

Ohio Solar Congress OH-SUN Zane State College

Bill Spratley
Executive Director
Green Energy Ohio

15TH ANNUAL GREEN ENERGY OHIO TOUR
June 16, 17 & 18, 2017 WWW.GREENENERGYOH.ORG



Green Energy Ohio Tour



GEO & Ohio Solar Tours

*Clean Energy Journey
Across the Buckeye State*

On the National Solar Tour 2003 -
2017

15th GEO Tour June 16,17 &18, 2017

**Largest Solar Tour in
U.S. in 2016 - 88 Sites**

Northeast Ohio

Northwest Ohio

Central Ohio

Southwest Ohio

Southeast Ohio

Green Energy Ohio Tour



Volunteer Tasks

15th GEO Tour June 16, 17 & 18, 2017

1. Host a Tour Site – Solar, Wind, Energy Efficiency, Biomass, EV, Other
2. Organize a Local Guided Tour
3. Organize a VIP Tour
4. Help promote the Tour
5. Assist at Sites or on Guided Tour on June 16, 17 & 18

tour@greenenergyohio.org

Welcome to the 21st Annual National Solar Tour

SOLARTODAY



October 2016

National Solar Tour Guide

- All You Ever Needed to Know About Solar (PV) Warranties
- Questions to Ask a Solar Energy Salesperson
- Get Started! Learn the Basics of Home Energy Savings



Register and find more detailed tour information at nationalsolartour.org.

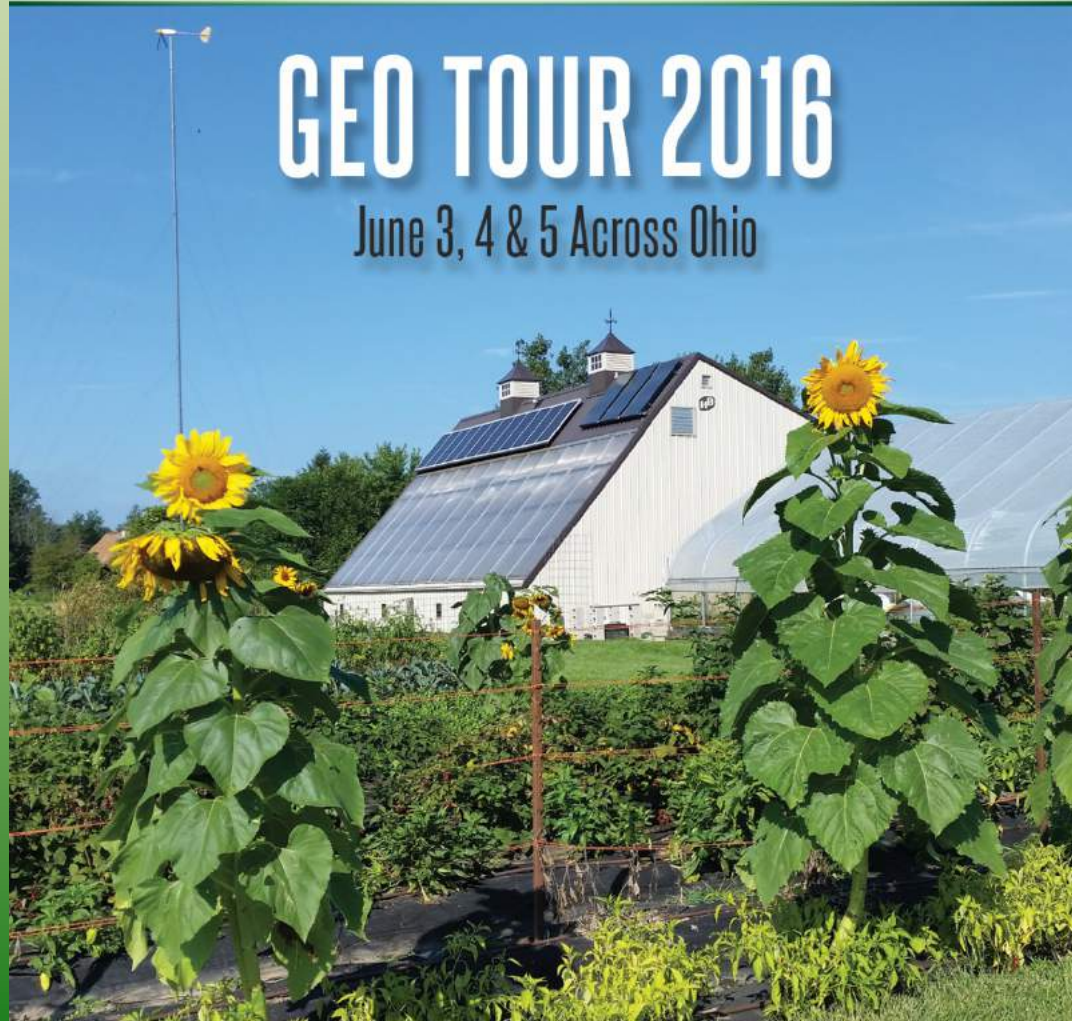


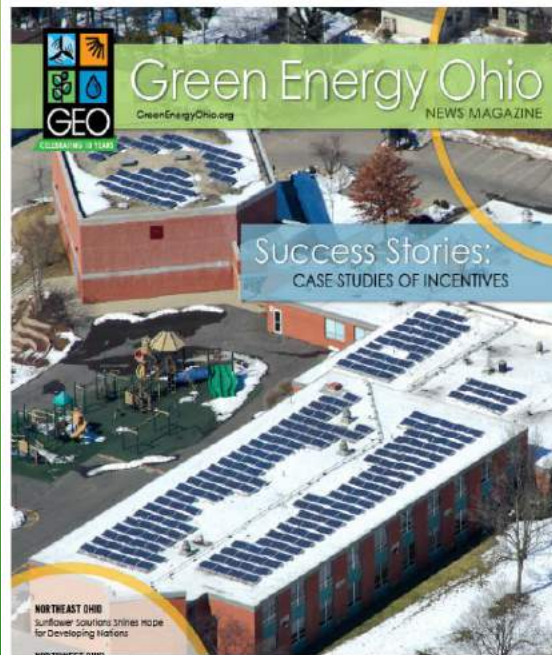
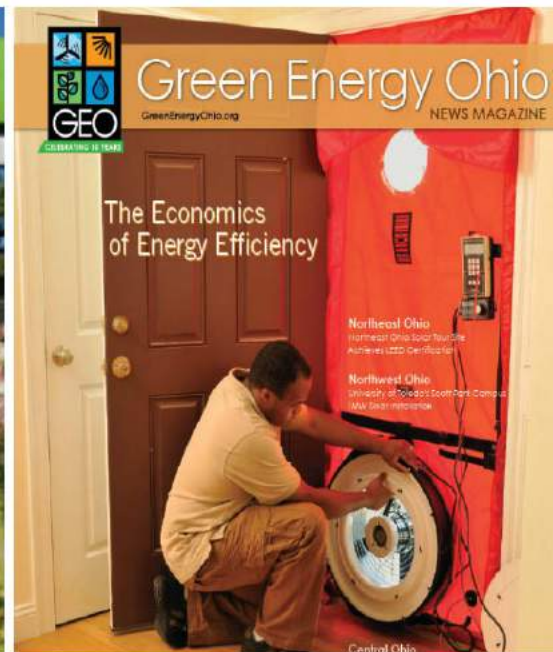
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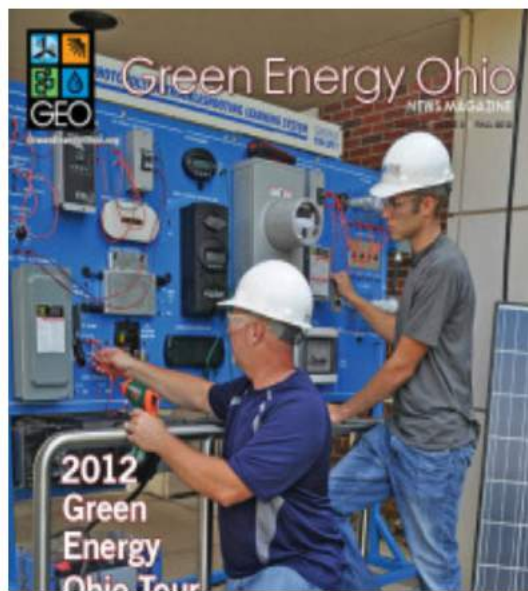
GreenEnergyOhio.org

GEO TOUR 2016

June 3, 4 & 5 Across Ohio

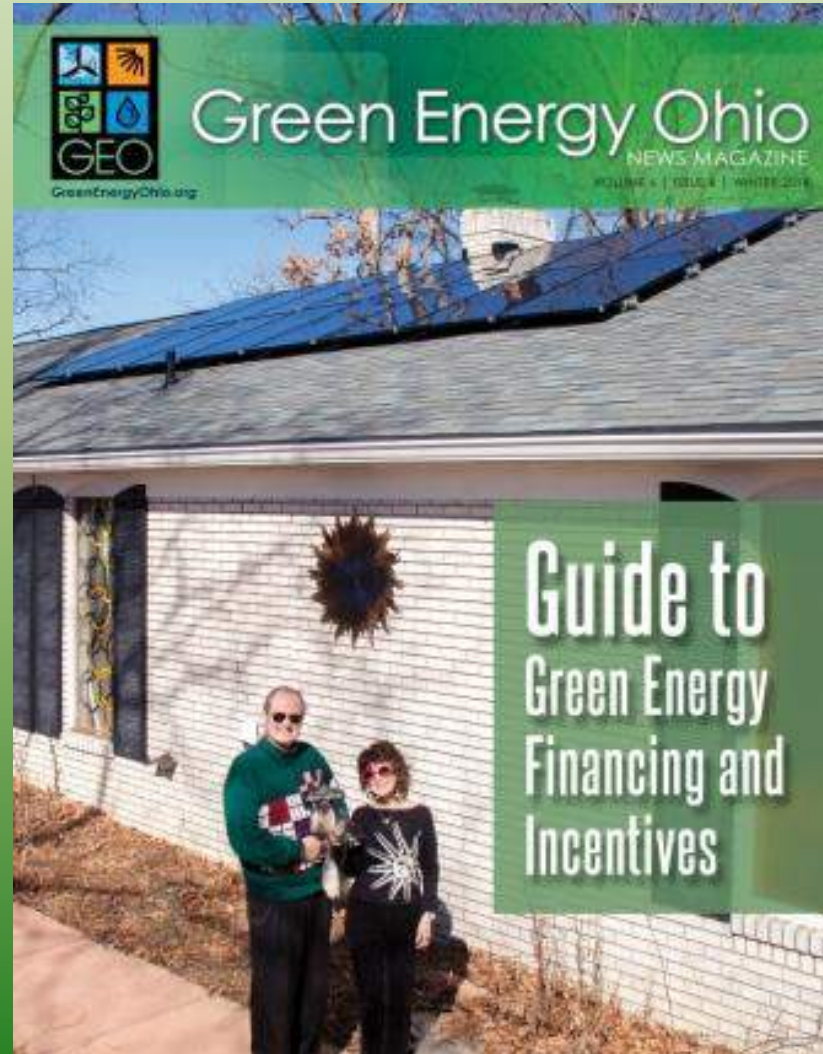








Green Energy Ohio News Magazine Summer 2014





Roof-Mounted Solar Array





Roof-Mounted Solar Array





Roof-Mounted Solar Array Snow & Squirrels



System Details

 [About](#)

 [Description](#)

 [Arrays](#)



16 microinverters

Worthington, OH


Maintained by Ecohouse

December 2013

www.ecohouseohio.com

Energy Production

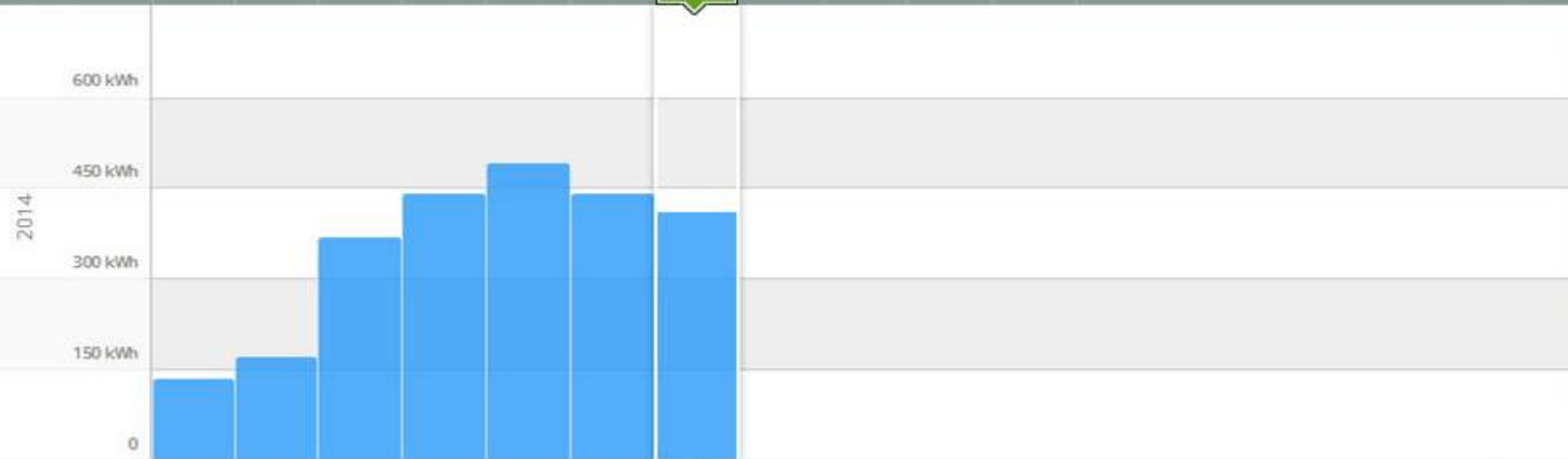
 [Months](#)

 [Days](#)

 [Hours](#)



« < Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec > »



July 2014



409
kilowatt-hours


 [Learn why your energy production changes over time.](#)

2014



3
months



 Running a refrigerator for one month uses 135.36 kilowatt-hours of energy.



Lamberts' Solar & Wind Site



Ground-Mounted Solar Array





Ground-Mounted Solar Array





Ground-Mounted Solar Array



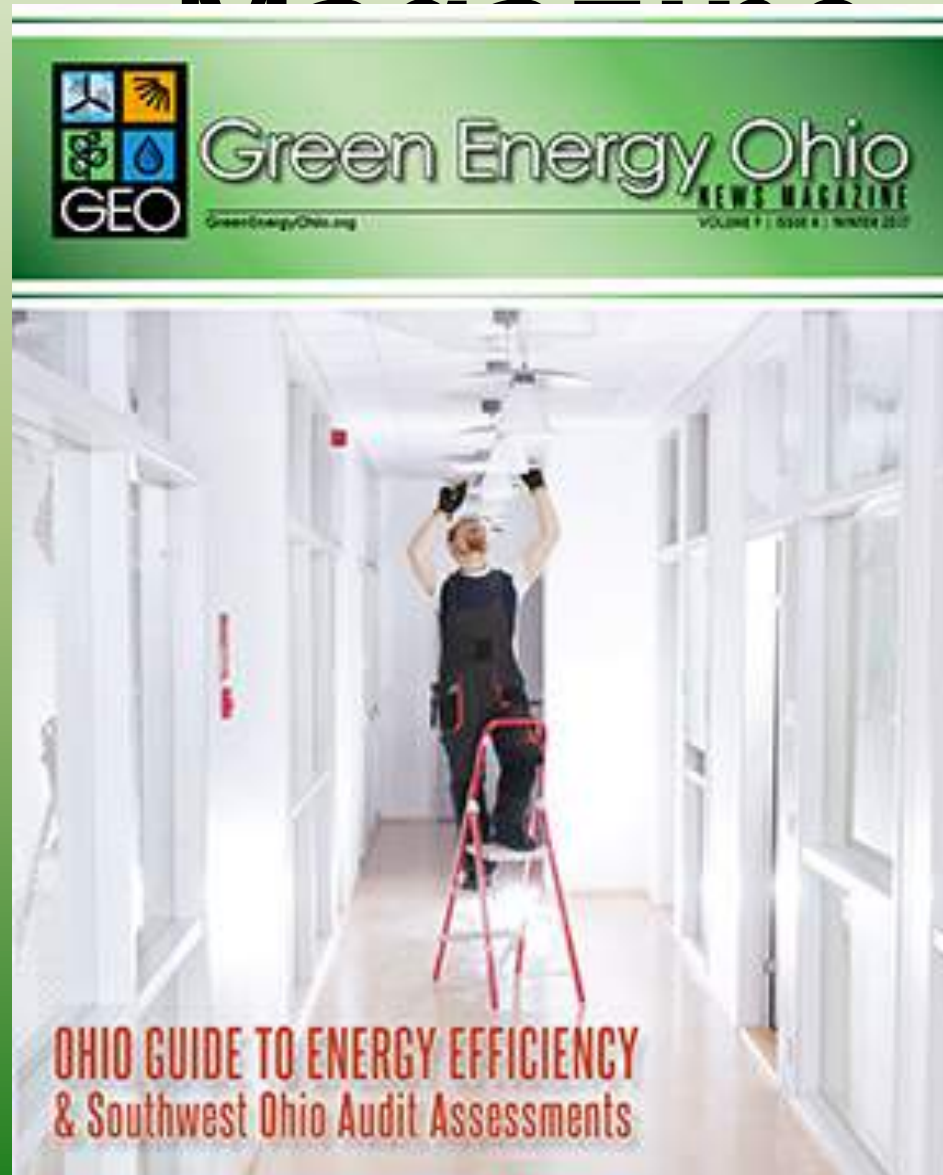


Green Energy Ohio News Magazine



Lamberts in Lake County, Ohio

Winter GEO News



Ohio Guide to Energy Efficiency



Ohio Guide to Energy Efficiency

Welcome to GEO's 2017 Ohio Guide to Energy Efficiency. While GEO's main focus is renewable energy, no successful distributed renewable energy project is without prior energy efficient improvements. This feature section includes articles on energy efficiency and will help guide you through the first step of your clean energy quest! Read about a new Energy Audit and Assessment program made possible by the Duke Class Benefit Fund and administered by GEO, Energy Optimizers, and Ohio Interfaith Power and Light; a typical ASHRAE level energy audit; a brief review of financing options; and the importance of benchmarking and ongoing system monitoring. Rounding out the articles in the section are two case studies of energy efficiency improvements in a bank and a faith-based organization. Lastly, an updated Guide to Ohio Energy Efficiency Incentives; a summary of the incentives available for energy efficiency improvements, can be found at the end of the feature section.

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1-Day Solar Electric (Photovoltaic) Basics Workshop

May 4th
Columbus, OH

GEO Policy Conference
Annunciation Banquet and Conference Center
555 N. High St, Columbus, Ohio 43215

Three times as many people now work in solar (in the US) than in the coal industry. Solar employment exceeds all those working in the oil and gas extraction industry - combined. And employment is growing at about 25% per year.

Solar electric will dominate technology in the coming decades in ways similar to how desktop computers and the Internet transformed our society over the past three decades. Prices continue to plummet - the price of a system cut in half every three years.

This PV course is designed for beginners, so experience with electric or electronics is not necessary. It is designed as a comprehensive overview of the technology and issues surrounding solar electric systems.

Ideal for home and business owners thinking of installing a PV system and want to know what is involved. Or for architects and engineers who wish to be able to respond in an informed way to clients who have questions about integrating renewable energy into their facilities (qualifies for 8 hours of HSW continuing education). Also ideal for roofers and/or electrical contractors thinking of expanding their business (also qualified for 8 hours technology credit with the Ohio Department of Commerce Licensing Board).

The registration will also give you access to the Green Energy Ohio Policy Conference. Our breaks will be timed to match exhibit hours and the luncheon speaker.



"The one-day PV workshop was extremely helpful. Although I had almost "zero" knowledge before the workshop, I now know what to look out for and what questions to ask."

- Andrea Gorzitz
Ohio State University



This course will focus on:

- Basic Principles and Concepts of Power
- Basic Principles and Concepts of Photovoltaics
- The Economics of Photovoltaics
- Photovoltaic System Options and Components
- Standard System Configurations
- Site Assessment
- Designing a PV system
- Battery Systems
- System Installation
- Permits and Required Agreements



Contact Green Energy Ohio at 614.985.6131 or <http://www.greenenergyohio.org/> for further details or to register.

LA Acts Landscape Architecture
Continuing Education System*

Qualifies for 8 hours of Health, Safety and Welfare (HSW) - related training Continuing Professional Development Education hours.

Qualifies for 8 hours of Technology related training Continuing from the Ohio Construction Industry Licensing Board.





Ohio Green Energy Policy Conference

May 4, 2017 • Annunciation Banquet and Conference Center • 555 N. High St. Columbus, OH



OHIO GREEN ENERGY POLICY CONFERENCE GEO 15th Annual Meeting & Awards Reception

THURSDAY, MAY 4, 2017

Annunciation Banquet and Conference Center | 555 N. High St. | Columbus, Ohio 43215

The past few years Ohio's clean energy advocates have learned that if you don't make public policy your business, our state policymakers will give you the business – and it won't be green energy!

Joining more than 60 clean energy businesses, environmental and community advocates who testified in late November at state legislative hearings against HB 554, Green Energy Ohio argued this measure would "hamper our state's progress to deploy renewable energy and energy efficiency to create jobs, reduce the carbon levels and improve the quality of life for all Ohioans."

Fortunately, by late December 2016, Ohio Governor John Kasich agreed with clean energy advocates as he vetoed legislation HB 554 – an action applauded by Green Energy Ohio and many others.

In late February 2017, forces are still at work in the Ohio General Assembly to stymie already certificated Ohio wind farms and again take aim at reducing Ohio's statutory standards for investor-owned utilities to provide renewable

energy along with energy efficiency. In short, one battle is leading to more; even as several Ohio electric utilities, American Electric Power and Dayton Power & Light are supporting deployment of renewable energy as economic power sources.

We need your help in this extended fight! Join Green Energy Ohio (GEO) for an all-day Policy Conference on key clean energy policy issues on Thursday, May 4, 2017. The venue is the spacious Annunciation Banquet and Conference Center at the Greek Orthodox Cathedral in downtown Columbus. A contemporaneous GEO Solar PV Training Session will also be held at the same location – see p. 9. After the conference and training, the 15th GEO Annual Meeting Reception will feature the "GEOs" or Annual Awards recognizing outstanding contributors to Ohio green energy.

Employing GEO's "hands-on" knowledge, technical credibility and "grass-roots" outreach provides an ideal platform for discussing key policy issues and solutions impacting clean energy across Ohio.

The statewide, educational non-profit, Green Energy Ohio held two public policy conferences in 2016: On April 7, 2016 at Ohio State University, GEO's 1st Ohio Green Energy Policy Conference featured 30 expert speakers, 140 attendees and tradeshow. Then on November 18, 2016 at the Hilton Columbus Downtown, Ohio's Green Energy Future Conference drew 55 clean energy businesses among 80 attendees to hear 12 expert speakers in the middle of the legislature's "lame duck" session.

Registration and Sponsor/Exhibit information for the May 4th GEO Policy Conference is on-line now at www.greenenergyoh.org. More details on speakers will be posted in coming weeks. In the meantime, to inform yourself as an Ohio citizen and attendee at the Policy Conference, check out the on-going GEO Policy Watch web page for key news stories about state, local and federal green energy policy developments.

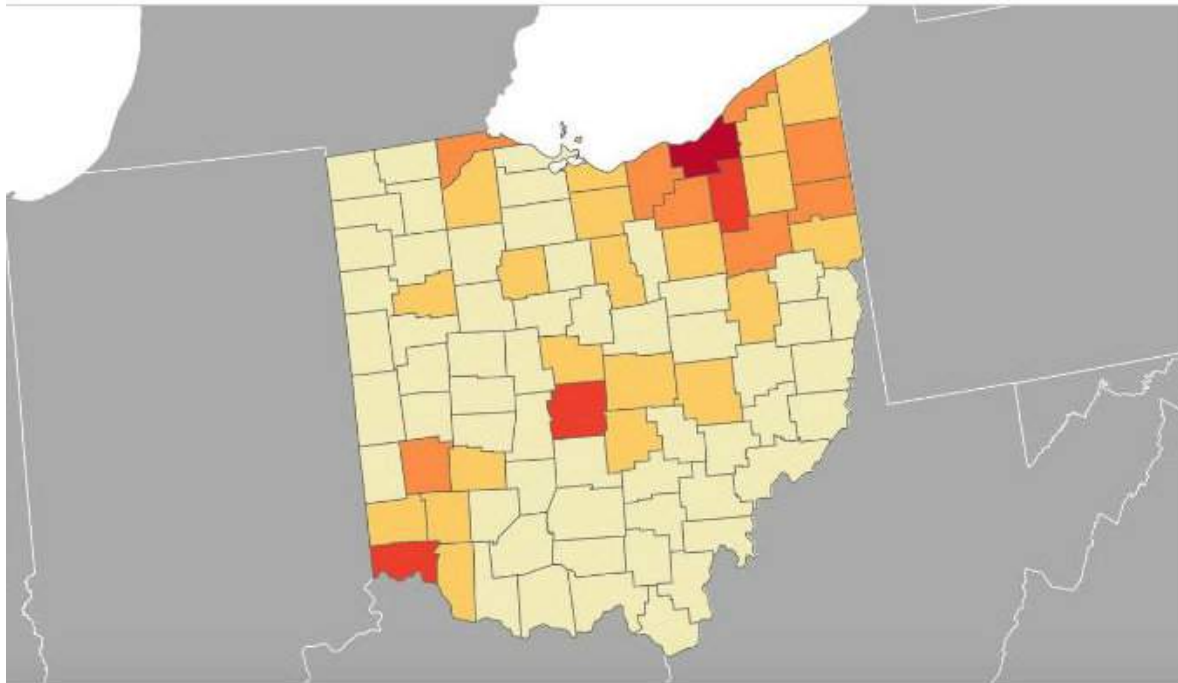
- Bill Spratley,
GEO Executive Director



GEO's 1st Ohio Green Energy Future Conference on April 7, 2016 at the 4-H Center at Ohio State University

National Map > East North Central > Ohio

- COUNTIES
- U.S. CONGRESSIONAL DISTRICTS
- STATE HOUSE DISTRICTS DISTRICTS
- STATE SENATE DISTRICTS

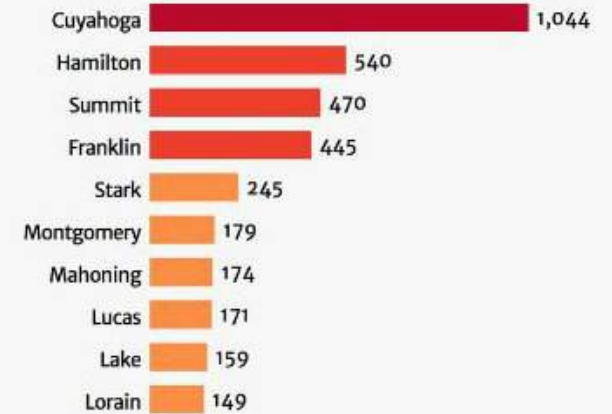


2015 / 2016

SHARE

5,831
Ohio

Top Ten Counties

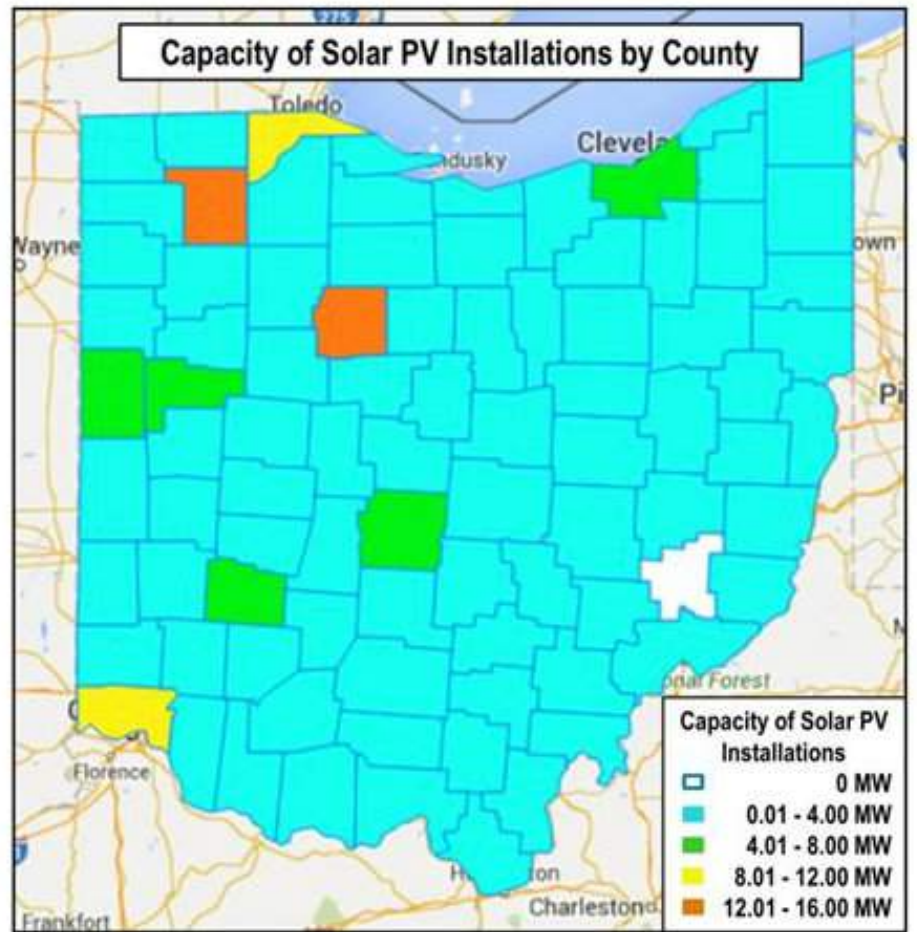
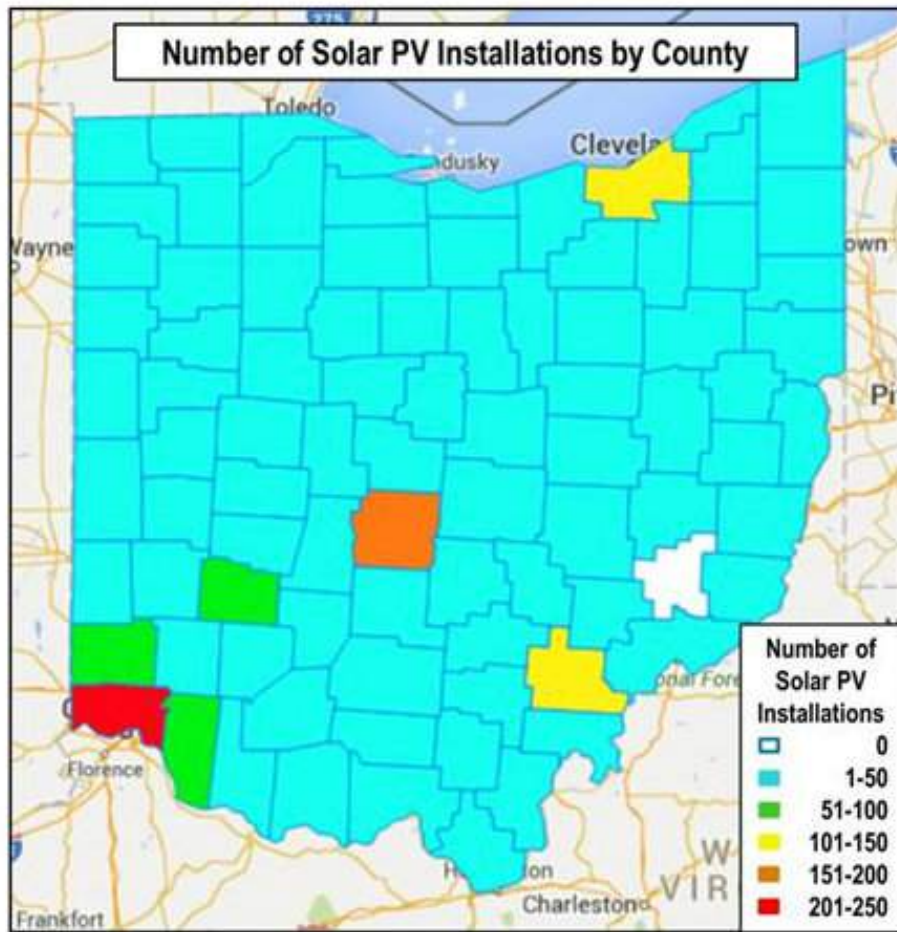


Ohio

[Download the State Report for Ohio](#) PDF

rank among stat

5,831 Solar jobs



GEO Solar Thermal Rebates Helps McDermott Schools Get Hot Water from Sunshine



Northwest Local Elementary School solar thermal collectors



Northwest Local Elementary School's solar heat exchanger and hot water tanks for preheating water to add to the boiler, as needed.



Northwest Local Middle School solar thermal collectors



Northwest Local High School solar thermal collectors

Northwest Local Schools in McDermott, Ohio installed solar thermal collectors in 2015 to help offset the cost of heating hot water at their Elementary, Middle and High Schools. The three installations were designed and installed by TMI Electrical Solutions and SunRock Solar to convert solar energy into hot water. Green Energy Ohio provided rebates to help stimulate these new solar thermal installations.

The estimated total annual hot water load savings is 43% for the Elementary School, 56% for the Middle School and 42% for the High School. This will significantly reduce their overall energy costs for heating water every year and provide plenty of hot water for use by students, teachers and other staff.

The GEO Solar Thermal Rebate Program for commercial installations refunds up to

30% of the solar thermal installation costs at the rate of \$45/kBtu/day.

The Elementary School has 8 Solar Skies solar thermal collectors with a rated output of 317 kBtu/day. The rebate amount from GEO was \$14,265.

The Middle School has 6 Solar Skies collectors with a rated output of 238 kBtu/day. The rebate amount from GEO was \$10,710.

The High School has 7 Solar Skies collectors with a rated output of 277 kBtu/day with a rebate from GEO of \$12,465.

These three projects received a total rebate of \$37,440.

Since 2009, GEO has awarded 46 rebates to homeowners, businesses and educational institutions across Ohio. The

current program is for commercial installations only.

If you have any kind of commercial building, including schools and non-profit organizations and use hot water, then you may want to find out how you can get a rebate to install solar thermal on your building.

More information is available on the GEO website under the Resources tab at: <http://www.greenenergyohio.org/photovoltaicsolar-energy-basics/solar-thermal-rebate-program/>

Rebate funds are limited, but subject to program conditions and requirements, qualifying applications will be funded until all the funds allocated for the Notice of Funding Availability (GEO NOFA 14-01) have been exhausted.

— Barry Adler, GEO Operations Coordinator



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