wire	250 ft

10AWG Green Power Wire	XLP/USE-2/RHH/RHW-2 Building Wire	100 ft
Power Lugs	For connecting Rectifiers/Batteries/Core Equipment, 2AWG/6AWG	100 each
Fuse Panel	Minimum 4TPA/10GMT, 200 AMP dual bus	2
Environmental/Security Monitor	Monitors Door, Smoke, Fire, Water, Temperature (High/Low), Power (Commercial/Generator), Email/SMS alerts required	1
IP Camera	Ubiquity preferred, indoor/outdoor, PoE preferred	2
POE Switch	24 port DC PWR	1
Fuse	5, 10, 15, 20 AMP GMT	10 each
Fuse	25 TPA	20
Splice Panel	Transition OSP cable to inside cable, 288ct current cable size. With Splice Trays	1
Fiber Panel with Tail	Transition from splice panel to equipment, 288ct SC-APC connector with 100 ft tail	1

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## POP-2 Equipment

Part	Description	QTY
Telco Equipment Rack	Standard 19" x 7' size, welded, include all hardware to anchor and install	2
Compact Rectifier Shelf	80 amps usable per shelf, Input 195–277 VAC / 195–250 VDC, Output 43.5–57.6 VDC, 1800W+ rectifiers, Battery disconnect breakers required, Appropriate power cables with L6-30P	2
Lithium Ion Battery	100AH, required to run under full load for 4 hours	2
Horizontal Fiber Guides	1RU x 23" Horizontal Fiber Guide	5
Horizontal Fiber Guides	2' x 2' x 7'	2

Vertical Fiber Optic Guides	2" x 2" x 7', include downspouts, 90° drops and connectors	1
Fuse Panel	Minimum 4TPA/10GMT, 200 AMP dual bus	2
Environmental/Security Monitor	Monitors Door, Smoke, Fire, Water, Temperature (High/Low), Power (Commercial/Generator), Email/SMS alerts required	1
IP Camera	Ubiquity preferred, indoor/outdoor, PoE preferred	2
POE SWITCH	24 Port, DC Power	1
Splice Panel	Transition OSP cable to inside cable, 288ct current cable size. With Splice Trays	1
Fiber Panel with Tail	Transition from splice panel to equipment, 288ct SC-APC connector with 100 ft tail	1

### POP-3 Equipment

Part	Description	QTY
Telco Equipment Rack	Standard 19" x 7' size, welded, include all hardware to anchor and install	2
Compact Rectifier Shelf	80 amps usable per shelf, Input 195–277 VAC / 195–250 VDC, Output 43.5–57.6 VDC, 1800W+ rectifiers, Battery disconnect breakers required, Appropriate power cables with L6-30P	2
Lithium Ion Battery	100AH, required to run under full load for 4 hours	2
Horizontal Fiber Guides	1RU x 23" Horizontal Fiber Guide	5
Horizontal Fiber Guides	2' x 2' x 7'	2
Vertical Fiber Optic Guides	2" x 2" x 7', include downspouts, 90° drops and connectors	1
Fuse Panel	Minimum 4TPA/10GMT, 200 AMP dual bus	2

Environmental/Security Monitor	Monitors Door, Smoke, Fire, Water, Temperature (High/Low), Power (Commercial/Generator), Email/SMS alerts required	1
IP Camera	Ubiquity preferred, indoor/outdoor, PoE preferred	2
POE Switch	24 Port DC Power	1
Splice Panel	Transition OSP cable to inside cable, 288ct current cable size. With Splice Trays	1
Fiber Panel with Tail	Transition from splice panel to equipment, 288ct SC-APC connector with 100 ft tail	1

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### Exhibit 3: NAFX RFP Process

1. **Questions** – Submit by the “Written Questions Due” date to NAFX-Request@staff.gwi.net.
2. **Responses** – Written answers provided to question submitters; anonymized Q&A may be redistributed.
3. **Final Submission** – All bids due by the “Final Submission” date; confirmation within 24 business hours. Late bids may not be considered.
4. **Vendor Selection (Award)** – NAFX may request clarifications via email, phone, or remote meeting. Contract negotiations may take up to 30 days. If negotiations fail, alternative bids may be considered.

NAFX encourages submissions from **women-owned, minority-owned, and small businesses**.