

## EXECUTIVE SUMMARY

### Willamette Valley Rural Broadband

Abstract: Wireless broadband service to rural end-users at subsidized cost. Deployed by experienced provider with existing network that needs technological upgrade to expand rural services.

Our second generation fixed wireless technology is reaching capacity. That limits our ability to meet the demand for higher bandwidth packages to existing rural customers; it limits our ability to add new rural customers to the network.

This proposal would fast-track our deployment of new [REDACTED] technology. It would to enhance throughput, capacity and stability of our wireless network, making broadband services accessible to thousands more rural households in Northwest Oregon.

Our proposal focuses primarily on expanding end-user capacity in unserved and underserved areas of Yamhill County and some adjoining areas of Polk and Marion counties, all in Oregon's Willamette Valley. The project would improve opportunities for future deployment of rural wireless broadband into surrounding rural areas.

Our current business plan provides for slow deployment of new [REDACTED] technology as funds become available. Rapid deployment – and the economic benefits that go with rapid build-out – is not financially feasible without outside funding.

#### Company Background:

McMinnville Access Company, dba OnlineNW, was founded Jan. 1, 1997, and operates under its original ownership. Corporate headquarters are in downtown McMinnville, OR, southwest of Portland. It is owned by Patrick Fuchs (President), Jeb Bladine and Guy Everingham, and managed by CEO Kathy Tate.

OnlineNW has 14 FTE employees. We provide Internet services to 3,000 residential and business customers in four Northwest Oregon counties: Yamhill, Polk, Marion and Washington. We deliver Internet via dial-up, DSL, fiber and fixed wireless technologies. We provide VOIP telephone service, e-mail, web hosting, web design and hardware co-location.

We have carrier-class licensed microwave backhaul from Portland to McMinnville, and an underground fiber connection for network redundancy. Our 300 Mbps of transport can be upgraded to 600 Mbps, with capacity to deliver up to 100 Mbps to almost every "anchor institution" in our service area.

OnlineNW also provides VOIP telephone services to wireless broadband customers through our own dedicated switching system. Offering an Internet/Phone "service package" to rural customers will increase our "take rate" on rural wireless broadband services.

OnlineNW partners with local governments, school districts and private companies for diverse Internet delivery projects. Those projects include licensed wireless links to facilitate programs for distance learning, public safety, utility operations and commercial business ventures in our four-county area of operations.

For five years, we have managed incremental growth of network infrastructure and transmission systems for wireless broadband services to rural end-users. We have proven success in meeting severe topographic challenges to wireless broadband in Northwest Oregon, where heavily-forested mountains and rolling hillsides create transmission obstacles. We have overcome those obstacles by deploying cost-effective wireless services through a variety of technologies.

#### Current Rural Wireless Broadband Services:

OnlineNW has deployed 45 transmitters that serve 1,850 rural customers living in 2,500 square miles. Our wireless network fully extends to rural end-users, more than 90 percent of whom previously were unserved by broadband.

Our wireless network serves remote and rural areas – unserved and underserved – of Yamhill, Polk, Washington and Marion counties. We are uniquely experienced in the challenges of providing wireless services in those areas. We can execute major projects in rural areas in months, while others would take years.

Current wireless services include [REDACTED] transmission systems, fed by fiber and microwave backhaul networks. Those systems have served clients well, but they must be augmented with new technology to provide the capacity and stability needed for system expansion.

#### Proposed Broadband Systems:

We propose deployment of new [REDACTED] wireless systems, and [REDACTED] wireless broadband systems. Our proposal includes additions to 900 Mhz and 2.4 Ghz equipment [REDACTED]

We would:

- Deploy 55 new [REDACTED] access points to new and existing tower locations in the service area.
- Augment our backhaul infrastructure by installing 18 licensed microwave links within our tower network.
- Upgrade our main microwave backhaul with redundant transmitters, thus doubling our backhaul capacity and adding an additional level of redundancy.
- Install 5 additional Cisco switches, one replacement monopole, one equipment box and auxiliary equipment.
- Pay related FCC costs and tower installation costs.

Total cost of that infrastructure improvement would \$786,600 -- \$663,600 for equipment and \$118,000 for tower equipment installation.

Another major project cost would be \$530,000 for customer premises elements, including:

- 1,000 units of [REDACTED] wireless receivers at a cost of \$400,000.
- 1,000 customer premises installations at a cost of \$100,000.
- [REDACTED]

Other project costs, totaling \$410,700, would include engineering design services; mapping services; project audit expense; [REDACTED] management server; and several employee positions including project manager, assistant network administrator, grant manager and installer.

Combined total of the above is \$1,727,300. The applicant's share of those costs would be \$367,700 – more than 21 percent of the total – including personnel costs related to system design, grant and project management, tower equipment installation and CPE installations.

We have submitted an alternative financial analysis for our BIP Application with the same underlying project budget, but including our existing investment as matching loan/equity. That analysis is detailed in the response to Q51 and in a special attachment.

This project would allow aggressive expansion of services throughout the rural project area. We propose to install 1,000 new wireless customers during the 24-month project, with no installation charge for those new customer installs.

#### Geography / Service Area:

Yamhill, Polk and Marion are adjacent counties. Almost all of their anchor institutions are outside the project service area, since they are located within cities that have multiple broadband services.

OnlineNW already provides Internet services to many of those institutions, including the city of McMinnville, Linfield College, McMinnville School District, Yamhill County, McMinnville Water & Light, Evergreen Aviation Museum, The Delphian School and Sheridan Fire District. We have ongoing discussions with other anchor institutions about wireless broadband services for specialty projects.

Our project service area in Yamhill County includes rural areas surrounding the communities of Newberg, Dundee, Carlton, Yamhill, Lafayette, Dayton, McMinnville, Amity, Sheridan and Willamina. The service area in Polk County includes rural areas surrounding the communities of Dallas, Monmouth, Independence and Rickreall. The service area in Marion County includes rural areas surrounding the communities of Silverton, Mt. Angel, Woodburn, Gervais, Kaiser and St. Paul.

Together, those rural areas in our service area include 13,768 households. Our application assumes a maximum of 20 percent of households where access could be blocked by topographical interference.

#### Subscription Projections:

This project would be completed in compliance with all non-discrimination and interconnection obligations incorporated into the grant agreement.

We expect to add 1,000 new wireless broadband subscribers during the two-year project. Our further expectation is to add approximately 2,400 new wireless broadband customers during the following four years, subject to our ability to maintain and expand network capacity needed to serve those customers.

#### Immediate Economic Impact:

This project would create 3 new positions immediately. We believe that general company growth in this and others areas will require us to hire 2-4 additional personnel in the second and third years, including field installer and internal support positions.

There would be widespread economic benefits from increased broadband service to rural areas, particularly in providing service to rural businesses that currently are unserved..

#### Long-Range Economic Impact

The ultimate economic impact of this project may be future affordability of true rural broadband.

Rural wireless broadband deployment in our area is too expensive, as proposed by this project, without some form of external support. Any new Internet provider entering our marketplace would be unlikely to replicate our company's rural end-user deployment. However, if another provider is subsidized, our overall operation could be weakened such that it would add significant costs to our rural broadband service.

The network infrastructure strengthened by this project would serve a diverse customer base, allowing continued cost-effective deployment of rural wireless service in our market for years to come. It would generate local economic impact not only through our company growth, but through increased Internet-based commercial activity made possible through expansion of rural wireless broadband service. It would increase competition for service to community anchors.

In Oregon, our project serves the most important goals of BIP and BTOP. We respectfully request the opportunity to deploy this well-considered plan.