

SOLAR DEVELOPMENT ON LANDFILLS, BROWNFIELDS AND UTILITY IMPOUNDMENT SITES

November 30 – December 1, 2021
Online | Central Time

“

“A very well-run online conference filled with valuable insight into Landfill/Brownfield Development, Construction and Financing challenges and solutions.”

SVP and Office of the Chairman & CEO,
American Helios Constructors, LLC

PRE-CONFERENCE WORKSHOP

Essential Contract Elements of Landfills & Brownfields

TUESDAY, NOVEMBER 30, 2021

EUCI ONLINE CONFERENCE

EUCI is pleased to offer this virtual conference on its online interactive platform. Enjoy a valuable learning experience with a smaller impact on your time and budget. You will gain new knowledge, skills, and hands-on experience from the convenience of your remote location.



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OVERVIEW

The aggressive search for suitable greenfield sites has prompted savvy investors, project developers, suppliers and power organizations to consider sites with less conventional development characteristics. Ironically, these blemished sites – landfills and other types of brownfields – often turn out to be attractive siting options for solar projects. No longer, then, is solar development on landfills and brownfields a question of feasibility; rather, the consideration for many project developers is how to optimize the opportunity such a project can deliver.

This symposium will examine aspects of developing solar energy on landfills and brownfields that foster significant, realistic opportunities for beneficial financial and community outcomes. It will consider governmental, legal, regulatory, stakeholder endorsement, agrisolar, community solar and storage as components that can be incorporated in these projects to enhance their financial return. Developers, regulatory officials, investors and legal specialists with expertise in this very special arena will conduct the program, using case studies and examples from successful projects.

LEARNING OUTCOMES

The content is intended as a survey (fundamentals) course for utilities, project developers, regulators and community stakeholders in states that are just now beginning to turn their attention to this class of solar development.

Attendees will gain practical and technical skills that allow them to:

- Discuss the many elements of EPA landfill, brownfield and solar program support
- Detail federal, state and local jurisdiction incentives to stimulate landfill/brownfield project development
- Examine bottom-line revenue maximization scenarios
- Conduct a desktop development assessment process
- Build stakeholder support for landfill and brownfield projects
- Assess how to incorporate agrisolar/agrivoltaics on landfill and brownfield projects
- Evaluate landfill and brownfield projects as a vehicle for community solar
- Analyze how to incorporate storage and other infrastructure components on landfill/brownfield projects
- Review essential contract elements of landfill and brownfield projects



“Excellent job going from high level overview of basics into the details and more nuanced considerations.”

Renewable Development
Associate, Invenergy



“This is the most focused and practical conference about landfills and development I have ever attended!”

Chief Commercial Officer,
Hanergy America



“Very good coverage of issues and considerations for solar development on landfills and brownfields.”

Manager, Environmental Resources,
NextEra Energy

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AGENDA

TUESDAY, NOVEMBER 30, 2021 – CENTRAL TIME

12:45 – 1:00 pm	Log In
1:00 – 4:45 pm	Course Timing
1:00 – 1:20 pm	Overview & Introductions Conference Chair: Charles Howland, Partner, Curtis, Mallet-Prevost, Colt & Mosle, LLP (CMP) General Counsel, Customized Energy Solutions, Ltd. (CES)
1:20 – 2:15 pm	EPA Landfill, Brownfield and Solar Program Support <p>This session will review the overall advantages renewable energy project development on environmentally impaired lands (“Brightfields”). It will also detail the U.S. Environmental Protection Agency’s (EPA) ongoing initiative to encourage and facilitate renewable energy development on current and formerly contaminated lands, landfills and mine sites when such development is aligned with the community’s vision for the site. The RE-Powering America’s Land Initiative identifies the renewable energy potential of tracked EPA and state sites and provides useful resources for communities, developers, state and local governments and other interested stakeholders. The focus in this session will be on opportunities for future development, with supplemental information on the program’s efforts to date and observed trends.</p> Lora Strine, Coordinator for the RE-Powering America’s Land Initiative, U.S. Environmental Protection Agency (EPA)
2:15 – 3:15 pm	Federal and State Incentives to Stimulate Landfill/Brownfield Project Development <p>The indisputable “parent” of all renewable energy project financing is the investment tax credit (ITC) for solar and the production tax credit (PTC) for wind. Solar project developments on landfills and brownfields have additional federal financial stimulus and incentive resources to draw from. Moreover, state and local jurisdictions often are the sources of supplemental funds or leveraging instruments (including some devoted specifically to brightfields). This session will cover the latest developments in these areas, including:</p> <ul style="list-style-type: none"> • Impact of federal infrastructure initiatives, especially on area-wide planning, early-stage financing and specific project types • Bonds • REC multipliers and related incentives • Tax increment financing • Revolving loan funds • Property assessed clean energy (PACE) financing • Economic opportunity zones and related state place-based incentives <p>This segment will identify and describe how developers and sponsors can access these options for their solar projects on landfill and brownfield sites.</p> Charles Howland, CMP, CES



“Great information for developers.”

Owner/Principal, C&E Solutions LLC



“EUCI developed a strong program of industry practitioners – well worthwhile.”

Executive Vice President, groSolar

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AGENDA

TUESDAY, NOVEMBER 30, 2021 – CENTRAL TIME (CONTINUED)

3:15 – 3:30 pm

Afternoon Break

3:30 – 4:45 pm

Bottom Line Revenue Maximization Scenarios

- Revenues
 - o Latest developments in ITC leverage and structure, including accompanying battery storage
 - o Off-take options
 - PPAs (including RFPs, FITs and incentives)
 - o Renewable energy credits
 - o Wholesale and retail electricity market revenues
 - o Net energy metering
- Cost reduction and minimization measures
 - o Property tax relief
 - o PILOT
 - o Agrisolar
 - o Land use provisions

Erik Paulson, Vice President – Wholesale Market Services, Customized Energy Solutions Ltd.

4:45 pm

Course Adjourns for Day

WEDNESDAY, DECEMBER 1, 2021 CENTRAL TIME

8:45 – 9:00 am

Log In

9:00 – 4:45 pm

Course Timing

9:00 – 10:30 am

Conducting a Pre-Development Desktop Project Assessment

- Determining developability of project site
 - o Environmental integrity of prior closure
 - o Interconnection and infrastructure
 - o Buildable acreage
 - o Permit ability
- Technical feasibility
 - o Capacity
 - o Resource MWhs per year
 - o Construction duration
 - o Estimated commercial operation date
- Component assessment
 - o Geotechnical engineering
 - o Racking systems
 - o Module selection
 - o BOS elements
- Project scoping and costing
 - o Project capital expense
 - o Revenue expectation
 - o Operating expenses

Kevin Magayah, Vice President, CS Solar

Paul Curran, Managing Director, BQ Energy

10:30 – 10:45 am

Morning Break

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AGENDA

WEDNESDAY, DECEMBER 1, 2021 CENTRAL TIME

- | | |
|----------------------------|---|
| 10:45 am – 12:00 pm | Leveraging Technology Best Practices to Improve the Bottom Line for Landfill / Brownfield Projects <ul style="list-style-type: none"> • Analyzing preliminary spec's of project components and engineering • Evaluating siting and other aspects of the project that may inhibit, improve or require technology solutions different from greenfield projects <ul style="list-style-type: none"> o Racking/tracking o Modules o BOS o Storage o Vegetation management • Assessing impacts on innovative or non-conventional technologies <ul style="list-style-type: none"> o Budget o Project completion timetable o Permitting, environmental and other regulatory elements o Community and stakeholders' acceptance <p><i>Eric McLean, President and Director – Operations, ACE Solar</i></p> |
| 12:00 – 12:45 pm | Lunch Break |
| 12:45 – 2:00 pm | Incorporating Agrisolar/Agrioltaics on Landfill / Brownfield Projects <ul style="list-style-type: none"> • Grazing fundamentals • Hosting pollinators • Crop options • Operational and financial considerations • Agrisolar resources <p><i>Chad Farrell, CEO, Encore Renewable Energy</i>
 <i>Lexi Hain, Executive Director, American Solar Grazing Association (invited)</i></p> |
| 2:00 – 2:15 pm | Afternoon Break |
| 2:15 – 3:30 pm | Landfill / Brownfield Projects as a Vehicle for Community Solar <ul style="list-style-type: none"> • Distinctions between solar with community benefits vs community solar • Regulatory underpinnings • Program design criteria • Acquisition and subscription services • Project management and oversight • Performance and subscription management • Long-term management <p><i>Mike Marsch, Principal & Head – Solar Development, Blue Wave Solar</i></p> |
| 3:30 – 4:45 pm | Incorporating Storage on Landfill/Brownfield Projects <ul style="list-style-type: none"> • System design comparison • Engineering and technology adjustments • Design modifications and optimization • Additional coordination and collaboration w/utilities • Electricity market opportunities • Interconnection and related system integration • Project scheduling as compared to conventional solar project <p><i>Andrew Bernstein, Managing Partner, Kearsarge</i>
 <i>John Fernandes, Senior Consultant – Emerging Technologies, Customized Energy Solutions Ltd.</i></p> |
| 4:45 pm | Conference Adjournment |

PRE-CONFERENCE WORKSHOP

Essential Contract Elements of Landfills & Brownfields

TUESDAY, NOVEMBER 30, 2021 - CENTRAL TIME

8:15 – 8:30 am	Log In
8:30 – 11:45 am	Workshop Timing
8:30 – 8:45 am	Overview & Introductions

OVERVIEW

This workshop will review key contracts – especially with respect to environmental liability and financing instruments – associated with solar project development on landfills and brownfields. Subject matter experts in these two critical areas will examine the issues and typical practices for addressing the contract requirements.

LEARNING OUTCOMES

- Discuss federal and state statutory ‘safe harbors’ relating to closure plans and other environmental measures
- Review federal and state prospective purchaser/lessee agreements and ‘comfort letters’
- Assess ground lease and title documentations
- Examine financial and contracting documents such as PPAs, RECs, interconnection, and credit/security
- Evaluate specific contractual provisions such as force majeure, change of law, curtailments, commercial operation and change orders/disputes

WORKSHOP AGENDA

TUESDAY, NOVEMBER 30, 2021 - CENTRAL TIME

8:45 – 9:00 am	Log In
9:00 – 12:00 pm	Workshop Timing
9:00 – 9:15 am	Overview & Introductions
9:15 – 10:30 am	Legal Bases for Dealing with Liability & Risk Consider’ns The primary impediment to project development on brownfields is fear of liability, and the uncertainty this adds to project financing. This session will describe the different sources of liability, specific strategies for addressing them, ways that smooth the pathway to a successful project. <ul style="list-style-type: none"> • Sources of legal risk <ul style="list-style-type: none"> o Federal and state laws o Government agencies o Private parties • Federal and state statutory ‘safe harbors’ • Prospective purchaser/lessee agreements • ‘Comfort letters’ • Private settlement agreements/liability waivers • Underlying mitigation • Insurance Charles Howland, CMP, CES

WORKSHOP AGENDA

TUESDAY, NOVEMBER 30, 2021 - CENTRAL TIME (CONTINUED)

10:30 – 10:45 am

Morning Break

10:45 am – 12:00 pm

Project Development and Financing Contracts

Putting together a successful solar project, especially on environmentally impaired land, requires maximizing several streams of income from the project itself, as well as taking advantage of relevant federal, state, and local tax incentives, and other sources of grants and credit supports. (Recent developments will be addressed as part of main program.)

- Income streams
 - o Energy
 - o Capacity
 - o RECs
 - o Auxiliary services)
- Tax incentives
- Documents
 - o PPAs
 - o RECs
 - o EPCs
 - o Interconnection
 - o O & M
 - o Financing
 - o Credit and security
 - o Procurement
- Key Contractual Components
 - o *Force majeure*
 - o Milestones
 - o Damages
 - o Commercial operation
 - o Sale of energy and capacity
 - o Change of law
 - o Curtailments
 - o Output and availability guarantees
 - o Outages
 - o Default and termination
 - o Change orders and disputes

12:00 pm

Workshop Adjournment

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INSTRUCTIONAL METHODS

Case studies, PowerPoint presentations, and panel discussions will be used in this program.

IACET CREDITS



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REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must login for the entirety of conference to be eligible for continuing education credit.

ONLINE COURSE DELIVERY & PARTICIPATION DETAILS

EUCI is pleased to offer this virtual course on its online interactive platform. Enjoy a valuable learning experience with a smaller impact on your time and budget. You will gain new knowledge, skills, and hands-on experience from the convenience of your remote location.

We will be using Microsoft Teams to facilitate your participation in the upcoming event. You do not need to have an existing Teams account in order to participate in the broadcast – the course will play in your browser and you will have the option of using a microphone to speak with the room and ask questions, or type any questions in via the chat window and our on-line administrator will relay your question to the instructor.

You will receive a meeting invitation that will include a link to join the meeting.

Separate meeting invitations will be sent for the morning and afternoon sessions of the course. You will need to join the appropriate meeting at the appropriate time.

If you are using a microphone, please ensure that it is muted until such time as you need to ask a question.

The remote meeting connection will be open approximately 30 minutes before the start of the course. We encourage you to connect as early as possible in case you experience any unforeseen problems.

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PLEASE SELECT

REGISTRATION INFO

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NOVEMBER 30 – DECEMBER 1, 2021: US \$1,695 (Single Connection)

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ESSENTIAL CONTRACT ELEMENTS OF LANDFILLS & BROWNFIELDS
TUESDAY, NOVEMBER 30, 2021: US \$495 (Single Connection)

Please call us at 303-770-8800 if you have any specific questions on the volume discounts.

** all other discounts do not apply to license packs*

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Online Course Delivery & Participation Details

See page 8 for information

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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 October 29, 2021 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.



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