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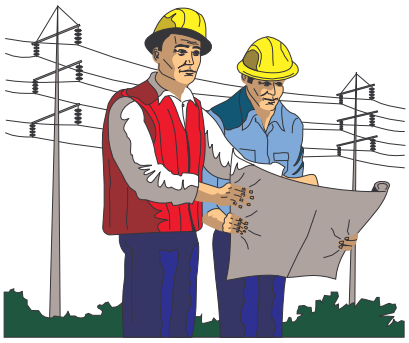
The New Midwest Power Market Regulation



Date/Time: Thursday, May 27, 2004, 11:45 AM - 1:00 PM
Speaker: Don Neumeyer, PE, Electrical Engineer, Public Service Commission of WI
Location: Rocky Rococo's Pizza, 7952 Tree Lane (Madison Beltline Hwy. at Mineral Pt. Rd.), 608.829.1444
Menu: Pizza buffet, salad and soft drinks (cost $10.00, free for student members)
RSVP: by May 24th to Les Schroeder via email (l.schroeder@ieee.org) or call 608.267.4448

Non-member guests are always welcome!

Don Neumeyer will discuss the role of the regulators with the many new market participants in the new upcoming developments in the Midwest electric power market. This is the third session in this year's meetings focusing on Electric Power—the other two having been the viewpoint from industry and academia.

Some of the topics to be covered include:

- the mix of physics meeting new economics with federal and state rights being delineated,
- the players and their jurisdictions – MISO & PJM, MAIN & MAPP, FERC & NERC, TCOs & GENCOs, LSEs, and PSCs,
- the new power market and how it is designed to work with FTRs, LMP, Day ahead commitment, congestion, central dispatch, and a resource adequacy market,
- the combined electrical view of facilities that might come in the Midwest

Don Neumeyer received his B.S. in Electrical Engineering from the University of Missouri at Rolla. He has over 30 years of experience in the power industry. Don is a planning engineer with the Public Service Commission of Wisconsin. His primary responsibilities include: reviewing proposed transmission and generation projects, and monitoring the new MISO market development. Prior to joining the PSC in 2002, he was a national consultant working with the deregulation processes on the east and west coasts. Other previous positions he has held include being a university plant engineer and a utility planning engineer.

Summer Recess: No Section Meetings June - August

Great Lakes Biomedical Conference

The Great Lakes Biomedical Conference is scheduled for June 4, 2004 at the Medical College of Wisconsin in Milwaukee, WI. The theme of this year's conference is "From Vision to Reality", and will focus on emerging technologies under investigation at the major leading research institutions in the midwest, and strategies for driving these technologies to the marketplace most effectively. Several major institutions have committed to participate by sending leading researchers and top technology transfer officials for

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presentations on specific new opportunities available in the areas of imaging/devices, nanotechnology, bioinformatics, and life sciences. These institutions include:

Argonne National Laboratory
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Ongoing agenda updates, registration forms, poster calls, and other information are at <http://www.eng.mu.edu/glbc/>. Industry participants will be on hand for discussions; plenary sessions include:

"Biomedical Imaging Today and Tomorrow: Fusion of Form and Function", Dr. Richard Robb, Director Biomedical Engineering Program and Biomedical Imaging, Mayo Clinic

"Building Alliances with Large Pharma and Device Firms—Strategies and Case Studies", Dr. Suzanne Lebold, VP, Global Licensing and New Business Development, Abbott Laboratories, Chris Unger, Chief Engineer, Global Components Engineering, GE Medical Systems

"Intellectual Property Protection Strategies for Biomedical Applications", Charles S. Sara, IP Partner, DeWitt Ross & Stevens, S.C., Mark Kassel, IP Partner, Foley and Lardner, Thomas Miller, IP Partner, Michael Best & Friedrich

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Note: IEEE members receive a 50% discount off the normal corporate rate for attendance.

Hybrid Vehicles Spell Savings for Those Who Pay the Price

by Terry Costlow

We are seeing more and more hybrid vehicles on U.S. roads as their popularity grows, but questions remain about their general acceptance and their overall impact on meeting tighter government regulations for fuel economy and low emissions.

Automakers altered their view of electric power dramatically after all-electric vehicles failed to gain ground in the marketplace. "Plugging a car in" is no longer in the plans; instead, new vehicles use brake-generated power to help the engine recharge battery packs. The fuel savings can be significant. The hybrid version of Ford's Escape SUV that should hit the market this summer has a government rating of 35 to 40 miles per gallon (mpg) for city driving, according to Mary Ann Wright, chief engineer for Ford's Hybrid Escape program. This rating is roughly double the 19 mpg rating of the conventional V-6 version and should help trim emissions substantially.

However, the fuel savings come at a price. "Hybrids will always carry a cost premium over gas engines because they have more components," said David Hermance, executive engineer at Toyota Technical Center of Ann Arbor, Mich.

Most studies show that hybrid car buyers are willing to spend more to play a part in cleaning up the air. A J.D. Power and Associates survey shows that 43 percent of car buyers would consider a hybrid if the price differential between hybrid and conventional models were $1,500; however, only 20 percent would consider the switch with a price differential of $4,000. "But that's 20 percent of 17 million, which is still a significant number," said Walter McManus, executive director at J.D. Power & Associates.

Recouping that pricing premium won't come from fuel savings. It will take someone who drives 15,000 miles per year close to a decade to recoup the premium price they pay for a hybrid, which generally costs $2,000-$4,000 more than a similar gas-only model. However, McManus noted that drivers who expressed the most interest in hybrids expect sharply higher gasoline prices than others. If they're correct, they would recoup their investment more quickly.

Automakers largely say that hybrid driving performance will rival that of comparable gasoline-powered cars. "We're selling SUVs based on performance, and then giving them good fuel economy and hoping (consumers will) tell their friends," Hermance said. That word-of-mouth will play a significant role in helping hybrids gain market acceptance.

Hybrid Technology: It's Not Just for Cars

Although cars are getting most of the current public attention, other transportation areas are applying hybrid technology. General Motors is having solid success with its Allison bus program, which could help public transportation agencies trim fuel consumption and emissions. The Seattle area's regional transportation agency has purchased hundreds of hybrid buses, and a handful of other cities have begun pilot programs. The buses' significant size and operating conditions can play a significant role in reducing the nation's fuel consumption.

Vehicles over 4,900 pounds consume 20 percent of the nation's fuel, noted Peter Savagian, engineering director at GM Hybrid Powertrain Systems. Because of this, "you get the most fuel savings when you apply hybrids to the largest vehicles."

However, others note that cars consume the largest percentage of the gasoline burned for ground transportation, so hybrid cars can make a significant dent in U.S. fuel imports. "It takes only 14 small- to mid-sized hybrid vehicles to match the fuel savings of one bus," said Hermance, who estimated that since Toyota began shipping its Prius hybrid in 2000, that model alone accounts for 25 million gallons of gas in the United States alone.

Can Other Alternatives Compete?

The jury is still out on the short-term market success of hybrids. Some analysts suggest that hybrids are the only alternative technology that will help automakers meet corporate average fuel economy (CAFE) regulations during the next several years. Might other alternative technologies, such as fuel cells, compete or replace hybrids in the coming years? "I doubt it," said McManus.

Terry Costlow has written about the electronics industry for more than 20 years, covering a wide range of technologies and topics.

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