



EUCI presents a course on:

COST ESTIMATION AND CONTROL FOR TRANSMISSION PROJECTS

March 13-14, 2012 • Hyatt at Fisherman's Wharf • San Francisco, CA



EUCI is authorized by IACET to offer
1.0 CEUs for this program.

COST ESTIMATION AND CONTROL FOR TRANSMISSION PROJECTS

March 13-14, 2012

OVERVIEW

Throughout the country, transmission projects are projected to grow as funds are committed to improve electricity delivery, increase capacities, improve reliability, and meet new standards associated with incorporating renewable energy generation into the smart grid.

Funding for transmission-specific projects across the country is being studied by the various Regional Transmission Operators (RTOs). For example, MISO's long-term regional plan recommends \$6.5 billion in electric infrastructure investments needed for delivery and reliability projects. To effectively utilize allocated and dedicated funding, it is critical for utilities, developers, sub-contractors, project managers, and suppliers to fully understand efficient transmission project cost estimation, as this new infrastructure can cost \$1 million or more per mile. The process of building transmission often takes many years – even in the most streamlined process.

In this course, attendees will recognize critical components to consider in a transmission project estimate. Key components of the course include all factors that affect the final cost of building this infrastructure. This includes overall planning, scoping, and engineering, as well as environmental considerations, public involvement, right-of-way, construction, and management of the total project.

LEARNING OUTCOMES

- Discuss the planning process and considerations
- Outline and examine the variety of overall project considerations
- Apply best practices to overall scoping of transmission project costs
- Review project economics and financial parameters
- Identify what constitutes a public involvement plan and impacts to cost and schedule
- Explain environmental challenges and impacts on costs and timelines
- Discuss right-of-way costs and schedules
- Analyze material costs
- Compare and contrast design-bid-build vs. OE/EPC

WHO SHOULD ATTEND

- Transmission project managers, estimators, and contract managers
- Transmission engineers
- Utility supply chain and cost accounting professionals
- Generation project developers that need an understanding of transmission project costs
- Regulatory agency staff
- Consultants and engineering firms that work within the electricity transmission sector

IACET



EUCI has been approved as an

Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. In obtaining this approval, EUCI has demonstrated that it complies with the ANSI/IACET Standards, which are widely recognized as standards of good practice internationally.

As a result of its Authorized Provider membership status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standards.

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Requirements for Successful Completion of Program

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

Instructional Methods

This course will use case studies and PowerPoint presentations for instruction.

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PROGRAM AGENDA

TUESDAY, MARCH 13, 2012

Registration: 12:30 – 1:00 p.m.

Course Timing: 1:00 – 5:00 p.m.

Session I: Economic Modeling – Financial Parameters for New Projects

- Today's money vs. future money
- Inflation factors
- Life-cycle costing
- Alternative options

– *John C. Parker, Vice President, HDR|Decision Economics*

Session II: Permitting, Siting, and Right-of-Way Acquisition

Permitting

- Environmental
- Federal/state/county/city
- Wetland
- Stream crossings
- Cultural resources
- Threatened and endangered (T&E) species surveys
- Environmental mitigation
- SWPPP
- FAA

- Avian Protection Plan

- Mitigation plans

– *Michelle Bissonnette, Senior Vice President and Energy Environmental Practice Lead, HDR Engineering Inc.*

The Need for a Comprehensive Public Involvement Process and the Impacts on Costs and Schedule

– *Stephanie White, Vice President - Strategic Communication and Outreach, HDR Engineering Inc.*

Right-of-Way Acquisition

- Purchase
- Easements
- Eminent domain

– *James Prossick, Manager - Real Estate Services, HDR Engineering Inc.*

WEDNESDAY, MARCH 14, 2012

Continental Breakfast: 7:30 – 8:00 a.m.

Course Timing: 8:00 a.m. – 5:00 p.m.

Group Luncheon: 12:00 – 1:00 p.m.

Session III: Engineering

Surveying

- LIDAR
- Conventional
- Blend

Engineering

- Overall team
- Geotech
- Line design
- Substation design

Material

- Conductor selection
- Bundle vs. single
- Line losses
- Insulators
- Structures
- Poles/structures (wood, steel, lattice, concrete, etc.),
- Underground vs. overhead
- AC vs. DC
- Substations

– *Ed Weber,
Senior Transmission Planning Advisor,
HDR Engineering Inc.*

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PROGRAM AGENDA

WEDNESDAY, MARCH 14, 2012 (CONTINUED)

Session IV: Construction Phase

Overall Scoping of the Project

- Managing the construction engineering process
- Design-bid-build
- EPC/OE
- Risk evaluation
- Critical issues analysis
- Length
- Outage requirements

ROW Preparation

- Clearing
- Fill/access roads/matting
- Culverts
- Gates

Line Construction

- Number of crews
- Duration
- Equipment
- Outage requirements
- Foundations
- Restoration

Substation Construction

- Underbuild – new/existing
- Underground conflicts

Managing the Construction Process

- Identifying the primary stakeholder/project manager
 - Identifying the sub-stakeholders
 - Reporting process
 - Scheduling
 - Tracking tools
 - Review process
 - Safety training
 - Environmental training
- Marty Jacobsen, Consultant, Xcel Energy/CAPX2020

Environmental Compliance and Monitoring

- Construction windows (for T&E species)
 - Mitigation
 - Silt fencing
 - Timber mats
 - Other
- Cheryl Schmidt, Vice President - Natural Resources, HDR Engineering Inc.

Session V: Case Studies

5:00 p.m. Course Adjourns

PROCEEDINGS

The proceedings of the course will be published, and one copy will be distributed to each registrant at the course.

EVENT LOCATION

A room block has been reserved at Hyatt at Fisherman's Wharf, 555 North Point Street, San Francisco, CA 94133, for the nights of March 11-14, 2012. Room rates are \$180, plus applicable tax. Call 415-563-1234 for reservations, and mention the EUCI course to get the group rate. The cutoff date to receive the group rate is February 19, 2012, but as there are a limited number of rooms available at this rate, sometimes the room block will close sooner. **Please make your reservations early.**

REGISTRATION INFORMATION

REMEMBER: EVERY FOURTH REGISTRANT IS FREE

For instant registration, call (201) 871-0474 or fax the registration form to (253) 663-7224.

Register Three; Send Fourth Free!

Any organization wishing to send multiple attendees to this course may send one FREE for every three delegates registered. Please note that all registrations must be made at the same time to qualify.

All cancellations received on or before February 10, 2012, will be subject to a \$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event or publication. This credit will be good for six months. In case of event cancellation, Electric Utility Consultants' liability is limited to refund of the event registration fee only. For more information regarding administrative policies such as complaints and refunds, please contact our offices at (201) 871-0474.

FIVE EASY WAYS TO REGISTER	
One: CALL (201) 871-0474	Two: FAX (253) 663-7224
Three: E-MAIL register@pmaconference.com	Four: MAIL PMA P.O. Box 2303 Falls Church, VA 22042
Five: WEB SITE www.pmaconference.com	

PLEASE REGISTER THE FOLLOWING

- Cost Estimation and Control for Transmission Projects
March 13-14, 2012: US \$1395
Early bird on or before March 2, 2012: US \$1195
- Discounted registration fee for attending Fundamentals of Electricity Transmission and Cost Estimation and Control for Transmission Projects
March 12-14, 2012: US \$2195
Early bird on or before March 2, 2012: US \$1995

ENERGIZE WEEKLY

EUCI's *Energize Weekly* e-mail newsletter compiles and reports on the latest news and trends in the energy industry. Newsletter recipients also receive a different, complimentary conference presentation every week on a relevant industry topic. The presentations are selected from a massive library of more than 1,000 current presentations that EUCI has gathered during its 25 years organizing conferences.

Sign me up for *Energize Weekly*.

How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.) _____

Name _____ Job Title _____

Name Preferred for Badge _____ E-mail _____

Company _____ Telephone _____

Address _____ City _____ State _____ ZIP _____

Check here if you have any dietary or accessibility needs. We will contact you for more details.

PAYMENT METHOD Please make checks payable to "PMA"

Please charge my credit card: Visa MC AMEX Security Code _____

Visa and MC cards have a 3-digit code on the signature panel on the back of the card, following the account number. American Express cards have a 4-digit code on the front of the card, above the card number.

Name on Card _____ Signature _____

Account Number _____ Exp. Date _____

Card Holder Phone Number _____

Billing Address _____ Billing ZIP Code _____

OR Enclosed is a check for \$ _____ to cover _____ registrations.