

EUCI presents a conference on:

PARTNERING FOR CLEAN ENERGY DEVELOPMENT ON-SITE IN THE MID-ATLANTIC AND NORTHEASTERN U.S.

October 4-5, 2011 • University of Pennsylvania • Philadelphia, PA



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October 4-5, 2011

OVERVIEW

Facility owners and operators in the Northeast and Mid-Atlantic U.S. are being challenged to utilize energy efficiency and on-site distributed – especially renewable – generation (clean energy) to reduce costs and promote environmental stewardship. With a sea of clean energy options, information, offers, and organizations, it can be difficult for institutions and companies to chart a course for integrating clean energy into their capital planning and investment portfolio. When solar, combined heat and power, wind, smart grid, advanced energy efficiency, green power procurement, and more are possible, deploying clean energy on-site can often feel like being asked to travel without a map, destination, or compass to an unknown destination.

This conference has been designed to give facility owners and operators the road map, detailed directions, and tools that will enable them to proactively analyze and evaluate smart on-site clean energy investments. It will also address the unique challenges faced by nonprofit and tax-exempt institutions in their efforts to deploy and utilize clean energy.

LEARNING OUTCOMES

- Identify the drivers and benefits for hosting on-site clean energy
- Recognize the realistic energy host options, technologies, and scenarios
- Define the characteristics of a potential clean energy host
- Evaluate the on-site contributions of energy efficiency and demand response
- Assess what steps a typical on-site clean energy development follows
- Classify the staff and their roles in on-site clean energy procurement
- Demonstrate the financial case and business model for on-site clean energy
- Examine the host development dilemma of building on-site clean energy or using a developer
- Recognize how to reach the on-site clean energy development community through the RFI and RFP process
- Discuss how on-site clean energy projects engage the SREC and REC markets
- Identify deal structures with on-site clean energy developers and vendors
- Interpret what worked and what didn't work in a case study of an actual on-site clean energy development project

WHO SHOULD ATTEND

Universities, hospitals, municipalities, ports, industrials, and commercial real-estate owners with responsibilities in the following functions:

- Facilities management
- Sustainability officers
- Power-plant and systems operations engineers
- Energy efficiency management and engineers
- Real estate management
- Legal counsel
- Renewable energy developers
- Financial professionals

IACET



EUCI has been approved as an

Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. In obtaining this approval, EUCI has demonstrated that it complies with the ANSI/IACET Standards, which are widely recognized as standards of good practice internationally.

As a result of their Authorized Provider membership status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standards.

EUCI is authorized by IACET to offer 1.4 CEUs for this conference, 0.3 CEUs for the preconference workshop, 0.2 CEUs for the dinner workshop, and 0.3 CEUs for the post-conference workshop.

Requirements for Successful Completion of Program

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

Instructional Methods

PowerPoint presentations, case studies, and workshop exercises will be used in this conference.

October 4-5, 2011

PROGRAM AGENDA

TUESDAY, OCTOBER 4, 2011

7:30 - 8:00 a.m.

Registration and Continental Breakfast

8:00 - 8:15 a.m.

Opening Remarks

9:15 - 10:15 a.m.

Seeing your Facility Forest Through the Trees – Integrating Incentives and Options

The keynote panel features a discussion regarding the trends in and options created by the renewable energy markets, clean energy politics, power markets, and state and federal mandates and incentives. This discussion will bring to bear directional insight on:

- What are the benefits of hosting clean energy?
- What are the options for hosting clean energy on-site? How do you integrate the options into a facility or campus project pipeline?
- What are the market drivers behind clean energy options? The competitive megatrend in the power sector?
- What is the future of regulatory mechanisms creating clean energy drivers such as renewable portfolio standards, feedin-tariffs, grant and rebate programs, tax programs, and demand side management programs?
- What types of partnerships might be needed?
- Mark Buckley, Vice President of Environmental Affairs, Staples
- Dr. Jon Byrne, Director, Center for Energy and Environmental Policy, University of Delaware

9:15 - 10:30 a.m.

Identifying the Realistic Energy Host Options, Technologies, and Scenarios

This panel of engineering, technology integration, and policy experts will discuss how host facilities should undertake the process for identifying the opportunities and risks associated with various on-site generation technology options including:

- Solar
- Wind
- CHP/co-generation
- Fuel cells
- Biomass

Combined heat and power (aka, co-generation) has been around for a long while and is an important option if you have steam load. Fuel cells have been around for some time as well, but they have long been considered uneconomic. Do any of these technologies provide immediate, realistic options for deployment when compared with energy efficiency? What elements often frame solar as the most visible option for on-site power, and what are the specific economics buttressing solar deployments?

- James Freihaut, Director,
 - USDOE Mid-Atlantic Clean Energy Application Center
- Ron Bowlan, Vice President and Chief Facilities Officer, Jefferson University and Hospitals
- David Terry, Executive Director,
 National Association of State Energy Officials

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 are a wide range of sponsorship opportunities available that can be customized to fit your budget and marketing objectives, including:

- Platinum, gold, or VIP sponsor
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- Cocktail reception host
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- Networking break host
- Luncheon host
- Tabletop exhibit
- Breakfast host

Custom sponsorship opportunities are also available. Please contact Stephen Coury, 303-770-8800, ext. 255 or scoury@euci.com for more information.

October 4-5, 2011

PROGRAM AGENDA

TUESDAY, OCTOBER 4, 2011 (CONTINUED)

10:30 - 10:45 a.m. Morning Break

10:45 a.m. – 12:00 p.m. The Role of System Feasibility Assessments:

How Do Clean Energy Systems Work in My Facility?

The panel will present on best practices in distributed generation or renewable energy site feasibility assessments, focusing on questions such as:

- What are the characteristics that make up a good clean energy site?
- How does a facility start the feasibility assessment process?
- How do I best address on-site clean energy sizing and output expectations?
- What are some of the opportunities and challenges associated with assessing the feasibility of the most popular on-site green generation options?
- Blaine Collison, EPA, Director of Green Power Partnership
- Doug Friedel, Projects Director, Black & Veatch
- Marie Schnitzer, Director of Solar Services, AWS Truepower

12:00 – 1:30 p.m. Group Luncheon

1:30 – 2:45 p.m. Are Energy Efficiency and Demand Response the Best Clean Energy Resources for My Site?

Energy efficiency (EE) and demand response (DR) are generally acknowledged as the most costeffective and value-added methods for reducing energy costs and emissions, as well as being the most efficient "capacity and energy" additions that hosting facilities can make. This panel will present on the cutting-edge techniques and technologies for EE and DR, and will discuss the future of energy storage. The discussion will explore the economic opportunities of EE and DR from multiple end-user perspectives.

- Robert Chilton, Executive Vice President, Gabel Associates
- Liz Robinson, Executive Director, Philadelphia Energy Coordinating Agency
- Harry Halpert, President, MTC Logistics

2:45 – 4:00 p.m. What Steps Does a Typical On-Site Clean Energy Development Follow: Who Do I Work With?

The panel will discuss the procurement options for on-site energy development and the roles of developers, vendors, consultants, financials, regulators, construction companies, utilities, and counsel in the procurement process. Questions to be addressed include:

- What are common development tracts for different types of host facilities?
- Should I be buying energy or assets?
- What do I do with an unsolicited proposal?
- How do I best leverage the skills and expertise in the industry, while maintaining value for the host contributions?
- Mark Brink, Project Director, Union County Improvement Authority (invited)
- Marc Roper, Vice President, Tioga Power
- Stephen Pearlman, Partner, Inglesino, Pearlman, Wyciskala & Taylor

4:00 – 4:15 p.m. Afternoon Break

October 4-5, 2011

PROGRAM AGENDA

TUESDAY, OCTOBER 4, 2011 (CONTINUED)

4:15 – 5:30 p.m. Reaching the Development Community: The RFI and RFP Process

This panel will present and discuss the best practices for structuring, sending, and scoring RFIs and RFPs for clean energy development partners. These questions and more will be explored:

- How do I effectively use the RFP/RFI process as a screen for potential developers?
- What's the difference between an RFI and an RFP?
- When are RFIs important?
- What should an RFI contain?
- How much detail should be in the RFI scope?
- When should I do an RFP?
- What should the action items be in an RFP?
- John MacLean, Managing Director, Energy Efficiency Finance Corp.

5:30 – 6:30 p.m.

Networking Reception

WEDNESDAY, OCTOBER 5, 2011

7:30 – 8:00 a.m. Continental Breakfast

8:00 – 9:15 a.m. REC/SREC Instruments and Market Outlook –

How Will My Project Engage the Environmental Markets?

This panel will discuss the origin and purpose of the REC/SREC markets, and their role in driving on-site clean energy investments, as well as the current status and projected growth of Mid-Atlantic and Northeast REC/SREC markets including PA, DE, MD, DC, NJ, CT, NY, and MA.

- What are RECs/SRECs?
- How are RECs/SRECs transacted?
- How can my project use RECs/SRECs to derive additional value?
- Make or buy decision
- What are the carbon benefits of RECs? How can they be used or sold as offsets?
- State-specific drivers, terminology, and technology
- Is purchasing RECS the right answer for long-term sustainability needs?
- Christopher Berendt, Of Counsel, Drinker Biddle & Reath LLP
- Jason Brown, Senior Marketing Manager, 3Degrees
- Jay Carlis, Vice President, Retail Division, Community Energy Inc.
- Ken Ogawa, Executive Director, Penn Facilities and Real Estate Services

9:15 - 10:30 a.m.

Proving the Financial Case for Clean Energy: Demonstrating How the Implementation of Clean Energy On-Site Can Reduce Costs or Generate Revenue while Improving the Environment

The panel will discuss best practices in the examination of the financial viability of a clean energy project. Further, the panelists will shed light on how to structure and message the financial value proposition throughout the capital planning process – both internally and externally. The panel will explore the "green" aspect of on-site power generation and take a look at the potential accretive benefits to your organization's balance sheet, considering:

- Financial modeling
- General financing options
- Cost savings charting
- Revenue opportunity profiling
- Pro forma selection and design
- Assumption construction
- Risk adjusting
- Transaction review committee and capital committee strategies
- Randall E. Solomon, Co-Director, Institute for Sustainable Government
- Douglas Bacher, Managing Director, NW Financial Group

October 4-5, 2011

PROGRAM AGENDA

WEDNESDAY, OCTOBER 5, 2011 (CONTINUED)

10:30 - 11:00 a.m.

Networking Break

11:00 a.m. - 12:15 p.m. The Host Development Dilemma: Build It Yourself or Use a Developer?

Often host facilities and sites face the question of outsourcing project development. This panel will explore the circumstances when it makes sense to work with a developer and when tackling it internally may be the best course. The panel will focus on questions such as:

- What contracting vehicles are best for aligning host site and developer objectives?
- What are the advantages to owning versus contracting for on-site energy assets?
- Is there a viable business case for both?
- How do you explore the limits, value, and risks associated with each option?
- How do you meet your objectives with outsourced development?
- What do you do to assess your capabilities for developing projects internally?
- Panel discussion

12:15 - 1:30 p.m.

Group Luncheon

1:30 - 3:00 p.m.

Deal Structures with Developers and Vendors: What Types of Offers?

This panel will present and discuss on the structures and details facility operators and owners might expect to encounter when contracting with clean energy developers. This session will review:

- Tips on contract types, financing, and negotiating strategies
- The types of deals developers most desire
- Contracting for alignment of host site objectives and goals with developers and vendors
- Joyce M. Ferris, Founder and Managing Partner, Blue Hill Partners

3:00 - 3:15 p.m.

Networking Break

3:15 - 5:00 p.m.

Putting It All Together: Princeton University Case Study

Princeton University is widely recognized as a leader in clean energy applications. With a campus containing more than 150 buildings and a variety of load demands, Princeton uses a combination of CHP, steam, district energy, and renewable energy components to power the campus. In this case study, two components of the institution's comprehensive on-site clean energy program will be addressed:

- Conventional economic dispatch system
- CHP and other plant equipment deployment
- On-site energy objectives
- Electricity market participation
- "Best life-cycle cost" decision-making
- Renewable energy components 2.
- 5.3 MW solar system
- Several rooftop applications

Both segments will examine relevant details associated with:

- Planning
- Technology
- Financing
- Multi-party negotiations
- Procurement process
- Political and regulatory process
- Public outreach
- Ted Borer, Jr, Plant Manager, Princeton University
- Baird Brown, Partner and Energy Team Lead, Drinker Biddle & Reath LLP
- David M. Ferro, Vice President Business Development, ICETEC Energy Services Inc.

5:00 - 5:15 p.m.

Closing Remarks by Co-Chairs

October 3, 2011

EVALUATING FINANCING OPTIONS AND STRUCTURING FINANCING PACKAGES: TAX AND BOND CONSIDERATIONS

MONDAY, OCTOBER 3, 2011

Registration: 12:30 – 1:00 p.m. Workshop Timing: 1:00 – 4:00 p.m.

OVERVIEW

This workshop will explore bond, accounting, tax, and security issues surrounding the financing of on-site clean energy projects. Focusing on the tools and techniques available to publicly and privately owned facilities and sites, this workshop will focus on:

- Fostering an understanding the federal and state tax benefits to your organization, should you choose to host a clean energy project
- Discussion of the various types of debt available for clean energy projects
- Public financing options

LEARNING OUTCOMES

- Examine federal and state benefits of developing or hosting clean energy or co-generation
- Identify the economic drivers of clean energy projects
- Determine when it makes sense to self-fund, and coventure with others, on clean energy projects
- Discuss how incentives relate to the bottom-line of either a nonprofit or for-profit entity

AGENDA

- Exploring the two main routes to financing on-site clean energy projects
 - Self-financing: leasing and bonds (taxable and tax exempt)
 - Third-party finance: tax ownership issues and service models (PPAs, EPCs, GESAs, etc.)
- Types of debt in financing on-site clean energy projects
 - o Taxable bond financing and markets
 - Tax-exempt bond financing and markets
- Structuring debt for on-site clean energy projects
 - o Role of issuers and underwriters
 - Public/private partnerships (P3)
 - o The role of sustainable financing organizations (SFO)
 - o Stacking state and federal incentive programs

INSTRUCTORS

Baird Brown, Partner and Energy Team Lead, Drinker Biddle & Reath LLP

C. Baird Brown is a partner in the firm's Environmental and Energy Practice Groups. His practice includes the development and financing of power plants, waste disposal and recycling facilities, toll roads, and other infrastructure projects. Mr. Brown currently focuses on renewable energy, including wind, solar, biomass, tidal, geothermal, and biofuels. He represents state and local sustainability agencies charged with promoting renewable energy, energy efficiency, and green infrastructure. He is also active in climate change issues, including trading of renewable energy credits and carbon credits. He handles mergers and acquisitions of energy and environmental companies, including restructuring and workouts of troubled projects.

Jeff Eckel, Chairman of the Board for Maryland Clean Energy Council (MCEC) and President/CEO, Hannon Armstrong (invited)

Mr. Eckel is president and CEO of Hannon Armstrong, a leading investment and merchant bank providing capital for energy and infrastructure assets. The firm is an active equity investor in geothermal, solar power, and energy efficiency projects. His experience spans 25 years and includes the creation and management of energy service companies as well as project and corporate finance functions. He has held senior executive positions as CEO of EnergyWorks, as CEO of Wärtsilä Power Development, and with Booz Allen in its energy practice. Mr. Eckel is chairman of the board of the Maryland Clean Energy Center (MCEC).

John MacLean, Managing Director, Energy Efficiency Finance Corp.

Mr. MacLean's background is investment banking in municipal and project finance for energy and environmental projects. He has 26 years commercial finance experience with a wide range of investment structures for senior debt, municipal bond, leasing, factoring, subordinated debt, guarantees, project equity, and corporate equity transactions and has worked on financing energy efficiency projects and companies throughout his career. His clients have included commercial and development financial institutions, energy services companies, utilities, public agencies and state and local governments on project development, procurement, and finance assignments.

TURNING OFF THE LIGHTS WHEN EVERYONE'S HOME:

A PRACTICAL GUIDE TO IMPLEMENTING ENERGY EFFICIENCY AND DEMAND RESPONSE MEASURES

TUESDAY, OCTOBER 4, 2011

Registration: 6:15 – 6:30 p.m. Workshop Timing: 6:30 – 9:00 p.m.

Dinner will be provided.

OVERVIEW

In this workshop, you will hear how the University of Pennsylvania has leveraged its energy efficiency and demand response strategies to promote multiple institutional objectives:, energy and facility management, sustainability, energy demand reductions, and academic curriculum development. This program will feature cutting-edge ideas and solutions regarding how these critical measures can revolutionize your organizational and institutional energy portfolio.

LEARNING OUTCOMES

- Recognize how to drive demand response and balance it with other policies
- · Review energy efficiency options and determine when they make economic sense
- Review platforms used to help provide the facility owner or operator with simple but sophisticated decision tools and calculators used for real-time facility load management
- Demonstrate how institutions are organizing and coordinating their programs and efforts to integrate demand side management (DSM) options in meeting their load obligations

AGENDA

- Penn operations prior to rate de-regulation
- Assessment of overall power needs and how to address them
 - o Supply enhancement options
- Demand reduction options
- Weighing energy efficiency measures that make an impact on the bottom line
 - Expense
 - o Return
 - o Incentives
- Demand response measures and how to evaluate their value to the organization
 - o Utility and third-party aggregator programs that come with a wide variety of Internet-based information dashboards that provide local management control.
 - o Common platforms used to help provide the facility owner/operator with simple but sophisticated decision tools and calculators used to navigate the emerging complex world of real-time facility load management and how to profit from them
- Working with utilities to capitalize on smart pricing alternatives
 - o Direct (active) measures
 - o Indirect (passive) measures
- Addressing the behavior chain throughout the organization
- What's in the future?
 - o Market responsive pricing?
 - o Aggregating purchases to improve pricing?
 - o Sustainability goals?
 - o Fuel prices?
 - o Carbon measures?

INSTRUCTOR

Ken Ogawa, Executive Director, Penn Facilities and Real Estate Services

October 6, 2011

AFTER THE THRILL IS GONE: OPERATIONS, MAINTENANCE, AND RELATED ONGOING ISSUES OF ON-SITE SOLAR ENERGY

WEDNESDAY, OCTOBER 6, 2011

Registration and Continental Breakfast: 8:00 – 8:30 a.m. Workshop Timing: 8:30 – 11:30 a.m.

OVERVIEW

An eminent solar engineering firm that has implemented and collaborated with institutional entities in hosting their own co-generation or solar on-site will share "lessons learned" from that experience. Special emphasis will be placed on what the firm has learned as a result of ongoing operations, maintenance, and other exigencies that will influence the institution's approach to co-generation and clean energy on-site going forward.

LEARNING OUTCOMES

- Define long-term issues that affect the organizational risks and returns of on-site photovoltaic systems or clean energy operations
- Provide a road map for use in "vetting" a project before the organization commits resources
- Evaluate "lessons learned" from institutions that have operated photovoltaic and clean energy on-site
- Identify resources and organizations that support ongoing photovoltaic and clean energy implementation

AGENDA

- Internal operations and management
 - Security and surveillance
 - o Monitoring programs
 - o Training
- Operating and maintenance
 - o Preventive and corrective maintenance
 - o Performance enhancement and "right-sizing" assurance
 - o Spare parts
 - Vegetation control
 - Washing
- Contracts
 - o Land leases
 - o Warranty management
 - Vendor partnerships
 - Exercising purchase options
- Financial
 - o Ownership issues
 - o Leasing issues
 - Feeding the budget beast
 - o Insurance

INSTRUCTOR

Marie Schnitzer, Director of Solar Services, AWS Truepower

Marie Schnitzer's career spans 20 years in the renewable and alternative energy power generation technology fields. As director of solar services for AWS Truepower, Mrs. Schnitzer provides strategic direction and technical expertise in the development of the company's solar business plans including resource and energy assessment, feasibility studies, and solar system design and verification. Her extensive background includes operational leadership, technical leadership in product development of advanced materials and power generation products, and various process improvement and methods development within manufacturing, research, and supply chain areas. She has diverse experience in the management of alternative energy programs and experience working with government agencies, thereby making her an asset to both public and private sector initiatives.

EVENT LOCATION

The conference will be held at Houston Hall at Perelman Quadrangle at the University of Pennsylvania, 3417 Spruce St., Philadelphia, PA 19104

Area hotels include:

The Inn at Penn 3600 Sansom St., Philadelphia, PA 19104 215-222-0200

http://www.theinnatpenn.com/

Sheraton Philadelphia University City Hotel 3549 Chestnut St., Philadelphia, PA 19104 215-387-8000

http://www.philadelphiasheraton.com/html/ downtown-philadelphia-hotels.asp

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REGISTRATION INFORMATION

For instant registration, call 303-770-8800 or fax the registration form to 303-741-0849.

All cancellations received on or before September 14, 2011 will be subject to a US \$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event or publication. This credit will be good for six months. In case of event cancellation, Electric Utility Consultants' 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.

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Partnering for Clean Energy Development On-Site in the Mid-Atlantic and Northeastern **ENERGIZE WEEKLY** U.S., October 4-5, 2011: US \$1495 (price for nonprofit organizations: US \$1195) EUCI's Energize Weekly e-mail newsletter compiles Early bird on or before September 4, 2011: US \$1295 (nonprofit price: US \$995) and reports on the latest news and trends in the energy industry. Newsletter recipients also Partnering for Clean Energy Development conference and one workshop: add US \$300 receive a different, complimentary conference (choose one) presentation every week on a relevant industry topic. The presentations are selected from ☐ Pre-conference workshop ☐ Dinner workshop ☐ Post-conference workshop a massive library of more than 1,000 current Partnering for Clean Energy Development conference and two workshops: add US \$600 presentations that EUCI has gathered during its 24 years organizing conferences. (choose two) ☐ Pre-conference workshop ☐ Dinner workshop ☐ Post-conference workshop ☐ Sign me up for Energize Weekly ☐ **BEST VALUE:** Partnering for Clean Energy Development conference and all three workshops: US \$2395 (nonprofit price: US \$2095) Early bird on or before September 4, 2011: US \$2195 (nonprofit price: US \$1895) How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.) _____ Job Title_____ Name Preferred for Badge______ E-Mail_____ Company _______ Telephone _____ _____ City_____ State_____ Zip_____ Check here if you have any dietary or accessibility needs. We will contact you for more details. PAYMENT METHOD Please charge my credit card: Visa MC AMEX Discover Security Code Visa and MC cards have a 3 digit code on the signature panel on the back of the card, following the account number. American Express cards have a 4 digit code on the front of the card, above the card number.

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