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NEMA members given first shot at breakthrough technologies

Power line communications (PLC), or broadband over power lines (BPL) to the FCC, may be on an "event horizon" much bigger than anyone could have imagined.

So says Luke Stewart, CEO of Media Fusion, a firm at the cutting edge of PLC-related technology.

PLC lets users plug a computer or other device's power cord into the regular wall A/C power socket and connect to the internet and all the data and voice communications it offers.

Media Fusion specializes in cutting "noise" on power lines to improve PLC data speeds.

Noise in this case comes from the grid itself plus external forces like weather and sunspots.

PLC has been promising but problems have dampened interest in the system to date.

All that may be about to change, Stewart believes.

He sees a convergence of his technology with super-fast computer chips, network monitoring and modeling software setting the scene for something remarkable.

Chip-to-chip hyper-transport communication has recently been reported at speeds around 12 GB/second.

Stewart believes he can free up the grid of enough noise to let PLC firms use some of that incredible bandwidth.

But don't throw away the fiber network just yet.

Stewart realized linking PLC with existing and unused fiber, WiFi and other networks could be a win-win.

He signed Eagle Broadband to help them use PLC to expand their markets to new customers beyond their existing networks.

He has interest from others hoping to take advantage of the technology (look here soon for how firms like Unified Technologies are changing the content frontier).

Stewart calls this marriage of networks "hybrid PLC."

He prefers using available networks to find shorter paths to the customer over sticking solely to power lines and using repeaters to move the data along.

Short term, PLC can help make content and service providers more competitive.

Long term — PLC could put super-fast communications in virtually every electric socket on the planet.

If the speeds some predict become a reality, it seems the limit on what could be delivered to that power socket may shrink away — and very soon.

If that happens, very smart people will no doubt invent uses of the technology that we can't begin to dream up.

How about a clothes washer that monitors the real-time price of power (okay we said we were dreaming) and only runs when the price drops to a pre-set number.

What if that washer called you on your mobile phone when it was alerted that the price for power might go lower than expected — and asked if it should hold out for the lower price.

Stewart would like to see the nation's power grid monitoring itself all the time and when trouble arises, isolating the trouble spot to prevent blackouts.

He imagines PLC helping to bring customers a wide array of products at low prices and helping marketers find brilliant

Ohio marketers rebel against new grid charges

Ohio marketers see trouble ahead if FirstEnergy is allowed to make them schedule and pay for their own transmission and ancillary services.

The changes are needed, FirstEnergy told the PUC, as its transfers its grid to American Transmission System (ATS) to turn over control to Midwest ISO (RT, 9/19).

Joining MISO does not bar the utility from providing coordinated scheduling, transmission and ancillary services as the IOU wants, commenters wrote.

Besides, FirstEnergy is required to provide those services and bill them to customers in its rates, explained WPS Energy Services, MidAmerican Energy, Constellation NewEnergy and Strategic Energy, leading marketers protesting as the Ohio Marketers' Group.

FirstEnergy wants to keep billing and collecting for transmission and ancillary services even though it's asking marketers to pay for them, the group noted.

FirstEnergy would reimburse the marketers for some but not all the costs and keep the difference — even if some customers overpay, the marketers complained.

Worse yet, the IOU gets to keep the money for 10 days before it gives it to the marketers, enjoying the float.

The restructuring law froze transmission and ancillary service costs throughout the market development period, along with capped distribution and generation rates.

The difference between what the IOUs could collect from customers under the caps and what they actually spent will be repaid by customers in the form of generation and regulatory asset transition charges over nine years, the marketers noted, "to assist FirstEnergy's change from charging above market rates for power to competing at market rates."

Why is FirstEnergy doing this?

MISO tariffs are higher than FirstEnergy's and since customer rates are capped, the utility will have to eat the extra costs, refile for a higher transition charge and lower its distribution fee to make up the difference, the marketers wrote.

Besides saddling marketers unexpectedly with having to schedule their own grid and ancillary services, FirstEnergy is actually trying illegally to raise capped rates, marketers added, by proposing "a scheme to push transmission costs into the power costs charged by marketers."

The marketers see a connection between FirstEnergy's plan and its abrupt canceling of their transmission ATS accords Oct 1 — a move WPS protested to FERC (RT, 9/25).

Canceling those contracts could jeopardize retail access customers' claims to grandfathered or native-load firm or financial transmission rights, the marketers warned.

What's the rush to join MISO, an RTO still in "day one" mode that provides little chance to cut G&T costs, marketers asked.

Marketers see little reason to rush into MISO "in such a pell-mell fashion." Instead they want the cases consolidated.

FirstEnergy had filed separately for subsidiaries Cleveland Electric Illuminating, Toledo Edison and Ohio Edison.

Marketers want a hearing.

6 stories in 2 minutes

Austrian figures Europe needs $1 trillion: Members of the European Union will have to spend $1+ trillion on new energy infrastructure, Hans Haider, CEO of Austria's Verbundgesellschaft, predicted yesterday in Brussels, but competition ministries in most EU nations have forbidden long-term power contracts. Yet it's impossible to build plants if you don't know who will buy the power, Haider said. He predicted a supply gap. "Prices will go up and volatility will follow." Haider figues the EU will need $430 billion to upgrade distribution, $130 billion for the grid to connect markets and $600 billion for new generation. The breakeven for power, Haider noted, is $30/mwh but prices are below that.

Did Georgia do it right? Check the math. In Ohio 41.2% of gas customers shop (RT, yesterday). In Pennsylvania it's 7.8% (RT, 10/10). In Kentucky, about one-third of Columbia Gas customers shop (RT, 9/30) and in Washington, DC, 17% of residential and 31% of C&Is shop for gas (RT, 9/5). Who beats them all? Georgia, of course, where the incumbent was put out of the merchant business. Customers who can't find a marketer get their gas from Scana Energy, who's got the POLR concession now. How many customers does the POLR serve? Just 31,224 (2.1%) out of almost 1.5 million gas customers, according to Atlanta Gas Light's Oct 1 pooling report. That means nine marketers are competing for and serving 97.9% of Georgia gas customers.

PPL Energy Plus (PPL) and FuelCell Energy finished installing a gas-fired 250-kw Direct FuelCell plant at the Sheraton Hotel in Parsippany, NJ, the second of two they're installing for the Starwood hotel chain with the prospect of more to come. PPL signed up Starwood (think Sheraton, Westin, St Regis) — one of the world's biggest hoteliers with 740 properties — for a master energy service agreement that could mean more fuel cells in more of the chain's hotels. PPL owns, operates

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ways to use his technology.

To that end he partnered with NEMA — offering NEMA members preferential access to his technology.

In exchange Stewart gets guidance and feedback from marketers and content providers who can put his technology to great use.

"In the technology business it's easy to get carried away with technology," Stewart told RT.

In NEMA Stewart found "a lot of people that have been wrestling with market questions, efficiency questions, customer relationships and having a far better feel of how a technology like ours might be used," he explained.

Stewart's vision of open use of technology fits well with NEMA's vision of open competition bringing low-cost energy and services to everyone.

Media Fusion brings to NEMA a "whole new slate of potential products that are not only higher quality and lower price," said NEMA chief Craig Goodman, "but they could revolutionize the way, not only content is delivered, but the number of people and the classes of people who can now afford products, technologies and services that no one ever dreamed about when we started the restructuring movement."

NEMA "is on the vanguard of those people who are already switching and understand the value of an open marketplace," Goodman continued.

"With NEMA's new advocacy strategy of partnering with utilities and creating win-win solutions, Media Fusion's offer to give this technology preferentially to NEMA members should be an enormous incentive, not only to our members, but to utilities and technology companies all over the world to get involved in the restructuring of the US market," said Goodman, "at which point the political and economic pressures will be enormous."

Utilities have another reason to embrace the new technology — it wouldn't hurt those charged with improving the grid to suddenly have the entertainment, communications and other industries invested and investing in those improvements.

Utilities can benefit from a boost in reliability plus "create unregulated income streams that could revalue their asset base with very little downside risk," said Goodman.

SMD opponents against muni telecom operations

Progress & Freedom Foundation's on-again, off-again advocacy of open markets is on again.

The "conservative" thinktank has put aside its opposition to SMD and other threats to monopoly (RT, 1/24) this week to assault cities that get into telecom.

"While the mega-trend in telecom has been for more consumer choice and less government regulation, evidence suggests that a disturbing counter-trend is gathering some force," the foundation warned forgetting for the ideeological moment that some city telecom offers the only competition in some markets.

Munis offering cable, internet access, fiber optic, local telecom service, long distance and wireless grew from 258 in January 2001 to 480 last month.

PFF feels threatened by the growth in long-distance service (230%) and wireless (1,400%).

Local telephone service is offered by 39 munis and nearly 33 offer long distance.

The most popular type of service offered by munis is data networks, up 167% from 2001 and nearly 55% of munis with some form of telecom service offer it.

Fiber leasing is up 145% from 2001 and more than 40% of the munis surveyed offer it, the report said, while ISP offerings more than doubled to 128.

In addition to cable TV services, the report noted, at least 70 munis sell broadband services through cable modems or DSL.

PFF does not like that cities have access to cheap capital through tax-free bonds unavailable to competitors while "managers of the quasi-public enterprise increasingly respond to political rather than commercial incentives."

"The effect of this reliance on political incentives, based on administrative rules rather than market signals, tends to be biased towards producers rather than consumers."

Publicly owned utilities don't pay taxes, the foundation reminded, or collect fees or taxes for the services they offer.

Public entities seek broad or even universal market penetration regardless of cost, the foundation said, and are "less focused on the need to rationally assess risks and the ability to make a profit."

A city that is both the regulator and a service provider, the report added, "may discourage investments in new services