



The Emerging Threat Of Broadband Over Powerlines

By Don Kent ■ *eCablevision Consulting*

Since its inception, competition has been a constant for Private Cable Operators (PCOs)—and those operators that are unwilling or unable to effectively compete, quickly learn that it's best to exit this business. Recently, many PCOs have strengthened their balance sheets with the new revenue generating units realized by selling broadband services. And with a plethora of new products that are becoming available (such as Voice Over Internet Protocol, Video On Demand, and Digital Video Recorders), the cloudy financial skies overhanging the PCO industry finally appear to be clearing.

However, the power companies are getting ready to enter the broadband party. Technology that enables power lines to carry broadband has progressed and has been tested in Europe since the 1990's, but with mixed results. Some European companies have concluded that it would be too expensive to adapt their own power grids to provide broadband, but Scottish Hydroelectric currently offers broadband service over its

power lines. In 2004, American power companies are increasingly beginning to trial broadband over power lines (BPL), and obtaining very encouraging results.

On July 14th in Menlo Park, California, AT&T and Pacific Gas and Electric Company announced a 100 resident test of BPL. In this test, the power grid is being used to deliver broadband via wireless signal repeaters on street lampposts. Customers then receive Cisco Wi-Fi phones to make VOIP telephone calls and receive 3 Mbps of wireless broadband access. Since this wireless product is able to bypass physical easements, this new service may be able to traverse past the exclusive right of entry agreements that some PCOs rely upon.

Today in Menlo Park, this is a test and is only a test. AT&T will not be able to consider large scale deployment of this product until next year, when chipmakers promise that they'll deliver the silicon upgrades required for a much faster broadband product through the power grid.

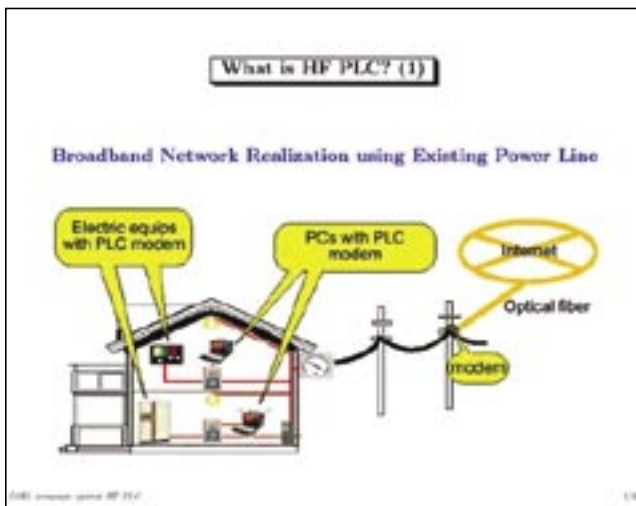
Ameren, a power line company that provides service to more than 1.5 million customers in the Midwest, has also begun studying BPL technology. They want to quantify its profitability and how the packaging of an additional service would affect their legacy product, power. Other power utility companies—most of which are not known for their entrepreneurial

prowess—are likely to proceed prudently and somewhat cautiously.

Elsewhere in America, the tempo seems a bit faster. Internet Service Provider Earthlink has recently announced a 500 home test in Wake County, North Carolina with Progress Energy. They are using Amperion's Wi-Fi equipment and wireless broadband routers as customer premises equipment. Earthlink and Progress Energy plan to make a decision of this "second phase of testing" by the end of this year.

Other trials are ongoing. In October of 2003, the city of Manassas, Virginia, signed an agreement with Powerline Communications to offer every household BPL access by the end of 2004. Current Communications and Cinergy are offering 16,000 residents BPL in Cincinnati, and plan to expand their footprint to 55,000 homes by the end of this year. They currently sell one megabit per second of bandwidth for \$29.95. In the same market, competitors Time Warner offers 3 megabits of service for \$44.95, and Cincinnati Bell's Zoomtown costs \$41.95 for a similar one megabit service. Current Communications is also partnering with smaller municipal and cooperatively owned power companies covering a total of 24 million customers. Reportedly, \$70 million dollars has been committed to this deployment. Also PPL, an electric utility in Pennsylvania with 1.3 million customers, has recently decided to expand their BPL's footprint. Says David Kelly, PPL TelCom's President, "We're meeting with very good results, and that's the reason we are expanding."

Adding power companies offering consumers additional choice at the



broadband party is good public policy, because it will increase competition and provide consumers more alternatives. For competition's sake, says Edmond Thomas of the FCC's Office of Engineering and Technology, "we would applaud it." Michael Power, Chairman of the FCC says broadband over power line technology makes it "theoretically possible to reach every power outlet in America with a broadband connection." Consequently, it's reasonable to assume that the FCC will encourage this technology to blossom.

The companies most at risk are the Regional Bell Operating Companies, the Local Exchange Carriers, and the Cable Television Operators—but another entrant to the broadband party will adversely impact everyone else that's trying to sell broadband, and that includes the PCOs.

The good news for PCOs concerned about another entrant to the broadband competition landscape is that BPL technology is not yet ready for prime time. There are outstanding issues preventing mass deployment of BPL, which includes economies of scale issues (or the requirement that a critical mass of equipment be manufactured to drive down the cost of the equipment), grid conversion costs, and reliability. These issues will be resolved over time as more than two-dozen trials are in progress throughout the United States. And I predict that within a few years, many PCOs will be required to include BPL competition as an element of their strategic planning processes. ■

About the Author

Don Kent has spent over 25 years working with video operators, broadband service providers, and with early phase companies specializing in the delivery of broadband and digital content services. Please address questions or topics that you'd like to see discussed in subsequent columns to DKent@eCablevision.com.

For additional information regarding BPL, visit the following web-sites:

- www.plca.net (the Power-Line Communications Association)
- www.mainnet-plc.com (a company that provides equipment to more than 40 power utilities in 15 countries)
- www.currentgroup.com (a BPL service provider seeking to partner with other power companies and offering service to 16,000 homes in Cincinnati)
- www.uplc.utc.org (a council of electric utilities and technology companies uniting to deliver BPL)
- www.isoc.org/briefings/013/ (an excellent summary of the state of the BPC industry)

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