


THE CHARGING STATION

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




A²ZERO
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ABOUT THE AUTHOR:



The lead author for this month's feature articles on electrification is Julie Roth, Senior Energy Analyst with OSI. Julie's work focuses on the creation, implementation, and management of programs that 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 electrification, which is one of the seven main strategies identified as necessary for 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.

THE A²ZERO HOME ENERGY ADVISOR SERVICE

ADVICE ON ELECTRIFICATION AND ENERGY EFFICIENCY - COMING SOON!

Ann Arbor’s buildings are responsible for approximately 68% of our carbon emissions (41% from electricity and 27% from burning “natural” fossil gas in those buildings). Reaching our carbon neutrality goals is therefore reliant on both replacing gas-burning appliances with electric ones (electrification) and on increasing the energy efficiency of our buildings, to reduce energy waste. Residents trying to figure out how to make their homes more sustainable, healthy, and efficient often have numerous questions. ‘Is my home using more energy than necessary?’ ‘What are some alternatives to fossil gas appliances?’ ‘What kinds of rebates and incentives can I get to help lower the upfront cost of improvements?’ ‘My water heater is old, what are my options for replacement?’ ‘My house is drafty, what can I do that is affordable?’ ‘Is my roof good for solar?’ With all these questions (and more), it can be hard to know where to start on your electrification and energy efficiency journey.

The Office of Sustainability and Innovations (OSI) has partnered with [Elevate](#) and [EcoWorks](#) to design and pilot a new A²ZERO Home Energy Advisor Service. This service aims to reduce this complexity by creating a one-stop-shop where residents (homeowners, renters, and landlords) can:

- Get home energy assessments;
- Find assistance with identifying energy and water saving projects;
- Get connected to contractors;
- Find information on available incentives and financing options to implement solutions; and
- Get contractor bid reviews, if requested.

The Home Energy Advisor Service will also provide an individualized “Path to Zero” detailing the specific steps, timelines, and opportunities available for each participating household to reach net zero, based on their unique needs and opportunities.

The Home Energy Advisor Service is currently finishing its pilot phase. Project partners are engaging with 15 Ann Arbor residents representing different needs, living situations, and building types. Upon completion of the pilot, OSI will evaluate lessons learned to determine what revisions are necessary and how to effectively scale the program community-wide. Ultimately, the goal is to make the A²ZERO Home Energy Advisor free for all Ann Arbor residents and readily available in late 2023. Stay tuned for more!



Electrification and Indoor Air Quality

In the February issue of *The Charging Station*, we highlighted our work around [monitoring outdoor air quality](#) in Ann Arbor – but air quality is an important issue both inside and outside our homes, offices, and other buildings. And [gas-burning appliances are a primary source of indoor air pollutants](#). A recent [study in New York](#) found that, in one home, “in the course of about 40 minutes, levels of nitrogen dioxide topped 200 parts per billion in the living room, 300 parts per billion in the bedroom and 400 parts per billion in the kitchen, or double, triple and quadruple thresholds set by the E.P.A. for one-hour exposures.” By switching our appliances over from fossil gas-burning to electric, we can not only help to achieve our climate action goals, but also make improvements in indoor air quality, and subsequently, our health. To learn more about common indoor air pollutants, their sources, and potential health impacts, please visit the [EPA’s indoor air quality page](#) and the [CDC’s indoor environmental quality page](#). And to get a sense of the indoor air quality in your home, you can borrow an air quality meter like [this one](#) from the Ann Arbor District Library.



ELECTRIFICATION RESOURCES

LEARN MORE ABOUT ELECTRIFICATION AND HOW TO FIND A CONTRACTOR

The Future is Electric!

Our local Electrician's Union IBEW/NECA is creating a video series for residents on all things electrification. The first four videos have been published, with more to come. These short and informative videos are a great place to start your electrification journey. Watch the [videos](#) to learn about panel upgrades, induction stoves, heat pump dryers, and EV chargers.



Electrification Case Study – A Video of Electrification in Action!

Check out this [great video](#) from Michigan Saves highlighting Ypsilanti township residents Claire and Zach (one of OSI's own) as they transition to a fully electric home!

Finding a Trusted Contractor

One of the biggest questions folks have when looking for help with energy efficiency and electrification is 'which contractors should I call?' OSI has partnered with Michigan Saves, the state's green bank, to help people find contractors skilled and motivated to help residents with their energy transition. You can find skilled and knowledgeable contractors by going to www.MichiganSaves.org and clicking on "Find Your Contractor." From there, search for contractors by trade (e.g.: HVAC, energy audits, solar installer) and look for those with the large "Electrification Badge" designation. Contractors with this badge have gone through enhanced training on electrification and should be able to help you on your path. Alternatively, you can search "Electrification" in the Contractor Locator, and you will find a list of all the badge-earners in every trade. Learn more about how Michigan Saves is helping folks with residential electrification at <https://michigansaves.org/residential-electrification/>.



A²ZERO AMBASSADOR SPOTLIGHT

DEVELOPING A FRAMEWORK FOR A “GREEN ENERGY NEIGHBORS” NETWORK

An A²ZERO Ambassador project team believes that for those trying to make efficiency upgrades or pursue renewable energy in their homes, a neighbor who has already undertaken improvements could be the most important person to talk to. Stephanie Szemetylo (pictured below left), Alexis Kinter (pictured below right), Michael Hagan, Zoe White, and Laurent Kanago, A²ZERO Ambassadors from the most recent cohort, are developing a framework for connecting neighbors for just that reason. The premise of the Green Energy Neighbors Network is simple: connect those looking to do efficiency upgrades, electrify, and/or incorporate renewable energy systems in their homes with folks who have already gone through the process. Advice seekers will soon be able to fill out a form listing all the projects they are thinking about or planning on doing. Once submitted, the project team will connect those folks with others who have already completed a similar project. Paired individuals will be able to share their personal experiences, what they learned, and offer any advice on navigating the work. Although folks sharing may not be electricians or contractors, the ability to share stories and lessons between friends and neighbors has the potential to provide support and open homeowners to unique connections that they may not otherwise have had. Individuals who have completed energy efficiency or renewable projects to their homes will be able to apply to be a part of the network’s advice givers.

This Ambassador team has a diverse skill set as engineers, design strategists, energy students, and sustainability consultants, which is helping them create and implement a framework to support part of our community’s energy transition and build local connections. Although still in development, the Green Energy Neighbors Network is hopeful for an August 11th soft launch at OSI’s 2nd annual Home Electrification Expo.



The A²ZERO Ambassador Program provides an opportunity for interested individuals to dive deeply into pathways for advancing local sustainability initiatives, resilience, and carbon neutrality. Ambassadors participate in a 12-session training program that brings together 15-20 community members to explore what it takes to equitably transition Ann Arbor to a carbon neutral community. A²ZERO Ambassadors pledge to complete a small team sustainability project and volunteer for at least 20 hours on community sustainability efforts.

If you are interested in joining the next cohort of A²ZERO Ambassadors, we encourage you to [apply today](#). Applications close on July 19th at 5pm EDT. If you need assistance completing your application and/or have questions about the program, please book a time with Bryce Frohlich using: <https://calendly.com/brycea2/a2zero-ambassador-application-discussion>.

FINANCING DECARBONIZATION IMPROVEMENTS

Investing in high-efficiency all-electric upgrades, efficiency improvements like insulation and air sealing, and on-site solar can make our homes safer, more comfortable, and reduce or eliminate our use of fossil fuels. Making climate-friendly choices when replacing equipment can, however, sometimes come with a higher up-front price tag than fossil-based systems. Fortunately, currently available incentives and financing options can help make these climate- and health-smart improvements more cost effective.

Incentives

With the passage of the Inflation Reduction Act in 2022, the federal government significantly expanded the Residential Clean Energy Credit program. This is available today and can be applied to projects you are considering right now. You may know that the program provides a tax credit equal to 30% of the total cost of solar installations - but did you know that heat pumps, panel upgrades, insulation, and other efficiency and electrification improvements are also now eligible for a tax credit? The tax credits for some improvements are capped but can be applied for over multiple years. You can learn more about what is available on [this webpage](#).

In addition to the tax incentives described above, the Inflation Reduction Act expanded federal incentives to include rebates of up to \$14,000 per household for energy efficiency and electrification improvements. Upfront discounts are set at different levels for different income brackets. Explore what rebates you might be eligible for at [Rewiring America](#). These rebates aren't available yet, but when they are, they will be administered through the state's energy office (EGLE). We expect additional details on the rebates to be available in late 2023. OSI will be sure to send announcements out through our newsletter and listserve as soon as we know more!

In addition to state and federal incentives, Ann Arbor is designing its own local incentives. Thanks to the [Ann Arbor Community Climate Action Millage](#), which passed in 2022, the City is able to provide additional rebates for decarbonization improvements. The Office of Sustainability and Innovations is currently finalizing details about these rebates, which are expected to be available by late 2023. More details, including application information and specifics on rebate amounts and eligible practices, will be coming soon. Stay tuned to the newsletter and OSI listserve for more!

Financing

[Michigan Saves](#), Michigan's non-profit Green Bank (and the nation's first!), offers affordable, long-term financing to make it easy to invest in electrifying your home. They have a loan loss reserve that helps buy down the interest rates offered by lenders, resulting in better access to low-interest financing for Michiganders. The process of approval is quick and easy, as well. And Michigan Saves has a vetted contractor network (see also: "Finding a Trusted Contractor" on page 3 of this issue). Learn more and check out their financing packages at www.MichiganSaves.org.

Operational Costs

As electricity is (for now) more expensive than "natural" gas in Michigan, electrification of heat can at times result in increased operational costs, even when the equipment is far more efficient (and cleaner) than fossil gas options (the exception is geothermal heating, which has very low operational costs). This potential increase in monthly costs can be mitigated by making sure that your home is weatherized with good insulation and air sealing, thereby reducing the amount of energy being wasted, and reducing the size of heating equipment needed. And on-site solar - which pays itself back with reduced electricity bills - can also reverse this equation. Financing partners such as Michigan Saves can help interested residents bundle loans and spread the up-front costs out over a longer period of time, so that monthly costs remain stable.

UPCOMING EVENTS

Ann Arbor Solar Stories

Thursday, August 3rd | 7:00pm | Virtual

This one-hour online event is hosted by the GLREA on the first Thursday of each month. Come hear from Ann Arborites who have gone solar and have a chance to ask them all your questions! Register for "[Thursday Night Energy Events](#)" to receive meeting links.

Second Annual Home Electrification Expo

Friday, August 11th | 5:00pm-9:00pm | Ann Arbor Farmers Market

This is a free public event for homeowners, renters, and building professionals, featuring live music, food trucks, and industry experts. Learn about ways to make your home cleaner, greener, and safer. Attendees also have a chance to win a free heat pump water heater from Richmond Water Heaters or free lawn service from the Electric Lawn Company! Please visit www.a2gov.org/expo for more information. With any questions, please contact Julie Roth at JRoth@a2gov.org.

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

ANNOUNCEMENTS

A²ZERO Turns Three!

On June 1, 2023 A²ZERO celebrated its third birthday! To commemorate this occasion, the Ann Arbor Office of Sustainability and Innovations released an [annual report](#), documenting work undertaken between July 2022 and June 2023 and highlighting priorities for the fourth year of A²ZERO. Check out the report, some of the community's accomplishments, and ways to get involved [here](#). We also celebrated with our third annual A²ZERO Week, featuring the work the City and our partners have done so far towards achieving our carbon neutrality goals. Thank you to all who hosted or participated in an event!

City's Second Resilience Hub Activated

In June, the Bryant Community Center, operated by Community Action Network (CAN), officially became the City's second resilience hub! Thanks to solar and battery storage, the community center will be able to continue providing community services when the grid is down, while also realizing energy savings during day-to-day operations. [Learn more about resilience hubs](#).

Commercial and Multifamily Rebate Design Input Needed

The City is working to design rebates for sustainability related measures in commercial and multifamily buildings located in Ann Arbor. If you own, manage, design, or service one or more commercial or multifamily buildings in Ann Arbor, please take this [survey](#) to help inform and shape our rebates with your feedback. The deadline to complete this survey is July 7th. To learn more, contact Thea Yagerlener at TYagerlener@a2gov.org.

OSI is Hiring!

OSI will be hiring for several positions in the coming months! For more information and to apply for these exciting opportunities, we recommend regularly checking the City's job openings [here](#).

Interested in having announcements posted in *The Charging Station*? Contact Sheronda at SGloster@a2gov.org.