



**Grand Total for 5 Basic Demonstration Node Kits = \$2,750 or \$550.00 per Kit**

Note: If there is a less expensive substitute for any item that is equivalent to the items specified; We will try to use the substitute.

**Basic Solar Demonstration Node--- No Battery Version---- for Demonstrations (Qty=1)**

Vendor	Description	Price	Qty	Subtotal
FlyTech	MikroTik RBLHG-5HPnD-XL ROW Radio & Antenna	\$ 118.00	1	\$ 118.00
Home Depot	Surveyors Tripod	\$ 70.00	1	\$ 70.00
Amazon	DC to DC Buck Converter	\$ 35.00	1	\$ 35.00
Amazon	LHG Metal Mount	\$ 15.00	1	\$ 15.00
Amazon	25' Outdoor CAT6 Cable	\$ 22.00	1	\$ 22.00
Amazon	USBuddy Powerpole 12v to 5V	\$ 23.00	1	\$ 23.00
Amazon	MFJ-1104 4 Port PowerPole Fused Distribution Block	\$ 50.00	1	\$ 50.00
Amazon	DC Coaxial Power Plug w/6' PowerPole Cord	\$ 8.00	2	\$ 16.00
Amazon	Solar Panel	\$ 180.00	1	\$ 180.00
Amazon	20 Foot 10AWG PV Cables	\$ 31.00	1	\$ 31.00
Amazon	Case	\$ 70.00	1	\$ 70.00
Home Depot	PVC Pipe--- 10 Foot ; 1"Dia	\$ 4.00	1	\$ 4.00
Amazon	Linksys EA3500 N750 Router-- Operates on 12 Volts	\$ 25.00	1	\$ 25.00
	Shipping	\$ 65.90	1	\$ 65.90
<b>TOTAL</b>				<b>\$ 724.90</b>

**Grand Total for 1 Basic Solar Demonstration Node Kit = \$725 for 1 Kit**

Note: If there is a less expensive substitute for any item that is equivalent to the items specified; We will try to use the substitute.

**MESH Portion of Project**

Vendor	Description	Price	Qty	Subtotal
<b>"Last Mile" MESH ----10 Sites</b>				<b>Two Sites per County</b>
StreakWave	Ubiquiti NanoBridge M5 5GHz Transceivers w/Narrow Antenna	\$ 185.00	20	\$ 3,700.00
StreakWave	Ubiquiti NanoStation M5 5GHz Transceiver w/wide Antenna	\$ 129.00	30	\$ 3,870.00
Flytek	RBDynaDishG-5HacD-ROW DynaDish 5 PTP; 25dB	\$ 165.00	10	\$ 1,650.00
	Shipping Costs	\$ 724.00	1	\$ 724.00
<b>Total for 'Last Mile' MESH</b>				<b>\$ 9,944.00</b>

5 Counties= 10 MESH Sites  
County ARES &/or AREDN Groups  
will determine MESH locations.

**LoRa IoT & LoRaMESH Portion of Project**

Vendor	Description	Price	Qty	Subtotal
Adafruit	8 Channel LoRa Gateway Kit w/Pi	\$ 150.00	2	\$ 300.00
Amazon	915 MHz ESP32 LoRa w/OLED	\$ 22.00	10	\$ 220.00
Ebay	Lithium Battery Packs	\$ 6.00	10	\$ 60.00
Ebay	Battery Management System (BMS) Chargers	\$ 9.59	10	\$ 95.90
Build	3-D Printed Cases (Will Print our own)	\$ 10.00	10	\$ 100.00
<b>Total for LoRa IoT &amp; LoRaMESH Projects</b>				<b>\$ 775.90</b>

**Admin Items**

Vendor	Description	Price	Qty	Subtotal
Amazon	500 Custom Asset Tags- For Inventory Control	\$ 67.00	1	\$ 67.00
Dremel	Engraver Dremel#290-05	\$ 20.00	1	\$ 20.00
Beacon	TechSoup Beacon4G LTE Unlimited Hotspot w/1yr Service	\$ 135.00	1	\$ 135.00
Starlink	StarLink Satellite Internet- Equipment Purchase	\$ 499.00	1	\$ 499.00
Starlink	StarLink Satellite Internet- 1st Year Service (12*\$99)	\$ 1,188.00	1	\$ 1,188.00
Amazon	Laptop to do on-site Configuration changes	\$ 400.00	2	\$ 800.00
Zoom	Zoom Meetings Pro; upto 100 participants	\$ 199.00	1	\$ 199.00
<b>Total for Admin</b>				<b>\$ 2,908.00</b>

**Servers and Network Services**

Vendor	Description	Price	Qty	Subtotal
	Equipment to exploit the 4Gbs Fiber Connection- Pdx to Salem		1	\$ 198.00
	NTP PTP GPS Time Server & Accessories	\$ 735.00	1	\$ 735.00
	Cisco Catalyst WS-C2960L-24TS-LL Network Switch	\$ 312.00	1	\$ 312.00
	HamWAN Network Main ServerRoom(Long List)	\$ 7,350.00	1	\$ 7,350.00
	Weather Satellite Receiver/Server	\$ 435.00	1	\$ 435.00
	6 KiloWatt Lithium Battery Pack-- Main Server	\$ 1,425.00	1	\$ 1,425.00
	UPS Controller/Inverter-- Main Server	\$ 798.00	1	\$ 798.00

Note: Itemization of Items for the Main Server Room is a long list from the IT Committee; Most is Used										
<b>Total for Servers and Network Services</b>			\$	<b>11,253.00</b>						
<b>Total Grant Request- Oregon HamWAN</b>			\$	<b>88,390.33</b>						
Note: We will spend every penny of this grant. We want this Project to Succeed.			<b>Rounded to:</b>	\$	<b>88,400.00</b>					

