

## AGENDA

# TRANSMISSION AND DISTRIBUTION

NEW ORLEANS, LA

APRIL 17-23, 2010

CONDUCTED BY  
U.S. ENERGY ASSOCIATION

FUNDED BY IRD  
THROUGH ASSISTANCE FROM  
U.S. DEPARTMENT OF STATE

*Agenda for Second Professional Exchange*

**Program Objectives**

To expose senior Ministry of Electricity executives to the best utility management practices in:

- Transmission operations and maintenance
- Distribution operations and maintenance
- Emergency restoration
- Monitoring and maintaining system reliability and stability
- Distribution and transmission system planning

**Agenda**

**Friday, April 16**

11:30 am Depart from Baghdad, Iraq on Royal Jordanian (RJ811)

1:10 pm Arrive in Amman, Jordan

**Hotel:**

Golden Tulip

**Saturday, April 17**

10:30 am Depart on American Airlines #7201 for Chicago, IL

OPERATED BY ROYAL JORDANIAN

Depart - AMM TERMINAL 1

Arrive - ORD TERMINAL 5

3:55 pm Arrive in Chicago, IL (Jason Hancock will meet the delegation outside customs)

6:50 pm Depart on American Airlines # 2529 for New Orleans, LA

Depart - ORD TERMINAL 3

9:05 pm Arrive in New Orleans, LA

**Hotel:**

The Whitney Wyndham

610 Poydras Street

New Orleans, LA 700130

Tel: +1 504-581-4222

**Sunday, April 18**

**Executive Time**

5:00 pm Review of conference and exhibition sessions with delegation and selection of meetings to attend with John Hammond, Program Manager, USEA

**Monday, April 19**

*Agenda for Second Professional Exchange*

8:30 am Registration check in for **IEEE 2010 Transmission and Distribution Conference and Exposition: Smart Solutions for a Changing World**

Meetings with Entergy Corporation

Entergy Corporation is an integrated energy company engaged primarily in electric power production and retail distribution operations. Entergy owns and operates power plants with approximately 30,000 megawatts of electric generating capacity, and it is the second-largest nuclear generator in the United States. Entergy delivers electricity to 2.7 million utility customers in Arkansas, Louisiana, Mississippi and Texas. Entergy has annual revenues of more than \$10 billion and more than 15,000 employees.

9:30-9:40 am **Introductions**

9:40-10:00 am **Overview of Entergy System**

*Sharma Kolluri/George Bartlett*

- Company history
- Organizational structure
- Functions of various units
- Relationship with regulators
- Current issues facing Entergy

10:00-11:00 am **Overview of Entergy transmission systems and operations**

*George Bartlett*

- Description of transmission system
- Planning: long term and near term, load forecasting
- Operations: strategies for monitoring and maintaining system reliability and stability, dispatch, emergency restoration
- Maintenance: schedules for maintenance of equipment, replacement policy for aging infrastructure, descriptions of maintenance procedures
- Training programs

11:00-12:00 noon **Overview of Entergy distribution systems and operations**

*Dennis Dawsey*

- Description of distribution system
- Planning: network and load growth, adding redundancy to prevent loss of supply, strategies to improve distribution efficiency, system design to prevent loss of service
- Operations: strategies for monitoring and maintaining system reliability and stability, dispatch, emergency restoration
- Maintenance: schedules for maintenance of equipment, replacement policy for aging infrastructure, descriptions of maintenance procedures
- Strategies to improve metering, billing and revenue collection

12:00-12:30 pm Lunch

12:30-1:00 pm **Transmission/Substation Maintenance Issues**

*Agenda for Second Professional Exchange*

*Ray Yates*

- 1:00-1:30 pm      **General Discussion**
- 1:30-3:15 pm      Site visit to Entergy substation  
*Ray Yates/Mookie Chander*
- 5:15 pm            Assemble at convention center
- 6:00 pm            Attend conference opening reception at the New Orleans Aquarium

**Tuesday, April 20**

7:30 am            Depart hotel for conference venue of **IEEE 2010 Transmission and Distribution Conference and Exposition: Smart Solutions for a Changing World**  
*Location: Ernest N. Morial Convention Center*

Participation in IEEE 2010 Transmission and Distribution Conference and Exposition: Smart Solutions for a Changing World

**NOTE:** The following meetings at the conference are only suggestions. USEA will meet with the delegation each day and decide which Conference meetings and events the delegation would like to attend. It will be possible to divide the delegation into smaller groups so that different meetings can be attended at the same time.

- 8:00 -9:45 am      Opening Session  
*Location: Auditorium Second Level*
- 10:00-12:00 noon    Initial visit to equipment/service companies at the Exposition Hall or participation in individually selected sessions
- 12:00-12:45 pm     Lunch in Exposition Hall
- 1:00-3:00 pm        Meetings with equipment/service companies or participation in individually selected sessions such as:
- Insulators 101  
*This panel discussion will present basic design criteria and application information for porcelain, glass, and non-ceramic insulators and will discuss the critical issues faced by utilities when selecting a supplier, addressing performance requirements, evaluating installation needs, and verifying long-term performance of the line.*
  - Intelligent Optimization for Transmission and Distribution Networks  
*This panel will discuss such topics as optimal setting of voltage control equipment and analytical tools considering interconnection of distributed generators and a new meta-heuristic method for probabilistic transmission network expansion planning.*

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- 3:15-5:15 pm Meetings with equipment/service companies or participation in individually selected sessions such as:
- **FACTS Fundamentals**  
*FACTS Controllers are power electronic-based circuit configurations applied in ac transmission systems. This session introduces the limitations and controllability of ac systems will be presented, with the basic FACTS attributes and configurations along with examples from existing installation to demonstrate their performance followed by a planners perspective on the implementation of several existing projects.*
- 7:00 pm Group dinner hosted by USEA

**Wednesday, April 21**

**Participation in IEEE 2010 Transmission and Distribution Conference and Exposition: Smart Solutions for a Changing World**

**NOTE:** The following meetings at the conference are only suggestions. USEA will meet with the delegation each day and decide which Conference meetings and events the delegation would like to attend. It will be possible to divide the delegation into smaller groups so that different meetings can be attended at the same time.

- 8:00-10:00 am Meetings with equipment/service companies or participation in individually selected sessions such as:
- Test Feeders for Distribution System Analysis  
*This panel will focus on the IEEE 8500-Node Test Feeder, its voltage control devices and load flow analysis of the IEEE 8500 using the current injection method.*
  - Collection, Access and Use of Customer Level Interruption Data as Pertaining to Distribution Reliability  
*This panel will explore the various customer level data collection techniques, tools or methods for accessing the data, and use of the data for customer level reliability purposes.*
- 10:15-12:15 pm Meetings with equipment/service companies or participation in individually selected sessions such as:
- FACTS/Power Electronic Applications to Improve Power System Dynamic Performance Part I  
*FACTS technologies allow for improved transmission system operation with minimal infrastructure investment, environmental impact, and implementation time compared to the construction of new transmission lines. This 2-part Panel Session presents and explores several recent successful applications of FACTS/Power Electronic equipment.*
  - Communication Systems for the Grid - 1  
*This session will discuss new developments in power system communication systems.*
- 12:15-12:45 Lunch in Exposition Hall
- 1:00-3:00 pm Meetings with equipment/service companies or participation in individually selected sessions such as:
- Super Session 3: Cyber Security of T&D Control Systems Assets  
*This session initially will overview basic concepts, issues, and means for securing networked control systems used for grid management, to set the stage for deeper treatment of needs, directions, and emerging state of the art technologies for securely operating the grid of the future – from generation, to transmission and distribution, to advanced metering infrastructure.*
  - Transmission System Operational Security Issues

## *Agenda for Second Professional Exchange*

*This panel will discuss several security-related experiences, as well as approaches for mitigating transmission security problems.*

- **Communication Systems for the Grid - 2**

*This session will discuss new developments in power system communication systems.*

- **Distributed Resource Integration Impacts**

*This panel session is a comprehensive introduction to the issues faced by utility engineers when integrating distributed resources such as flicker impacts and mitigation and protection issues and requirements with induction generators.*

3:15-5:15 pm

Meetings with equipment/service companies or participation in individually selected sessions such as:

- **FACT/Power Electronic Applications to Improve Power System Dynamic Performance Part 2**

*This 2-part Panel Session presents and explores several recent successful applications of FACTS/Power Electronic equipment including applying SVCs on distribution systems and first multi-channel VFT application.*

- **Advanced Metering Infrastructure as an enabler of Demand Response**

*This panel explores the benefit opportunities and challenges of DR, and how DR can be built on today's Advanced Metering infrastructures (AMI).*

4:30-6:30 pm

Networking reception in Exposition Hall

## **Thursday, April 22**

**Participation in IEEE 2010 Transmission and Distribution Conference and Exposition: Smart Solutions for a Changing World**

**NOTE:** The following meetings at the conference are only suggestions. USEA will meet with the delegation each day and decide which Conference meetings and events the delegation would like to attend. It will be possible to divide the delegation into smaller groups so that different meetings can be attended at the same time.

**8:00-10:00 am**

Meetings with equipment/service companies or participation in individually selected sessions such as:

- **Lightning Performance of Overhead Lines**

*This panel will look at several aspects of Lightning protection of lines.*

*Topics that will be covered are the application of arresters and aspects of grounding.*

- **Transmission Planning**

*This session will include such topics as implementation of optimal mitigation measures for transmission planning assessment, and increasing the utilization of long distance AC transmission corridors.*

10:30-2:30 pm

Possible meeting with the Tulane University Energy Institute

*Agenda for Second Professional Exchange*

Real-Time Energy Dispatch and Market Simulation

*This will provide a realistic, real-time simulation of Transmission Open Access (via a mock OASIS system), Generation Dispatch, (with a utility fleet at your fingertips), Demand Side Management, Integration of Renewable Energy Sources, and Power Marketing.*

**Friday, April 23**

- 11:30 am Check out of hotel and depart for airport
- 2:46 pm Depart on United Airlines # 442 for Chicago, IL
- 5:16 pm Arrive in Chicago, IL  
Arrive - ORD TERMINAL 1
- 9:00 pm Depart on American Airlines # 7202 for Amman, Jordan  
OPERATED BY ROYAL JORDANIAN  
Depart - ORD TERMINAL 5

**Saturday, April 24**

- 5:00 pm Arrive in Amman, Jordan

**Hotel:**

Golden Tulip

**Sunday, April 25**

- 8:30 am Depart Amman on Royal Jordanian (RJ 810)
- 11:00 am Arrive in Baghdad, Iraq