RMEL
Education and networking for the electric energy industry.
www.RMEL.org
6855 S. Havana St, Ste 430 ~ Centennial, CO 80112

MANAGEMENT

Smart Grid Conference - Intelligent Technologies

DATE, TIME, LOCATION

February 10-11, 2011
February 10 - Conference: 8:30 a.m. - 4:30 p.m.
February 11 - Member Roundtable: 8:00 a.m. - 11:00 a.m.

The Canyons
4000 Canyons Resort Dr
Park City, Utah 84098
Phone: 435-649-5400
Fax: 435-649-7374
Web site: http://www.thecanyons.com/

Hotel Benefits

- Daily Newspaper (Monday- Friday)
- Wireless Internet Access in all Guestrooms, Public Areas, and Function Rooms
- Premium Coffee and Tea in-room
- Convenient Resort Shuttle within the Village
- Priority access to The Canyons Grand Summit Spa (steam and sauna)
- Pool Access at reserved Lodges for guests to enjoy
- Time saving boarding pass /Printer check-in Stations

Reservations:
Call 1-888-CANYONS (1-888-226-9667) for room reservations at The Canyons. Special room rates of $225.00 single or double or $299.00 one bedroom suite are available when you mention RMEL. The reservation deadline to receive this rate is January 10, 2011. The rate will be extended to RMEL attendees February 6, 2011 through **February 14, 2011.**

You must mention you are making your reservation as part of the RMEL room block when calling the hotel. By not doing so, you may be incorrectly told that the hotel is full or quoted a different room rate. If the contracted room block is not met, RMEL is financially liable for penalties. **Government Employees:** If you are making your reservation at the federal government rate, please be sure to mention you are part of RMEL so you will be counted towards the room block.

Directions to The Canyons
From Salt Lake City International Airport to The Canyons Resort in Park City take I-80 East through Salt Lake City. (I-80 merges with I-15). You will now follow I-80 East for about 15 – 20 minutes and take Exit #145 Kimball Junction / Park City. This exit is the main road that enters Park City and The Canyons. You will be on SR-224. Follow 224 for two miles from the exit and take a right at the stop light on to The Canyons Resort Drive. Continue a short distance up to The Canyons. Meetings and most sleeping rooms are located in The Canyons Grand Summit Hotel building. See www.thecanyons.com for a property map.

ACTIVITIES & DISCOUNTS

RMEL negotiated with The Canyons to offer the following discounts, amenities and specials for the attendees:

- Attendees receive discounted lift tickets at a rate of $60 per person per day. You will receive your voucher at check in.
- Attendees receive a 15% discount off of Sport Package ski and snowboard equipment through Canyon Mountain Rental Shop. To receive this discount call the Canyon Mountain Rental and mention the hotel and the RMEL Conference. This package includes all equipment needs to snowboard or ski.
- Attendees receive a 10% discount off of all treatments at the Grand Summit Spa. To receive this discount call the Grand Summit Spa and mention the hotel and the RMEL Conference.
- Attendees receive a 10% discount off of Adult Group ski and snowboard lessons through The Canyon Ski School. To receive this discount call the Canyon Ski School and mention the hotel and the RMEL Conference.

Smart Grid Conference - Intelligent Technologies

AGENDA

February 10, 2011

8:30 a.m. - 9:15 a.m.

Smart Grid from a Utility Perspective

Tony Tewelis, Manager, Smart Grid Programs, Arizona Public Service

This presentation will describe APS's Smart Grid approach to date, its strategy, as well as its deployment of both utility-facing technologies (AMI, Smart Circuit Automation, Outage Notification, etc), and customer-facing programs (Renewables, Demand Response, In-home Displays, and Electric Vehicles).

9:15 a.m. - 10:00 a.m.

PacifiCorp's Smart Grid: A Technology and Business Review

Doug Marx, Director, Smart Grid, PacifiCorp

Joshua B. Jones, Reliability Engineer, PacifiCorp

PacifiCorp embarked on a comprehensive review of the technologies that make up a "smart grid" and an economic business review to determine what technologies should be included and may be cost effective for the company. This presentation will discuss the results of the review, the economics and the risks of smart grid.

10:00 a.m. - 10:15 a.m.

Break

10:15 a.m. - 11:00 a.m.

TEP's Smart Grid Strategy and Current Activity

Jim Taylor, Supervisor PCAM Engineering, UniSource

Come see how TEP has defined what the Smart Grid is and the strategy we have developed around the definition. The presenter will also cover the current Smart Grid activity at TEP as well as projects currently under evaluation.

11:00 a.m. - 11:45 a.m.

Implementation of Future Technologies for NV Energy's NVEnergize Solution

Jeff Evans, Executive Consultant, Enspiria Solutions, Inc.

NV Energy is implementing its NVEnergize solution. The NVEnergize program vision strives to ensure "customers have the information to take ownership of their energy usage, and are more than satisfied to do so." The NVEnergize program solution incorporates the implementation and integration of AMI, MDMS, demand response, and dynamic pricing elements.

In support of the implementation of NVEnergize, NV Energy received a $138 million ARRA smart grid investment grant. NV Energy is navigating through the Nevada regulatory and DOE compliance processes. This presentation will discuss the internal and external steps needed to successfully deploy the technologies that are part of the NVEnergize solution.

During this presentation, Enspiria Solutions will provide an overview of the NVEnergize solution. The internal efforts include current system evaluation, back-office planning, solution design, deployment planning, and field acceptance testing. The external efforts include the process implemented to achieve consumer confidence in the NVEnergize solution, ARRA smart grid investment grant realization, and Nevada regulatory compliance.

11:45 a.m. - 12:45 p.m.

Lunch

12:45 p.m. – 1:30 p.m.

Smarter Consumers, Smarter Grid: Engaging the Customer to Create Energy Savings through Intelligent Conservation

Keith Lynch, Contract Resources & Power Trading Manager, Fayetteville Public Works Commission

Steve O'Neill, Business Development Manager, Consert Inc.

Creating a smarter grid to counteract increasing electric usage and rising energy costs has become a necessity. However, for many, seeking a sound solution to support their needs has become quite a challenge.

Working with Consert Inc., which offers a software-as-a-service system enabling a complete home energy management solution, North Carolina-based Fayetteville Public Works Commission (FPWC) was able to achieve success by creating smarter customers to achieve a smarter grid.

By empowering homeowners to take control of their energy consumption, energy conservation can attain the attributes of generation. This is achieved by attaching intelligent measurement and control hardware to major energy consuming devices that draw energy when no one is using them. Consumers then use the solution software to create dynamic profiles or preprogrammed profiles, both of which manage usage according to changeable preferences. Consumers also set defined limits authorizing their energy provider to further manage usage for mutual economic advantage and to address peak load events. Utilizing this intelligent conservation, a Virtual Peak PlantSM which produces zero greenhouse emissions can be used to defer or supplant the need for additional conventional power plants at a cost that is 10-20% of the current cost of a new gas-fired peak plant.

This presentation will highlight the FPWC's $martWorks pilot program conducted with 100 residential customers. Data presented will show the measurement and verification of energy consumption reduction of up to 40% in some participating households with an average of 15 to 20%. Pilot participant survey results and feedback to the program will be shared including customer observations on their energy usage and

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AGENDA CONTINUED

environmental impact. Benefits to distributing utility/co-op including improved demand forecasting, REPS compliance options, lowered capital/operating expenditures and more will also be discussed.

1:30 p.m. – 2:15 p.m.

Asset Management with a Smart(er) Grid

Joel Dagerman, T&D Asset Manager, Nebraska Public Power District

This presentation will describe the general "asset management process" at Nebraska Public Power District and the refinements being executed as the distribution and transmission grids progress from a relatively static environment to become enabled with smart grid capabilities and technologies.

Asset management on the transmission level will be examined through the development of equipment health indices as it relates to asset and component reliability. The transition from irregular asset health scores to online real time analysis improves the equipment screening and prioritization of maintenance and capital projects.

This presentation will also examine the District's distribution smart meter project and the inherent data being used for asset management, validation of system planning assumptions and distribution circuit performance improvement.

2:15 p.m. – 2:30 p.m.

Break

2:30 p.m. – 3:00 p.m.

Attendee Announcements

Any registered attendee is invited to make a short announcement on their company, new products, technologies, or informational updates. Five minutes or less per attendee, please! Announcements may include showing a product sample, but no videos and power point slides.

3:00 p.m. – 3:45 p.m.

Smart Grid Case Study: Olympic Peninsula Project

Carl Imhoff, Manager, Electricity Infrastructure Market Sector, Pacific Northwest National Laboratory

This presentation describes the implementation and results of a field demonstration wherein residential electric water heaters and thermostats, commercial building space conditioning, municipal water pump loads and several distributed generators were coordinated to manage constrained feeder electrical distribution through the two-way communication of load status and electric price signals. The field demonstration took place in Washington and Oregon and was paid for by the U.S. Department of Energy and several northwest utilities. Price is found to be an effective control signal for managing transmission or distribution congestion. Real-time signals at 5-minute intervals are shown to shift controlled load in time. The behaviors of customers and their responses under fixed, time-of-use and real-time price are compared. Peak loads are effectively reduced on the experimental feeder.

A novel application of portfolio theory is applied to the selection of an optimal mix of customer contract types.

3:45 p.m. – 4:30 p.m.

Smart Grid Case Study: SmartGridCity™ Update and Lessons Learned

Mary Fisher, VP, Strategic Technologies, Xcel Energy

Xcel Energy's SmartGridCity™ project is a technology pilot that explores smart grid tools in a real-world setting. The project has allowed Xcel Energy to evaluate potential improvements in operational efficiency; system reliability; conservation, and renewable energy applications. This presentation will provide an overview of how the project has created a comprehensive smart grid test bed, allowed the utility to build upon on its skills and work experience, and analyze a diverse set of value propositions. The scope of this project speaks to its complexity. Xcel Energy has built a robust smart grid. As a result of this technology and integrated design, the Boulder smart grid can now be monitored in real time and be proactively maintained. This session will detail how SmartGridCity™ is producing some of the most reliable electric service in Colorado and how customer-facing programs, including advance pricing programs, will allow the utility to learn more about consumer preferences.

February 11, 2011

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

SMART GRID VITAL ISSUES ROUNDTABLE

Roundtables offer a unique forum for peer-to-peer sharing of experiences, critical issues and expertise. The roundtable is a discussion group, open only to RMEL members. Discussion is based on topics brought by attendees. Typically one or two presentations are given, followed by attendee discussion and sharing. Roundtables are focused on the open discussion period and provide each attendee the opportunity for participation and dialogue on their particular issue. 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. All attendees are encouraged to bring issues for discussion and materials for sharing.

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DESCRIPTION

What are the major elements of a Smart Grid program? Major building blocks that make up a Smart Grid program include: strategy, economics & public education, customer vs. utility experience, smart T&D, metering, substation and communication. This conference will be structured based on these building blocks and focus on the portfolio of technologies that create the Smart Grid. Attendees will hear from utilities that have pilot projects and roadmaps in place and from the companies developing the next generation of intelligent technologies. Best practices will be discussed as well as some of the benefits and costs utilities can expect from various Smart Grid technologies. This is an exciting conference that will help you envision and develop future Smart Grid programs for your company. Also will cover regulatory and policy issues.

WHO SHOULD ATTEND

All utility personnel involved in capital projects, planning, design, installation and operations of metering, interface of utility data, AMI and Smart Grid projects. Anyone facing the challenges presented by an aging workforce, declining infrastructure and new security, reliability and other issues combined with Smart Grid transformation will benefit from this conference. Member attendees of the Smart Grid Conference are encouraged to also attend the Smart Grid Roundtable. Individuals with other backgrounds are also welcome to learn about the issues in this section.

CONTINUING EDUCATION CERTIFICATES

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.

RMEL EDUCATION

RMEL's resources and 30 annual events help everyone at your organization do their best. Content is designed to help attendees and members feel productive and knowledgeable as they get back to work armored with practical takeaways. Continuing education credits are given at each event, and members can even bring an RMEL event to their location.

RMEL's education program is designed to meet the needs of its members by expanding the knowledge base at every level within companies. From high-level conferences and executive forums to workshops that reinforce and build upon skills and operational practices, the membership drives the content of RMEL products and services.

RMEL sections for generation, transmission, distribution, safety and management make your experience finding tangible value with the association easier than ever before. Within each section:

- Roundtables allow you to meet in a setting that focuses on trust and peer-to-peer sharing and serve as a catalyst for future program development
- Core events reoccur at the same time every year so you can plan ahead
- New events called electives are created each year to stay ahead of industry issues
- The Course Catalog lets you choose a course to bring to your location.

Identify your interests by updating your profile on www.RMEL.org then watch for the content and benefits of your section in your inbox.

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REGISTRATION

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.

Your Personal Member ID#: _____ Name:_____

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:_____

HOW TO REGISTER

ONLINE
Register online at www.RMEL.org

PHONE
Call RMEL at (303) 865-5544

FAX
Fax your form to (303) 865-5548

MAIL
Send form and payment to RMEL

CONFERENCE 411

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February 10, 2011 8:30 a.m. - 4:30 p.m.

Registration Includes: Continental breakfast, breaks, lunch, training, course materials, attendee roster and, upon course completion, a continuing education certificate, resort activity discounts.

❑	Member full-day meeting	$250
❑	Non-RMEL member full-day meeting	$500

RMEL Smart Grid Vital Issues Roundtable
February 11, 2011 8:00 a.m. - 11:00 a.m.

Registration Includes: Roundtable discussion, continental breakfast, breaks, attendee roster and, upon course completion, a continuing education certificate.

❑	Member Roundtable	$50

Total. . . . . _____

PAYMENT

❑ Check (RMEL; 6855 S. Havana St, Ste 430; 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. on **January 31, 2011**. If cancellation is received after that date, half of the registration fee 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.

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