COST ESTIMATING METHODOLOGIES FOR SUBSTATION AND TRANSMISSION PROJECTS

July 19-20, 2016
Doubletree by Hilton Austin
Austin, TX
OVERVIEW

Throughout North America, the need for new utility projects is projected to grow to improve electricity delivery, increase capacities, improve reliability, and meet new standards associated with incorporating renewable energy generation into the smart grid.

In order to effectively utilize allocated and dedicated funding, it is critical for utilities, developers, sub-contractors, project managers, and suppliers to fully understand efficient utility project cost estimation, as this new infrastructure has substantial costs and risks associated with each project. In fact, new overhead transmission lines can cost $1 million or more per mile. The process of building transmission level projects often takes many years even in the most streamlined process.

In this course, attendees will recognize the critical components to consider in a transmission project estimate. Key components of the course include all factors that impact the final cost of building this infrastructure, including permitting and siting, materials and engineering, construction, and project management.

WHO SHOULD ATTEND

• Transmission and substation project managers, estimators, and contract managers who are new to the job
• Transmission and substation engineers
• Supply chain and cost accounting professionals for utilities and other energy companies
• Generation project developers and engineers who need an understanding of transmission components and costs
• Regulatory agency staff
• Consultants and engineering firms that work within the electricity transmission sector

LEARNING OUTCOMES

• Discuss utility project planning process and budget considerations utilizing industry samples of typical industry projects
• Discuss the environmental and siting processes and the impact on schedules and costs
• Analyze engineering, material cost, and construction considerations for transmission lines and substations
• Compare and contrast contracting methods to include design-bid-build vs. OE/EPC
• Identify strategies to mitigate risks across the spectrum of project types and sizes

Excellent presentation. Very relevant. Good cross section of attendees. Very good presenters, knowledgeable in topics.”

— Manager, Projects & Contracts, PSEG – Long Island

“I believe the class covers the outline process of estimating costs in great detail.”

— Estimator, Henkels & McCoy, Inc.

REGISTER TODAY! CALL 303-770-8800 OR VISIT WWW.EUCI.COM
AGENDA

Tuesday, July 19, 2016

12:30 – 1:00 p.m.  Registration
1:00 – 5:00 p.m.  Course Timing

Session I: Costs for Major Utility Projects: Substations, Overhead Transmission, and Underground Transmission

Group discussion and exercise of major components, including materials and construction

Project Begins at the Substation
- Site development
- Conduit & grounding plan
- Foundations
- Materials
- Substation bus
- Conductor/cables overhead

Transmission Lines
- Plan & profile
- Staking
- Foundations
- Structures
- Hardware

Underground Transmission Lines
- Plan & profile
- Duct bank
- Line splice and pull-through vault
- Line cable
- Line substation riser details

Session II: Permitting, Siting, and Right of Way Considerations and Costs
- Overview of environmental siting process
- Potential impacts to project timelines and costs
- Urban vs rural considerations
- Construction considerations
- Strategies to minimize schedule obstacles

“Training was the best I have ever had in cost, contracts! Very well put together.”
— Construction Manager, Salsbury

“The speakers delivered great material and the other participants had great knowledge to share with one another as well.”
— Sr. Scheduler & Cost Controller, Ameren
AGENDA

Wednesday, June 20, 2016

8:00 – 8:30 a.m.    Continental Breakfast
12:00 – 1:00 p.m.  Group Luncheon
8:30 a.m. – 4:30 p.m.  Course Timing

Session III: Utility Cost Estimation Process
• Developing budget parameters and the project plan
• Utility estimate components
• Cost estimating best practices during the project lifecycle
• Cost reference development
• Risk considerations
• Expected accuracy ranges
• Measuring performance
• Project cost estimate example

Session IV: Methods of Contracting
• Identify common types of contracts and contract delivery methods and understand the risks and advantages and disadvantages associated with each
• Fixed price/Lump sum
• Cost plus
• Time and material
• Traditional arrangement/Design-bid-build
• EPC arrangements and risk management
• Open book EPC variations
• Impacts to construction process

Session V: Project Cost Estimate Case Study
Class exercise to estimate major categories of project costs compared to actual costs on two real life projects.

“"This class provides an avenue to better understand the many factors that make up the estimate for substation or transmission line projects.””
— Project Manager, Leidos

“"If you are new to estimating or the industry, this is for you.””
— VP Power, American Site Builders
INSTRUCTORS

**Ed Weber / Senior Transmission Planning Advisor/Project Manager / HDR Engineering Inc.**

Ed Weber is a senior electrical engineer with 30 years of experience in power system analysis and planning throughout the upper Midwest region. He has extensive experience in power system reliability and modeling; power flow and stability analysis; transmission tariff process and generator interconnections. He has served on several national and regional work groups associated with the Mid-Continent Area Power Pool, Midwest Reliability Organization, the North American Reliability Corp, and the Western Electric Coordinating Council.

Ed’s experience includes over 20 years of management of large power facility projects requiring coordination of project planning, design, and environmental activities; coordination of consultant activities; coordination of regulatory and contractual activities; interfacing with the developers and transmission owners and operators; and preparation of reports. During his 30 year career at Western Area Power Administration (WAPA), he supervised a diverse staff of professional engineers and was responsible for all facets of power system planning and operational support. Ed directed the initial NERC Standards and Compliance program for WAPA, Upper Great Plains Region; as well as coordinating the tariff revisions necessary to comply with FERC Order 890 - Large Generator Interconnection. Since coming to HDR Engineering, Ed has worked on several large renewable energy projects along with numerous planning studies.

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**Trooper Shaw / Electrical Estimating Supervisor / HDR Constructors, Inc.**

Trooper Shaw is the electrical estimating supervisor for HDR Constructors in Kansas City, MO. He has more than 40 years of construction experience and possesses strong skills in field project management, detailed and conceptual estimating, functional scheduling, cost monitoring, change management, and purchasing.

While at HDR, besides the estimating function, Trooper has managed some 18 projects with a total value over $40 million. These projects were completed in 848 construction days with some 97,894 hours of construction man hours expended with no injuries reported.
INSTRUCTIONAL METHODS

PowerPoint presentations interactive group exercise, and group discussion will be used during this course.

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.

CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.0 CEUs for the course.

EVENT LOCATION

A room block has been reserved at the Doubletree by Hilton Austin, 6505 N Interstate Hwy 35, Austin, TX 78752, for the nights of July 17-19, 2016. Room rates are $129, plus applicable tax. Call 1-512-454-3737 for reservations and mention the EUCI course to get the group rate. The cutoff date to receive the group rate is June 25, 2016, but as there are a limited number of rooms available at this rate, the room block may close sooner. Please make your reservations early.

PROCEEDINGS

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

REGISTER 3 SEND 4TH FREE

Any organization wishing to send multiple attendees to these conferences may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.
PLEASE REGISTER THE FOLLOWING

☐ DISCOUNTED REGISTRATION FEE FOR ATTENDING BOTH FUNDAMENTALS OF ELECTRICITY TRANSMISSION AND COST ESTIMATING METHODOLOGIES FOR SUBSTATION AND TRANSMISSION PROJECTS
JULY 18-20, 2016: US $2395
EARLY BIRD ON OR BEFORE JULY 1, 2016: US $2195

☐ COST ESTIMATING METHODOLOGIES FOR SUBSTATION AND TRANSMISSION PROJECTS COURSE ONLY
JULY 19-20, 2016: US $1395
EARLY BIRD ON OR BEFORE JULY 1, 2016: US $1195

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

Print Name
Job Title

Company

What name do you prefer on your name badge?
Address

City
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Zip/Postal Code
Country

Telephone
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List any dietary or accessibility needs here

CREDIT CARD

Name on Card
Account Number

Billing Address
Billing City
Billing State

Billing Zip Code/Postal Code
Exp. Date
Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx)

OR Enclosed is a check for $___________________ to cover _____________ registrations.

Substitutions & Cancellations
Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before June 17, 2016 in order to be refunded and will be subject to a US $195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of conference cancellation, EUCI’s 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 303-770-8800.

EUCI reserves the right to alter this program without prior notice.

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 28 years organizing conferences.

Sign me up for Energize Weekly.

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