

Towards a Sustainable Energy Future

Inflation Reduction Act (IRA) Accelerating Transition to Carbon-Free Future
Successes at Using Clean/Renewable Energy ■ Energy Storage ■ Technologies
Lessons Learned from Industry Leaders with Onsite Solar ■ Fundamentals
Sustainability Roadmap ■ 'Smart' Site Due Diligence ■ Battery Installation
Renewable Energy Outlook ■ Grid Innovations ■ Ohio Clean Hydrogen Hub
Business Case for Investing in Sustainability ■ Energy Efficiency Financing

OHIO CONFERENCE ON Clean/ Renewable Energy

AND ENERGY EFFICIENCY

Thursday, September 28, 2023

Sheraton Suites Akron-Cuyahoga Falls
1989 Front Street, Cuyahoga Falls, OH 44221-3811
(Conveniently located off of OH Route 8)

Featuring Energy Experts from Some of the Nation's Leading Organizations Including:



Towards a Sustainable Energy Future

According to a report issued this spring by the National Renewable Energy Laboratory (NREL), **solar and wind installations** in the U.S. could account for between **40% and 62% of total electricity generation by 2030**, an unbelievable fact that renewable energy produced **8.6% the U.S. electricity in April 2001**.

That's happening due to two reasons. The first is due to the stimulating effects of the **'game-changing' Inflation Reduction Act (IRA)**, which came into force last summer and introduced **\$369 billion** in incentives and tax credits for renewable energy investment, and the **Bipartisan Infrastructure Law (BIL)** which focuses on jobs and infrastructure investment. The NREL report indicated the combined support for climate initiatives and tax incentives from the two acts could exceed **\$430 billion** through 2031, bringing deployments up with it.

The second is cost. Renewables are **simply the most economically competitive power currently available** according to Peter Kelly-Detwiler, an energy analyst and author of "The Energy Switch," a book on the transition to a carbon-free energy economy.

And **corporate America's appetite for renewable energy is booming**. In 2020, large businesses signed deals for more than 10 GW of clean energy generation, equal to a quarter of the electric power capacity added in the United States for the year. The growth in deals for **clean power comes as the price of renewable has fallen** and organizations have increasingly felt pressure from the public, investors, and their own employees to address their climate impact. On the U.S. EPA's website, the **Green Power Partnership Fortune 500 Partners List** contains a growing number of companies using green power. The list includes:

Google - 105% of Total Electricity Use (9,100,267,846 kWh) is Green Power
Microsoft - 100% of Total Electricity Use (8,324,914,969 kWh) is Green Power
The Procter & Gamble Co. - 100% of Total Electricity Use (2,606,456,242 kWh) is Green Power
JPMorgan Chase - 91% of Total Electricity Use (1,573,838,306 kWh) is Green Power
Owens Corning - 62% of Total Electricity Use (1,083,288,025 kWh) is Green Power
General Mills - 106% of Total Electricity Use (1,011,660,000 kWh) is Green Power
The J.M. Smucker Co. - 66% of Total Electricity Use (304,416,141 kWh) is Green Power
Fifth Third Bank - 100% of Total Electricity Use (147,051,000 kWh) is Green Power
PepsiCo - 103% of Total Electricity Use (1,887,793,706kWh) is Green Power

This Ohio Conference on Clean/Renewable Energy and Energy Efficiency is a **must-attend** event for large energy users. You'll benefit from best practices, developing a customized sustainability roadmap, meeting your sustainability goals and how the energy renewable marketplace can save you money! Register today.

Implement Cutting-Edge Energy Products, Services and Solutions



Every step we take towards Net Zero equals a better future for our children. Consumers can certainly make meaningful changes, but it's up to companies, large and small, to truly help reshape the future of the planet. Because every building has the power to change the world.

For over 30 years, **Melink Solar** has been executing clean energy solutions for clients worldwide, lowering carbon emissions while increasing building values and raising company profitability. Just like we've done with our own Net Zero campus. We are passionate about helping create a dramatically more sustainable world. We're committed to solving tomorrow today.

Melink Solar by the numbers: 120 MW solar installed capacity, including Roof Mounts, Ground Mounts, and Parking Canopies.



The **Indiana/Kentucky/Ohio Regional Council of Carpenters (IKORCC)** represents more than 35,000 professional tradespeople in 40 locals in Indiana, Ohio, Kentucky and parts of West Virginia and Tennessee. A proud affiliate of the United Brotherhood of Carpenters, which has a century-plus tradition of representing the best of the building trades, the council works in partnership with more than 30,000 contractors, helping them find the best possible talent for their projects.

The hallmark of our regional council is three-fold: training, professionalism and partnerships for economic development.



Green Energy Ohio (GEO) is a statewide nonprofit organization dedicated to promoting sustainable energy policies, technologies, and practices. Our goal is for the clean energy industry to thrive in Ohio. For businesses large and small to thrive through the adoption of cost-effective energy solutions. For communities to thrive by embracing sustainability. For Ohio citizens to thrive in a healthy environment.



It's Easy to Register for Ohio's Premier Clean/Renewable Energy Conference

Investment: \$395 per person

Discounted Rate: \$295 per person for 2 or more attending.

Professional Education Credits/CEUs

This conference has been approved (*or approval pending*) by the Supreme Court of Ohio Commission on Continuing Legal Education for **5.50** general CLE hours. Additionally, the event qualifies for **5.50 PHD hours** for Ohio Professional Engineers and **1 AEE credit** for Certified Energy Managers (*CEM*) from the Association of Energy Engineers.

Location & Lodging

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For overnight lodging at the Sheraton Suites Akron-Cuyahoga Falls for the evening of September 27, you can reserve your lodging via the conference webpage. The room rate in the block is **\$139**. Alternatively, you can call the Sheraton directly at 330-929-3000 and mention the Ohio Conference on Clean/Renewable Energy & Energy Efficiency to get the group rate. Group cutoff date to receive this rate is **September 1, 2023**.

Display Opportunities

There are limited display opportunities for the conference. For **\$2000**, you can market your products & services to over 100 of the best energy buyers in Ohio. The display registration is available on the conference webpage.

9:45 a.m. to 11:00 a.m.

- A. Energy Storage/Technologies
- B. Clean Energy Fundamentals
- C. Grid/Renewable Integration

11:15 a.m. to 12:30 p.m.

- D. Onsite Solar
- E. Business Case/Decarbonization
- F. Onsite Battery Installation

1:30 p.m. to 2:45 p.m.

- G. Energy Efficiency Financing
- H. Best Practices Sustainability
- I. Energy Storage Innovations

3:00 p.m. to 4:15 p.m.

- J. Sustainability Roadmap
- K. Smart Site Due Diligence
- L. Clean Hydrogen Hub

REGISTRANTS

Names/Titles

E-Mail Address

Workshop Preference

A-C

D-F

G-I

J-L

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THURSDAY, SEPTEMBER 28, 2023

8:00 a.m. Registration, Displays Open & Breakfast
Sponsored by Melink Solar



8:45 a.m. Conference General Session

8:45 a.m. General Session - Conference Welcome & Introductions

8:55 a.m. Accelerating the Transition to Carbon-Free for a Sustainable Energy Future ... Reducing Your Energy Bills AND Carbon Footprint

With markets more volatile & expensive than ever before and demand surging for zero-carbon technologies, materials and services, priceless insights into the outlook for onsite solar, including how the Inflation Reduction Act and other financing solutions make solar a very attractive investment. How to build a credible ROI case for your organization. Case study on how DLZ's solar system saves thousands in energy.



Seth Parker
CEO
Melink Solar
Milford



Bruce A. Bauchmire
Director, Renewable Energy Services
DLZ Corp.
Columbus

9:30 a.m. Visit the Displays & Mid-Morning Break

9:45 a.m. to 11:00 a.m. 3 Concurrent & Interactive Workshops

A. Technology Advancements ... Adding Energy Storage to Other Renewable Technologies Improves Financial Returns and Produces a Greater Reduction in CO₂ Emissions

- How energy storage has a greater reduction to grid CO₂ emissions than solar or wind alone and improves financial returns. In-depth updates on the available incentives and how to leverage behind-the-meter solar & wind +energy storage systems to reduce costs, earn revenue from providing grid services, protect your operation from outages, and provide environmental benefits. Case studies from existing successful Midwest projects.

David J. Braun, *Vice President, Intelligent Generation*, Chicago, IL

B. Fundamentals of a Clean Energy Future ... Net Zero, Approaches to Environmental Sustainability and Technologies & Innovations

- Best practices and varying approaches to environmental sustainability. Drivers and potential scope, including phases of energy sustainability. Target setting and key considerations. Planning framework and reduction mechanism. Trending technologies and innovations. Execution and program management considerations.

Jamie E. Jankowski, *PE, CEM, Director Strategic Account Solutions, AEP Energy*, Columbus

C. The Future of the U.S. Grid: Enhancing Resilience, Renewable Integration, and Smart Technologies

- Insights into resilience strategies for the grid, accelerating renewable integration, and unlocking the potential of smart technologies.

Dan Killoren, *Ph.D., Program Lead, Global Innovation Hub, Electric Power Research Institute (EPRI)*, Columbus; Jing Lyon, *Entrepreneur Programs Director, BRITE Energy Innovators*, Warren; and Ben Morris, *Director, EdgeEnergy LLC*, Cincinnati

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THURSDAY, SEPTEMBER 28, 2023 *continued*

11:00 a.m. Visit the Displays & Mid-Morning Break

11:15 a.m. to 12:30 p.m. 3 Concurrent & Interactive Workshops

D. Lessons Learned from Industry Leaders with Onsite Solar: Why Now Is the Right Time to Lock in a Lower Energy Rate!

- From a business standpoint, the cost of waiting to implement solar could not be greater. Why it makes sense to consider solar now as a hedge against skyrocketing energy costs. Financing options to consider. Levelized cost of energy – long-term strategic thinking. How solar makes sense in Ohio and how to sell internally. Case studies of Fortune 500 companies benefitting from solar now, in Ohio and the Midwest.

Seth Parker, *CEO, Melink Solar*, Milford

E. Decarbonization: Business Case for Investing in Sustainability

- Key to executive-level support - understanding the value of sustainability and decarbonization efforts beyond the environment benefits. How the environmental attributes of energy efficiency and renewable energy projects are part of the overall energy mix, and how the PJM independent system operator is incentivizing project owners with opportunities to monetize these investments. Project opportunities and why CFO's are eager to make these investments.

Jerry Schmits, *CEM*, and Megan Phillips, *Comprehensive Solutions Manager Solutions, Trane Technologies*, Cincinnati & Columbus and Jason Brown, *PE, CEM, Vice President, Strategic Partnerships, Encentiv Energy*, Pittsburgh

F. Managing Risks and Energy Resilience & Stability ... Onsite Battery Installation with No Upfront Costs

- Global Energy Trends 2023 White Paper. How a battery installation can be used to cut energy costs by providing a hedge against energy price peaks and demand charge management,

Joe Hayden, *Vice President, GridBeyond*, Houston, TX

12:30 to 1:30 p.m. Luncheon & Networking Roundtables

Sponsored by Indiana/Kentucky/Ohio Regional Council of Carpenters - IKORCC

Enjoy a delicious 'Front Street' luncheon buffet overlooking the spectacular Cuyahoga River rapids & Cuyahoga Valley National Park and discuss soaring energy costs & clean/renewable energy '*as the most economically competitive power currently available*' Opportunities and challenges in accelerating Ohio's transition to a carbon-free future.



1:30 p.m. to 2:45 p.m. 3 Concurrent & Interactive Workshops

G. Achieving Cost Savings with Energy Efficiency and Finance Programs

- Cost savings achieved through improvements in energy efficiency directly impact the bottom line and is a competitive advantage. Success stories and program descriptions will explain how the Ohio Department of Development supports energy efficiency for Ohio's manufacturers through both annual and Infrastructure Investment and Jobs Act programs.

Dr. Manny Anunike, *Energy Specialist*, **Karla Gulker**, *Energy Loan Program Coordinator*, Kevin Smith, *Coal and Energy Programs Coordinator*, Caroline Johnstone, *Energy Programs Manager*, Candice Brothers, *Energy Analyst*, **Ohio Department of Development**, Columbus; and Nikhila Rao, *Program Manager, Graphet Data Mining*, Cincinnati

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THURSDAY, SEPTEMBER 28, 2023 *continued*

1:30 p.m. to 2:45 p.m. **3 Concurrent & Interactive Workshops** *Continued*

H. Award-Winning University – Kent State University’s Sustainability Commitment and Achievement

- Valuable insights on Kent State’s energy efficiency retrofits, installation of solar arrays and wind turbines and combined heat and power plant.

Team Facilitators: Melanie Knowles, *Sustainability Manager* and Julie Morris, *Sustainability Coordinator*, **Kent State University**, Kent

I. Revolutionizing Energy Storage: Innovations in Automotive and Grid-Scale Applications

- Automotive energy storage advancements, grid-scale energy storage breakthroughs and synergies between automotive and grid-scale energy storage.

Neil J. Kidner, *Ph.D., President*, **Adena Power** and *Director of Materials Science*, **Nexceris**, Lewis Center; Joe Rohan, *Program Manager*, **BRITE Energy Innovators**, Warren; Robert Lane, *Chairman & CAO*, **Acculon Energy Inc.**, Columbus

2:45 p.m. **Visit the Displays and Afternoon Refreshment Break**

3:00 p.m. to 4:15 p.m. **3 Concurrent & Interactive Workshops**

J. Developing a Customized Sustainability Roadmap

- Insights on how sustainability looks different for every company and 98% of large energy buyers have either a plan in place or are getting started on the development and implementation of the plan. Varying elements of sustainability plan. Data analytics, goals, products, services and partners to implement solutions. Explore how starting with a baseline of data analytics and goals is evolving how companies develop their roadmap; how renewables and efficiency projects play a role, and how hydrogen may be integrated in the near future. Case studies.

Rajiv (Raj) Bazaj, *Vice President, Sustainability Solutions*, **Constellation Energy Corporation**, Baltimore, MD

K. Renewable Energy Site Development – Smart Site Due Diligence

- What is smart money spent on site due diligence and when in the process is it best spent? Site planning including township, city, county zoning regulations and site plan approval process. How to determine any physical challenges such as drive location, existing topography challenges, utility availability, etc. Site research, preliminary design, and Phase 1 Environmental Site Assessment.

Mark Belmont, *Director of Civil Engineering/Energy Market Lead* & Sara Krampe, *Environmental Manager*, **CESO**, Akron & Bridgeville, PA

L. Ohio Strategy for Developing a Clean Hydrogen Hub: Subsurface Sequestration of Carbon Dioxide in Ohio ... Planning, Regulation, Economics and Role in Decarbonization of Energy

- Insights on the role of subsurface sequestration in natural gas and blue hydrogen, in decarbonization; strategies for sequestration, required geology, economics; status of regulation, EPA Crosswalk, Class VI well primacy strategy in Ohio; status of other states seeking primacy; permitting, operating and decommissioning of Class VI wells in Ohio; pore space ownership, unitization, enabling statutes, regulatory issues and Ohio Hydrogen Hub and the World Economic Forum Decarbonization plan.

Andrew Thomas, *Director of Midwest Hydrogen Center of Excellence and Energy Policy Center* & Mark Henning, *Research Supervisor* & Shelbie Seeberg, *Research Associate*, **Cleveland State University**, Cleveland

4:15 p.m.

Adjournment