

BPL vendors 'scramble' as certification deadline nears

FCC scrutiny may decline in time

The deadline is close for FCC's certification for access BPL.

It goes into force July 7.

Product Safety Engineering (PSE) now has testers now in the field at BPL deployments.

Gear hanging on power lines now is to be grandfathered, the firm's EMC Site Manager Steve Hoke told us Thursday, but hardware makers that want existing gear deployed elsewhere on or after July 7th have to apply for certification.

Vendors will need certification for any new BPL gear.

Certification tests on access BPL's "intentional" radiation -- the part of the technology that sends signals down the power lines -- are done in the field where a specific version of BPL gear is installed on actual power lines, noted Hoke.

Clearly new gear will need to be installed somewhere for certification testing before it's deployed for service.

Every access BPL operator may have to get their system "reviewed annually to make sure their system is in compliance," he added.

That may not be mandatory, he added, but strongly advised by the FCC and thus likely to happen.

He envisions a day when a thousand utilities might be using access BPL -- each needing annual testing.

"Cable TV operators have to go through a full set of testing annually at each one of their locations," he added.

Tampa is a test bed

For access BPL compliance, the FCC requires testing on three typical overhead- and three typical underground-installations, reported Hoke.

Most BPL deployments today are limited tests, he reminded -- on a few utility poles or in an MDU -- and thus don't provide PSE with the physical parameters it needs.

Those might include "a 30' area around the telephone pole," Hoke explained.

"We set up hand picked locations down here that's close to our laboratory

and work with the local utility company" -- Tampa Electric.

PSE was formed in Tampa in 1986 by a former Underwriters Laboratory employee after UL moved from Tampa to Raleigh, NC.

Each particular BPL device "only has to be tested once" to generate the numbers needed for a certification application.

Goodnight G1

Hoke believes most access BPL vendors will allow their existing first generation or G1 gear to be grandfathered -- and apply for FCC certification for their next generation or "rev level" -- coming to market now, Hoke believes.

He's working with "numerous manufacturers" where PSE has been testing old, existing trial systems already installed throughout the US while comparing new generation-two equipment, reported Andrew Robbins, PSE's marketing representative, but they have yet to process an access BPL certification.

That said, "everybody's scrambling -- trying to get to the point where they can start generating this certifiable data."

A PSE engineer doing testing in California the previous week was testing in Maryland last week, said Hoke, and another was in the Northeast.

Vendors "know the deadline is quickly approaching and it's really heating up."

Hoke doesn't believe any applications for access BPL have yet been submitted to the FCC.

"I imagine the FCC is really going to scrutinize each and every one of these applications and it may take 30 to 60 days in the OET [Office of Engineering & Technology] to review these things.

"They may look at them so closely and then have an issue and want something re-tested," warned Hoke.

He thinks the FCC "is going to be very, very, very careful with each one of these applications."

He's been telling his clients for months to budget "a bare minimum of 30 days."

For Hoke that means they're already outside the timing window "as far as I'm concerned."

PSE was among the first testing labs to specialize in testing PLC technology -- originally in-premises gear -- and has a long history of Part 15 testing for a variety of technologies, said Hoke.

He's been doing Part 15 testing for about 16 years, he added.

Why the FCC scrutiny?

The commission breaks its Part 15 testing requirements into verification and certification.

The latter is usually for newer technologies that the commission is studying closely, Hoke explained.

Verification results are kept on file by the hardware maker and only sent to the FCC if the commission asks for them, such as for an investigation of interference complaints.

As new IT gear such as computers and associated peripherals including monitors, mice and keyboards started proliferating in years past -- the FCC required certification testing since "it was such a huge population of products that were going to go out into the real world that had a high potential to create interference."

Certification meant FCC got a full review of everything before it was ever sold.

When the commission gets to a level of comfort with a technology it often drops the certification requirement, Hoke explained, as it did for much of that IT gear.

QUOTE OF THE

WEEK: [The FCC] threw this access BPL into that [certification] category -- I think because they really want to scrutinize it. They want to review every one of these products as they go out into the field until they get a comfort level -- just like computers and

computer monitors I would imagine at some point in time they'll drop the certification requirement ... once they have a 'warm fuzzy.

Product Safety Engineering EMC Site Manager Steve Hoke in an interview

A history of PLC tests

PSE's done Part 15 testing for most of the in-premises BPL makers around the world at one time or another.

The US has hundreds of testing labs but "you could count on one hand" the ones that have done significant PLC testing, said Hoke.

"We've worked with almost every one of these manufacturers."

It was PSE's role with a particular BPL chipset maker that brought the lab most of its early BPL testing experience, noted Robbins.

PSE's reputation grew as vendors began using chipsets based on reference designs the lab had tested for FCC compliance.

The chipset maker's "customer list became our growing customer list," noted Hoke, as chipset makers recommended PSE to their vendor clients for testing gear based on their chips.

"Very quickly we got very heavily into the business," he added.

PSE worked with "some of the

major electronics associations" such the Consumer Electronics Association (CEA) in comparing various technologies "in hopes of finding the best or standardizing a technology," noted Hoke.

"We did a bake-off test for the CEA years ago" where a half dozen manufacturers from around the world brought technology to Tampa for testing by PSE.

"We've done a few of those for other associations."

Part 15 testing for in-premises PLC gear not only prepared it for sale in the US but helped in other markets, too, since the US has the most comprehensive testing requirements, reported Hoke.

Europe's testing standards have been "in flux," he added.

"We serve a lot of clients for European and other markets that produce equipment that's not related to BPL," such as general IT gear and medical devices, noted Robbins.

"We provide a pretty wide variety of testing including safety, telecom, immunity, emissions, but in terms of the BPL-specific equipment we're really focused on tracking the development of the FCC's rule."

Goal: Utility comfort

Hoke believes PSE's involvement in meetings at the FCC played a role in developing FCC's access BPL

certification requirements.

He teamed with stakeholder groups and manufacturers in urging the FCC to create a way to make utilities comfortable with the "high dollar investments" of BPL deployments.

"There really wasn't anything in Part 15 that specifically addressed these products ... to know whether or not what you were installing was going to eventually be compliant."

Thus lots of utilities were "hesitant to make the investment," noted Hoke.

PSE's role in crafting the testing requirements for access BPL in the FCC's BPL order wasn't unofficial.

But those requirements look to Hoke to have been taken almost entirely from a test methodology PSE developed for a foreign PLC maker in 2002.

PSE tested the firm's pre-BPL PLC gear on Tampa Electric's MV lines and created a test report Hoke believed would protect the client "without any question if the FCC were to review it."

That test report was submitted to the FCC later that year.

Latest PSE news

PSE's work with the HomePlug Powerline Alliance moved ahead in December with an announcement that the lab was joining HomePlug's effort to create a command and control BPL specification (www.pseinc.com).