



## Transmission Conference: Evolution of the Grid

March 9-10, 2010

### DATE, TIME, LOCATION

#### March 9, 2010

Transmission Conference: 8:30 a.m. - 4:30 p.m.

#### March 10, 2010

Transmission Member Roundtable: 8:00 a.m. - 11:00 a.m.

#### Denver Marriott South at Park Meadows

10345 Park Meadows Drive

Littleton, CO 80124

Phone: (303) 925-0004

Fax: (303) 925-0005

Web Site: <http://cwp.marriott.com/denms/rmel/>

#### Reservations:

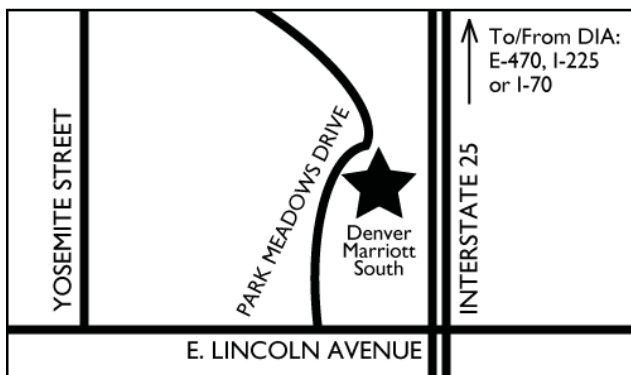
Call (800) 686-2767 or (303) 925-0004 for room reservations at the Denver Marriott South at Park Meadows. A special room rate of \$124 single or double is available when you mention RMEL. The reservation deadline to receive this rate is **February 22, 2010**.

#### Directions to Denver Marriott South:

From I-25 South: Exit at Lincoln Avenue, exit #193. Turn right on to Lincoln. Turn right at next light, which is Park Meadows Drive. Hotel is on the right. Parking is complimentary. For customized driving directions go to [www.mapquest.com](http://www.mapquest.com).

Shuttle service from the airport: Super Shuttle, (800) 258-2836.

Complimentary hotel shuttle service within a 5 mile radius.



### CONFERENCE DESCRIPTION

This conference focuses on how energy companies are overcoming major challenges – physical, economic and social – to transform power delivery systems. Presentations will discuss visions for an interstate transmission system, cover the costs and benefits of extra high voltage lines and showcase proposed and planned projects that include high voltage direct current lines and converters. Attendees will also receive an update on the Western Renewable Energy Zone (WREZ) Transmission Model and federal funding opportunities.

### ISSUE BACKGROUND

Delivering reliable, secure and affordable electricity has never been more challenging. An aging infrastructure coupled with a rapidly increasing demand for energy has pushed the limit of capacity for existing transmission assets. At the same time, new regulatory requirements for renewable energy standards and reliability are requiring utilities to seek new, innovative ways to deliver power.

### WHO SHOULD ATTEND

Management and senior management, engineers, consultants, regulators and project managers involved in planning, building, operating and maintaining transmission systems should attend this conference. Attendees of the Transmission Conference are encouraged to attend the roundtable discussion.

### QUESTIONS

Have additional questions about this conference? Please ask us. Call RMEL at (303) 865-5544. Fax your registrations to (303) 865-5548. RMEL is also on the web at [www.RMEL.org](http://www.RMEL.org).

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### CONFERENCE AGENDA

#### Tuesday, March 9, 2010

8:30 a.m. – 9:15 a.m.

##### **Designing Energy Solutions Without Borders**

*Antonio Smyth, Director, Transmission Business Development,  
American Electric Power*

This presentation will discuss a strategically planned Extra High Voltage (EHV) grid that can provide the required transmission capacity and operating flexibility while drawing on diverse resources that will insulate consumers from resource shortages and catastrophic events.

9:15 a.m. – 10:00 a.m.

##### **High Voltage DC Lines and Terminals: What, When, and How**

*Ruth Johnson, VP, Engineering, High Energy, Inc.  
Gene Wolf, Consulting Engineer, Lone Wolf Engineering, LLC*

High Voltage Direct Current (HVDC) converter stations and transmission lines have become an integral part of today's electrical transmission infrastructure. They represent a significant investment and source of revenue for the electric utilities owning them. They have become significant components in the daily operation of our interconnected systems. This presentation will provide an overview of the technology, the theory, and principals behind HVDC transmission. We will look at HVDC transmission lines and terminals - what they are, when they are used, and how they operate. We will also discuss the state of existing HVDC facilities, life extension issues, and current state of the art.

10:00 a.m. – 10:15 a.m.

##### **Break**

10:15 a.m. – 11:00 a.m.

##### **Searching for a Unified Theory of Transmission and Renewable Energy Development in the West**

*Rich Halvey, Energy Program Director, Western Governors' Association*

The presentation focuses on two key elements. First, a regional perspective and regional cooperation are necessary to plan for future generation and transmission that meets demand and accounts for environmental and natural resource limitations. Second, the current paradigm for renewable energy and transmission will not accelerate the current rate of renewable development; that will require policy or technology changes, or greater incentives. The presentation identifies the elements of a new paradigm for renewable and transmission development, the importance of melding policy development with technical analyses, the myriad of issues that affect our ability to design and build regionally effective systems,

and the need to work within a framework where local economic benefits influence generation and transmission decisions.

11:00 a.m. – 11:15 a.m.

##### **Break**

11:15 a.m. – 12:00 p.m.

##### **Transmission Planning in the West**

*Bradley Nickell, Director, Renewable Integration and Planning,  
Western Electricity Coordinating Council*

The presentation will provide an overview of current WECC planning activities and how they fit with other transmission planning and project development activities in the Western Interconnection. Details on current interconnection-wide transmission expansion planning activities performed by the WECC Transmission Expansion Planning Policy Committee (TEPPC) will be highlighted.

The presentation will also cover the impact that provisions in the American Recovery and Reinvestment Act of 2009 (aka. Stimulus Bill) will have on transmission planning and how entities in the Western Interconnection have responded.

12:00 p.m. - 1:00 p.m.

##### **Lunch**

1:00 p.m. – 1:45 p.m.

##### **Nebraska Public Power District's Grid Essential Projects**

*Craig L. Holthe, Senior Project Manager, Nebraska Public Power District*

This presentation will highlight Nebraska Public Power District's new 345-kV transmission line project as well as two new 115-kV transmission line projects which are part of NPPD's Transmission Upgrade Project. Details of the presentation will include a project overview, routing process, project status and challenges faced.

1:45 p.m. – 2:30 p.m.

##### **The Desert Southwest – Center of the Western Transmission Expansion**

*Brian Keel, Manager, Transmission System Planning, SRP*

Presentation will focus on the transmission expansion that has occurred in the last decade and the expectation of transmission expansion into the next decade in the Southwestern part of the US.

Explosive load growth was the main challenge for transmission expansion in the last decade. Balancing slower load growth and incorporating

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### AGENDA CONTINUED

renewable resource additions is the challenge of the next decade There are numerous transmission project proposals to meet the needs of the desert southwest and the Western Interconnection The presentation will include an overview of all the major projects being proposed.

2:30 p.m. – 2:45 p.m.

#### Break

2:45 p.m. – 3:00 pm.

#### Attendee Announcements

Any registered attendee is invited to make a short announcement on their company, new products, technologies or informational updates. Announcements may include showing a product sample but not videos and power point slides. Please limit announcement to 5 minutes.

3:00 p.m. – 3:45 p.m.

#### High Plains Express Transmission Project Update

*Jerry Vaninetti, Western Transmission Development, NextEra Energy Resources*

The High Plains Express is a proactive project that will expand and reinforce the transmission grid in the states of Wyoming, Colorado, New Mexico and Arizona. This presentation will cover the many aspects of project development and planning including sharing stories from the project participants. Technical routing, environmental issues and communication strategies will be discussed.

3:45 p.m. – 4:30 p.m.

#### The Latest Developments at FERC: Wholesale Electric Markets & Transmission

*Steve Rodgers, Director, Division of Electric Power Regulation-West, Federal Energy Regulatory Commission (FERC)*

- What's next after the FERC Order No. 890 technical conferences on transmission planning?
- What's FERC doing to promote the building of more transmission, demand response, smart grid and energy efficiency?
- What's the latest on FERC rulemaking initiatives?
- What's the latest on major transmission developments in the West, including merchant transmission proposals and transmission rate incentives?
- What's FERC doing about the integration of renewable generation onto the grid, including transmission queue reform issues and the provision of ancillary services?
- How could pending legislation affect FERC's jurisdiction?

### TRANSMISSION ROUNDTABLE

Wednesday, March 10, 2010

8:00 a.m. - 11:00 a.m.

#### Member Roundtable

The member roundtable is a discussion group, open to all RMEL members. There is no set agenda or planned topics, rather discussion is dynamic and based on topics brought by attendees. Typically roundtables are held in conjunction with a conference and many topics presented at the conference are discussed further in the roundtable setting. The roundtable is a good opportunity to share experiences, troubleshoot problems and network with peers in a smaller, informal setting. Each participant is offered a chance to pose questions and share information. Breakfast is provided. All RMEL members are invited to participate in the Transmission Roundtable. Attendees of the Transmission Conference are encouraged to attend the roundtable discussion.

❖ Roundtable registration is limited to 40 members.

### RMEL CONTINUING EDUCATION CERTIFICATE

All attendees will receive a continuing education certificate worth **6.0 Professional Development Hours (PDHs)** by RMEL, upon completion of the course. There will be 1.0 professional hour (PDH) given for attending the Member Roundtable. RMEL serves a large territory in which attendees participate in a number of accrediting organizations, each with their own requirements. Depending on the certifying body you are affiliated with, RMEL PDHs may be applied towards your recertification credit. It is the responsibility of the attendee to determine if the credits are applicable to their certifying body and how they may be applied. Use the event brochure, and agenda to determine how the content applies to your certification. The attendee is also responsible for verifying how the quantity of RMEL PDHs convert to your certifying body credits. Typically 1.0 PDH is equal to .1 CEU, but you should always verify the conversion scale. All attendees will receive a continuing education certificate worth **1.0 Professional Development Hours (PDHs)** by RMEL, upon completion of the roundtable.

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## REGISTRATION FORM

**How to Register:**  
**Online** - Register online at [www.RMEL.org](http://www.RMEL.org)  
**Phone** - Call RMEL at (303) 865-5544  
**Fax** - Fax your form to (303) 865-5548  
**Mail** - Send your form and payment to RMEL

YOU DO NOT NEED YOUR MEMBER ID TO REGISTER. However, to save time when filling out this form, you may simply list your member ID number rather than fill out all the contact information. If you do not have an ID or do not remember it, complete the entire form and you will be assigned an ID number. Each individual of a member company is assigned their own personal member ID.

Name: \_\_\_\_\_ Your Personal Member ID#: \_\_\_\_\_

*No Member ID? No Problem. Please provide the following instead:*

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

### RMEL Transmission Conference: Evolution of the Grid - March 9, 2010 8:30 a.m. - 4:30 p.m.

*Registration Includes: Continental breakfast, breaks, lunch, presentations, handouts, attendee roster, and upon course completion, a continuing education certificate.*

- Member full-day meeting \$240
- Non-RMEL member full-day meeting \$480

### RMEL Transmission Roundtable - March 10, 2010 8:00 a.m. - 11:00 a.m.

*Registration Includes: Continental breakfast, attendee roster, and upon course completion, a continuing education certificate.*

- Member Roundtable \$50

Total. . . . . \_\_\_\_\_

## PAYMENT INFORMATION

- Check (RMEL; 7009 S. Potomac St; Suite 109; Centennial, CO 80112)
- Visa  Master Card or  American Express

Card#: \_\_\_\_\_ Exp. Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Cancellation Policy:** Fees are refundable if cancellation is received on or before 5 p.m., **February 27, 2010**. If cancellation is received after that date, half the registration fees will be refunded. Payments will be processed for those who do not attend or do not cancel by 5 p.m. the day before the event. To have someone take your place, please notify RMEL anytime before the event.