

AGENDA

Utility Exchange Program for Pakistan's Distribution Companies



Distribution System Engineering, Design, & Operations

September 15 – 22, 2012

New Haven, CT & Cincinnati, OH

Conducted by:

UNITED STATES ENERGY ASSOCIATION (USEA)
&
INTERNATIONAL RESOURCES GROUP (IRG)

Under the:

USAID POWER DISTRIBUTION PROGRAM

Funded by:

U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)



USAID
FROM THE AMERICAN PEOPLE

PROGRAM OVERVIEW & OBJECTIVES

The U.S. Agency for International Development's (USAID) Power Distribution Program is a three-year, USAID-financed project designed to facilitate improvements in electric power distribution utilities across Pakistan. The project began in September 2010. The Power Distribution Program works in partnership with the Ministry of Water and Power, Government of Pakistan and nine (9) power distribution companies (DISCOs) located across the four provinces of Pakistan.

The Utility Exchange Program (UEP) of the Power Distribution Program (PDP) aims to share practical information, real-world case studies, and best practices in different electric utility functional areas with Pakistan's electricity distribution companies. Through a series of exchange programs to U.S. and third-country utilities, UEP will enhance understanding of advanced utility best practices, change management programs, and work cultures that are commercially proven and have the potential of being implemented in Pakistan's electricity distribution companies.

The primary objective of this executive exchange is for engineers to:

- Gain exposure to best practices in the distribution utility **engineering and design** process, including:
 - Overhead & Underground Distribution Design Process & Criteria
 - Equipment Design and Construction Standards & Specifications
 - Construction Grades/Safety Issues
- Understand best practices in the distribution system **planning and operations** process, including:
 - Planning Process & Criteria
 - Load Forecasting
 - Long-Term Planning
 - Contingency Planning

PARTICIPANTS

1. Mr. Sohail Khan, SDO (PDP Seconded Staff), Peshawar Electric Supply Company (PESCO)
2. Mr. Tajamul Hussain, Assistant Manager P&E, Hyderabad Electric Supply Company (HESCO)
3. Mr. Khalid Khan, Deputy Manager Procurement PMU, Islamabad Electric Supply Company (IESCO)
4. Mr. Zafar Hussain, Additional Manager Planning, Multan Electric Power Company (MEPCO)
5. Mr. Muhammad Asghar Khan, Deputy Manager Planning, Multan Electric Power Company (MEPCO)
6. Mr. Tahir Mahmood, Deputy Manager Planning, Lahore Electric Supply Company (LESCO)
7. Mr. Syed Abdullah, Deputy Manager Planning, Quetta Electric Supply Company (QESCO)
8. Mr. Ali Madad, Assistant Manager Project Management Unit, Quetta Electric Supply Company (QESCO)
9. Mr. Muhammad Saleem, Deputy Manager Planning, Faisalabad Electric Supply Company (FESCO)
10. Mr. Noor Ahmed Soomro, Assistant Manager, Sukkur Electric Power Company (SEPCO)

USEA COORDINATOR

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Program Coordinator
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DRESS CODE

The dress code for the program will be business casual. Site visits may involve moderate amounts of walking, and comfortable shoes are essential. Any safety equipment necessary (hard hats, eye and ear protection, etc.) will be provided by the utilities.

WEATHER

New Haven and Cincinnati both lie between humid subtropical zones and humid continental zones. In September, average temperatures range from 60° F (15 ° C) and 75 ° F (23 ° C).

LODGING

New Haven, Connecticut (September 15-19)

Courtyard New Haven at Yale
30 Whalley Ave
New Haven, CT 06511 USA

Cincinnati, Ohio (September 19-22)

Cincinnati Marriott at RiverCenter
10 West RiverCenter Boulevard
Covington, Kentucky 41011

EMERGENCY

In case of emergency, police, fire, and ambulance can all be reached by dialing **911** from any phone, or contact the USEA coordinator.

SCHEDULE

DAY 1 - FRIDAY, SEPTEMBER 14, 2012: ARRIVAL IN U.S.

Delegates arrive into JFK

Lodging:

Courtyard New Haven at Yale

30 Whalley Ave

New Haven, Connecticut 06511 USA

DAY 2 - SATURDAY, SEPTEMBER 15, 2012: ORIENTATION

Morning

Executive Time

Afternoon

Orientation

USEA's Andrew Palmateer will meet the delegates in the hotel for program orientation, including agenda review, U.S. power sector overview, per diem distribution, and to address any outstanding issues.

DAY 3 - SUNDAY, SEPTEMBER 16, 2012: EXECUTIVE TIME

Executive Time

DAY 4 - MONDAY, SEPTEMBER 17, 2012: UNITED ILLUMINATING COMPANY

United Illuminating / UIL Holdings Participants

James Torgerson, President and CEO, UIL

Anthony Vallillo, Executive Vice President, UIL. President & Chief Operating Officer, UI

John Prete, Senior Vice President, Electric Transmission & Distribution

Joseph Thomas, Vice President, Electric System Operations & Client Fulfillment

Richard Cutuli, General Manager, Client Fulfillment

Charles Eves, Senior Director, Engineering & Strategic Planning

Guy Cattaruzza, Senior Director, Standard Field & Revenue Meter Systems

James A. Cole, PE, PMP, Director, Transmission and Distribution Operations and Maintenance

Eduardo DelMonte, Transmission Operations Lead Engineer

Joseph Flach, Manager Electric System Operations

Robert Manning, Manager, System Integrity

Michael Zaffina, Manager, Infrastructure Planning

Walter Booker, Manager, Safety & Technical Training

Robert Pellegrini, Manager Protection & Control
Bryan LaPerle, Manager (SCADA)
Mohammad Pasha, Principal Engineer
Jay Wahlberg, Lead Safety Specialist

Christian Bilcheck, Director, Asset Planning Transmission
Vincent Brescia, Manager, Overhead Power Delivery

09:00	Jim Torgerson	Introductions, Program Overview, Safety Reminders
		Overview of United Illuminating Company
09:10	John Prete	<ul style="list-style-type: none"> History Assets
	Joe Thomas	<ul style="list-style-type: none"> Service Territory
09:30		<ul style="list-style-type: none"> Customer Base
	Walt Booker	<ul style="list-style-type: none"> Corporate Structure
09:45		<ul style="list-style-type: none"> Safety (Safety Rule Book, Industry Standards NESC/OSHA)
SYSTEM PLANNING PROCESSES & PRINCIPLES		
10:15	Chuck Eves	<ul style="list-style-type: none"> Organization and responsibilities of planning unit Staffing, qualifications, and training programs
10:45	Coffee & Tea Break	
11:00	Bob Manning	<ul style="list-style-type: none"> Long-term system planning and power requirements
ENGINEERING AND DESIGN PROCESS		
		Engineering and Design Process Overview
11:30	Paul Kranowski	<ul style="list-style-type: none"> Overhead & Underground Distribution Design Process & Criteria
	Robin Lyons	
11:50		<ul style="list-style-type: none"> Infrastructure Planning
	Mike Zaffina	
12:10		<ul style="list-style-type: none"> Equipment Design and Construction Standards &

Specifications

12:30		Lunch
		System Planning Tools
13:30	Peter Sampiere	<ul style="list-style-type: none"> • GIS mapping of distribution network
		Protection & Control
14:00	Bob Peligrini	<ul style="list-style-type: none"> • Protection & Control
14:30	Bryan LaPerle	<ul style="list-style-type: none"> • SCADA
		Metering & Telecommunications
15:00	Guy Cattaruzza	<ul style="list-style-type: none"> • Smart Metering • Electricity Losses / Theft – Control Methods
15:30		Coffee & Tea Break
		Infrastructure Planning
15:45	Vincent Brescia	<ul style="list-style-type: none"> • Live line projects
16:00		
16:15	Ed DelMonte	<ul style="list-style-type: none"> • Load reduction / shedding
16:30	Christian Bilcheck	<ul style="list-style-type: none"> • Transmission System Asset Planning
16:45		Roundtable Discussion to Address Questions & Implementation Issues
17:00		Adjourn & Return to Hotel (Dinner with UIL / UI executives) TBD

DAY 5 - TUESDAY, SEPTEMBER 18, 2012: UNITED ILLUMINATING COMPANY

08:30 Delegation meets Andrew Palmateer in hotel lobby for transportation to site visits

Morning

Site Visit
Tour of New Operation complex
Tour of ESWC, 801 Bridgeport Avenue, Shelton

*Jim Cole /
Joe Flach*

Trumbull Substation
Singer 345KV GIS Substation

George Becker

Ralph Anderson

13:00 Lunch

15:00 **Roundtable Discussion** to Address Questions & Implementation Issues

17:00 Adjourn & Return to Hotel

Evening Executive Time (Potential tour of Yale University)

DAY 6 - WEDNESDAY, SEPTEMBER 19, 2012: TRAVEL TO CINCINNATI

Morning Travel

Afternoon Executive Time

Lodging:
Cincinnati Marriott at RiverCenter
10 West RiverCenter Boulevard
Covington, Kentucky 41011

DAY 7 - THURSDAY, SEPTEMBER 20, 2012: DUKE ENERGY

- 7:30 Delegates meet Andrew Palmateer in Hotel lobby for transportation to Duke Energy
- 8:00 **Welcome, Safety Moment, Duke Overview**
- 8:30 **Planning Overview**
Share info about the 3 planning functions (transmission planning, distribution planning, R&I planning). What is their scope? How are Projects integrated and prioritized?
- 8:45 **Transmission Planning**
Share criteria and NERC requirements. What tools are used? How is load forecasted? How do we coordinate with adjacent systems and generators? How do we coordinate with distribution?
- 9:45 **Break**
- 10:00 **Distribution Planning**
Share criteria. What Tools are used? How is load forecasted? Share “smart grid” overview. What are implications of “smart grid” on planning? What are implications of distributed generation on System planning?
- 11:00 **R&I Planning**
Share more detail about maintenance basis and Program development. Give examples of Maintenance basis and how that translates into Budgets. What tools are used to track equipment and system performance?
- 12:00 **Lunch**
- 13:00 **Distribution Engineering Overview**
Share organization overview and scope to be covered in this presentation.
- 13:15 **GIS**
Provide overview of GIS...data fields, processes for entry, updating and quality control. Demo the tool.
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14:15	Break
14:30	Standards Philosophy of standardization for Distribution. Material specs/design basis. Process used In the development of standards. Share a few examples. Interface to design tools.
15:30	Distribution Design Overview of the design process. Demo Expert Designer.
16:30	Loadshedding <ul style="list-style-type: none">• Emergency loadshedding• Demand Side Management• Communications & Public Relations
17:15	Wrap-up day and adjourn. Return to hotel.
18:00	Evening event hosted by Duke Energy

DAY 8 - FRIDAY, SEPTEMBER 21, 2012: DUKE ENERGY

8:30	Delegation meets Andrew Palmateer in hotel lobby for transportation to site visits
9:00	Tour System Operations Center
10:00	Distribution Management System Demonstration
11:00	Travel to Envision Center and lunch
1:00	Overview of “Smart Grid” and Envision Center Tour
15:00	Roundtable Discussion to Address Questions & Implementation Issues
15:30	Program Conclusion <i>Delegates will participate in a roundtable discussion to review their understanding of the exchange program topics, discuss interests and challenges, and likely paths moving forward. Program evaluations will also be completed.</i>

16:00 **Adjourn & Return to Hotel**

Evening **Executive Time**

DAY 9 - SATURDAY, SEPTEMBER 22, 2012: DEPARTURE

Morning Delegates check out of their hotel for transportation to airport