

G.hn placeholder dropped from IEEE P1901

HomePlug, DS2 executives offer very different outlooks

Stakeholders working on the IEEE P1901 200 mbps power line interoperability standard are streamlining it in preparation for final approval -- that may well come before the second quarter of next year, HomePlug Powerline Alliance President Rob Ranck told us yesterday. He added that the placeholder for a third PHY layer within P1901, meant to support the ITU-T's 1 gbps G.hn proposed standard -- was dropped and the final 1901 standard will include only the fast Fourier transform or FFT and Wavelet PHYs previously approved with supermajority support in July (SGT, [Jul-29](#)).

The final P1901 comment resolution process is expected to wrap up in the next few months, said Ranck.

That's fanciful thinking, DS2 CEO Jorge Blasco told us last night as he

described his view of power line chipset vendors and their advocates laboring to prepare for interoperability standards that support access PLC and smart grid applications (more on that later in this story).

The draft IEEE P1901 standard is based on the technology contributed by members of the HomePlug group plus Panasonic (Matsushita) and the key stakeholders in the power line communication industry, including smart grid tech firms. The P1901 draft includes HomePlug AV technology as a key element.

"Utility companies are starting to move forward with HomePlug AV," Ranck said in a phone call from France, where HomePlug is having an interoperability "plug-fest" for HomePlug AV and testing IEEE P1901 features at independent French lab Laboratoire des Applications Numériques. "This will give them the comfort of IEEE standard with backward

compatibility with a significant installed base," said Ranck.

The reason the option to include G.hn in P1901 was dropped was that the ITU spec did not meet the requirements for smart grid for the IEEE P1901 member firms using power line for access, said Ranck.

But G.hn is anything but on its way out, Blasco predicted.

"The critical mass around the G.hn standard is tenfold the critical mass around other proprietary special interest groups promoting specifications for home networking over power line, coax or phone line -- and the same is true for access power line communications (PLC) as a smart grid application," he added, in reference to HomePlug.

Other access providers continue to show interest in G.hn. The standard setting process is moving forward within the ITU. The data link layer of G.hn will gain final approval in May, at the next

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DR group heads to Copenhagen to promote 'green grid' initiative

A new collaborative effort to show how smart grid technologies and practices can help achieve climate-change goals is emerging, with the help of GE and Whirlpool, the Demand Response Coordinating Committee (DRCC) told the press this morning. The Smart Green Grid Initiative (SGGI) plans to host educational events at the upcoming climate-change meetings in Copenhagen, said DRCC, a non-profit group focused on advancing DR.

The UN approved SGGI as an official smart grid delegation to the Copenhagen meetings, DRCC said. SGGI plans to sponsor educational events in the US ahead of the meetings in Copenhagen.

The Pew Center on Global Climate Change is among the groups SGGI will work with in Copenhagen, outside of the official climate-change meetings.

"It is important that we look at all of the options that can help address and mitigate climate change," Eileen Claussen, president

of the Pew Center on Global Climate Change, said in a prepared statement. The smart grid's role in enabling "climate-friendly technologies deserves greater attention," she added.

Smart Grid solutions are "often viewed primarily for their efficiency and cost savings but every kilowatt saved is also a carbon savings," Bob Gilligan, vice president of GE Energy's T&D business, said in a prepared statement. "Add the potential carbon benefits we get through easier integration of more renewable energy, like wind and solar and the smart grid can have a major effect on the carbon impact of our energy infrastructure."

SGGI wants to, among other things, help policymakers and others understand that renewable energy sources are by nature variable and intermittent and thus depend on DR and energy storage solutions to succeed.

More information about SGGI is available at www.smartgreengrid.org.

[\[Comments\]](#)

AEP hires Silver Spring

for Michigan, Ohio: American Electric Power (AEP) is hiring Silver Spring Networks to install smart grid platforms at the utility's operating firms Indiana Michigan Power and AEP Ohio, Silver Spring Networks told the press this morning. AEP plans to use multiple smart grid applications -- including AMI, [DA](#) and HAN, over a unified network.

AEP's goal is to network 5 million homes and businesses throughout its 11-state service territory by 2015, Silver Spring said, noting that GE Energy is set to provide the smart meters and grid management software needed. Cooper Power Systems is to provide DA equipment to improve grid reliability and efficiency.

[\[Comments\]](#)

New York consortium issues progress report as stimulus nears

A key official in New York State's Smart Grid Consortium detailed for us yesterday that group's evolving plans -- that were announced this summer (SGT, [Aug-26](#)).

"We've now got the entire energy space, from generators to those who move the power to regulators and government entities, all as part of the consortium," said Mark Torpey, an R&D program manager with the New York State Energy R&D Authority (NYSEDA), in Albany. "It's broad and it's a formidable task going forward." He is confident the effort will succeed.

"In most other states, each utility has taken its own approach. There are always multiple utilities in a state and I don't see a lot of coordination. We were trying to break down the traditional barriers and share information among the projects."

The consortium, a not-for-profit organization, laid out its plan in a [74-page report](#) released this month.

"If you ask 100 people what 'smart

grid' is, you'll get 105 answers," said Torpey, thus New York's initiative breaks the concept into three areas: enhancing the grid's ability to accept new power sources such as wind and solar; improving its reliability and efficiency in both transmission and distribution, and giving customers more data and power to change their behavior in a way that saves energy.

Participants include all six of the state's utilities, two power generators, six state-government agencies, five universities, an ISO and several corporations -- among them GE, Computer Associates and IBM.

The consortium has 30 projects aimed at meeting those goals and the state asked DOE for \$650 million in stimulus funding. The group plans to match that with funds raised from the state's 21 million power consumers. DOE is due to make its funding decisions next month, he noted.

Torpey believes the consortium will get "some fraction of that funding, no question," but even if the federal money does not come through, "we'll progress down this road anyway."

The plan could cut carbon emissions to targeted levels within three years, he added.

One challenge will be persuading the state legislature to let residential customers be required to pay variable power rates, thus departing from an entrenched protectionist tradition.

Nothing now prevents customers from voluntarily paying variable rates, said Torpey, but "that's a pretty heavy lift."

Ideally, he said, "all customers would be exposed to the volatility and be given the tools to control it. The idea is that if you have the information and controls, you'll make decisions that are appropriate. Some may pay more for power if they use it wastefully."

[\[Comments\]](#)

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meeting of the ITU-T study group that this month approved the physical layer and architecture portion, ITU said last week (SGT, [Oct-19](#)).

"DS2 is the only power line chipset vendor that has shipped more than 1 million chipsets for access power line communications and smart grid applications," Blasco noted. "DS2 is transferring all its access and smart grid solutions to its new DSS9960 chipset which is compliant to ITU-T G.hn, thus making the ITU standard available for smart grid and access applications and backward interoperable with the installed base."

Furthermore, "placing work on enhancements to the G.hn MAC and PHY on the back burner in IEEE P1901 will slow proceedings at IEEE P1901," he added. "It may even be, as the saying goes, 'the straw that broke the camel's back,' as the weight of unfinished business at P1901 mounts," Blasco asserted.

More than 3,000 technical comments sent in this summer to IEEE need to be addressed before P1901 can become a ratified standard, said Blasco.

G.hn offers single-PHY/MAC architecture and looks to consolidate all wired networking -- power line, phone line and coaxial cable -- under the same unified umbrella.

"P1901 has not been able to converge into a single PHY/MAC specification,"

he added, referring to its HomePlug- and Panasonic-compatible PHY layers. "It still includes multiple non-interoperable PHYs and MACs. This means that two P1901 devices may not even interoperate with each other," he added.

G.hn is the answer to "the largest obstacle for deployment of power line technology -- the lack of a single interoperability standard," Chano Gomez, DS2's vice president of marketing, told us in June (SGT, [Jun-02](#)).

G.hn will in the end trump P1901, Blasco predicted yesterday.

"It's going to be a very long process to bring P1901 to a ratified standard and it's likely that by the time P1901 finishes, the majority of the market will be deploying G.hn for smart grid and home networking applications," he said, noting ITU-T's move last week.

Next on the drawing board at HomePlug is "super-lightweight version of HomePlug AV, called HomePlug Green PHY that addresses connectivity of the smart grid for the home," reported Ranck, and will be marketed to appliance makers and utilities that want to add smart grid networking "for very low cost," said Ranck.

HomePlug plans to start putting its certification logo on IEEE 1901 products next year, mimicking the WiFi Alliance's assurance that wireless products comply with IEEE 802.11, he added.

[\[Comments\]](#)

How is PG&E handling Bakersfield AMI backlash?

Pacific Gas & Electric (PG&E) and two meter makers yesterday responded to a Sunday [San Francisco Chronicle story](#) on ratepayers in Bakersfield, Calif that equated March rate hikes with new smart meters that were installed in the spring and summer. Hotter-than-average temperatures and a rate increase helped boost those bills, the utility noted.

"Customers used more power in June and July, which usually happens but this year there was also a rate impact," PG&E spokesman Paul Moreno told us yesterday. "At the same time, many received their smart meters and some drew the conclusion that the meter was to blame."

San Francisco-based PG&E has installed 1.7 million smart power meters since October 2008, when it announced plans to convert all of its meters. That goal will be reached by mid-2012, said Moreno.

PG&E's meters are made by either General Electric or Landis & Gyr.

So were the bigger bills reflecting flawed meter reads?

GE Marketing Manager Kerry Evans is confident GE's meters are not defective, he told us yesterday. Each meter the firm turns out is tested against ANSI standards in a lab on the premises and is certified as accurate within 0.2% of standardized

values, he added. Some random groups of meters are retested before shipment. GE does not plan to change that testing procedures.

Landis & Gyr spokesman Stan March told us that his firm goes even further, testing and calibrating every meter individually then randomly picking roughly 5% of them for a second round of testing on separate equipment.

The utility itself then tests smart meters it has received including random spot-testing from palettes of meters it gets plus tests requested by consumers and regular checks to confirm smart meters are reporting results within the normal range of a customer's use history.

The "smart" technology inside the first generation of PG&E's smart meters, many of which are still in use, is made by Distribution Control Systems of St Louis. First-generation PG&E meters sent meter data to the utility via power lines. The IOU's second generation of meters uses technology from Silver Springs Networks of Redwood City, Calif, that sends data wirelessly.

Moreno described a problem the utility is having in cases numbering "dozens or hundreds" of customers where the meter itself was working fine but the network used to collect meter readings "wasn't completed," he explained. That means customer power use had to be estimated, leading to over- or under-charging.

"Visibility of those problems increased as we got into higher summer usage," he added, and the utility is still working to fix those issues.

Despite such problems, PG&E believes smart meters are critically

3 stories in 1.5 minutes

Arcadian, Itron team

up to bolster products:

Broadband networks firm Arcadian Networks entered a non-exclusive deal with Itron to expand the ways utilities and municipalities can use the two firm's gear, Itron strategy director Joe Ball told us. A utility using an Arcadian network to read meter data, for example, could add the ability to shut down selected parts of its transmission or distribution grid. "The idea is to extend both their networks and our own products so that each is more valuable to customers," Ball said. The value of the deal was not revealed.

Smart grid groups to

meet at NARUC event: The NARUC-FERC collaboratives on smart grid and DR will meet Sunday, Nov 15, in Chicago at NARUC's annual convention, the state regulator association told the press yesterday. Smart grid is among the topics to be

addressed in panel discussions at the convention that runs Nov 15-18. GE Energy CEO John Krenicki and Exelon CEO John Rowe are among those scheduled to speak.

Smart grid gets shot

at green energy prize: Detroit Edison parent DTE Energy and the University of Michigan are including the smart grid in their second annual Clean Energy Prize competition, DTE told the press yesterday. The competition is meant to help move "clean energy technologies from the laboratory to commercial production," it said, noting that smart grid technologies and energy storage are among the business ideas on which the teams can focus. The teams with winning ideas will share \$100,000 in prize money to be awarded in the spring of 2010. Details are available at www.dtecleanenergyprize.com.

[\[Comments\]](#)

important and essential, for example, in its Smart Rate program. The program offers discounts to consumers for summer power used other than between 2:00 pm and 7:00 pm on the roughly 15 days/year that PG&E designates as "Smart Days." Those days are declared 24 hours in advance and coincide with the highest power demands. Participants have to agree to pay a surcharge on power used during the five-hour period.

Put into place in the summer of 2008, the program saved participants between \$20-100 each over the summer, Moreno said. "Without smart meters, which tell us hourly energy usage, we couldn't make this available," he added. "Our advanced meters will more than pay for themselves over their 20-year accounting-life period and we know they can save our customers money."

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