

BPL to See a Real Deployment, Larger Pilots

June 2004



Source: Central Virginia Electric Co-op, Colleen, Va.

A large broadband over power line (BPL) market pilot is rolling out at Central Virginia Electric Co-op, Colleen, Va. The co-op plans to pass 4,000 homes, with the hope that 25% of those members will sign up for the service.

Co-ops and other utilities across the country continue to test new technologies that may be able to deliver high-speed Internet over power lines. While various hurdles remain before broadband over power line deployments are technically and economically viable for most utilities, 2004 is shaping up to be the year that BPL testing expands beyond the limited demonstrations seen to date.

Cinergy Broadband, a subsidiary of utility [Cinergy Corp.](#), Cincinnati, and [Current Communications Group](#), Germantown, Md., plan to market BPL to 60,000 customers in the Cincinnati area later this year at a charge of \$30 to \$40 a month.

[Central Virginia Electric Co-op](#), Colleen, Va., is

working with BPL provider [International Broadband Electric Communications](#) (IBEC), Huntsville, Ala., to roll out a pilot early this summer. The co-op will market both BPL and standard dial-up Internet service to customers and handle billing in return for a commission. IBEC will own and operate the BPL and dial-up equipment.

IBEC started building the system in late March. Officials at the company expect a significant number of customers to be using the \$30 a month service by mid-June. The goal is to pass 4,000 homes with the trial. One survey indicated that about 25% of those customers may already be interested in BPL.

[South Central Indiana REMC](#), Martinsville, Ind., is also working with IBEC, and will begin a pilot soon after Central Virginia. The South Central pilot will also aim to prove the financial viability of the business model for BPL, as well as the technical aspects.

“If it proves to be feasible at the first substation, we might be able to push further out,” says Kevin Sump, CEO, South Central. Sump says the co-op’s main interest is providing a service to its customers.

Resolving Radio Frequency Interference Issues

One potentially large hurdle for the deployment of broadband over power lines (BPL) in the U.S. is the need to resolve the question of radio frequency interference. A [report](#) issued in late April by the National Telecommunications and Information Administration (NTIA)—an agency of the U.S. Department of Commerce—discusses BPL’s potential interference with Federal radio systems and possible mitigation strategies.

The agency filed its report with the Federal Communications Commission (FCC) in connection with a proceeding to amend FCC rules to allow broadband to be deployed over power lines. NTIA will release Phase 2 of its study later this year. The agency’s study is part of a larger Federal effort to make affordable broadband competitively available to all Americans by 2007.

Broadband Over TV Airwaves?

In mid-May, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking ([PDF 261 KB](#)) to “allow unlicensed radio transmitters to operate in the broadcast television spectrum at locations where that spectrum is not being used.” The unused television airwaves could be utilized to bring broadband and other wireless technologies to more Americans, particularly in rural areas. The frequencies have been left behind by television broadcasters as they convert to over-the-air digital. [Download Adobe Reader](#)

Public comment is now being accepted and a final ruling on the proposal is expected later this year.

As part of the effort, IBEC and South Central will offer dial-up service for \$19.95 a month. In a much smaller area, clustered around one substation near Martinsville, customers will be offered BPL at \$29.95 a month. Initially, the guaranteed speed of the broadband will be only 200 kilobytes per second (kbps), the low end of what is generally considered broadband service, but users should experience higher speeds whenever the system is not fully loaded. The BPL service is also always “on” (no dialing into a modem) and symmetrical, meaning customers will get high-speed service in both directions, not just for

downloads. (Providers often tout that BPL service is faster than the DSL or cable modem with downloads around 640 kbps and uploads at 160 kbps.) According to officials at IBEC, customers can expect even higher speeds from BPL as the technology grows.

On average across the United States, customers pay \$30 to \$40 per month for digital subscriber line (DSL) service and \$40 to \$50 per month for Internet access over cable, though fees can be as much as \$70 per month in some areas.

[Cullman Electric Cooperative](#), Cullman, Ala., has been working with IBEC to test the technical stability and feasibility of BPL at a dozen members’ homes since late summer 2003. (See [Co-ops Test Drive Broadband Over Power Lines](#).) Cullman has opted not to move beyond the technical pilot at this point, says Mike McWaters, the co-op’s vice president of member services and community development.

Co-op interest in BPL technologies has exploded since the beginning of the year, according to Steve Turner, chief operating officer for IBEC. More than two dozen co-ops have expressed serious interest in hosting pilots, Turner says.