

INITIAL DRAFT AGENDA-FOR DISCUSSION PURPOSES

**TRANSMISSION AND WHOLESALE MARKETS SCHOOL:
THE TOP 50 THINGS YOU NEED TO KNOW ABOUT ELECTRIC TRANSMISSION IN
2008**

Presented by
The Edison Electric Institute
In association with
**Christensen Associates Energy Consulting and the University of Wisconsin
Madison, WI**

August 11-15, 2008—Draft Speakers list

Sunday, August 10		
BOOT CAMP—Basic Principles and Terms		
3:00 pm – 6:00 pm	BOOT CAMP <ul style="list-style-type: none"> • Glossary of Terms • Electricity 101 • Utility Regulation 101 	Robert Camfield CA Energy Consulting Jim Fama Edison Electric Institute
Monday, August 11		
POWER SYSTEM FUNDAMENTALS and BUILDING MARKETS THROUGH OATT		
8:15 – 8:45 Session 1	WELCOME AND INTRODUCTORY Remarks <ul style="list-style-type: none"> • Course objectives • Discussion format • Review of the program 	Ethan P. Holmes Edison Electric Institute Professor Willis Long University of Wisconsin
8:45 – 9:00	BREAK	
9:00 – 10:30 Session 2 (3)	NATURE OF POWER SYSTEMS <ul style="list-style-type: none"> • Physics of network flows • Real and reactive power • PTDFs and determination of congestion costs 	Professor Christopher DeMarco University of Wisconsin
10:30 -10:45	BREAK	
10:45 – Noon	NATURE OF POWER SYSTEMS—PART TWO <ul style="list-style-type: none"> • Balancing load and generation • Network properties, the basis for locational pricing • Reactive Power 	Professor Christopher DeMarco University of Wisconsin
12:00 – 1:00	LUNCH	
1:00 – 2:30 Session 4	THE FEDERAL ENERGY REGULATORY COMMISSION: An Electric Utility Professional’s Primer	Tony Ingram Edison Electric Institute
2:30 – 2:45	BREAK	
2:45 – 4:00	MARKET EVOLUTION, OPEN ACCESS TRANSMISSION TARIFF	Tom Blackburn

Session 5	<p>(OATT)</p> <ul style="list-style-type: none"> • Wholesale markets prior to Energy Act, '92 • Landmark decisions FERC Order Nos. 888/889; essential provisions • The notion of an ISO; Order No. 2000 and RTOs • Generator interconnections: Order Nos. 2003 and recent developments • The Energy Policy Act of 2005 • Continued reform: Order Nos. 890, 890-A and other recent decisions 	Bruder, Gentile, & Marcoux
4:00 – 4:15	BREAK	
4:15 – 5:00 Session 6	<p>NECESSARY FEATURES OF LMP/FTR MARKETS</p> <ul style="list-style-type: none"> • Requirements, difficulties/challenges in getting there • Minimum but essential features • Markets: energy, reserve services, transmission • Operational timeline • Markets and the determination of prices • Transmission services, hedging locational price risk 	Harry Singh RBS Sempra

Tuesday, August 12 MARKET DESIGN & REGIONAL VARIATIONS		
8:00 – 9:00 Session 7	<p>RELIABILITY STANDARDS, ENSURING COMPLIANCE</p> <ul style="list-style-type: none"> • EPACT 2005, FERC Oversight, Electric Reliability Organization (ERO) • Determining Compliance • The Process of Ensuring Compliance with Standards 	Scott Henry Duke Energy
9:00 – 9:15	BREAK	
9:15 – 10:30 Session 8	<p>NEW YORK ISO: LMP, SIMULTANEOUS ENERGY AND RESERVES</p> <ul style="list-style-type: none"> • Day-Ahead and Real-Time Markets – Overview of process and settlements • Simultaneous auctions, co-determining energy and reserve prices • Market Evolution – recent developments 	Emilie Nelson NYISO
10:30 – 10:45	BREAK	
10:45 – 12:00 Session 9	<p>ENTERGY AND THE ICT MODEL</p> <ul style="list-style-type: none"> • Division of Responsibilities • Contract path/TLR Model • Weekly Procurement Process 	Rick Riley Entergy
12:15 – 1:15	LUNCH	
1:15 – 2:30 Session 10	<p>THE CASE FOR THE STANDARD UTILITY MODEL</p> <ul style="list-style-type: none"> • Organizing a Transmission Business Unit • Challenges and regulatory oversight • The issue of incentives • Performance: Is it clear that the ISO Model delivers? 	Bruce Edelston Southern Company

2:30 – 2:45	BREAK	
2:45 – 3:45 Session 11	MIDWEST ISO: TRANSMISSION AND WHOLESALE MARKETS DEVELOPMENTS <ul style="list-style-type: none"> • Ancillary Services • Resource Adequacy • Infrastructure Planning • Dealing with Carbon Policy 	Todd Ramey Midwest ISO
3:45 – 4:00	BREAK	
4:00 – 5:00 Session 12	<p style="text-align: center;"><u>PANEL DISCUSSION</u> RTO MARKETS, IS IT WORTH IT: BENEFITS, AND THE COST OF COMPLEXITY</p> <ul style="list-style-type: none"> • The stakeholder process, building consensus • Defining functionality, implementing systems, testing • Day 2 challenges; follow up modifications to processes • The essentials: getting the market rules right • Organization structure 	Emilie Nelson, NYISO Rick Riley, Entergy Bruce Edelston, Southern Company Todd Ramey, Midwest ISO

Wednesday, August 13 COMPLIANCE, ENFORCEMENT AND ENERGY MARKETS		
8:00 – 8:45 Session 13	FERC COMPLIANCE AND ENFORCEMENT: A Regulated Utility’s Perspective <ul style="list-style-type: none"> • FERC authority and Penalties • Standards/code of conduct • Reliability Standards • FE Overview • FE Compliance Program 	Henry Stevens FirstEnergy
8:45 – 9:00	BREAK	
9:00 – 9:45 Session 14	GRID OPERATIONS, A CONTROL-ROOM PERSPECTIVE <ul style="list-style-type: none"> • Determining system requirements • Knowing where you are: network monitoring and control • Relationship with the RTO 	Theodore Pappas National Grid
9:45 – 10:30 Session 15	CONTRACT PATH/TLR <ul style="list-style-type: none"> • Pro Forma Tariff; unbundled services • Network and Point-to-Point service • Available transfer capability • Congestion management, TLR 	Robert Camfield CA Energy Consulting
10:45 – 11:00	BREAK	
11:00 – 11:45 Session 16	ADVANCED ENERGY MARKETS: LMP with FTR Overlay <ul style="list-style-type: none"> • FTR Sufficiency and Adequacy • Long-term transmission rights • Counterparty risk/creditworthiness issues • Ancillary Service Markets • Ancillary service market design – principles and practice 	Mat Morey CA Energy Consulting

	<ul style="list-style-type: none"> • Scarcity pricing for reserve shortages 	
11:45 – 12:45	LUNCH	
12:45 – 1:45 Session 17	ENSURING RESOURCE ADEQUACY <ul style="list-style-type: none"> • Methods and practices • Planning reserve requirements • Capacity markets • Defining roles of utilities, states, Regional Reliability Council and EROs 	William Bourbonnais Wisconsin Public Service Resources
1:45 – 2:00	BREAK	
2:00 – 3:15 Session 18	INTERNAL AFFAIRS: MARKET MONITORING OF RTOS	Craig Roach Boston Pacific
3:15 – 3:30	BREAK	
3:30 – 5:00 Session 19	STATUS OF WHOLESALE MARKET REFORM <ul style="list-style-type: none"> • Essential features focus on incentives and obtaining efficiency for successful market design • Action agenda for FERC <ul style="list-style-type: none"> – Open access – Scarcity pricing – Contract sanctity – Transmission investment – RTO membership • Furthering regional efficiency through locational pricing 	Steve Rodgers FERC

Thursday, August 14		
8:00 – 9:30 Session 20	CONTEXT: INCREASING COSTS, REGULATORY UNCERTAINTY AND THE ELECTRIC POWER INDUSTRY	Edison Electric Institute David Owens
9:30 – 9:45	BREAK	
9:45 – 11:00 Session 21	WALL STREET PERSPECTIVE: FINANCIAL CONCERNS, FUNDING FOR INFRASTRUCTURE <ul style="list-style-type: none"> • Concerns about raising new capital • Impacts of new transmission on financial results • Competition for funds, transmission and other capital needs 	Edward Tirello Berenson and Company
11:00 – 11:15	BREAK	
11:15 – NOON Session 22	DOE: National Interest Electric Transmission Corridors, Protest and Potential <ul style="list-style-type: none"> • Overview of the Energy Policy Act of 2005 transmission-related provisions, including the NIETC provision, with some discussion of what Congress hoped to achieve • DOE's initial and current implementation of the NIETC provisions in Federal Power Act section 216(a), including the congestion study process and designation of the first two 	Henri Bartholomot EEI

	<p>NIETCs;</p> <ul style="list-style-type: none"> • FERC's implementation of the related backstop siting provisions of FPA section 216(b); • DOE and other agency implementation of other related provisions, including the lead-agency provisions of FPA section 216(h) and federal land corridor provisions of EPCA 2005 section 368; • Counter-pressure brought by states, communities, and environmental groups, and on the Hill; • Pending litigation over the NIETC designations and backstop siting rule; and • Anticipated first utility use of the NIETC/ backstop siting provisions. 	
12:00 – 1:00	LUNCH	
1:00 – 2:15 Session 23	<p>FERC INCENTIVES FOR TRANSMISSION</p> <ul style="list-style-type: none"> • Overview of Order 679: Promoting Transmission Investment through Pricing Reform • Cases Analysis: Identifying Orders that address Incentives for Transmission Investment 	Zolaikha S. Strong EEI
2:15 – 2:30	BREAK	
2:30 – 3:45 Session 24	CHALLENGES PRESENTED BY INTEGRATING RENEWABLE RESOURCES	Teresa Mogensen Xcel
3:45 – 4:00	BREAK	
4:00 – 5:15 Session 25	SMART GRID: THE FUTURE OF TRANSMISSION AND DEMAND RESPONSE IN THE DIGITAL AGE	Anjan Bose Washington State University

Friday, August 15 TECHNOLOGY & TRANSMISSION		
8:00 – 9:00 Session 26	<p>SUPERCONDUCTORS AND THE GRID</p> <ul style="list-style-type: none"> • Physical phenomena, History of High Temperature Superconductors (HTS) • Key operational characteristics in the power system <ul style="list-style-type: none"> – Relieving grid congestion – Ease siting requirements 	Jack McCall American Superconductor Corporation
9:00 – 9:15	BREAK	
9:15 – 10:15 Session 27	MONITORING THE NETWORK THROUGH STATE ESTIMATION	<u>Fernando Alvarado</u> <u>Christensen Associates</u>

	<ul style="list-style-type: none"> • Situation awareness through Observability • Observability dimensions; examples • Problem of Consistency 	
10:15 – 11:00 Session 28	CASCADING FAILURE ANALYSIS <ul style="list-style-type: none"> • Challenges of large cascading blackouts • Understanding cascading risk and criticality • Possibilities for monitoring cascading risk • Complex system effects 	Ian Dobson University of Wisconsin
11:00 – 11:45	<u>FOLLOW UP ISSUES – OPEN Q&A</u>	Robert Camfield, Facilitator CA Energy Consulting