

THE CHARGING STATION

THE OFFICIAL NEWSLETTER OF A²ZERO AND THE ANN ARBOR OFFICE OF SUSTAINABILITY AND INNOVATIONS



IN THIS ISSUE:

WELCOME 1
LAND ACKNOWLEDGEMENT 1
SOLARIZE ANN ARBOR2
BATTERIES IN A STORM3
MUNICIPAL SOLAR IN A2 4
COMMERCIAL SOLAR PROGRAM 4
EVENTS & ANNOUNCEMENTS.....5
COLLABORATOR SPOTLIGHT6

ABOUT THE AUTHOR:



The author for this month's feature articles on Solarize Ann Arbor and batteries is Julie Roth. As a Senior Energy Analyst with OSI, Julie's work focuses on the creation, implementation, and management of programs to facilitate community-wide adoption of solar, building electrification, and efficiency.



WELCOME

Welcome from the City of Ann Arbor's Office of Sustainability and Innovations (OSI)! This month's issue of *The Charging Station* focuses on solar power in our city, which is but one of the many areas of focus that OSI has as we pursue our goal of achieving the equitable, healthy, safe, and carbon neutral community envisioned in the A²ZERO Plan. If you are interested in learning more about A²ZERO and our work, more detail can be found on our website: www.a2gov.org/sustainability. And as always, thank you for your interest in sustainability activities in Ann Arbor!

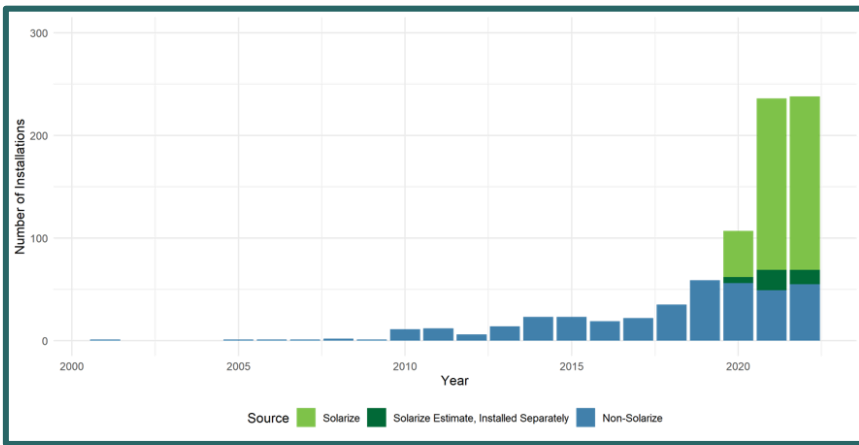
LAND ACKNOWLEDGEMENT

Equity and justice are at the center of A²ZERO and staff in OSI are continuing to ground our work in these critical principles. In that light, we'd like to take a moment to honor the geographic and historic space we share. We acknowledge that the land the City of Ann Arbor occupies is the ancestral, traditional, and contemporary lands of the Anishinaabe and Wyandot peoples. We further acknowledge that our city stands, like almost all property in the United States, on lands obtained, generally in unconscionable ways, from indigenous peoples. The taking of this land was formalized by the Treaty of Detroit in 1807. Knowing where we live, work, study, and recreate does not change the past, but a thorough understanding of the ongoing consequences of this past can empower us in our work to create a future that supports human flourishing and justice for all individuals.

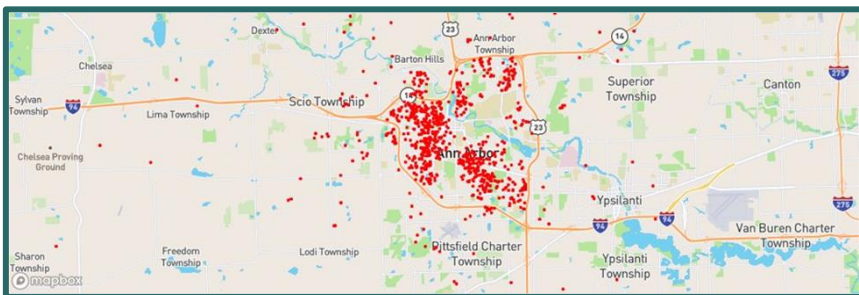
SOLARIZE ANN ARBOR

Solarize Ann Arbor is a residential solar program that helps individuals learn about their energy, find out whether on-site solar could work for them, and come together with neighbors, friends, and others in the community to get discounts with group-buys on solar installations. The program has just rounded out its third year, and continues to be extremely successful, attracting national attention for its achievements and ongoing popularity.

In addition to increasing the numbers of solar installations in the City (see the graph below), the program invites anyone living in Washtenaw County to participate in the groups, so that others can benefit from the learning, discounts, and clean energy installations we are facilitating with Solarize.



There are Solarize installations up throughout the county, as the program has now facilitated **over 520 new solar projects**. Thousands of people have attended the virtual workshops, and have learned about where their energy comes from, how to reduce energy waste, why we want to electrify our homes, and how to help with producing clean energy.



Solar map Q3 2022 (note: installations outside the City are those facilitated by Solarize, as permitting data is not available for outside jurisdictions).

Solarize Ann Arbor is now responsible for approximately **3.9 MW** of new clean energy in our community and has saved residents around \$1.7 million on the up-front cost of solar. Even more significantly, all that solar will save residents over **\$17 million** in energy costs over the 25-year warranted lifespan of the installed solar systems.

Replication Outside Ann Arbor



Given the success of Solarize, the City has collaborated with the Great Lakes Renewable Energy Association (GLREA) to help them launch a state-wide program built on the Ann Arbor Solarize model. The GLREA awarded Julie Roth, Senior Energy Analyst, with the 2022 Exemplary Partnership Award for this project. In addition, staff created a Solarize Toolkit to enable other communities throughout the country to pilot their own programs.

You can learn more about Solarize at www.a2gov.org/solar. The adoption of renewable energy, such as solar, is important to meeting the City's A²ZERO goals of a just transition to community-wide carbon neutrality. Learn more about this work and get involved at www.a2gov.org/sustainability.

Contact:

Julie Roth
Senior Energy Analyst
JRoth@a2gov.org



Batteries: Weathering the Storm

As an enormous ice storm battered Ann Arbor, hundreds of thousands of people in Southeast Michigan were without power for days, and as of the writing of this article many remain without power. The ubiquitous sound and smell of gas generators can be heard in many neighborhoods, as folks who have them try to keep their lights on and power running. But there is a quieter, safer, and more environmentally-friendly alternative to gas-powered generators - whole-home batteries paired with on-site solar.

Gas generators can keep a home powered up in an outage, but come with safety and environmental costs, including the [potential of fires](#), [carbon monoxide poisoning](#), and earth-warming emissions. Battery [technology is advancing](#) at a speed-of-light pace, improving options and environmental impacts, and offers a greener alternative.

Approximately 30% of Solarize installations (see “Solarize Ann Arbor” on page 2) include battery storage. The recent power outage gave some Ann Arbor residents a chance to test out usage of their batteries for grid back-up.



Ann Arbor resident Judah Garber (pictured to the left with his 9.8 kWh LG battery) installed solar and a battery through the Solarize program in 2021. He recently updated his battery with a “weather guard” feature, which anticipates incoming storms and fills up the battery with grid power if necessary, in anticipation of an outage. It worked like a charm. “We lost power but maintained essential services: furnace, hot water, fridge, wifi and computer outlets,” writes Garber. The following day, the battery had drained from overnight use and Garber was without power for approximately 2 hours in the morning, until the sun started to hit their panels again. “Becky and I went out for coffee and breakfast,” Garber said - and by the time they got home, “our essential services were back on.”

Garber notes that prior to the weather guard feature, he was happy with the fact that his battery helped him use most of his solar generation on-site, storing daytime energy for use at night. But now he is thrilled with how well the battery worked as back-up as well.

Rena Seltzer, another Ann Arbor Solarize participant who had her solar (pictured to the right) and battery installed in 2022, reflects: “With our solar panels and backup battery, our house was powered except for a few hours early this morning, until the sun came out and began to recharge our battery again. It was remarkable to be off the grid for something like 39 hours, and only be without power for a few hours.”



The recently-passed Inflation Reduction Act enables people to get a federal income tax credit of 30% off the installation of a battery. Although they remain expensive, this credit brings the cost of a battery down into a similar range as a gas generator. And when paired with solar, the “fuel” to run them is clean and free (solar pays for itself within 7-12 years, depending on configuration and cost).

In addition, the City is considering creation of a “[Sustainable Energy Utility](#)” (SEU), which would enable widespread battery and solar deployment throughout our community, providing access to clean energy and resilience for those who are unable to host their own. In this way, folks who rent their homes, have shaded roofs, or lack access to capital or credit can benefit as well. The City commissioned an Energy Options Analysis by [5 Lakes Energy](#), which is looking at the feasibility of an SEU as well as other paths to 100% renewable energy - and the results of this study should be available later this spring.

ANN ARBOR AREA COMMERCIAL SOLAR PROGRAM LAUNCH



A2ZERO
ROUTABLE • SUSTAINABLE • TRANSFORMATIVE

February 28, 2023
12:00-1:00pm
Webinar

ANN ARBOR
2030
DISTRICT

COMMERCIAL SOLAR PROGRAM LAUNCH

Brought to you by the Ann Arbor Office of Sustainability and Innovations and the Ann Arbor 2030 District

Join the City and the 2030 District as they introduce a new Ann Arbor Area Commercial Solar program which will help businesses determine solar feasibility and financial benefits, find vetted contractors, and evaluate bids.

Register here: https://us02web.zoom.us/webinar/register/WN_tC8l8q-VQta7X-yCkDqGyQ

The City is collaborating with the [Ann Arbor 2030 District](#) to launch a new program designed to help commercial properties in Ann Arbor and throughout the County access the benefits of clean, renewable energy. Find the website for this program [here](#).

The program will provide one-on-one assistance to screen properties for solar potential, help with the design and release of Requests for Proposals to qualified installers, provide support in the review of proposal responses and in understanding financial benefits, and help with reviewing post-installation energy bills to ensure proper production.

There will be an informational webinar on February 28th from 12:00 - 1:00pm to kick off the program. Commercial entities and property owners from throughout Washtenaw County are welcome, and any interested individuals can sign up for this webinar at: [Commercial Solar Meeting](#). A recording of the webinar will be made available to anyone that cannot attend.

Contact:

Julie Roth, Senior Energy Analyst
JRoth@a2gov.org

MUNICIPAL SOLAR IN ANN ARBOR

OSI and the City of Ann Arbor are working to decarbonize municipal operations! This includes energy auditing, energy efficiency work, electrification, and behind-the-meter renewable energy installations at various City facilities. The City's myriad of properties makes this work challenging, but sites are prioritized by overall energy usage, potential savings, and community resilience benefits, among other criteria.

Currently, there are solar energy systems operating at various City facilities, such as Northside and Bryant Community Centers, Fire Station 6, and the Ann Arbor Farmer's Market. The City is involved in the design and construction of rooftop, ground-mount, and carport solar installations at thirteen other City sites. These sites include some of the largest City facilities - like the Water and Wastewater Treatment Plants (rooftop solar + battery storage), Wheeler Center, and Municipal Airport - as well as both large and small Parks sites - like Veteran's Memorial Park & Ice Rink, Buhr Park Ice Rink, and Burns Senior Center.

Installations at these sites have the potential to save the City significant amounts on energy costs, increase community resilience, and get the City closer to our goal of carbon neutrality by 2030. In total, over 4 MW of solar generation capacity will begin to be installed at City properties in the coming months. The systems are expected to save the City tens of thousands of dollars annually in electricity costs. The City will monitor the systems over time to understand their impacts on both budgets and greenhouse gas emissions.

To continue this work, OSI is looking at other City sites that could potentially host solar installations and is also working on decarbonization roadmaps and energy audits at various other facilities. A [request for proposals](#) was released on February 22nd 2023 to identify a firm to help us design and install solar facilities at these additional sites.

Contact:

Simi Barr, Energy Coordinator
SBarr@a2gov.org

UPCOMING EVENTS

2023 Sustainability Series - Re-Charged Home Electrification: New Funding and Opportunities for Electrifying your Space

Wednesday, March 29th | 6:00pm | Virtual via Zoom & In-Person at the AADL Downtown Branch

The annual A²ZERO Sustainability Forum Series is back in 2023 and this year we're hybrid! Join us either online via Zoom or in person at the Ann Arbor District Library's Downtown branch. Our March event, titled "Re-Charged Home Electrification: New Funding and Opportunities for Electrifying your Space," will discuss electrification concepts, as well as both funding and assistance opportunities. You can register for this event (and for others in the series) [here](#).

For information on our upcoming events, please visit www.a2gov.org/sustainability/events.

ANNOUNCEMENTS

Save the Date for the First MI Healthy Climate Conference!

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) will host the first MI Healthy Climate Conference on April 11-12, 2023, at the Huntington Place in Detroit, MI. Michigan faces real and costly impacts from climate change. But climate action also presents opportunities to improve health outcomes, advance justice, and grow Michigan's economy. Governor Whitmer committed Michigan to carbon neutrality by 2050 and in April 2022 released the MI Healthy Climate Plan to chart Michigan's path forward. Hundreds of Michiganders contributed thousands of hours of research, reflection, and conversation to create a plan that will protect our public health and the environment and help develop new clean energy jobs. It will take concerted effort from all Michiganders to realize the Plan. Fortunately, our communities, businesses, and institutions have already stepped up and created strong momentum for us to build upon. EGLE is hosting this two-day conference to bring together and mobilize engaged stakeholders, community and business leaders, advocates, and other partners around implementing the key action items in the MI Healthy Climate Plan. Take this time to connect and help catalyze Michigan's plan to action! Registration will open in early 2023. Learn more at www.michigan.gov/egle/outreach/upcoming-events.

Washtenaw County Conservation District 2023 Spring Tree & Shrub Sale and Spring Native Plant Sale

Native plants, trees, and shrubs are now available for preorder through the Washtenaw County Conservation District (WCCD). WCCD hosts multiple annual plant and resource sales to support your conservation efforts, and has distributed over 7.1 million trees and plants to Washtenaw County residents since 1951! Trees, shrubs, and native plants can help you conserve water since they require minimal irrigation, are great for erosion control, and support the local ecology and pollinators! The online sale period ends on March 20th. Please call our office at 734.302.8715 if you have any questions. Order your plants online at store.washtenawcd.org. The Spring Tree & Shrub Sale pick-up dates are April 28th-29th, and the Spring Native Plant Sale pick-up date is June 3rd.

Collaborators interested in having announcements posted in *The Charging Station* can contact Sheronda Gloster at SGloster@a2gov.org.

Collaborator Spotlight

Jan Culbertson, FAIA, LEED AP Ann Arbor 2030 District



Growing up in Ann Arbor, Jan graduated from Huron High and received her M.Arch degree from the University of Michigan. She has practiced architecture for nearly 40 years. As a Senior Principal at A3C – Collaborative Architecture, she focused on sustainability not only in her practice, but organized Architecture + 2030 continuing education sessions for architects in SE Michigan and continues to promote education and advocacy for a carbon neutral future. Her practice included healthcare and non-profits, including SAFEHouse, Humane Society of Ann Arbor, North Star Reach, and Ozone House.

Jan continues to work and serve in the town she loves. Following her retirement from A3C, Jan volunteers as Leadership Council Chair for the [Ann Arbor 2030 District](#), and as a member of the Ann Arbor Climate Partnership and the Ann Arbor Public Schools Sustainability Advisory Committee. She is working with OSI to launch the new Ann Arbor Area Commercial Solar Program (see “Ann Arbor Area Commercial Solar Program Launch” on page 4), with technical assistance provided through the 2030 District.

Jan is active in Scio Township serving as Chair of the Planning Commission, chairs the Environmental Sustainability Task Force, and is a member of the Zoning Board of Appeals. Jan advocates at the state and national level for the architectural profession and the environment as the Co-Chair of [AIA Michigan’s](#) Government Advocacy Committee. She spends her free time on the Huron River as a member of the Barton Boat Club, and especially enjoys hiking and paddling.

Find a list of all our Community Collaborators at:
www.a2gov.org/departments/sustainability/about/Pages/A2Zero-Community-Partners.aspx



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