

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)****Certification Regarding Architectural Barriers****U.S. Department of Agriculture
Broadband Initiatives Program**

All facilities financed with Rural Development loans that are open to the public, or in which physically handicapped persons may be employed or reside, must be designed, constructed, and/or altered to be readily accessible to, and usable by, handicapped persons. Standards for these facilities must comply with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §4151 *et seq.* and with the Uniform Federal Accessibility Standards (UFAS), (Appendix A to 41 C.F.R. subpart 101-19.6).

As a prospective primary participant recipient of financial assistance from Rural Development, this organization commits to carry out Rural Development's established policy to comply with the requirements of the above referenced law to the effect that all facilities must be readily accessible to and usable by handicapped persons.

Public Utility District No. 1
We, of Pend Oreille County (the Applicant) hereby certify that, as a prospective recipient under the Rural Broadband Initiatives Program, we are in compliance, or will be in compliance upon completion of the Project, with the above referenced law.

08/07/09

(Date)



(Authorized Representative's Signature)

Robert D. Geddes

Name:

General Manager

Title:

CERTIFICATION REGARDING LOBBYING LOWER TIER COVERED TRANSACTIONS

Applicants should review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, "New Restrictions on Lobbying."

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

NAME OF APPLICANT

Public Utility District of Pend Oreille County

AWARD NUMBER AND/OR PROJECT NAME

Pend Oreille County Broadband Network

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Joe Onley - Community Network System Manager

SIGNATURE



DATE

AUGUST 6, 2017

VIDEO SERVICES
SUBSCRIBER PROJECTS AND RATE PLANS
COMPLETE THE CHART BELOW FOR EACH PROPOSED FUNDED SERVICE AREA. FOR ALL OTHER SERVICE AREAS, PLEASE
PREPARE A CHART THAT AGGREGATES THIS INFORMATION

SERVICE AREA NAME:

	Census Community	Year 1			Year 2			Year 3			Year 4			Year 5		
		Pkg 1	Pkg 2	Other	Pkg 1	Pkg 2	Other	Pkg 1	Pkg 2	Other	Pkg 1	Pkg 2	Other	Pkg 1	Pkg 2	Other
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
TOTAL																

Rates:

Package 1: (ex. 150 basic
channels / \$35)

Package 1: (ex. 150 basic
channels and Premium / \$60)

Other (Specify):

Note: Complete a separate table for each service area. Column headings should be changed to reflect the name of the service package to be offered. Additional columns may be added for each year if more than three package are offered.

Instructions: Using the table below, please estimate the number of subscribers for each distinct type of service offering on a quarterly basis over the five year forecast period. Combine all service pricing tiers of broadband data services into a single service offering. The subscriber projections must be described separately by the type of services offered, and by type of entity (households, businesses, "strategic institutions" i.e., critical community facilities, community anchor institutions, and public safety entities) to which services are offered. For last mile subscribers, please also provide, on a separate sheet, your estimated take rate (the percentage of total customers passed who will subscribe to your service), along with a brief description of the methodology used to forecast these subscribers/take rates. Middle mile applicants should indicate their subscriber forecasts in terms of the entities served via the last mile service providers, community anchor institutions, or public safety entities that are connected to their middle mile network. Middle mile applicants should also provide a reasoned basis for these subscriber forecasts (e.g., agreements in principle with existing or planned last mile service providers, market studies, etc).

[illegible]

Instructions: Using the table below, please estimate the number of subscribers for each distinct type of service offering on a quarterly basis over the five year forecast period. Combine all service pricing tiers of broadband data services into a single service offering. The subscriber projections must be described separately by the type of services offered, and by type of entity (households, businesses, "strategic institutions" i.e., critical community facilities, community anchor institutions, and public safety entities) to which services are offered. For last mile subscribers, please also provide, on a separate sheet, your estimated take rate (the percentage of total customers passed who will subscribe to your service), along with a brief description of the methodology used to forecast these subscribers/take rates. Middle mile applicants should indicate their subscriber forecasts in terms of the entities served via the last mile service providers, community anchor institutions, or public safety entities that are connected to their middle mile network. Middle mile applicants should also provide a reasoned basis for these subscriber forecasts (e.g., agreements in principle with existing or planned last mile service providers, market studies, etc).

[illegible]

DETAIL OF PROJECT COSTS

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING UNIT COST

SERVICE AREA or COMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT						
Switching	Cisco 3750 12G Switch	Yes	15,000.00	21	315,000.00	
	Access Distribution Switch	Yes	6,000.00	21	126,000.00	
Routing	VPN Cards	Yes	7,000.00	1	7,000.00	
Transport	Cisco 6509	Yes	75,000.00	3	225,000.00	
	Cisco 6509 Cards	Yes	25,000.00	2	50,000.00	
	Microwave Equipment	Yes	65,000.00	1	65,000.00	
Access						
Other	Contact (Pigtails)	Yes	200.00	5	1,000.00	
	Contact (Pigtails)	Yes	1,536.00	3	4,608.00	
OUTSIDE PLANT						
Cables	Fiber 48, 96, 288, 432 Material	Yes	1.33	4134898	5,512,819.82	
	Fiber 48, 96, 288, 432 Install	Yes	0.65	4134898	2,689,812.69	
	Warning Tape	Yes	0.10	309461	30,946.14	
	Locate Wire	Yes	0.12	926279	111,153.50	
Conduits	1.25 inch (1, 2 & up to 4)	Yes	0.88	1010486	885,017.63	
	Bore & Trench	Yes	8.03	842072	6,757,627.51	
	Glue	Yes	4.95	86	425.70	
	Couplers	Yes	0.99	423	418.77	
	Restoration	Yes	7.18	103154	740,362.78	
Ducts	Handholes (Sm & Lg)	Yes	320.29	3429	3,290,042.10	
	Handhole Sealer	Yes	17.60	410	20,662.40	
	Handhole Restoration	Yes	7.65	10028	219,526.05	
Poles	New Poles & Replacements	Yes	1,192.96	142	169,400.00	
	Aerial Hardware	Yes	45.00	10670	480,150.00	
	Aerial Strand Install Material	Yes	0.75	2139358	1,604,518.39	
	Make Ready	Yes	90.00	795	71,550.00	
Towers	Microwave Equipment	Yes	100,000.00	1	100,000.00	
	Microwave Install	Yes	10,000.00	1	10,000.00	
Repeaters						

DETAIL OF PROJECT COSTS

SERVICE AREA orCOMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT						
Other	Splicing	Yes	30.33	78,706	2,386,986.00	
	Testing	Yes	14.00	11,545	161,630.00	
	Trays & Casings	Yes	124.65	10,125	1,262,135.00	
	Fiber Tags	Yes	1.00	12,984	12,984.00	
	River Crossings	Yes	24,700.00	4	98,800.00	
	1% Contingency	Yes	0.09	2,980,732	272,255.22	
	Tax	Yes		7.75%	703,935.64	
BUILDINGS						
New Construction						
Pre-Fab Huts	Serving Cabinets	Yes	15,000.00	28	420,000.00	
	Aggregation Field Node	Yes	75,000.00	3	225,000.00	
	Facility Installation	Yes	3,967.74	31	123,000.00	
Improvements & Renovation	Site Design & Conditioning	Yes	6,496.77	31	201,400.00	
Other	Tower Site Acquisition	Yes	25,000.00	1	25,000.00	
	Cabinet Site Acquisition	Yes	10,000.00	28	280,000.00	
CUSTOMER PREMISE EQUIPMENT						
Modems	DRG CPE Switch / Router	Yes	906.00	250	226,500.00	
Set Top Boxes						
Inside Wiring						
Other	Universal Power Supply	Yes	906.00	40	36,240.00	
	External Enclosure	Yes	906.00	30	27,180.00	
BILLING SUPPORT AND OPERATIONA SUPPORT SYSTEMS						
Billing Support Systems						
Customer Care Systems						
Other Support	Field Hut Alarm System	Yes	2,000.00	24	48,000.00	

DETAIL OF PROJECT COSTS

SERVICE AREA orCOMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
OPERATING EQUIPMENT						
Vehicles						
Office Equipment/ Furniture						
Other						
PROFESSIONAL SERVICES						
Engineering Design	Field Design, Final Design	Yes	0.85	2980732	2,536,350.05	
	Network Design	Yes	0.12	2980732	363,895.27	
	Network Equipment Install	Yes	0.03	2980732	77,319.38	
	NOC Implmentation	Yes	0.01	2980732	23,200.00	
Project Management	Program / Project Mgmt	Yes	0.15	2980732	447,591.19	
Consulting	Permit Preparation & Filing	Yes	0.09	2980732	262,304.45	
	Business Plan Preparation	Yes	0.08	2980732	224,700.00	
	Operations Implmentation	Yes	0.05	2980732	150,000.00	
Other	System Provisioning	Yes	0.01	2980732	29,807.32	
TESTING						
Network Elements	Video / IP Test Equipment		35,000.00	1	35,000.00	
IT System Elements						
User Devices						
Test Generators						
Lab Furnishings						
Servers/ Computers	Management System (optical)		4,000.00	2	8,000.00	

DETAIL OF PROJECT COSTS

SERVICE AREA or COMMON NETWORK FACILITIES:		Eligibility (Yes/No)	Unit Cost	No. of Units	Total Cost	Support of Reasonableness
OTHER UPFRONT COSTS						
Site Preparation						
Other						

Attachment B – Proposed Middle Mile Service Offerings

Service Offering	Distance Band or Point to Point	Minimum Peak Load Network Bandwidth Capacity (Mbps)	Monthly / Yearly Pricing \$	Other
Ethernet Transport: Bare Mtn, Newport, Cusick, Box Canyon, Lone Cabinet, Metaline Falls Cabinet, Usk Cabinet, Pine Cabinet and the following service area cabinets; 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24	Point to Point between any two "Service Offering" locations	10 Mbps Symmetrical	\$570 per month	
Ethernet Transport: Bare Mtn, Newport, Cusick, Box Canyon, Lone Cabinet, Metaline Falls Cabinet, Usk Cabinet, Pine Cabinet and the following service area cabinets; 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24	Point to Point between any two "Service Offering" locations	25 Mbps Symmetrical	\$800 per month	
Ethernet Transport: Bare Mtn, Newport, Cusick, Box Canyon, Lone Cabinet, Metaline Falls Cabinet, Usk Cabinet, Pine Cabinet and the following service area cabinets; 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24	Point to Point between any two "Service Offering" locations	50 Mbps Symmetrical	\$1150 per month	
Ethernet Transport: Bare Mtn, Newport, Cusick, Box Canyon, Lone Cabinet, Metaline Falls Cabinet, Usk Cabinet, Pine Cabinet and the following service area cabinets; 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24	Point to Point between any two "Service Offering" locations	100 Mbps Symmetrical	\$1400 per month	
Ethernet Transport: Bare Mtn, Newport, Cusick, Box Canyon, Lone Cabinet, Metaline Falls Cabinet, Usk Cabinet, Pine Cabinet and the following service area cabinets; 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21, 22, 23, 24	Point to Point between any two "Service Offering" locations	GigE Symmetrical	\$3400 per month	

Attachment D

Network Design and Implementation Plan Certification (to be completed for projects requesting more than \$1 million in federal assistance)

U.S. Department of Agriculture and U.S. Department of Commerce BIP and BTOP Program

We the undersigned, certify that the proposed broadband system will work as described in the System Design and Network Diagram sections, and can deliver the proposed services outlined in the Service Offerings Section. Moreover, the system, as designed, can meet the proposed build-out timeframe based on the resources designated in Project Viability Section, and will be substantially complete in two years, and complete within three years.

8/4/09
Date

[Signature]
(Authorized Representative's Signature)

JOE ONLEY
Name:

Community Network System Mgr.
Title:

8/3/09
Date

[Signature]
(Certifying Engineer's Signature)

Randall Dinger
Name:

Vice President - IDCS
Title:



EXPIRES 8/2011

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known:	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: <u>Joe Onley</u> Print Name: <u>Joe Onley</u> Title: <u>Community Network System Manager</u> Telephone No.: <u>(509) 447-9333</u> Date: <u>8/6/2009</u>	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

**Certification Regarding Debarment, Suspension, and Other Responsibility Matters -
Primary Covered Transactions**

**U.S. Department of Agriculture
Broadband Initiatives Program**

This certification is required by the regulations implementing Executive Order 12549, *Debarment and Suspension*, 7 C.F.R. § 3017.510, *Participants' Responsibilities*.

- (1) Public Utility District No. 1
We of Pend Oreille County (the Applicant) (hereinafter the "Company") hereby
certify to the best of our knowledge and belief that neither the Company, nor any of its principals:
- (a) are presently debarred, suspended, proposed for Debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) have within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) are presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) have within a 3-year period preceding this Application had one or more public transactions (Federal, State, or local) terminated for cause or default.
- (2) If we are unable to certify to any of the statements in this certification, we shall attach an explanation hereto.

08/07/09
(Date)


(Authorized Representative's Signature)

Robert D. Geddes

Name:

General Manager

Title:

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

**Uniform Relocation Assistance and Real Property Acquisition
Policies Act of 1970 Certification**

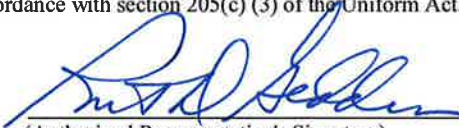
**U.S. Department of Agriculture
Broadband Initiatives Program**

Public Utility District No. 1
We of Pend Oreille County (the Applicant) assure the U.S. government that we will
comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as
amended, 42 U.S.C. §4601 *et seq.*, and with implementing federal regulations in 49 C.F.R. Part 24 and 7 C.F.R.
Part 21.

Specifically, we assure that whenever Federal financial assistance is used to pay for any part of the cost
of a program or Project which will result in the displacement of any person:

- (a) Fair and reasonable relocation payments and assistance shall be provided to or for displaced
persons in accordance with sections 202, 203, and 204 of the Uniform Act;
- (b) Relocation assistance programs offering the services described in section 205 of the Uniform
Act shall be provided to displaced persons; and
- (c) Within a reasonable period of time prior to displacement, comparable replacement dwellings will
be available to displaced persons in accordance with section 205(c) (3) of the Uniform Act.

08/07/09
(Date)


(Authorized Representative's Signature)

Robert D. Geddes

Name:

General Manager

Title:

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)****Equal Opportunity and Nondiscrimination Certification****U.S. Department of Agriculture
Broadband Initiatives Program**

All loans and grants made under the Broadband Initiatives Program are subject to the nondiscrimination provisions of Title VI of the Civil Rights Act of 1964, as amended, (7 C.F.R. Part 15); Section 504 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. 901 *et seq.*; 7 C.F.R. Part 15b); and the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 *et seq.*; 45 C.F.R. Part 90), and Executive Order 11375, Amending Executive Order 11246, Relating to Equal Employment Opportunity (3 C.F.R. 1966, 1970).

All recipients of financial assistance from Rural Development, the prospective primary participant commits to carry out Rural Development's established policy to comply with the requirements of the above laws and executive orders to the effect that no person in the United States shall, "on the basis of race, color, national origin, handicap, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under the Broadband Initiatives Program.

We Public Utility District No. 1
of Pend Oreille County (the Applicant) hereby certify that, as
a prospective recipient under the said Broadband Initiatives Program, we will comply with the above
referenced laws and executive orders.

08/07/09

(Date)



(Authorized Representative's Signature)

Robert D. Geddes

Name:

General Manager

Title:

**Broadband Infrastructure Application
Submission to RUS (BIP) and NTIA (BTOP)**

Certification Regarding Lobbying for Contracts, Grants, Loans, and Cooperative Agreements

**U.S. Department of Agriculture
Broadband Initiatives Program**

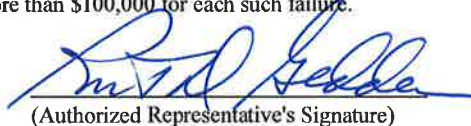
Public Utility District No. 1
We of Pend Oreille County (the Applicant) the undersigned certify, to the best of our knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on our behalf, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant or loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, we shall complete and submit Standard Form-LLL, Disclosure Form to Report Lobbying, in accordance with its instructions. See <http://www.whitehouse.gov/omb/grants/sflllin.pdf> for Disclosure Instructions.
- (3) We shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

08/07/09

(Date)


(Authorized Representative's Signature)

Robert D. Geddes

Name:

General Manager

Title:



Budget Narrative

Applicant Name: Public Utility District No. 1 of Pend Oreille County, WA

EasyGrants Number: 1854

Organization Type (from Question 1D on BTOP application): Political subdivision of a State, including Local or County Government

Proposed Period of Performance: 2010 - 2012

Total Project Costs: \$34,072,297

Total Federal Grant Request: \$27,257,838

Total Matching Funds (Cash): \$3,917,193

Total Matching Funds (In-Kind): \$2,897,266

Total Matching Funds (Cash + In-Kind): \$6,814,459

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 20%

1. Administrative and legal expenses

Positions	Cost Detail Location	Time Commitment	Explanation
Sr Project Manager	File: Infrastructure Budget Package Submittal	\$23,100 100% Dedicated Outsourced	Act as primary management for the project deployment, guide and oversee the project manager and project engineers.
Project Manager	Tab: Detail of Project Costs Section: Professional Services	\$208,000 100% Dedicated Outsourced	Act as project manager and oversee all production, contract development, coordinate the schedule, track the project budget and timeline, produce weekly/monthly reporting
Adminstrative Support	Element: Project Management Line: Program / Project Mgmt	\$14,400 100% Dedicated	Will act as the depository of all deployment documents, manage reports, schedule and document all meetings and support all deployment staff.

Total Calculation - Administrative and legal expenses





Total Calculation	\$258,100
Total Matching Funds Cash	\$51,620
Federal Funding Request	\$206,480

The total cash matching funds for this task is based on 20% of the total cost.

2. Land, structure, rights-of-way, appraisals, etc.

Items	Cost Detail Location	Outlined Costs	Proposed Activities
Pre-fab Communications Huts	Buildings Pre-fab Huts - Aggregation Hut Budget + \$15k per site (Facility Installation)	\$180,000	Placement of 12' x 15' Pre-Fabricated Hut with environmentally controlled heating and cooling. The hut will require AC power feeder, excavation for the foundation, grounding and a perimeter fencing. Three locations: Bare Mountain Substation, Cusick and Box Canyon.
Serving Area Communications Cabinets	Buildings Pre-fab Huts - Serving Area Cabinet + \$2,786 per site 23 total (Facility Installation)	\$373,506	Placement of 3' x 5' Communications Cabinet with environmentally controlled heading and cooling. The cabinets will be the distribution for the fiber to the premise, will require an AC power feeder, grounding and will be placed within public rights-of-way.
Serving Area Rights-of-way Property Acquisition	Buildings Other - Cabinet Site Acquisition	\$210,000	Acquiring the rights to place and the accociated fees to permit and install the serving area cabinets.
Microwave Tower	Outside Plant Towers - Microwave Equipment	\$100,000	Placement of a 120' lattice tower at the Bare Mountain Substation Communications Hut. The tower will require electrical power service, grounding, foundation installation and conduit placement routing to the Hut.
Microwave Tower Property Use Acquisition Fees	Buildings Other - Tower Site Acquisition	\$25,000	Acquiring the rights to place and the accociated fees for permitting the Microwave Tower at the Bare Mountain Substation. .
In-Kind – Comm - Building	Buildings Others -In-Kind –Comm - Building	\$185,294	Existing deployed network supporting proposed PFSA Network

Total Calculation - Land, structure, rights-of-way, appraisals, etc.

Total Calculation	\$1,073,800
Total Matching Funds Cash	\$29,466





Total In-Kind Match	\$185,294
Federal Funding Request	\$859,040

The total cash and In-Kind matching funds for this task is based on 20% of the total cost.

3. Relocation expenses and payment

The application does not include or require any relocation expense and payment.

4. Architectural and engineering fees

Engineering Tasks	Cost Detail Location	Fees	Explanation
Communications Hut Site Design & Conditioning	Buildings Improvements & Renovation - Site Design & Conditioning (\$29.3k from the \$154,883 line)	\$29,331	Prepare site survey, layout, and construction placement drawings for final permitting. Emphasis on drainage, structure grounding, foundation design, foundation location, perimeter fencing and conduit placement for communications and AC power feeder cables.
Microwave Tower Layout Design & Coordination	Buildings Improvements & Renovation - Site Design & Conditioning (\$30k from the \$154,883 line)	\$30,000	Planning and tower selection. Prepare site survey, FAA tower permitting, site construction placement drawings for final permitting, Emphasis on drainage, tower grounding, foundation design, perimeter fencing, tower beacon (if reqd.) and conduit placement.
Serving Area Communication Cabinets Design & Layout	Buildings Improvements & Renovation - Site Design & Conditioning (\$95.5k from the \$154,883 line)	\$95,550	Prepare site placement details for each serving area communications cabinet, service feeders, fiber conduit, and site access. Total of 21 cabinet throughout the County, each will act as an interconnect for service providers.
OSP Field Engineering	Professional Services Engineering Design - Field Design, Final Design	\$2,373,941	Field design, develop final permit applications, splicing diagrams, unit rack-off calculation and material procurement requirements. Produce record drawings from field constructed red-lines and input into ESRI mapping system.
Network Engineering, Network Installation & Transport Ring System Provisioning	Professional Services Engineering Design - Network Design Network Install	\$464,416	The system will require racking, power connections and full installation, configuration and provisioning of the redundant transport 10G network, transport Gigabit network to each serving area cabinet and coordination with the





	- NOC Implementaion		service providers on the network configuration and provisioning of services to the end user.
Internal Staff Project Manager	Professional Services Other -Internal Staff Project Manager	\$455,135 In-Kind	Internal Project Manager. Refer to file: CNS In Kind Allocation v8 03-19-10 JBO

Total Calculation – Architectural and engineering fees

Total Calculation	\$3,448,373
Total Matching Funds Cash	\$234,540
Total In-Kind Match	\$455,135
Federal Funding Request	\$2,758,698

The total cash matching funds for this task is based on 20% of the total cost.

5. Other architectural and engineering fees

Other Engineering Tasks	Cost Detail Location	Fees	Explanation
Prepare, submit and track construction permitting and applications	Professional Services Consulting - Permit Preparation & Filing	\$262,304	While the project resides mostly on aerial power poles owned by the utility, the build-out must submit the correct application, loading calculations and attachment details. Permits will be required for the underground sections of the build, County, Cities and Canal/waterways.
Business and Operation Integration	Professional Services Consulting - Business Plan Preparation - Operations Implmentation	\$374,700	Prepare the final business operational plan, service offering for LAN extensions, FTTx services, over the top services and launch the operational team for activation of wholesale services with the retail providers.
Service Provider Provisioning Setup Procedures and Web interface Development	Professional Services Consulting - System Provisioning	\$29,807	Coordination of service provisioning procedures between the Utility and the retail provider. Final development of a web interface for active customer information and trouble ticket support.

Total Calculation – Other architectural and engineering fees

Total Calculation	\$666,811
Total Matching Funds Cash	\$133,362





Federal Funding Request	\$533,449
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The total cash matching funds for this task is based on 20% of the total cost.

6. Project inspection fees

Project inspection fees are included in Section 9 "Construction".

7. Site work

All site work is contained in section 2 of the "Land, structure, rights-of-way, appraisals, etc.".

8. Demolition and removal

The application does not include or require any demolition and removal.

9. Construction

Construction Items	Cost Detail Location	Estimated Fees	Performed by	Proposed Services
Cable	Outside Plant Cables - Fiber Material - Fiber Install - Warning Tape - Locate Wire	\$7,592,871	Construction Contract #1	Installation of all fiber optic Cable both Aerial and Underground. Placement of locate Wire and locate tape.
Conduits	Outside Plant Conduits - 1.25 Inch (1,2 & upto 4) - Bore & Trench - Glue - Couplers - Restoration	\$8,856,159	Construction Contract #1	Installation of required conduits, couplers and sweeps ~ Trenching, Boring or pushing.
Ducts / Vaults	Outside Plant Ducts - Handholes (Sm & Lg) - Handhole Sealer - Handhole Restoration	\$1,209,178	Construction Contract #1	Installation of various sized handholes and access points throughout the build.
Poles	Outside Plant Poles	\$2,130,402	Cosntruction Contract #1	Installation of new poles or replacement of





	<ul style="list-style-type: none"> - New Poles & Replacements - Aerial Hardware - Aerial Strand Install Material - Make Ready 			existing poles based on the engineering and make ready. Lateral aerial hardware attachment, risers and endend hardware.
River Crossings	Outside Plant Other - River Crossings	\$49,400	Construction Contract #1	Installation of hi-tension, long span aerial hardware and fiber cable at four existing river crossings, below the power distribution lines.
Fiber Cases, Fiber Splicing, Fiber testing and Tagging	Outside Plant Other - Splicing - Testing - Trays & Casings - Fiber Tags	\$3,480,642	Construction Contract #2	Fiber Optic splice case placement, prep and cable entry. Fiber Optic Termination Splicing, OTDR Testing and Cable color coding and Fiber Count Tagging.
Mircrowave Equipment Installation	Outside Plant Towers - Microwave Install	\$10,000	Construction Contract #3	Placement, alignment, testing and provisioning of the microwave equipment.
In-Kind – Comm - General	Outside Plant Other -In-Kind – Comm – General	\$29,470 (In-Kind)	POPUD	In-Kind Contribuion: Refer to file: CNS In Kind Allocation v8 03-19-10 JBO
In-Kind – Comm – Fiber Optic	Outside Plant Other -In-Kind – Comm – Fiber Optic	\$1,618,441 (In-Kind)	POPUD	In-Kind Contribuion: Refer to file: CNS In Kind Allocation v8 03-19-10 JBO
In-Kind – Comm. Fleet	Oustide Plant Other -In-Kind Comm - Fleet	\$99,628 (In-Kind)	POPUD	In-Kind Contribuion: Refer to file: CNS In Kind Allocation v8 03-19-10 JBO
Internal Staff – Technician 1	Outside Plant Other -Internal Staff Technician 1	\$429,749 (In-Kind)	POPUD	Full time OSP employee. In-Kind Contribuion: Refer to file: CNS In Kind Allocation v8 03-19-10 JBO

Total Calculation – Construction1

Total Calculation	\$25,505,940
Total Matching Funds Cash	\$3,260,980
Total In-Kind Match	\$2,177,288
Federal Funding Request	\$20,404,752

The total cash and In-Kind matching funds for this task is based on 20% of the total cost.





The Utility will be contracting the construction work based on key areas of expertise or experience, managing the following agreements to complete the build-out:

- Construction Contract #1 – Outside Plant Construction both aerial and underground
- Construction Contract #2 – Fiber Optic Termination, Splicing, Cable Tagging, Testing and final Documentation.
- Construction Contract #3 – Placement of the redundant Microwave equipment at the Bare Mountain Substation Tower Location.

10. Equipment

Inspection Tasks	Cost Detail Location	Unit Cost	# Units	Total Cost	Purchase / Leased
Switch Equipment Cisco 3750G-12	Network & Access Equipment Switching - Cisco 3750 12G Switch	\$15,000	21	\$315,000	Purchased
Access Distribution Switch	Network & Access Equipment Switching - Access Distribution Switch	\$6,000	21	\$126,000	Purchase
VPN Equipment	Network & Access Equipment Routing - VPN Cards	\$7,000	1	\$7,000	Purchase
POP & VPOP 10G Transport Equipment Cisco 6509	Network & Access Equipment Transport - Cisco 6509	\$75,000	2	\$150,000	Purchase
POP & VPOP 10G Transport Cards Cisco 6509	Network & Access Equipment Transport - Cisco 6509 Cards	\$25,000	2	\$50,000	Purchase
Microwave Equipment Dragonwave 100 Mbps Point to Point Circuit	Network & Access Equipment Transport - Microwave Equipment	\$65,000	1	\$65,000	Purchase
Equipment Fiber Pigtailes (5) Site Locations Transport	Network & Access Equipment Other - Contact (Pigtailes)	\$200	5	\$1,000	Purchase
Equipment fiber Pigtailes (3) Fiber to the Premise Areas	Network & Access Equipment Other - Contact (Pigtailes)	\$1,536	3	\$4,608	Purchase





DRG Customer Equipment Switch/Router	Customer Premise Equipment Modems - CPE/Switch / Router	\$250	938	\$234,500	Purchase
Universal Power Supply (UPS)	Customer Premise Equipment Other - Universal Power Supply	\$40	938	\$37,520	Purchase
External Premise Enclosure	Customer Premise Equipment Other - External Enclosure	\$30	938	\$28,140	Purchase
Field Alarm Equipment Huts and Serving Area Cabinets	Billing Support and Operations Support Systems Other Support - Field Hut Alarm System	\$2000	21	\$42,000	Purchase
Video / IP POP Facility Equipment	Testing Network Elements - Video / IP Equipment	\$35,000	1	\$35,000	Purchase
Management Equipment Servers	Testing Servers / Computers - Management System (Optical)	\$4,000	2	\$8,000	Purchase
In-Kind Equipment	Network & Access Equipment - In-Kind – Comm - Electronics	\$79,549	1	\$79,549	In-Kind

Purpose:

- Cisco 3750G-12 will be placed at each serving area cabinet to provide the connectivity/transport to the either the POP or VPOP (Virtual Point of Presents). This will be required at all cabinet locations, will be both a Layer 1, 2 & 3 redundant circuit for the services offered to the Fiber to the premise network.
- Access Distribution Switch will be placed at each serving area cabinet which will provided connectivity to the customer premise edge equipment through the fiber, course wave single fiber solution.
- VPN equipment provided a secure outside connetion to the network for network management, Network Operations Center Support (NOC) and emergancy support services.
- Cisco 6509 Equipment and Cards will be placed at the POP and VPOP to create a 10G ring network.
- Microwave Equipment will be used to create a redundant 24 mile licensed DragonWave 11GHz 100 Mbps circuit routing traffic out of the County to the NoaNet Hut located at Bell Substation.
- Fiber Pigtail will be required to interconnect equipment at various locations, the Huts (POP's and VPOP's) and at the serving area equipment cabinets.
- DRG Customer Equipment, UPS and Enclosure will be used to provide services across the fiber to the premise network, act as the gateway to the customer for the service provider. The





application listed 906 or 15% of the units for take rate. The remaining cost to connect additional customer beyond the 906 or 15% will be capitalized through revenues.

- **Field Alarm Equipment** will be placed at the POP's, VPOP's and serving area cabinets for contacts as alarms from various pieces of equipment, identifying alarms and issue back to the NOC.
- **Video/IP Facility Equipment** will be housed at the POP, analyzing the traffic across the network, providing valuable data for continued monitoring, adjustments and help provision the network.
- **Management Equipment Servers** will act as the management warehouse for the provisioning software, web interface to the service provider, GIS Mapping database and trouble ticket management software.

Total Calculation – Equipment

Total Calculation	\$1,183,317
Total Matching Funds Cash	\$157,114
Total Matching In-Kind Funds	\$79,549
Federal Funding Request	\$946,654

The total cash and In-Kind matching funds for this task is based on 20% of the total cost.

11. Miscellaneous

Misc Item	Fees	Explanation
Construction Labor & Material Sales Tax	\$1,935,956	Total procurement taxes are based on the cost of materials and labor purchased and installed in Pend Oreille County, WA at 7.60% rate. District requires sales tax for both labor and materials be shown separately on contract documents as a separate line item on invoice(s) per Washington State Department of Revenue requirements.

Total Calculation – Miscellaneous

Total Calculation	\$1,935,956
Total Matching Funds Cash	\$387,190
Federal Funding Request	\$1,548,766

The total cash matching funds for this task is based on 20% of the total cost.

Addendum

Although the Utility has not included specific allocations for indirect costs and is not seeking funding of those costs through the BTOP grant, the extent of the Applicant's contributions on both indirect costs and in-kind contributions are noteworthy with respect to the Utility's existing operational strength and its commitment to the sustainability of the project. The following are some of the significant "assets" that the Utility brings to the project:





- Existing Fiber Network from Spokane to the Canadian Border through Pend Oreille County
- Use of existing fibers to transport serving area cabinet switch traffic to the POP & VPOP
- Use of the existing fiber to create a redundant self healing fiber ring through the County, known as the “East Ring Section”
- Use of the existing equipment to establish the “East Ring Section” of a 10G ring through the County
- Use of existing operations staff to continue supporting the communications, service providers and critical communications for the utility
- Use of existing construction staff for new services activation, emergency outage response and continued maintenance of the system
- Existing “Open Access” service providers on-net, with established relations, billing and coordination as a wholesale entity.