

## Broadband USA Applications Database

**Applicant Name:** Public Utility District of Pend Oreille County

**Project Title:** Pend Oreille County PUD Broadband Network

**Project Type:** Last Mile Non-Remote

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### Executive Summary

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a. Opportunities the proposed system seeks to address: The Public Utility District No. 1 of Pend Oreille County (District) operates, among other things, an open-access broadband network on a wholesale basis in a rural area served by three traditional phone companies that, over the years, have failed to keep pace with upgrading their networks and delivering advanced services at affordable rates. Thus, the District's proposed Project qualifies as a predominately last-mile project with a middle-mile component that will, if approved for a grant under the Recovery Act, provide necessary redundancy to the District's existing high-speed fiber network, as well as facilitate the last-mile delivery of advanced broadband services to an underserved rural area at affordable, competitive rates. And, significantly, owing to the District's long-term history of providing its rural communities with essential utility services when nobody else wanted to, the District enjoys a "shovel-ready" path throughout its entire service area, as it will not have to undergo the lengthy process of securing rights-of-way—making the proposed Project a natural fit with the District's existing electric, water, and wholesale broadband services.

b. General description of the proposed funded service area: The District serves the entire rural Pend Oreille County, which, as the most northeast county in the State of Washington, shares borders with Idaho and Canada. Nearly the size of Rhode Island, Pend Oreille County comprises an area of 1,400 square miles. During the period 1970 to 2000, Pend Oreille County's population grew by 95 percent and, based on the 2000 census, had a population of 11,732. Estimates place the current population at 13,000. The County has five incorporated areas, and Newport, the largest, serves as the county seat and home to a new community college. With nine people per square mile, there are no stoplights within Pend Oreille County. Mining and forestry serve as the two main non-government industries in Pend Oreille County, but both have been adversely affected by the country's recession, resulting in layoffs and the County's unemployment rising to 13.5% as of June, 2009. Pend Oreille County is also home to the Kalispel Tribe of Indians, who occupy 4,654 acres of reservation lands along ten miles of the Pend Oreille River, and own an additional 240 acres of reservation land north of Cusick, Washington. While three local telephone companies also provide traditional phone service within Pend Oreille County, a formally-appointed citizens advisory committee essentially recommended last year that Pend Oreille County take appropriate steps to deploy a fiber optic broadband network along the District's electric service route. Encapsulated, the Community Connect Committee recommended adopting a plan that would provide broadband services to serve all of Pend Oreille County. And, to be sure, the District's proposed project would go a long way toward accomplishing that objective, but, prior to the grant opportunities made available by the Recovery Act to cover capital expenditures, the District was unable to pencil out an economically sustainable plan for last-mile deployment. Phase 1 of the proposed Project would extend the middle-mile backbone to

provide the necessary redundancy, reliability and connectivity to three new locations, while Phases 2 and 3 would entail the installation of last-mile cabinets and fiber optic cable. Phases 2 and 3 would exclude the service area of Pend Oreille Telephone Company, a RUS borrower.

c. Number of households and business passed: Upon completion, the proposed Project will pass over 5,000 homes and businesses.

d. Number of community anchor institutions, public safety entities, and critical community organizations passed and/or involved with the proposed project: The proposed Project will involve all four of Pend Oreille County's healthcare providers; all three of Pend Oreille County School Districts; the Riverside School District; all four Pend Oreille County Libraries; the Pend Oreille County government buildings; the Kalispell Tribe; the Newport Community Hospital Doctor's Network (fiber to doctors' homes); and a constellation of significant commercial users, including, among others, Vaagen Brothers (a wood products processor), Tech Cominco (zinc mining), the Spokane Community College's Institute for Extended Learning in Newport and Lone, AT&T cell tower, POVN wireless tower, and two cable TV systems. All of the foregoing entities are currently connected to the District's existing fiber backbone, which, as a single "thread," lacks redundancy—making the entire existing network highly vulnerable to a system outage in the event of a cable break at a single location. The proposed Project will, upon completion, resolve this deficiency, ensuring that emergency responders and businesses alike can look forward to secure, uninterrupted services during moments of critical need and peak use.

e. Proposed services and applications for the proposed funded service areas and users: As a wholesale provider to other carriers and service providers, the District's open-access service offerings will include (a) residential and business class broadband services, starting at symmetrical speeds of 1 Mbps and available up to a full gigabit; (b) point-to-point Ethernet transport; and (c) virtual private networks. The proposed Project, upon completion, will easily accommodate such broadband applications as voice-grade services, video services, video conferencing, security services, data storage, web hosting, distance learning, telemedicine, and automated meter intelligence services.

f. Approach to addressing the non-discrimination and interconnection obligations: As further detailed in response to Application Item 22, the District agrees to (i) adhere to the principles contained in the FCC's August 5, 2005 Internet Policy Statement; (ii) not favor any lawful Internet applications and content over others; and (iii), in the event it's approved for a grant, require service providers purchasing the District's wholesale services to adhere to the same principles. As a public utility district in the state of Washington, the District is only authorized to provide services on a wholesale basis to Internet service providers and other carriers, resulting, by its very nature, in an open-access network.

g. Type of broadband system that will be deployed: The District's proposed fiber-to-the-premises Project will transform the existing fiber "backbone" network into a diverse path that will provide redundancy to the core middle-mile portion of the network. Thus, the District's single "thread" network would no longer be vulnerable to system-wide outages in the event of a cable break at a single location. Also, the system design will allow the District to provide dedicated bandwidth to the end-user customer, while the network platform will easily upgrade to meet the inevitable growing demand for greater bandwidth. In a nutshell, the proposed network's unified standards will allow multiple broadband applications to "ride" the network, as well as ensure that the proposed Project qualifies as a "next generation" network.

h. Qualifications of the applicant that demonstrate the ability to implement and operate a broadband infrastructure, and/or be a sustainable broadband service provider: Established in 1936 and commencing electric and water utility operations in 1948, the District is comprised of three primary operating systems: the Box Canyon Hydro

System, which produces hydroelectric power; the Electric System, which distributes electricity to approximately 8,500 customers; and the Water System, which owns and operates nine individual District water distribution systems. In 1996, the District, taking full advantage of its existing rights-of-way, began developing a sophisticated broadband communications system to keep its electric system safe, reliable, and cost effective. It currently owns and operates approximately 125 miles of Fiber Optic Backbone, stretching from Spokane to near the Canadian border, and has made the excess system capacity available to the rural communities of Pend Oreille County. As a consequence, and consistent with Washington state law that restricts PUDs from offering retail telecommunications services, the District now provides wholesale services to seven Internet service providers over its own fiber backbone. In addition, the District relies on this network for internal communications, as well as provides dark fiber services to major incumbent and cellular telephony providers. Given this track record of over 60 years operating experience in serving both the public and the public interest, the District has demonstrable ability to implement and operate broadband infrastructure on a sustainable basis. i. Overall infrastructure cost of the broadband system: \$34,157,255, which includes (a) \$5,825,811.76 for the 75-mile Phase 1 middle-mile fiber backbone extension; (b) \$16,814,342.67 for the 283-mile Phase 2 last-mile fiber network; and (c) \$11,517,100.76 for the 207-mile Phase 3 last mile fiber network. j. Overall expected subscriber projections for the project: 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 990 1,462 1,625 1,715 2,536 2,714 2,977 3,106 3,225 3,438 3,560 k. Number of jobs estimated to be created or saved as a result of this project: Based on the “Simple Rule for Estimating Job-Years Created by Government Spending” at Table 5 of the White House web link for Estimates of Job Creation from ARRA, the District estimates that spending the overall infrastructure cost of \$34,157,255 over two years will result in 371 jobs, with 237 considered direct and indirect jobs and 134 considered induced jobs.