

# *T&D World Supplement Vendor Planner*

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Supplement is ROB in our May Issue

Ad Close: April 9, 2012

Materials Due: April 16, 2012

## *Subj:* **Smart Grid Communication Platform**

### *Inside:*

#### **Page 1. The Supplement**

*A letter from IEC President, John Janowiak*

#### **Page 2. Our Writer's Sneak Preview**

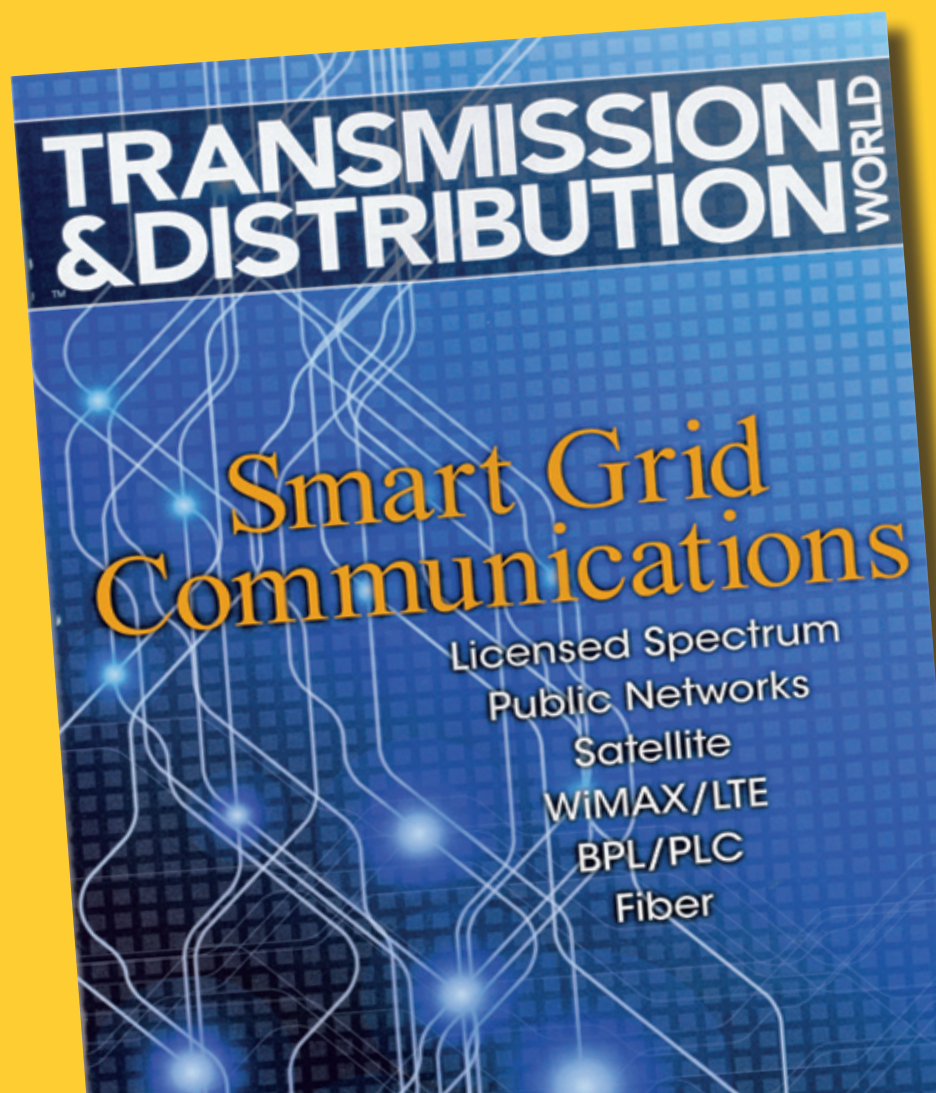
*Our cadre of writers offer snippets from their in-depth articles.*

#### **Page 3. Why this? Why now?**

*T&D World Editorial Director Rick Bush gives industry insight and explain why this supplement is so critical to your success.*

#### **Page 4. Partner with us.**

*Contact us for exposure — worldwide.*





# International Engineering Consortium

Smart grid deployments are modernizing the century-old electric grid. This incredible undertaking requires the electric utility and information and communication technologies (ICT) industries to work together as never before, leveraging each industry's business and technology opportunities.

The Grid ComForum conference series was conceived by the International Engineering Consortium (IEC) specifically to enhance this relationship. Now we're partnering with *Transmission and Distribution World* magazine as our official media partner. As a consequence, *T&D World* is using their on-line and print channels to drive attendance to our events. At the same time, we are providing contacts and resources as we jointly work to create the IEC sponsored print and on-line supplement, *Communication Platforms: Key to Smart Grid*. This supplement goes to key electric utility decision makers providing a snapshot of key strategy issues, shares what utilities are experiencing in smart grid deployment and demonstrating how the smart grid ICT market is shaking out.

From the ICT industry viewpoint, the electric utility industry offers diverse and sustainable growth opportunities. Utilities have spent over \$3 billion annually on telecommunications equipment and services during the last 2 years, an increase of 21 percent over 2009 levels. These expenditures, particularly for wireless communications, are expected to about double by 2016, primarily in support of the 65 million smart meters expected to be deployed by 2020. That's good news to the U.S. ICT industry in light of its 8 percent recession-based revenue decline in 2009.

While smart meters are highly visible elements of smart grid deployments, they are only part of the picture. And that's the ICT challenge: the communication platform, which could be made up of several different networks and technologies, is being asked to provide large quantities of latency tolerant meter data while also being available to reliably send unpredictable high speed bursts of emergency grid control data. That's a tall order when utilities are also being pressed to hold down capital expenditures.

Now utilities are using their system design, construction and management skills to build communication platforms to support smart grid. Not that communications are anything new to the industry – utilities already have a combined communications network in North America second in size only to the telecommunications industry itself. These utility networks are highly reliable – most remained operational when many public networks were knocked out by recent storms. The bottom line is that the utility and ICT industries have unique opportunities to benefit each other.

Please look through the enclosed description of the *Communication Platforms: Key to Smart Grid* supplement: to be published this spring. We will also circulate copies at our the next Grid ComForum.

I encourage you to provide advertising support for this supplement which goes to the readers we are trying to reach, both within IEC and with Grid ComForum.

All the best,

A handwritten signature in black ink that reads "John R. Janowiak". The signature is fluid and cursive.

John R. Janowiak

President

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***Smart Grid Initiatives and Grid ComForum***

***by John Egan***

As 2012 begins, the electric utility industry is another year into its diverse Smart Grid initiatives. Deployments across the nation are accelerating. Strategies are being implemented. Telecommunications platforms are being selected. Regulators are weighing in. The lead article in the supplement features insights, recommendations, cautions, and projections from Smart Grid leaders at Arizona Public Service Company, Pacific Gas & Electric, Pepco, San Diego Gas & Electric, and Southern California Edison.

***Communications Trends and Observations:***

***by Chuck Newton, Newton-Evans Research***

This article looks at both security and operational effectiveness of handling data from metering and distribution automation initiatives with utilities finding a lack of available spectrum for some broadband applications. Utilities also show some reluctance to shift from privately owned/operated networks.

***Lee Harrison Interviews Utility Communications Professionals***

Today, many utilities already operate with a half-dozen or so different legacy communications systems. To meet Smart Grid communication needs, many utilities are developing and building advanced hybrid communications systems. These systems can employ any combination of broadband over power line, digital microwave, fiber optics, satellite, wireless technologies such as WiMax, licensed and unlicensed radio, cellular and mesh networks based on unlicensed spectrum. Many utilities are moving forward and are already seeing the benefits.



***Rick Bush, Editorial Director  
Transmission & Distribution World***

To Our Vendor Community: We've seen a lot of hype about communications platforms. But communication technologies don't scare electric utilities. After all they already run the second largest communication network in North America after the telecom industry itself.

And now Power and Communications have combined with a partner: Grid ComForum.

***Communication Platforms: Key to Smart Grid***

Across the industry, lessons are being learned at an ever-accelerated pace. The consequences of failure are rising each day. Against this high-drama, multibillion-dollar backdrop, Smart Grid leaders have a number of recommendations and thoughts about the communications systems that support Smart Grid-related projects. The lead article "Smart Grid Communications: Not Only About Technology" features insights, recommendations, cautions, and projections from Smart Grid leaders at Arizona Public Service Company, Pacific Gas & Electric, Pepco, San Diego Gas & Electric, and Southern California Edison. One leader told us: "You can get the telecommunications technology right, and install the equipment correctly, but if you don't change the culture at the same time as you change the hardware and software, your Smart Grid project will fail."

But technology is key and the article "Adopting and Adapting: A Communications Strategy for the Smart Grid" will explore how several utilities have blended their legacy systems with the latest technology to create Second Generation Smart Grid communications systems, and "The Smart Companies behind Smart Grid Telecom" will present the astounding range of technologies available to utility planners.

It's no secret that if utilities and society at large are to realize the anticipated benefits of the Smart Grid – increased efficiency, safety, reliability, and security along with a lower carbon footprint – utilities first need to invest in communications systems that are also efficient, safe, reliable, and secure. But in North America, where geography and topography are as varied as population density, one size definitely does not fit all: indeed, most utilities already operate with a half-dozen or so different legacy communications systems.

So, it's no surprise that in moving toward the Smart Grid many utilities are developing and building advanced hybrid communications systems that employ any combination of broadband over power line, digital microwave, fiber optics, satellite, wireless technologies such as WiMax, licensed and unlicensed radio, cellular and mesh networks based on unlicensed spectrum – and many are already seeing the benefits.

No matter what combination of communications technologies, the key to success is sound planning and solid execution.

## Contact Us Today for Special Pricing

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