



# A Public Information Highway

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Washington State Charting New Course

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Bandwidth Transmission as a Low-Cost Monopoly

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One Network For All

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Tired of getting passed by on the information highway, several public utilities in the rural Northwest have teamed together to build the fiber-optic network they always wanted, the one the private sector won't build.

The Northwest Open Access Network or NOANet plans to light up a 1,000-mile network in Washington this fall to serve bandwidth-starved communities in what could be a national model for bridging the digital divide. This week the non-profit network reached an agreement to expand into Oregon, Idaho and Montana with another 1,000 miles.

"It became apparent that our model is a good one, and not just for Washington. We had several meetings with entities in Oregon and they encouraged us to carry the model forward there," said Greg Marney, CEO of NOANet.



Remote Gifford Pinchot National Forest  
Source: Central Cascades Alliance

About a third of Washington state residents receive electricity from 28 countywide Public Utility Districts. Several are building their own fiber loops to meet local demand that is going unmet. The Grant County PUD, for example, is stretching fiber to the homes of its customers, a depth unmatched in commercial systems.

Grant County is one of 16 PUDs backing NOANet, which has arranged a \$10 million credit line to operate a fiber network connecting the PUD loops into long-haul networks reaching the rest of the country.

NOANet is leasing dark fiber from the Bonneville Power Administration, which controls about 80% of the electric transmission system in Washington. It promises to



provide interconnections into every county where BPA fiber reaches.

By serving as a low-cost platform for private companies to compete on, the network wants to foster broadband access at prices comparable to what residents in Seattle or Portland might pay. A new state law prohibits the public utilities from providing retail communication services. NOANet also can't act as a long-haul network.

"Our model is that we don't sell retail services. If you want dial tone or an Internet service provider that is not the PUD," said Steven Johnson, executive director of the Washington Public Utility Districts Association, which sponsored and then spun off NOANet.

In some ways the model is not unlike the federal electric grid that serves much of the rural Northwest.

"You are not going to get duplicate sets of fiber-optic cables going to these counties. You have what you have in the electric utility. You have monopoly in the distribution system," Mr. Johnson said.

### **HUNGRY FOR FIBER**

Backers of the network argue that high-speed, high-capacity telecommunications services are key to economic development, just as electricity was in the 1930s. Dispersed populations, however, don't mix well with the return on investments that telecommunications providers want.

"Private providers may not want to serve the territory now, but they don't want anyone else doing it until they are ready to," said Ron Lunt, director of telecommunication services with the American Public Power Association.



**Port Angeles Missed Out on a Call Center**  
Olympic Peninsula Tourism

Washington, home to the world's richest man Bill Gates, has 23 rural counties considered distressed because of high unemployment rates, triggered by declines in the farming, logging and fishing industries. In some rural areas, unemployment rates are three times as high as in Spokane and Seattle. One recent study concluded that the urban/rural economic disparity is worse in Washington than in any other state.

The poorer areas realize they need to move into the information age to create jobs and stay vibrant, but without a high-speed link to the Internet, they can't. A hospital in Asotin County asked its local public utility to set up a fiber link to transmit MRI and CAT scan data, a process that took seven hours over the phone but seven min-



utes with fiber. Port Angeles, a community on the Olympic Peninsula, reportedly lost on its bid for an airline call center, in part because its infrastructure couldn't handle the phone traffic the center would generate.

"We are facing an economic crisis in these areas. They are not attractive markets. We are filling a niche that nobody wants," Mr. Marney said

### **INFORMATION AGE SOCIALISM**

Not everyone likes the precedent that NOANet sets. The Bonneville Power Administration (BPA) in particular has come under fire for leasing out excess fiber capacity.

Private utilities in the region are concerned about subsidizing BPA's foray into telecommunications, a charge the agency denies. There is also the deeper and enduring question about whether public/non-profit entities should compete directly against private companies, and if they do, how can the playing field be kept level.

"We have been long concerned that the BPA received substantial tax payer subsidies and that those could be used not only in the power business, but in the telecommunications business. They have no authorization to do this stuff," said Dick Munson, executive director Northeast-Midwest Institute in Washington, D.C.

Montana Power, which is building an extensive fiber network in the Western U.S., has proven an especially vocal critic, leading a group of seven private utilities that almost blocked BPA's ability to lease excess fiber.

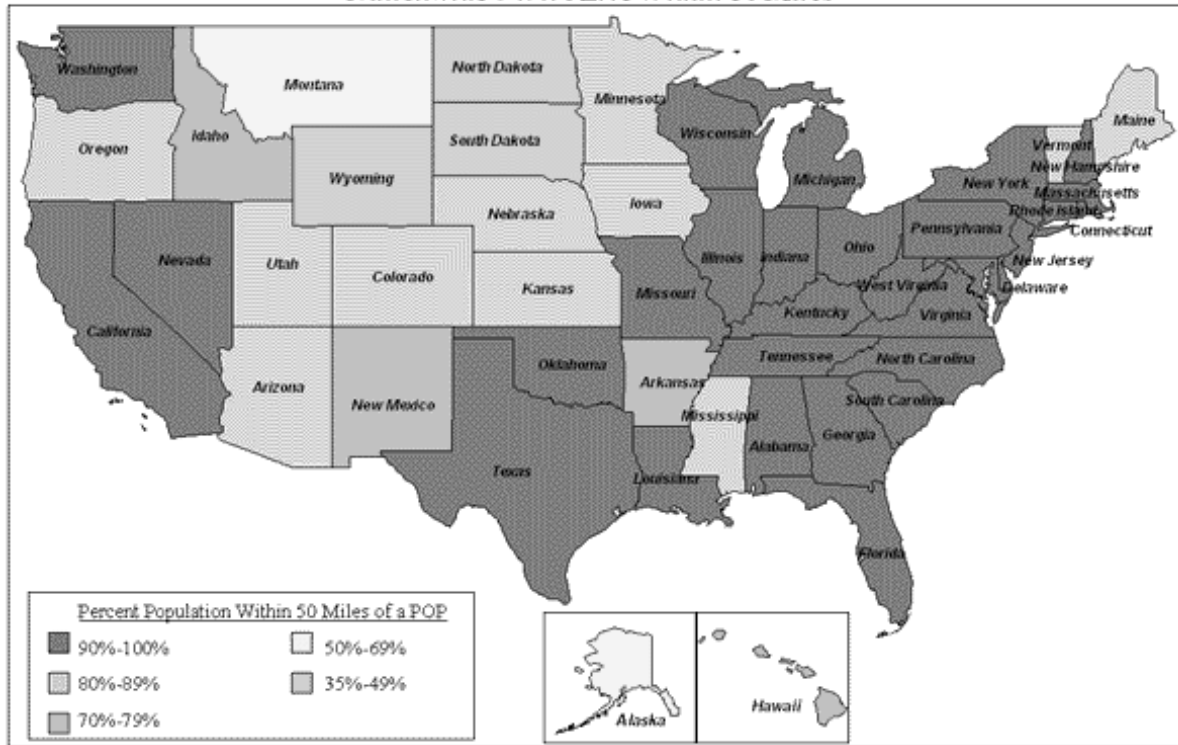
"I find it preposterous to suggest that Congress intended for BPA to deliberately install fiber capacity far in excess of its operational requirements and then use the excess fiber capacity to compete with private sector telecommunications firms," Montana Power CEO Robert Gannon wrote BPA Administrator Judi Johansen earlier this year.

There is also some geographic tension. Reps. Bob Franks, R-NJ, and Marty Meehan, D-MA, opposed the BPA in a complaint to DOE Secretary Bill Richardson. U.S. Rep. Ron Packard, D-CA, introduced language into a House appropriations bill last year that tried to ban the federal power marketing administrations from installing fiber beyond their immediate needs.

But Sen. Slade Gordon, R-WA, and other Northwest politicians blocked the move in the Senate. The bill was changed to require the three out of four PMAs who are installing fiber to report to Congress on their plans.

If fiber proves economically unfeasible in rural areas, the free market may provide other mechanisms such as wireless or digital subscriber line, opponents argue.

% of Population Within 50 Miles of a High-Speed Internet Point of Presence  
*Nationwide 94.4% Live Within 50 Miles*



Prepared by the "Competitive Broadband Coalition"

May 25, 2000

DSL technology allows high-speed communications over copper phone lines, although users must be within a few miles of the central station. GTE, the local phone company, in December sued the Douglas County PUD, charging that it was unfairly subsidizing its cable system with money from its electric customers.

Washington may not be as out of the loop as NOANet proponents argue. According to the Competitive Broadband Coalition, 90% to 100% of Washington's population lives within 50 miles of a high-speed Internet access point or POP, making it a highly connected state. In contrast, less than 45% of the population in the Dakotas and Wyoming are similarly situated. Nationally, about 94.4% of the country's population has a POP nearby.

### **BANDWIDTH FOR ALL**

Backers of NOANet say they aren't against competition. They want to make it easier for multiple providers to come in and use their system. As such, they aren't much different than the Old West cities that built railroad spurs to connect to the main line. A more modern example might be the metropolis that builds a football stadium to win



an NFL franchise.

Because they don't have investors to appease, NOANet backers can spread the cost of their investment over 10 or 15 years instead of the much shorter time frame investors demand.

For its part, BPA denies it wants to become the Bonneville Telecommunications Administration, a charge one critic has leveled. The power provider had to replace its aging microwave-based communications system and chose to use fiber optics, said Bob Lahmann, a BPA transmission business line account executive.

Instead of laying just enough fiber for its immediate use, the BPA put down much more than it needed, a common strategy. The difference between laying 36-strand fiber and 72-strand fiber per mile is minimal, especially when compared to having to go back in 10 years and lay another conduit.

Leasing the excess capacity allows BPA to recover its installation costs, addressing the concerns of ratepayers, Mr. Lahmann said. Those who argue the BPA is wasting taxpayers' money don't know what they are talking about, since ratepayers pay for the system, he said.

This year the BPA plans to add 621 miles of cable, with another 1,760 miles expected between 2001 and 2005. It has close to 2,000 miles already installed. When the BPA needs more capacity for its own use, it will be there.

That could potentially create problems for NOANet and other leasers, but advances in technology are dramatically increasing the amount of traffic each fiber can carry and could make the point moot.

There could also be other carriers that step into to fill demand. As one of the compromises reached last year, the BPA must allow access to companies who want to attach their cables to Bonneville's transmission system. The BPA is holding its first meeting to discuss the topic on August 9.

The biggest risk to NOANet and the PUDs is that they build a system that nobody uses, although early indications are that the market is there.

"We are finding much more pent up demand than we envisioned," Mr. Marney said.



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In rural Washington and Oregon, plenty of hitchhikers are waiting along the information highway, trying to catch a fast ride to Seattle or San Francisco.