

IRP BEST PRACTICES SUMMIT





EUCI is authorized by IACET to offer 1.3 CEUs for this conference



CPE Credits: 15.0 for the conference There is no prerequisite for this event. Program field of study: Specialized Knowledge Program Level: Basic Delivery Method: Group Live Advanced Preparation: None





SPONSORS









MEDIA PARTNER



OVERVIEW

This program – designed by integrated resource planners for integrated resource planners – will explore the new IRP paradigm. Leading utility, power resource planning professionals and related industry experts will address the key elements associated with emerging operational issues, such as:

- Environmental mandates
- Variable energy resources
- · Regulatory policies
- Modeling around uncertainty

The conference will blend presentations from utilities, state regulatory staff/commissioners, non-utility SMEs, service providers and other resource planning gurus from all over North America. Case studies will provide a solid survey of "best practices" thinking and methodologies by a full range of utilities and subject matter experts, and feature panels will draw out collaborative concepts for further consideration and implementation.

LEARNING OUTCOMES

Attendees will gain practical skills and insights on how to:

- Develop resource plans that incorporate the full palette of supply and demand options
- Describe how IRP planners can analyze, model and incorporate DERs and storage in IRPs
- · Identify how to properly account for all variables when analyzing, modeling and planning portfolio decisions
- Determine the value of portfolio flexibility for resource planning and market operations
- Consider the range of inputs that future resource decisions should incorporate to map a pathway for attainment of carbon-free generation resource outcomes
- · Evaluate the portfolio effects of high penetration renewable energy resources in production cost models
- Examine the preparation of IRP documentation with regulatory and stakeholder review and engagement in mind

WHO SHOULD ATTEND

- Integrated resource planning
- Resource adequacy planning
- Strategic and long-range planning
- Forecasting and analysis
- · Energy efficiency planning
- Demand response planning
- · Generation and load planning
- Transmission planning
- Reliability planning
- Intra-hour operations analysis and modeling
- Renewable energy planning
- · Environmental and GHG planning
- State regulatory and commission staff
- Carbon/emissions management teams
- Carbon/emissions market consultants and advisors
- Environmental compliance groups
- · Regulatory affairs
- Asset management
- · Financial analysis



AGENDA

WEDNESDAY, MAY 1, 2024 - PACIFIC TIME

8:00 – 8:30 am Registration and Continental Breakfast

8:30 – 9:00 am Overview and Introductions

9:00 – 10:30 am Ensuring Resource Adequacy in a High Renewable Future

Developing a least-cost resource plan that can meet environmental goals while maintaining reliability is particularly challenging. This session will examine modeling techniques and best practices to navigate these challenges. A case study from Tri-State Generation & Transmission will present highlights of the coop's recent 2023 Electric Resource Plan in Colorado, which included developing planning reserve margins and effective load carrying capability (ELCC) curves as well as analyzing extreme weather sensitivities (high load, low renewable output, limited market purchases, etc.) to make sure it would meet Level I and Level II reliability metrics.

Brian Thompson, Resource Planning Manager, Tri-State Generation & Transmission Norm Richardson, President, Anchor Power Solutions (a division of Yes Energy)

10:30 – 10:45 am Morning Break

10:45 am – 12:15 pm Hourly Matching of Clean Energy with Customer Demand – How Much Is It Worth?

This session explores the strategy and methods of aligning clean energy supply with customer demand on an hourly basis. The discussion will focus on the impact of reducing carbon emissions in densely populated areas and the challenges and strategies involved in transitioning to an hourly carbon tracking system.

Key takeaways:

- Planning hourly clean energy matching, including the use of hourly RECs, curtailments, and emergency backup from natural gas
- Predicting marginal carbon emissions with hourly matching

Lena Perkins, Manager – Emerging Technologies Manager & Senior Resource Planner, City of Palo Alto (CA) Utilities

Dr. Brandon Mauch, Director – Resource Planning Analytics, Ascend Analytics

12:15 – 1:15 pm Group Luncheon

1:15 – 2:45 pm IRP Stakeholder Engagement Dos and Don'ts

For utilities whose IRP practices and processes are available for public or regulatory review and comment, robust stakeholder engagement is now a requirement – not simply a PR gesture. This segment is a case study of the elements and impressive outcome that such an engagement yielded for its sponsor, Burbank Water & Power, and will address:

- Importance of the stakeholder process
- How stakeholders were selected
- How community meetings were set
- How the stakeholder survey was selected
- · How the stakeholder scorecard was selected
- Lessons learned

Mandip Kaur Samra, Assistant General Manager – Power Supply, Burbank Water & Power

AGENDA

WEDNESDAY, MAY 1, 2024 - PACIFIC TIME (CONTINUED)

2:45 – 3:00 pm Afternoon Break

3:00 – 4:30 pm Parsing Which Long Duration Storage Technologies Will Prevail

If there is such a thing as "the holy grail" for the power industry, it could well be long duration energy storage (LDES) – especially if solutions emerge allowing for energy to be efficiently stored for multiple hours up to weeks and months. This panel will explore what LDES technologies are gaining momentum on the path to commercialization and how focused efforts across the industry are aligning to address the array of market challenges that persist. A discussion of recommendations to address challenges in economics and valuation, policymaking, and technology evaluation, all specific to LDES technologies, will be highlighted in this session.

Will McNamara, Energy Storage Policy Analyst, Sandia National Laboratories

4:30 – 5:30 pm EcoCampus Tour & Reception

THURSDAY, MAY 2, 2024 - PACIFIC TIME

8:00 – 8:30 am Continental Breakfast

8:30 – 10:00 am Is Integrated System Planning (ISP) a Realistic Approach to IRP?

The fundamental elements of an IRP really haven't changed since it was formulated more than half a century ago by vertically integrated utilities. Or have they – given the shifts in grid architecture, generation resource options and the role of public discourse? This segment will examine one IOU's refresh to its traditional IRP, often referred to as ISP. The case study will examine the broader, more holistic approach for optimizing infrastructure build decisions, considering generation, transmission, distribution, energy storage, electrification, energy markets and other conditions that have morphed over time.

Phillip Popoff, Director – Resource Planning Analytics, Puget Sound Energy Mary Faulk, Director – Integrated System Planning & Support, SRP

10:00 - 10:15 am Morning Break

10:15 – 11:45 am Storage Modeling Best Practices

This segment will discuss the specific barriers that traditional resource planning practices create for energy storage and examine the degree to which utilities around the country are acknowledging those barriers and adapting their planning processes to more accurately value energy storage. It will provide an overview of emerging best practices in utility resource planning and policy efforts at the state level to facilitate the inclusion of energy storage in the electric grid.

Rae Susan Brigham, Clean Energy and Decarbonization Advisor, Southern California Edison Amy Li, Senior Manager – Resource & Environmental Planning and Strategy, Southern California Edison

Seth Wiggins, Senior Manager – Strategy and Planning, Portland General Electric Scott Burger, Director – Analytics, Form Energy

AGENDA

THURSDAY, MAY 2, 2024 - PACIFIC TIME (CONTINUED)

11:45 am - 12:15 pm

Assessing the Impacts on IRP of the Inflation Reduction Act

The Inflation Reduction Act (IRA) extends and expands tax credits for numerous clean energy projects and is re-shaping the power industry, from wholesale markets to resource planning to end-use consumption. The changes included in the act increase the opportunities for energy storage deployments as well as the

complexity of decision-making for technology investments and project developments. This panel will provide an overview of the IRA incentives and expected power market impacts on IRP best practices.

Will McNamara, Energy Storage Policy Analyst, Sandia National Laboratories

12:15 - 1:15 pm

Group Luncheon

1:15 - 2:45 pm

Plugging EVs and Electrification Impacts into an IRP

This segment will be a case study as to how one electric utility is evaluating the surge of EVs and electrification into its grid. It will look at aspects such as:

- Customer attributes
- Vehicle attributes
- Types of EVs
 - o Light-duty (passenger sedans/SUVs and small pickups)
 - o Medium- and heavy-duty trucks and buses
- Identifying data sources
 - o State DMV
 - o Government
- Developing local/regional sales dataset
- · Adoption/Diffusion curves for stock forecast
- Typical diurnal charging profiles by class
- Vehicle miles traveled (VMT)

Chris Matos, Project Manager, Siemens PTI Chelsea Cupit, Project Manager, Siemens PTI

2:45 - 3:00 pm

Afternoon Break

3:00 - 4:00 pm

Is Weather Variability the Key Element in Planning for Uncertainty?

As baseload generator retirements accelerate, variable energy resource projects multiply and legacy infrastructure strains to keep pace with mushrooming electric demand, power systems have become more susceptible to weather fluctuations. Reserve margins are at historic lows with little "headroom" for major disruptions from weather. Consequently, utilities need to accurately model reliability risks and economic impacts from changing weather to avoid adverse outcomes, such as blackouts and stranded assets. Therefore, the job of resource planning has become more reliant on better tools to analyze future supply options. This presentation will examine how planning elements have evolved to provide optimized resource plans that jointly minimize costs, risks, and maintain reliability.

Alexander William Pusch, Advisor – Climate Adaptation & Resiliency Planning, Southern California Edison

4:00 pm

Summit Adjournment

WHAT PREVIOUS ATTENDEES HAVE SAID



Director of Resource Planning, BC Hydro

"This is a perfect forum to share, learn and take home a better/ broader understanding of the issues facing our industry." Director

Energy Supply Planning, Northwestern Energy

"Outstanding survey of topics for planners..."

Resource Planner/Economist, Central Minnesota Municipal Power Agency



& Analysis, Vectren

"Conference had solid content with engaging speakers discussing timely issues. Good opportunity to discover a common set of shared concerns from other planning groups, and to get some fresh ideas about how to tackle these challenging issues."

Senior Manager – Capacity Planning, TVA



Director of Integrated Resource Planning, AEP

"Well organized with relevant topics. Learned some new perspectives and approaches to resource planning."

Director, Black & Veatch

"Great speakers and excellent topics that are the current hot topics at most utilities."

Senior Engineer, APS

"This IRP conference was well executed; I learned a lot about the IRP process and how structural change in the markets are shaping the ways that IRPs are developed."

Director, Ascend Analytics

INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations, and group discussion will be used in this event

REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day (or Log in for the entirety) and be in attendance for the entirety of the conference to be eligible for continuing education credit.

IACET CREDITS



EUCI is accredited by the International Accreditors for Continuing Education and Training (IACET) and offers IACET CEUs for its learning events that comply with the ANSI/IACET Continuing Education and Training Standard. IACET is recognized internationally as a standard development organization and accrediting body that promotes quality of continuing education and training.

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CPE CREDITS



CPE Credits: 15.0 for the conference.

There is no prerequisite for this event.
Program field of study: Specialized Knowledge
Program Level: Basic
Delivery Method: Group Live
Advanced Preparation: None

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REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this conference may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

EVENT LOCATION



Burbank Water & Power EcoCampus Auditorium 320 North Lake St Burbank, CA 91502

NEARBY HOTELS

Residence Inn by Marriott Los Angeles

Burbank/Downtown 321 So. Ikea Way Burbank, CA 91502 818-260-8787 0.2 mile to event location

Hotel Burbank

150 East Angeleno Ave Burbank, CA 91502 818-841-4770 0.2 mile to event location SpringHill Suites by Marriott Los Angeles Burbank/Downtown

549 So San Fernando Blvd Burbank, CA 91502 818-524-2730 0.3 mile to event location

SPONSORSHIP OPPORTUNITIES

Do you want to drive new business through this event's powerful audience? Becoming a sponsor or exhibitor is an excellent opportunity to raise your profile before a manageably sized group of executives who make the key purchasing decisions for their businesses. There is a wide range of sponsorship opportunities available that can be customized to fit your budget and marketing objectives, including:

- Platinum Sponsor
- Gold Sponsor
- Vendor Panel
- Workshop
- Networking Break
- Reception/Luncheon/Continental Breakfast
- Tabletop Display

Please contact Stephen Coury at scoury@euci.com or 720-988-1228 for more information.



"Excellent conference with toplevel attendees from various companies and all regions of the country."

Director – Strategy & Planning, PSEG Long Island



"EUCI's IRP agenda is morphing with the industry."

Senior Project Manager – Integrated Resource Planning, Southern California Edison

REGISTRATION INFORMATION EVENT LOCATION

Mail Directly To:

EUCI 6400 S Fiddlers Green Cir., Suite 1600 Greenwood Village, CO 80111

OR, scan and email to: conferences@euci.com

WWW.EUCI.COM p: 303-770-8800

f: 303-741-0849

Burbank Water & Power

EcoCampus Auditorium 320 North Lake St Burbank, CA 91502

see page 8 for nearby hotels

PLEASE SELECT

IRP BEST PRACTICES SUMMIT CONFERENCE
MAY 1-2, 2024 BURBANK, CA: US \$1695
Early bird on or before April 12, 2024: US \$1495

REGISTER 3, SEND THE 4TH FREE

Please note that all registrations must be made at the same time to qualify.

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Energize Weekly is EUCI's free weekly newsletter, delivered to your inbox every Wednesday. We provide you with the latest industry news as well as in-depth analysis from our own team of experts. Subscribers also receive free downloadable presentations from our past events.

How did you hear about th	is event? (direct e-mail, colleague, speaker(s),	etc.)		
Print Name Job		Title		
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Name on Card		Billing Address		
Account Number	1	Billing City	Billing State	
Exp. Date	Security Code (last 3 digits on the back Visa and MC or 4 digits on front of AmE			
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 March 29, 2024 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 course 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.

