

# Energy Symposium 2017 November 12-14, 2017

Hyatt Regency - Newport Beach

Newport Beach, California

## Sunday, November 12, 2017

7:00 PM till 9:00 PM Utility Energy Services Coalition Welcome Networking Reception  
(Non-Hosted) with Cash Bar (members and non-members welcome)

## Monday, November 13, 2017

Registration 8:00 AM - 5:00 PM						
Track		Technologies I	Technologies II	Energy Basics	Energy Independence	Financing
Room Location						
Session	Time	Ray Prosize	Chris Wheeler	E.W. Dovel		Manisha Patel
1	9:00 AM - 9:45 AM	Mechanical Systems Measurement Solutions  Ray Prosize  ONICON	LED Lighting - Here Now, What's Next (Panel)  E.W. Dovel  Orion	Setting Up An Energy Conservation Program - Internal or 3rd Party  Charles Howell  Red Horse	Overrated or Underrated? The Truth about Rating Systems for Sustainability Dominique Hargreaves, Executive Director U.S. Green Building Council - LA Chapter	Finance For Beginners  Scott Foster  Bostonia
2	9:50 AM - 10:35 AM	CEC's New Energy Innovation Ecosystem & Energize California  TBD	Metering Data Analytics: How to use all of your meter data  Chuck Strand	Project Management  Tony Mayfield, PMP On Target Briefings	Power Purchase Agreement  Sharon Gresham, Program Manager USACE	California Propostion 39  Camilo Arango Powersmiths
3	10:40 AM - 11:25 PM	DoD Advanced Control Systems Tactics  Michael Chipley PMC Group	"Maintaining control of energy data integration cost and quality"  Aryana Fadaiefard Powersmiths	Lighting 101  E.W. Dovel Orion Energy Services	Achieving Net Zero  Larry Schoff E2 Energy	Demand Response - Save money and help the grid  Jeanne Boyce SCE
<b>Lunch 11:25 AM - 12:50 PM LUNCH IN THE TECHNOLOGY HALL</b>						
4	12:50PM - 2:20PM	Michael McCormick, Office of Planning and Research, California Governor Office Elizabeth Shirakh, California Energy Commission (invited) Africa Welch-Castle, Energy Division, Huntsville				
5	2:25 PM - 3:10 PM	Energy Storage  Phillip Consiglio  Southern California Edison	Micro-Grid Case Study  Mick Wasco  MCMAS	Tackling Large Portfolio Energy Conservation Measures  Rob de Grasse  RD3, Inc	High Efficiency Dehumidification System (HEDS) Cuts Energy Use >50% for RH Control  Scott Duncan  ROI Engineering	Adaptation and Coordination of Energy Systems for Better Outcomes  Kif Scheuer, Michael McCormick Local Government Commission, Office of Pallning & Research, California Governors Office
<b>Break 3:10 PM - 3:30PM BREAK IN THE TECHNOLOGY HALL</b>						
6	3:30 PM - 4:15 PM	Kinetic Energy Storage Systems: The new generation of flywheel technology. Chuck Strand	TBD	"Envelope Improvements? Why spend millions but leave the windows open?" Jim Parks I-Star Energy Solutions	Advances in Monitoring and Analytical Data Infrastructure  Chris Crosby OSI Soft	Competitive Grants for Energy Projects  Billy Hwang WSP, Parsons Brinckerhoff
7	4:20 PM - 5:05 PM	TBD	Combine Heat and Power  J.P. Hoffman Ameresco	TBD	TBD	8(a) Contracting Basics: How to get the most out of Small Business Contracts Chuck Strand
5:10 PM - 6:30 PM		Networking Reception (Non Hosted) with Cash Bar located in Exhibit Technology Hall				

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**Tuesday, November 14, 2017**

Track		Technologies I	Technologies II	The Palm	Energy Independence	Utility Energy Services
Room Location						
Session #	Time	Ray Prosize	Chris Wheeler	E.W. Dovel		Manisha Patel
<b>Registration 8:00 AM - 5:00 PM</b>						
<b>8:00 AM EXHIBIT TECHNOLOGY HALL OPENS</b>						
8	9:00 AM - 9:45 AM	Smart Water Management  Ben Slick HydroPoint	Saving Energy with Transformers  Camilo Arango Powersmiths	Water technologies – atmospheric water generation: Camp Mayberry <b>example</b> Mark Falasca CCI - Alliance	Energy as a Service  Mike Warwick PNNL	The Benefits of Self Performing ESCOs  Michael Bartlett ABM
<b>Break</b>	<b>9:45 AM - 10:10 AM</b>	<b>BREAK IN THE TECHNOLOGY HALL</b>				
9	10:10 AM - 10:55 AM	WOW!! What do I do with all this Metering Data  Jim Plourde Powersmiths	8 Ways A Bad Energy Audit Will Hurt You  John Avina Abraxas Energy Consulting	GSA 5 Office Buildings ESPC Case Study  Kevin Brown ABM	Buildings Cybersecurity and Energy Efficiency Awareness and Evaluation  Bob Dahowski PNNL	“100% Renewables on your Grid Today”  Patrick Lee, Vice President - Infrastructure and Technology Sempra Infrastructure, LLC
10	11:00 AM - 11:45 AM	Deferred Maintenance  Seth Pearce Ameresco	Smart Connected Lighting  Eric Haugaard CREE	California High Speed Rail 100% Renewable  Todd Bartholf	FAA Case Study (project execution, maintenance efficiency, collaboration with building tenants) Josh Weddington FAA	City/Airport Energy Master Planning Round Table  Chris Gillis ESG
<b>Lunch</b>	<b>11:45 AM - 1:00 PM</b>	<b>LUNCH IN THE TECHNOLOGY HALL</b>				
11	1:00 PM - 1:45 PM	Waste to Energy  Doug Lemons ACCO Engineered Systems	Alternative Fuel Vehicles (Natural Gas, Electric, Propane)  TBD	Color Quality Consideration for Street Lighting  Eric Haugaard CREE	Energy Resiliency  Robert Aunan Tetra Tech	UESC Past. Present, and Future (Panel) Jason Cartozian, Michael Bartlett, Chris Gillis Siemens, ABM, ESG
<b>Break</b>	<b>1:45 PM - 2:10 PM</b>	<b>BREAK IN THE TECHNOLOGY HALL</b>				
12	2:15 PM - 3:00 PM	LED Interior: Case Study Economics of Retrofit VS Replacement E.W. Dovel Orion Energy Services	Electric Charging and Vehicles  Daniel Bakke ABM	Energy Performance Assurance using ISO 50001  Paul Birkeland Global Strategic Energy	Energy Resilience: Installation Master Planning  Africa Welch-Castle USACE	ESPC Past. Present, and Future (Panel)  Michael Bartlett, Chris Gillis ABM, ESG
13	3:05 PM - 3:50 PM					

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## **CyberSecuring Control Systems Workshop**

**Instructor: Michael Chipley PhD GICSP PMP LEED AP President PMC Group**

**Wednesday, November 15, 2017 8:00AM - 4:30 PM**

The Cybersecuring Control Systems Workshop is geared to help architects, engineers, contractors, owners, facility managers, maintenance engineers, physical security specialists, information assurance professionals—essentially anyone involved with implementing cybersecurity in the Control System (CS) life cycle—to learn the best practice techniques to better protect their CS.

The workshop provides a combination of classroom learning modules to teach control system basics, protocols, how to use the NIST Risk Management Framework and the Cybersecurity of Facility-Related Control Systems Design Guidance, and hands-on laboratory exercises using tools and methods to inventory, diagram, identify, attack, defend, contain, eradicate and report a cyber event/incident. This includes understanding and practicing hacker and defender techniques for footprinting, scanning and enumeration, exploitation, and post exploitation clean up and maintain persistence. Attendees will see how hackers use exploit tools to gain entrance into the control system, pivot through the network, establish beacon command and control channels, modify logs to mask presence, and exfiltrate data. Attendees will also learn how to use the Advanced Control System Tactics, Techniques, and Procedures (TTPs) developed by the U.S. Cyber Command (USCYBERCOM) to create a Recovery Jump-Kit to find and eradicate malware and exploits using tools such as MalwareBytes, Microsoft Internals Suite, and OSForensics to perform data collection for forensics.

### **Workshop Overview:**

0800-0900: **Unit 1 Overview of Control Systems, Networking and Communication Protocols, NIST/SANS/ISA/ISSO Standards & Drivers**

0900-1015: **Unit 2 Hacker Methodology**

1015-1030 **Break**

1030-1115 **Unit 3 UFC 4-010-06 Cybersecurity of Facility-Related Control Systems**

1115-1200 **Unit 4 Overview of ICS-CERT CSET tool**

1200-1300 **Lunch**

1300-1330 **Unit 5 Advanced Control System Tactics, Techniques, and Procedures**

1330-1400 **Unit 6 Control System Forensics**

1400-1430 **Unit 7 Acquisition and Procurement Language for Control Systems, Wrap Up Q&A**

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### Practical Project Management Seminar

Instructor: Tony Mayfield, PMP

Wednesday, November 15, 2017 8:00AM - 4:30 PM

Thursday, November 16, 2017 8:00AM - 4:30 PM

Friday, November 17, 2017 8:00AM - 12:00 PM

#### Background

The Practical Project Management Seminar is a course designed for those seeking professional project management certification. It serves as a thorough introduction to the fundamentals of project management. Those seeking additional credentials such as the PMP will benefit from this dynamic and interactive two day work session, while those currently holding credentials will find the certification to be an enhancement as well as the most up to date advanced professional development.

Practical Project Management course provides 20 hours of project management education in classroom hours towards Project Management Professional (PMP) certifications with the additional 15 hours by Webinar on November 20-21. Additionally, the Practical Project Management Seminar provides 16 Professional Development Units (PDUs) for current holders of PMP®/PgMP®, PMI-SP®, and PMI-RMP® credentials. Additionally, the program awards 1.6 Continuing Education Units (CEUs) upon request.

#### Seminar Description

Practical Project Management teaches technical and business professionals how to master the critical skills of project management techniques as part of their technical career development.

The skills developed in the Practical Project Management course apply to large and small projects, product design and development efforts, construction projects, IT projects, software development, and any project with critical performance, time, and budget targets.

Our approach to project management education offers proven, results-focused learning.

Courses are developed and facilitated by Tony Mayfield, PMP president of On Target Briefings with extensive industrial experience. Course emphasis is on providing practical skills and tools supported by relevant case examples.

#### Program Schedule and Content

##### *Introduction to Project Management*

- Definition of a project
- Why project management
- Project life cycle
- Organization structures (functional vs. matrix and borrowed resources)
- Translating needs into requirements

##### *Project Selection and Planning*

- Project selection approaches
- Decision methodologies (decision trees, analytical hierarchy process)
- Project evaluation techniques
- Estimation (costs, schedule and requirements)
- Project financing

##### *Project Planning and Estimating*

- Work breakdown structure
- Scheduling techniques (precedence diagrams, PERT/CPM, Gantt and milestone charts)
- Budgeting techniques (S-curve, earned value)
- Resource allocation techniques (resource loading and leveling)

##### *Project Management and Leadership*

- Special demands on project managers
- Selecting the project manager and the project team
- Project communications
- Organizational structure (teams and team development)
- Characteristics of successful project management
- Management styles, leadership and motivation
- Procedure management

##### *Risk and Quality Management*

- Fundamentals of risk (e.g., what is risk?)
- Methods for dealing with risk and uncertainty
- Risk assessment and management process
- Risk Matrix Approach
- Risk simulation (Monte Carlo simulation)
- Historic roots of quality management
- Current approaches to quality

##### *Project Execution and Control*

- Project execution (configuration management)
- Project control (measuring work performance)
- Financial controls (activity based accounting) • Integrated cost and schedule control (Earned value)