



Smart Grid Class

August 10, 2010 • Orlando, Florida • 9:00 a.m. - 4:00 p.m

Workshop overview

The Smart grid is not a matter of if, or a matter of when. The smart grid is being implemented in utilities around the world and it is a matter of how quickly it will be implemented in every utility in North America. The smart grid class explains what a grid is, the differences between a dumb grid and a smart grid, and the mandates that ensure that a smart grid will be implemented in each utility. The economics of how a smart grid will pay for itself is covered including savings resulting from eliminating or postponing capital improvements, from decreasing a utility's energy and demand costs for purchased energy, from increasing revenues by decreasing outage times and from reducing labor-overtime costs by decreasing outage times. The use of state-of-the-art technologies, such as phasor measurement and power line carrier, are covered in a way that people without technical backgrounds can grasp the basics of the technology, and how the technologies are used in a smart-grid system. This includes a clear description of the technology behind power line carrier that is now in use that allows distribution lines to be used for high-speed Internet access.

You will Learn

- The economics of a smart grid, how to select smart-grid systems and equipment
- Who should be a member of a smart-grid implementation team
- The technologies of a smart grid including the association with automated meter reading systems
- The automated isolation of problems and re-routing of power, called a self-healing system

Key Topics

- What is a smart grid?
- The economics of a smart grid
- Transmission grid control during loss of transmission during summer and winter peaks
- Mandate for standardization and what every utility needs to do to ensure standardization
- FERC and NERC at odds with the governing bodies in implementing a smart grid
- Phasors – the basics
- Phasor measurements and power flow
- Integrating renewable generation
- Time -of-use pricing using two-way communications

Who Should Attend?

Utility managers, electrical engineers, IT professionals, engineer technicians, substation electricians, metering technicians, relay technicians, line-worker supervisors, designers, planners, customer service supervisors, electricians, journeymen linemen, line construction personnel, design engineers, drafters, field crews, and support staff.

Registration Deadline: July 26, 2010

Registration fee (Includes lunch)

\$225 per person for FMEA utility and associate members
\$325 per person for non-members

Instructor

A.R. "Skip" Collier, Professional Training Systems, Portland, Oregon

Continuing Education Credits

5 PDH credits for this class

Cancellation policy

Cancellations after July 27 will be charged 25 percent of the registration fee. No shows will be charged 50 percent of the registration fee.

Questions

Contact **Cheryl Anderson**, Director of Training and Member Services at **(850) 251-5465**.

Workshop location

Orlando Utilities Commission
Reliable Plaza
100 West Anderson Street
Orlando, FL 32801
(407) 423-9100, ext 2371

Hotel location

Grand Bohemian Hotel
325 S. Orange Avenue
Orlando, FL 32801
Phone: (407) 313-9000
Room Rate: \$108 ask for the government rate



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Workshop registration form

Please complete the following registration form and either fax or e-mail it to FMEA. Duplicate and complete this form for each person attending.

Please check the correct category:

- Municipal Utility Associate Member Electric Cooperative Investor-owned Utility Non-member

Full name Nickname for badge

Title

Utility/Company

Address City State Zip

Phone () Fax () Cell ()

E-mail (Required for Confirmation)

Payment information: \$225 for FMEA members \$325 for non-members

Check enclosed for \$ Please make checks payable to FMEA.

Charge my: Visa Mastercard AMEX Bill me (FMEA utilities only) in the amount of

Cardholder name

Card number Exp. date CCV Code

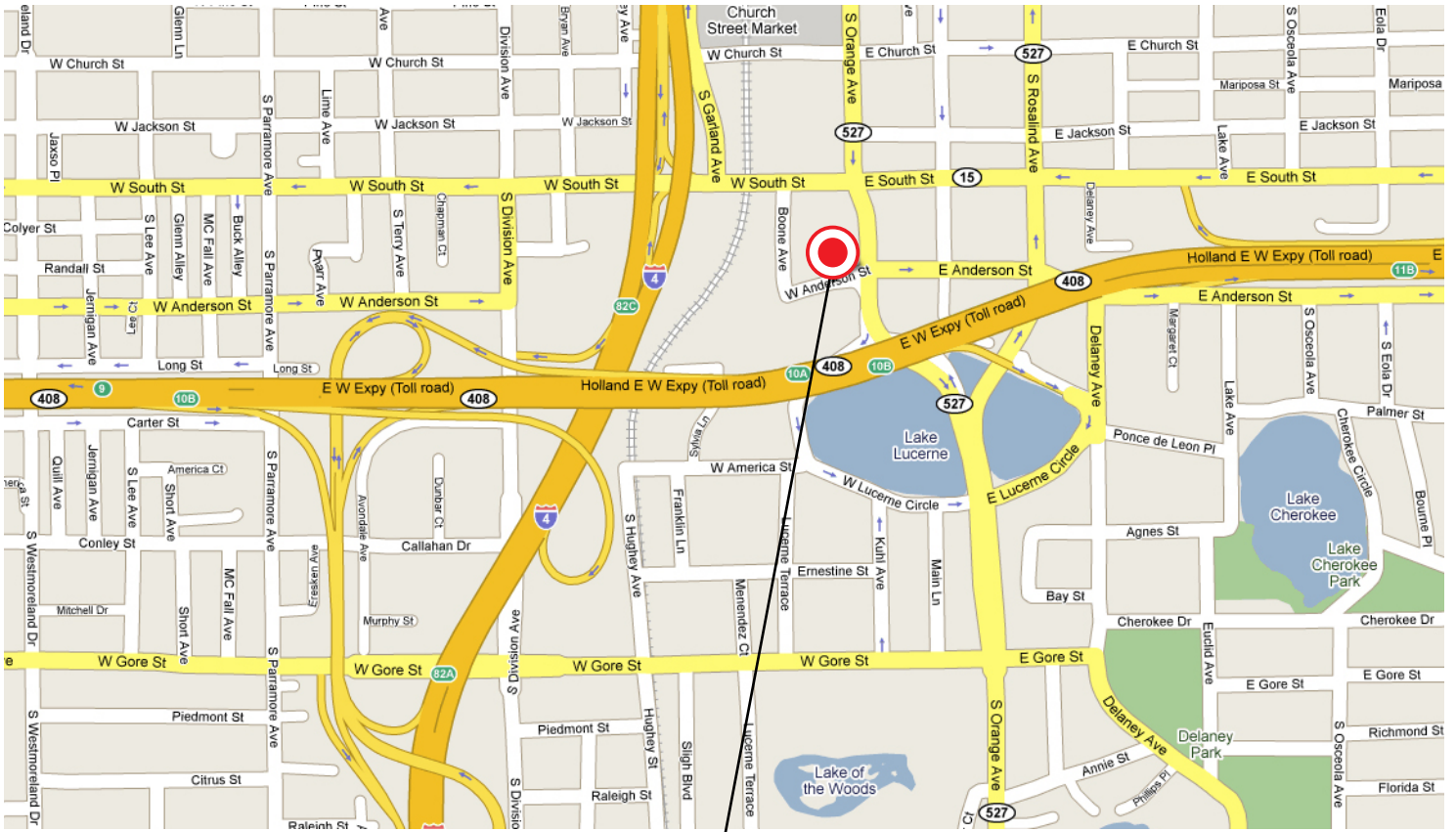
Cardholder signature

FAX COMPLETED FORM TO FMEA AT: (850) 224-2831 or (850) 222-0358

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FMEA, P.O. Box 10114, Tallahassee, FL 32302-2114
Tel: (850) 224-3314 Fax: (850) 224-2831 E-mail: fmea@publicpower.com
www.publicpower.com

For over 65 years, the Florida Municipal Electric Association has supported and strengthened Florida's community-owned municipal utilities, their 6,000 employees, and the 3 million Floridians they serve. FMEA's Utility Training Institute offers statewide training and certification programs for Florida's municipal electric utilities, electric cooperatives and investor-owned utilities.



Orlando Utilities Commission

Reliable Plaza

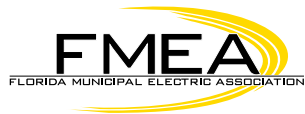
100 West Anderson Street
Orlando, FL 32801

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325 S. Orange Avenue
Orlando, FL 32801
Phone: (407) 313-9000

For Assistance Contact:

Cheryl Anderson (850) 251-5465
FMEA Director of Training & Member Services
Reliable Plaza (407) 423-9100, ext 2371
FMEA Office (850) 224-3314



From the North (via I-75)

- I-75 South toward Tampa
- Take exit 328 on the left for Florida’s Turnpike South toward Orlando0.7 mi
- Merge onto Florida’s Turnpike/Ronald Reagan Turnpike/SR-91 *Toll road*41.4 mi
- Take exit 265 for SR-408 Toll East toward Orlando/Titusville *Toll road*1.1 mi
- Merge onto East-West Expy/SR-408 East *Toll road*13.0 mi
- Take exit 10B to merge onto I-4 East toward Daytona Beach 0.9 mi
- Exit on the left onto West South St. 0.2 mi
- Turn right at Boone Ave. 0.1 mi
- Boone Ave turns left and becomes West Anderson St. 256 ft

From the North (via I-95)

- I-95 South toward Daytona Beach
- Take exit 260B to merge onto I-4 West toward Orlando 49.9 mi
- Take exit 82C toward Anderson St. 0.1 mi
- Turn right at South Division Ave. 0.2 mi
- Turn right at West South St. 0.3 mi
- Turn right at Boone Ave. 0.1 mi
- Boone Ave. turns left and becomes West Anderson St. 256 ft

From the South (Miami)

- Head south on South Miami Ave. toward SW 1st. St/SR-968 331 ft
- Turn right onto the ramp to I-95 North 404 ft
- Keep right at the fork, follow signs for I-95 North and merge onto I-95 North .. 10.4 mi
- Take exit 12A on the left for Florida’s Turnpike/State Hwy 826 West 0.8 mi
- Keep left at the fork to continue toward Florida’s Turnpike N/SR-91 and merge onto Florida’s Turnpike N/SR-91 *Toll road* 216 mi
- Take exit 259 for I-4 toward Tampa/Orlando *Toll road* 0.4 mi
- Keep right at the fork to continue toward I-4 East *Toll road* ... 262 ft
- Keep right at the fork, follow signs for I-4 E/Orlando and merge onto I-4 East *Toll road* 6.2 mi
- Exit on the left onto West South St. 0.2 mi
- Turn right at Boone Ave. 0.1 mi
- Boone Ave turns left and becomes West Anderson St. 256 f t

From the South (via I-75)

- I-75 N via the ramp to Tampa
- Take exit 261 to merge onto I-4 East toward Orlando 74.4 mi
- Exit on the left onto West South St. 0.2 mi
- Turn right at Boone Ave. 0.1 mi
- Boone Ave. turns left and becomes West Anderson St. 256 f t