

ANN ARBOR'S SUSTAINABLE ENERGY UTILITY: FAQs

This document includes the answers to frequently asked questions by the community about Ann Arbor's Sustainable Energy Utility (SEU). Feel free to read through the entire document, or to use the interactive table of contents to find or go to the sections you are most interested in learning more about.

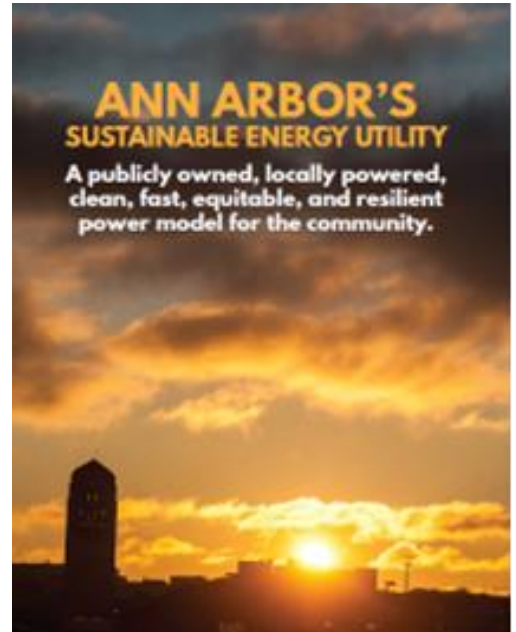


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WHAT IS A SUSTAINABLE ENERGY UTILITY?

The Ann Arbor SEU is a community-owned energy utility that provides electricity from local solar and battery storage systems installed on homes and businesses throughout the City. The SEU provides 100% **clean, reliable, locally built, and affordable** electricity; built by the community, for the community.

Traditionally, an electric utility was an all-or-nothing proposition – each customer/household could have only one provider, which would provide 100% of their energy services. Innovations in distributed energy (e.g., solar energy and energy storage) and advancements in energy technologies mean we can think about that differently now – and the SEU envisions a new type of entity that focuses on community installed and community-owned clean energy. Through the SEU, Ann Arborites will increasingly reduce the amount of energy we use through energy waste reduction and get our remaining needs from clean, local, publicly owned sources.



WHAT SERVICES COULD A SEU OFFER?

Ann Arbor’s SEU would be a municipal utility that delivers energy waste reduction programs, along with clean, local, and reliable energy to residents by building local renewable energy systems on roofs, carports, and in strategic public spaces. The energy will be provided to residents and businesses through direct installations on their properties as well as through small-scale distribution systems (known as microgrids). This is an alternative to the system of large-scale poles and wires and distant power plants used by traditional municipal and investor-owned utilities.

Ann Arbor’s SEU would leap past old utility models and focus on the most innovative and impactful services for our residents, including:

- Improved energy reliability, including during times when the “grid” goes down, by increasing residents’ access to solar and energy storage.
- Robust energy waste reduction (efficiency) programs to support residents and businesses – even those who don’t own their dwellings -- with improving indoor comfort, health, and safety, all while saving money.
- Microgrids between neighboring households, where solar and storage are shared.
- On-bill financing to help lower the upfront costs and increase the flexibility of paying for our clean energy transition.
- District level geothermal systems so that neighbors can jointly tap into the earth to heat and cool their homes and businesses.
- Community solar programs that allow neighboring residents to invest and harvest the benefit from solar installed at community centers, in parks, or in shared areas around the City.
- Support for beneficial electrification and rebate programs to help people transition to cleaner and safer all-electric homes and businesses.
- Energy justice initiatives, including broad and deep access to renewable energy, the creation of programs for low-income and underserved residents, workforce training opportunities, and the expansion of weatherization services.

WHAT SERVICES MIGHT AN OFFER AT THE START?

Rapid solar deployment will be at the heart of initial offerings. In addition to onsite solar and energy storage services, energy waste reduction offerings and on-bill financing options are envisioned as key initial service offerings.

WHAT IS THE DIFFERENCE BETWEEN A SEU AND A TRADITIONAL MUNICIPAL ELECTRIC UTILITY?

There are varying forms of municipal utilities, but the most common is a public utility that serves a community by owning and maintaining the electrical distribution infrastructure (the local “grid”) and selling electricity from third-party generators to its customers, which are physically connected to that grid. When an entity tries to create a utility in this way, it must “take” the current utility’s property through a court process, which seeks to determine the value of the utility’s monopoly interest. Once that price has been agreed upon, the community must purchase that infrastructure from the previous utility. Historically, these efforts can take the greater part of a decade and cost millions to litigate. If successful, the newly formed utility has significant debt its residents must bear associated with purchasing this infrastructure from the previous utility – infrastructure that may not be in the best condition. Additionally, the utility still must determine how it will provide 24-7 power to its customers and meet reliability standards (not to mention decarbonize the power supply) through power purchase agreements, new generation, or other means.

In contrast, a SEU would move away from this model. It would not focus on buying existing poles and wires from an investor-owned utility but would instead focus on creating a new option for Ann Arbor residents and businesses to procure their power by investing in local infrastructure, such as onsite solar and energy storage, micro-grids, energy waste reduction efforts, beneficial electrification, and district level geothermal. In this way, Ann Arbor becomes less dependent on the traditional grid and distant fossil fuel power plants while increasing reliability, improving affordability, and powering our lives with clean energy.

IS THE CITY LOOKING INTO A TRADITIONAL MUNICIPAL UTILITY?

A conversation about traditional municipalization has begun in our community, and the City Council recently asked the Energy Commission to consider whether to recommend a feasibility study. The staff of OSI (The Office of Sustainability and Innovations) has been investigating this alternative option (the SEU) with the help of technical and policy advisors, with the original goal of developing a formal recommendation in early 2022. The community conversation around municipalization led staff to expedite their investigation and publish the report now, so that it can inform public discourse and decision-making around this issue.



WHY NOT WAIT TO LAUNCH THE SEU UNTIL THE CITY DECIDES IF IT WILL PURSUE A TRADITIONAL MUNICIPAL UTILITY?

Why wait? With a SEU, we can start almost immediately – giving our residents and businesses options they don’t have today to have cleaner, more reliable, and local energy, at a lower cost. With a 2030 goal to meet, Ann Arbor needs to pursue all options for fast decarbonization. Also, the sooner we can become more resilient, the less our residents and businesses suffer from grid outages, which have become more frequent.

Moreover, the path to creating a traditional municipal utility is not simple. The costs of purchasing the poles and wires from an investor-owned utility are extraordinarily high in terms of equipment and legal costs, as well as time. We are likely to meet great resistance from powerful entities and be in legal battles for years. If we do, eventually, win those legal arguments and find the money to procure the poles and wires, we will have spent enormous money, time, and political capital, without having actually changed our energy generation (aka, we’ll still be using energy largely from fossil fuels). It can take many years to bring new, large renewable energy systems online, so why wait to start? The SEU will allow us to

immediately begin investing in local renewable energy production and energy waste reduction efforts. Things our community wants and needs now.

The timeline we have set for community-wide carbon neutrality is aggressive, in line with the science of climate change. Science also tells us that actions taken today can be more powerful in addressing climate change than even larger actions tomorrow. With a SEU, we can start almost immediately to reduce our environmental footprint, enhance reliability, increase resilience, and avoid long and expensive legal fights to procure antiquated and failing distribution infrastructure (i.e., the “grid”).

WHAT IS A TRADITIONAL MUNICIPAL UTILITY FEASIBILITY STUDY?

A traditional municipal utility feasibility study is a preliminary analysis of how much it will cost to buy and operate the electrical distribution infrastructure (e.g., poles, wires, and sub-stations) from an existing utility, as well as the cost for procuring an alternative power supply for the City’s residents and businesses. It is an estimate used to assess the financial feasibility of traditional municipalization efforts and the likely rates that would need to be charged. If requested, a feasibility study could also assess the quality of that infrastructure and estimate costs to do things like bury the power lines, have improved maintenance/tree trimming programs, and otherwise modernize the infrastructure to improve reliability and allow for an electrified future.

WHAT IS THE UPFRONT COST OF STARTING A SEU COMPARED TO STARTING A TRADITIONAL MUNICIPAL UTILITY, AND HOW COULD THIS BE PAID FOR?

Starting a SEU requires the adoption of an ordinance by City Council and seed funding to immediately begin installing solar and storage systems, along with energy waste reduction programs. Seed funding could be as small as a few hundred thousand dollars to tens of millions, depending on how quickly we choose to begin and scale up, along with what outside investment options are available. Funding for the SEU could be provided directly from existing City funds, through a millage, from impact investors, private philanthropy, grants, through bonding, or through a combination of these options.

Regardless of which funding and financing options are selected, these costs would be significantly less than the costs of procuring the energy distribution system and associated property, which would be necessary to start a traditional municipal utility, as the costs to procure the local “grid” alone are likely to dwarf the costs of the services an SEU could immediately provide.

WHEN WERE MUNICIPAL UTILITIES IN MICHIGAN FORMED?

Bay City is the oldest (1868) and the youngest is Zeeland (which was re-established in 1935.) There is one place in the Upper Peninsula that is in the process of attempting to municipalize now. See Appendix A for a table for when Michigan municipal utilities were formed.

ARE THERE EXAMPLES OF SEU’S ELSEWHERE?

A SEU is novel in the context of Michigan’s utilities, but it builds on concepts that are present in other jurisdictions. Both DC and Delaware have versions of a Sustainable Energy Utility. Both models are working to support equitable clean energy initiatives in their regions. While the utility laws are very different in those places, these examples present insights into what kinds of services could be offered, how they are priced, and what is possible when a utility focuses on renewable energy, equity, and local generation. In addition, some other Michigan municipal utilities, notably Holland, offer innovative programs (on-bill financing, low-income energy waste reduction offerings) that could advance many of the goals we have. Therefore, there would be many utility program examples which Ann Arbor could emulate and learn from.

DOES A SEU REQUIRE STATE LEGISLATIVE CHANGES?

No. All that is required to start a SEU is the adoption of an ordinance enabling its creation by City Council.

DOES A SEU REQUIRE A VOTE OF THE PEOPLE?

Not unless bonding (or certain other financing options) were selected as the funding mechanism. Individuals and businesses would choose individually (“vote with their feet”) to sign up (or not) for SEU services.

WHAT ARE THE OBJECTIVES FOR CREATING A SEU?

In designing a SEU, the City focused on six objectives:

1. Shifting our energy system from carbon intensive energy sources to carbon-free energy sources as outlined in A²ZERO;
2. Finding solutions commensurate with the pace necessary to achieve a just transition to community-wide carbon neutrality by 2030;
3. Creating a customer-centric model that empowers people and businesses—regardless of their size or location-- to have choice in meeting their energy needs and reducing energy costs;
4. Centering the needs of low-income and historically under-represented groups in the energy system and ensuring they have access to programs that improve comfort, affordability, and sustainability;
5. Moving away from viewing energy as a commodity to viewing energy as a service; and
6. Improving our energy system’s reliability and resilience by lowering our dependence on a single grid.



WHY CONSIDER MICROGRIDDING?

Currently, people with solar systems at their homes or businesses cannot share this electricity across property lines because they are not a utility. If the City were to create a SEU, that barrier to microgridding would be eliminated. Microgrids could pair solar generation with energy storage to distribute electricity at scales larger than an individual home/building, meaning the SEU could design solar and energy storage systems for a neighborhood. In addition to the climate benefits of microgridding with renewable energy, these power storage and sharing abilities sharply improve reliability and improve resilience, while expediting equitable access to renewable energy.

A microgrid is a grid that is smaller and more localized than those that use large energy generation facilities to source electricity. It would likely serve a cluster of homes within a neighborhood. Each microgrid would include, in various configurations, a battery to store energy, solar panels to generate electricity, and a small number of poles and wires to connect a few homes within a neighborhood.

WHAT ARE MICROGRIDS AND NANOGGRIDS?

When we picture DTE’s grid, there is a large power generation site that sends energy generated through our transmission network into our homes. A microgrid is a grid that is smaller and more localized. It would likely serve a cluster of homes within a neighborhood. For example, with rooftop solar, the generation is coming from your roof and is flowing into your home and maybe into your neighbor’s home, maybe another neighbor’s home, and there’s a battery located in or near

one of the homes being powered by solar. Those homes are connected on a microgrid. Nanogrids are smaller, generally serving a single building. An example of a nanogrid would be people who purchase their own solar and storage for their home.

HOW COULD THE SEU SUPPORT ENERGY WASTE REDUCTION?

Energy waste reduction would be, a crucial service offering for the SEU because it is a cornerstone to decarbonization, makes residents and businesses better able to afford the energy they use, and makes the whole community less grid dependent. Local power can only do so much (we don't have enough roof space, parking lots, and open spaces to meet our current power needs 100% of the time with solar energy). This means that Ann Arbor's SEU would not only invest its efforts into newer, greener technologies, but also the deep efficiency and waste reduction efforts that immediately assist homeowners, renters and businesses with reducing energy usage, saving money, and improving the comfort and health of their homes and businesses.

WHY A SEU?

With a SEU, we can start now and focus on meeting our 2030 decarbonization goals while giving our residents options for immediate services -- and results. We can begin building renewable energy and energy storage systems, microgrids, and robust energy waste reduction programs. We can enable local businesses to grow the renewable energy industry. We can reduce our use of and reliance on the grid. The grid is not the goal. **Decarbonization, resilience, and equity** are the goals.

A SEU does not need the assets of a traditional municipal utility to start offering new energy options to residents and businesses. Starting a SEU also does not prevent the later formation of a traditional municipal utility, should that be pursued. The SEU provides steps the City can take now, and either continue without a traditional municipal utility or later incorporate into such an entity if it chooses that path. In other words, a SEU offers a cost-effective course of action that can be taken now, as the City explores the benefits and challenges a traditional municipal utility might present, and whether it makes sense for Ann Arbor.

IS A SEU PUBLIC POWER?

Yes! A SEU is a municipal utility, which is run by the government (just as our water and sewer services are). A SEU is different, however, than traditional municipal utilities in that it would start as a complementary utility to DTE. This means that residents currently served by DTE could choose to enroll in the SEU as well, in order to receive clean energy, energy waste reduction offerings, and energy storage solutions not currently offered by DTE, reducing their reliance on the grid. This approach provides flexibility and provides choice for residents as we move away from the centralized grid to investing in local renewable energy generation. By providing a parallel energy service, Ann Arbor's SEU would not need to fight with DTE over buying their old and under-performing energy distribution infrastructure. Instead, the SEU can immediately focus on installing clean energy.

HOW DOES IT COMPARE TO THE ANN ARBOR FOR PUBLIC POWER PLAN?

Ann Arbor for Public Power is a group of local citizens who are advocating strongly for a full municipalization. That would be the situation where Ann Arbor takes ownership of all of DTE's infrastructure. As a municipality, we have the legal right to do that; however, it has not been done in Michigan successfully, and is likely to be a very long process, essentially battling in court over the cost of what this condemnation of DTE's infrastructure would look like.

Essentially, the For Public Power Plan would allow the city to own all existing infrastructure. This would likely take a decade to gain ownership, and DTE's infrastructure is vulnerable and aging, which would require updating and modernization. This option would not allow for decarbonization for 10+ years. Benefits to municipal utilities include more reliable and cost-effective services than privately owned utility providers.

HOW DOES A SEU COMPARE TO COMMUNITY CHOICE AGGREGATION?

Community Choice Aggregation (CCA) disaggregates energy infrastructure from the commodity costs of electricity. It puts the CCA in control of where electricity is procured, enabling access to 100% clean energy at competitive rates to the existing utility. The CCA customer pays the existing utility for using their lines and wires to deliver electricity, with customers still receiving their bills through the existing utility. CCAs, unlike SEUs, would not have the power to offer on-bill financing or other powers that are restricted to utilities.



One key difference between CCA and the SEU is that the SEU does not require new legislation; it is allowed under current laws. CCA would require new state legislation that would almost certainly face strong opposition from incumbent utilities. Another key difference is the amount of control given to residents to choose their energy supply – a CCA transfers that decision making from DTE to the municipality; a SEU gives residents that choice.

As currently envisioned, if CCA were to be enabled by legislation in 2024 (which is not within the City’s control), the City would need to form a Joint Powers Authority (JPA) to oversee the eventual creation and management of the CCA. This would be followed by an official CCA launch and energy procurement, likely in 2026 or 2027. At this point, all those who did not opt-out of the CCA would become customers and have access to 100% renewable electricity.

Creating a SEU and pursuing CCA legislation are not mutually exclusive. Rather, a SEU can create conditions where a CCA could be incredibly successful, and the SEU does not need CCA to be successful. Suppose CCA legislation does not pass at the State a SEU puts Ann Arbor well on our way toward achieving our clean energy goals by immediately starting to generate local renewable energy. If CCA is enabled by State law, the City can leverage it to procure renewable energy immediately for the community, supplementing whatever energy needs are not currently being met by the SEU. Thus, CCA and SEU are not competing strategies – but strategies that can be pursued simultaneously.

HOW DOES A SEU ALIGN WITH THE CITY’S ADOPTED ENERGY CRITERIA AND PRINCIPLES?

As shown in the table below, a SEU strongly aligns with our adopted Energy Criteria and Principles and allows us to meet our 2030 goals.

SUMMARY OF HOW DIFFERENT ENERGY PATHWAYS ALIGN WITH ANN ARBOR’S ENERGY CRITERIA AND PRINCIPLES AND ACHIEVEMENT OF CARBON NEUTRALITY BY 2030

ENERGY CRITERIA / PRINCIPLES	CURRENT SYSTEM	SUSTAINABLE ENERGY UTILITY
Reduce GHG Emissions	Poor	Excellent
Additionality	Poor	Excellent
Equity and Justice	Poor	Good
Enhance Resilience	Poor	Excellent
Start Local	Fair	Excellent
Speed	Poor	Excellent
Scalable and Transferable	Poor	Excellent
Cost Effective	Fair	Good

This table reflects how well each of the above options aligns with A²ZERO's 2030 goal established by City Council and the adopted [Energy Criteria and Principles](#).

Based on the three adopted core energy criteria and five principles, OSI team and technical advisors evaluated proposed energy strategies to reach carbon neutrality by 2030. The current energy system represents the investor-owned utilities (IOUs). As the performance of IOUs vary depending on the state's utility regulations and energy policy, the rating on the current energy system is largely based on the performance of DTE Energy which is Ann Arbor's sole utility provider.

Reducing GHG Emissions reflects the probability that the proposed strategy will achieve a high (over 50%) reduction of community wide GHG emissions by 2030. Electricity consumption represents 40% of community-wide emissions, so this target requires procuring 100% renewable energy by 2030 as well as addressing the need to electrify current use of fossil fuels.

Additionality requires that energy projects are new and displace fossil fuel energy sources. Priority is placed on projects that would displace regional fossil fuel energy sources and result in actual emissions reductions. Projects to be additional must not have occurred without our community's investment.

Equity and Justice represents a comprehensive impact on affordability for low-income residents, equitable outcomes, procedural justice, resolution of historical injustices, and fair labor practices. This includes minimizing energy costs rather than increasing them, enhancing the quality of life for frontline communities, and partnering with frontline communities.

Resilience Enhancement means that an action increases the resilience of the City, people, and ecosystems to climate-related disruptions. This is reflected in a system's ability to continue to provide electricity after a disaster or emergency.

Start Local not only looks at where the project is implemented but also its impact on job creation in Michigan and investing in our local economy.

Speed represents the timeline of implementation, including whether current policies support immediate action.

Scalability and Transferability means how easily a project can be expanded or upgraded on demand and transferred to other Michigan communities.

Cost Effectiveness looks at relative capital and operating costs as well as estimated payback periods.

HOW DOES A SEU ALIGN WITH A2ZERO?

An SEU is a direct path to achieving our A²ZERO goals, including:

- Enabling rapid deployment of local renewable energy so that we can quickly reduce our reliance on fossil fuels without having to wait for legislation, legal battles, or cooperation from entities with less urgent timelines (Strategy 1).
- Directly incentivizing fuel-switching from methane-producing gas-burning appliances, to clean electricity, in our homes and businesses (Strategy 2).
- Facilitating and directly assisting residents and businesses with deep energy waste reduction measures, creating cost savings, emissions reductions, and improved health and comfort (Strategy 3).
- Deployment of local microgrids with on-site and nearby solar and energy storage that can directly enhance our resilience, reduce our reliance on the grid for power, and help us weather grid outages (Strategy 6).
- Centering energy justice in our work, putting resources into programs for low-income and underserved populations so that renewable energy, weatherization, energy waste reduction measures, and resilience are accessible to ALL in our community (Strategies 6&7).



A SEU enables our community to sustain our City into the future without compromising our principles. It allows us to show others across the country what is possible when a community takes local decarbonization in a holistic approach.

WHAT STEPS WOULD BE NECESSARY TO START A SEU?

Starting a SEU requires the adoption of an ordinance by City Council and seed funding. Staff recommend starting to gather resident interest in enrolling in a SEU right away, while simultaneously finalizing a rate analysis, defining the SEU's governance structure, and modeling the technical requirements and costs associated with a neighborhood microgrid.

HOW DO I REGISTER MY INTEREST IN AN SEU?

Please fill out this short survey to provides an opportunity to register your interest and answer a few questions about your priorities, give feedback, and enter your name and contact info if you want to be formally on a waiting list for when/if the SEU does go live. Take the survey: https://www.opentownhall.com/portals/116/Issue_11807

Or send an email to sustainability@a2gov.org.

ADDITIONAL FREQUENTLY ASKED QUESTIONS

PARTICIPATION IN THE SEU

DO I HAVE TO GET SOLAR PANELS ON MY ROOF TO PARTICIPATE IN THE SEU?

No, you do not need to have, or install, solar panels on your roof to participate in the SEU. Individuals can take advantage of energy storage, energy waste reduction programs, beneficial electrification support, and community or neighborhood solar options as part of the SEU. Over time, the SEU will offer more services so businesses and residents interested in receiving service from the SEU can indicate that interest with the City and be contacted when services are available.



HOW WOULD A HOMEOWNER DETERMINE IF SEU OWNED SOLAR IS A POSSIBILITY?

A solar assessment would be performed through the SEU to determine if installing solar on your home is a viable option based on various factors of your home, like your roof shape, condition, and solar potential.

IF I ALREADY OWN MY SOLAR PANELS, CAN I STILL CONNECT TO THE SEU?

Individuals who own solar would be able to participate in microgrids in their neighborhood and sell their excess energy back to the SEU instead of to DTE. Individuals would also be able to install an SEU owned battery, and to take advantage of the energy waste reduction and beneficial electrification programs.

IS A BATTERY IN MY HOME REQUIRED FOR ME TO PARTICIPATE IN THE SEU?

Batteries are a crucial component of the SEU, as they are required for off-grid (independent) functioning of the solar and microgrid. Batteries would initially be deployed in individual homes, and then eventually larger storage batteries could be shared between several sites. Not every home or business that participates in the SEU will need a battery, but many will to make the model function.

DO I HAVE TO CHOOSE BETWEEN MY CURRENT UTILITY AND THE SEU? CAN I ONLY GET MY ENERGY FROM THE SEU?

The SEU will provide residents with choice for where they get their power. That means individuals and businesses can get electricity from both DTE and the SEU, from just DTE, and potentially in the future, just from the SEU.

The SEU will be a supplemental utility, meaning any additional power that is not generated by the solar microgrid you are connected to will come from DTE.

WOULD THE CITY/SEU OR PROPERTY OWNER DECIDE ON THE MANUFACTURE, SIZING, APPEARANCE, OR LOCATION OF SOLAR PANELS OR BATTERY?

Solar arrays would be designed in tandem with the homeowner to make sure that it fits the aesthetics of the home, with the objective of maximizing the solar potential at the site.

WHO CAN JOIN THE SEU? AND WHEN CAN PEOPLE JOIN?

If created, the SEU would be an option for everyone in the City of Ann Arbor, including homeowners, renters, businesses, institutions, schools, libraries, and non-profits. People would be able to join or leave at any time.

WILL THE SEU PROVIDE SERVICES TO RESIDENTS AND BUSINESSES WITHIN WASHTENAW COUNTY OR THOSE LIVING IN ADJACENT TOWNSHIPS?

The SEU would only be able to serve those under the City's current franchise agreement, which means those living in the City of Ann Arbor. Check to see if you are located in the City of Ann Arbor [here](#). Collaboration may be possible with other future SEUs in surrounding areas.

HOW CAN THE SEU SUPPORT RENTERS?

Energy efficiency improvements, beneficial electrification support, and on-site renewable energy generation programs will be available to landlords and renters. In addition, on-bill financing tools and rebate programs will make it easier and more cost effective to make enhancements that improve comfort, safety, and health in single-family homes, multi-family homes, and businesses. The SEU could provide information and help facilitate discussions with landlords and property managers.

WHAT ABOUT CONDO COMPLEXES?

All services would be available to condo associations and to individual condo owners.

DTE & INFRASTRUCTURE RELATED QUESTIONS

WOULD THE SEU HAVE TO ABIDE BY DTE'S RESTRICTIONS AROUND SOLAR? WOULD THERE BE LIMITS TO THE AMOUNT OF SOLAR THAT COULD BE INSTALLED ON A SINGLE ROOF OR IN THE COMMUNITY?

As a utility, the SEU would not have to abide by other utilities' restrictions on solar, so the solar potential in our city could be more fully realized. This means that there would not be standard size restrictions on solar installations, nor would there be constraints regarding how much solar we install in the community. In fact, the SEU would aim to install as much solar as possible in the community to maximize local, clean, reliable, and affordable energy generation.

HAVE YOU EXPLORED WITH THE STATE OF MICHIGAN PUTTING UP SOLAR ALONG THE FREEWAY RIGHT-OF-WAYS?

We are very limited by our current incumbent utility DTE to put solar along the freeway right-of-ways, as DTE must approve it, and historically they have not approved this ask.

WILL THERE BE ADDITIONAL POLES, OR WILL SOLAR POWER ON A POLE/TOWER BE PERMITTED FOR RESIDENTS?

Additional poles, or installing solar power on poles is site dependent, based on the current infrastructure of a given site, as well as the permitting/zoning within the Ann Arbor.

DTE HAS AGREED ON PRINCIPLE TO BUILD A SOLAR FACILITY IN ANN ARBOR, HOW DOES THIS COORDINATE WITH THE SEU?

It is not in conflict. We are working with DTE to develop a landfill solar program called the Wheeler Solar Center, which is a 20-megawatt solar system that is fully designed, and we are hoping to move forward with that project in the very near term.

WHAT ISSUES DO YOU ANTICIPATE WITH DTE?

It's not clear yet, as DTE has been quiet about the SEU. There are ways in which we collaborate and ways in which our goals are very different from DTE. The City of Ann Arbor has the primary goal of equitable decarbonization by 2030 by 2030 and has the absolute legal right to create a SEU because we won't be using DTE's grid or infrastructure for SEU-produced energy or storage.

DOES DTES CURRENT RATE CASE POSE BARRIERS OR PROBLEMS FOR SEU ADOPTION.

No, it does not.

COMMUNITY & HEALTH

WHAT ARE THE HEALTH BENEFITS ASSOCIATED WITH THE PROPOSED SEU?

Switching from burning fossil fuels to clean energy for electricity improves the health of the planet and all who inhabit it. In addition, the SEU can help residents switch from burning fossil gas in their homes, to clean electricity, which has been shown to have significant health benefits, including lower rates of asthma, allergies, and learning deficits in children.

DO YOU HAVE A QUANTITATIVE HANDLE ON THE TRADEOFF BETWEEN RELYING ON ROOFTOP SOLAR AND DESIRE FOR FOREST CANOPY?

Yes. Our assessment of solar potential assumed that no trees would be removed, because our forest canopy provides critical value. The idea is to maximize the forest that we have, maintain it and put solar where we have good sun potential.

DOES THE LOCALLY BUILT SYSTEM INCLUDE SYSTEM COMPONENTS SUCH AS SOLAR EQUIPMENT?

It does not include solar equipment. We don't have any solar equipment manufactured in Ann Arbor. The SEU would leverage and expand local installers and workers.

HAS THE UNIVERSITY OF MICHIGAN BOUGHT INTO THIS PROGRAM?

We talk to them regularly about this work, and they are excited about the concepts. There i's nothing to subscribe to, or any action immediately for the University of Michigan to take. The University has their own carbon neutrality goals and to the extent that we can collaborate and move further faster together, we are actively exploring those opportunities.

BLLING & FINANCING

WILL THE SEU INCREASE MY ENERGY COSTS?

A rate analysis is currently being designed, but preliminary findings are that the energy from the SEU would cost less than energy currently being provided by DTE.

HOW WOULD I BE BILLED IF I PARTICIPATE IN THE SEU?

Participants in the SEU will receive two separate utility bills, one for the energy and associated services received from DTE and one for the energy and associated services received from the SEU.

WILL THERE BE A CREDIT CHECK TO JOIN THE SEU? WILL I NEED TO BE UP TO DATE WITH MY PROPERTY TAXES?

Residents will need to be up to date on their property taxes to participate in the SEU. Currently, no other financial requirements exist.

IF I GET SOLAR, ENERGY EFFICIENCY, OR ELECTRIFICATION WORK THROUGH THE SEU, WILL MY PROPERTY TAXES INCREASE?

No, receiving SEU services will not affect your property taxes. In the State of Michigan, solar installations are exempt from property tax.

WILL THE CITY MAKE A PROFIT FROM THE SEU?

No, municipal utilities do not make profits in the same way investor-owned utilities do. All money collected from the SEU will be used to run, maintain, and improve the utility and associated services/programs.

WHAT KIND OF OVERSIGHT WOULD AN ANN ARBOR SEU HAVE TO ENSURE OVERHEAD COSTS ARE LEGITIMATE AND RATES ARE FAIR?

There will be a governance structure, most likely similar to the city's water utility, or possibly a utility board structure. We are still deciding which structure to move forward with.

WILL THE CITY'S OPERATION OF THE SEU BE SIMILAR TO CURRENTLY OPERATED UTILITIES (E.G., WATER, WASTEWATER, STORMWATER)?

Yes, billing, customer service and maintenance would all be handled through the City, either directly or through qualified contractors. This is very similar to how the City currently operates its water, wastewater, and stormwater utilities.

IF THE COMMUNITY CLIMATE ACTION MILLAGE PASSES IN NOVEMBER, WILL THE SEU BE A PART OF IT? OTHERWISE, WHAT FUNDING SOURCES EXIST FOR THE SEU?

Funds from the climate millage could be used to help with up-front costs associated with establishing the SEU. Additional funds could come from federal grants, state grants, bonds, philanthropic sources, or low interest loans.

CAN RESIDENTS INVEST MONEY TO BUILD THE SEU FUND POOL?

We will be taking all the funding we can get to build the SEU and philanthropic donations are very welcome.

WHEN I SELL MY HOUSE, IF THE NEW OWNER DOES NOT WANT THE SEU, WHAT HAPPENS WITH THE ON-BILL FINANCING? OR THE SOLAR PANELS ON THE ROOF?

This is still being determined but most likely the solar panels would be removed but the new tenant would need to continue paying for the energy efficiency and electrification improvements received by the home.

IF A RESIDENT WAS ABOUT TO ADD SOLAR TO THEIR PROPERTY NOW, WOULD YOU RECOMMEND MOVING FORWARD ON THEIR OWN, OR WAITING FOR THE SEU TO MOVE FORWARD?

If you have the capital or the credit to be able to put solar on your roof, the benefit to you is that once your solar has been paid off by your reduced energy bills, you get the benefit of dramatically lower energy bills. If you install SEU-owned solar, the positive is you don't have to come up with the upfront costs That solar array will then be owned by the SEU and you will benefit from paying (likely reduced rates) for the energy you receive, but you will not “pay it off” or own it. There are benefits to both, depending on your individual situation and preference.

In addition, the federal tax credit for residential solar installations is 26% in 2022 and will decrease to 22% in 2023.

WHAT MIGHT BE AVAILABLE TO LOWER INCOME RATE PAYERS LIKE A SPECIAL RATE PROGRAM, SHUT OFF PREVENTION, GAS APPLIANCE REPLACEMENT, ETC.?

Supporting those of us who are most energy burdened is a core and key to our values. Providing clean, reliable electricity in a just and equitable way is our goal. Program specifics in meeting that goal are still being designed.

WILL THE COST PER KILOWATT HOUR BE THE SAME FOR COMMUNITY SOLAR AND DTE?

Our preliminary modeling shows that the SEU rates are comparable to, if not slightly less, than current rates that the utility offers if we are able to move forward with the traditional on-site and behind-the-meter solar and storage systems. Expansion into community solar will have rates dependent on the specifics of the sites being utilized, economies of scale, and the length of distribution from that site.

ARE THERE ANY COST ESTIMATES FOR THE VARIOUS SCENARIOS? DOES THE CITY ANTICIPATE NEW FEES, HIGHER RATES, OR NEW CHARGES FROM DTE IF ANN ARBOR TRANSITIONS TO USING LESS ENERGY FROM THEM?

Just like any utility there will be the upfront costs of infrastructure, as these capital costs are required in order to build these things. Ratepayers paying for the energy procured from the solar will be paying back into the SEU so that eventually the SEU becomes financially self-reliant and won't require ongoing fundraising for capital costs.

We are in the process of designing the rate structure and is the rates will be partially dependent on community interest and likely enrollment numbers. We fully anticipate, based on early modeling, that the cost of energy would be the same or lower than DTE's current rates.

MAINTAINENCE OF THE SEU

WILL THE SEU BE ON THE MISS DIGG NETWORK?

Any SEU-owned buried lines would be in the Miss Digg network.

HOW WILL THE CITY MAINTAIN AND REPAIR THE SEU?

Just as any utility, the City would have staff for regular maintenance and repair work. The cost for staff and preventative and restorative maintenance are part of the regular operating costs associated with the SEU. We are currently exploring staffing structure to include staff to maintain infrastructure.

CAN FLOODING OR EXTREME WEATHER EVENTS AFFECT THE SEU?

Flooding or extreme weather can affect ANY infrastructure in our city. However, the SEU would create considerable reliability and resilience enhancements, as it would not rely on large-scale poles and wires that are very vulnerable to weather and changing climate conditions. The SEU could also explore burying the limited power lines needed to microgrid, further reducing weather-related vulnerabilities to the energy system. In addition, the emphasis on solar paired with storage increases resilience during times that the traditional grid is down.

DO YOU HAVE A PLAN FOR TREE MAINTENANCE?

Yes. If an SEU is formed the City will have foresters to help maintain trees, conduct tree trimming, and ensure we have a healthy urban forest as well as a strong, reliable SEU.

ARE THERE PLANS FOR LONG TERM MAINTENANCE OF THE SEU OWNED SOLAR PANELS? WILL THE SEU RUN INSPECTIONS AND HANDLE REPAIRS? AND WILL THE PANELS BE RECYCLED AT THE END OF THEIR LIFESPAN?

Yes. We've been talking to folks involved in the circular economy to make sure that we have useful life for the panels, and that they are responsibly recycled at the end of their life.

WHAT WOULD HAPPEN IF A HOMEOWNER NEEDED TO REROOF AFTER INSTALLING THE SEU SOLAR PANELS?

The panels would be removed and re-installed following the re-roof. There will be an assessment of your roof status at the initial solar assessment, to be certain that the roof condition is good.



SOLAR & THE SEU

WOULD THIS BE RUN OUT OF THE OFFICE OF SUSTAINABILITY AND INNOVATION? WHAT TYPES OF STAFF AND HOW MANY PEOPLE WOULD THE CITY NEED TO HIRE TO HAVE THE SKILL SET TO EXECUTE THIS?

The SEU would have its own utility staff, similar to the water and wastewater utilities. Efficiencies could be realized in billing systems, as this is already existing within the City. A governance and staffing structure is still being designed.

IN THE CASE OF COMMUNITY SOLAR, HOW WOULD THE ELECTRICITY BE DISTRIBUTED?

Community solar is most effective when it's close to the demand source. Ideally, there would be a high density of distribution in SEU subscription such that limited poles and wires are required. For instance, schools aren't in session in the summer when the sun is shining so that could be an example of where we would center some potential energy generation sites for neighborhoods.

COULD SEU GENERATED ELECTRICITY BE USED AS A CENTRALIZED SOURCE OF RENEWABLE ENERGY TO POWER DISTRIBUTED TAXPAYER FUNDED ELECTRIC VEHICLE CHARGERS?

Yes. We are already working on deploying a number of electric vehicle chargers throughout the community. If the goal is to transition to zero climate pollution, we need to electrify our transportation sector as well as our homes.

IS THE A2ZERO ASSESSMENT FREE FOR RESIDENTS?

The A2ZERO Assessment incorporates energy efficiency, renewable energy, and electrification to help you develop an action plan for achieving A2ZERO in your home. The A2ZERO Assessment provider would help you understand your home's solar potential, electrification strategy, and any required upgrades to your electric panel and building envelope. We are working to integrate the A2ZERO Assessment into contractors' routine work within our community.

The A2ZERO Assessment is currently in the pilot phase. It is being tested in the Bryant neighborhood and will continue to be improved and developed based on results from the initial pilot. The A2ZERO Assessment is not yet available to the entire Ann Arbor area.

Other existing assessments include an energy audit, a Home Energy Score, and a HERS Rating. These assessments serve to understand the energy efficiency of your home and identify areas for improved energy usage.

WHAT ARE THE LIMITATIONS OF THE SEU?

Currently, renewable energy like solar needs to be stored in batteries so that it can be used when the sun is not out. Battery cost and technology is improving rapidly, but we will need to rely on the larger grid for supplemental power until the costs and technology catch up.

CAN AN SEU POWER 100% OF THE COMMUNITY'S ENERGY NEEDS?

Current models show the SEU will be able to provide most of the community's current electrical needs, but not all. Off-site renewables can be deployed to offset the remainder. These renewables can be procured in bulk, such as through Community Choice Aggregation, part of the A2ZERO Plan.

PAIRING ENERGY EFFICIENCY WITH SOLAR

CAN YOU GIVE SOME EXAMPLES OF ENERGY WASTE REDUCTION, WHAT KINDS OF THINGS CAN BE DONE?

Air sealing, insulation, high-efficiency appliances, motion sensor light fixtures, and low-flow shower heads are all examples of improving efficiency. To learn more about how you can improve your home's energy efficiency, visit the City of Ann Arbor's website on [energy efficiency at home](#).

WILL HEATING BE ADDRESSED BY THIS BODY OR SOMEWHERE ELSE?

On-bill financing will be available to help residents upgrade to heat pump technology in their homes. And in later phases, the SEU will be looking into district geothermal, to reduce costs with shared geothermal wells.

WOULD DEEP DRAW ITEMS SUCH AS HEAT PUMPS CONTINUE TO BE POWERED BY DTE OR WILL THE SEU BE CAPABLE OF SUPPORTING THESE ITEMS?

Our analysis shows the SEU can power most of our current load. Efficiency measures will help to reduce overall consumption as we electrify.

OTHER RENEWABLE ENERGY SOURCES

HAS THE CITY CONSIDERED POLICY OR LEGISLATIVE SUPPORT TO THE UNIVERSITY OF MICHIGAN TO OBTAIN A SMALL MODULAR REACTOR ON CAMPUS FOR POWER GENERATION AND RESEARCH PURPOSES?

We have been in conversations with the University of Michigan about collaboration regarding the SEU, and there is interest there. The University has a lot of roof space and a lot of the clean energy that we generate could help them meet their climate goals. As of now, our office has not had conversations about the small modular reactor, as the SEU is mainly aimed at being powered by solar, rather than nuclear power.

DOES THE CITY HAVE ANY PLANS OR INTEREST IN BUILDING WIND TURBINES FOR GENERATION OR IS THE PLAN JUST TO PURSUE SOLAR?

The further away you get from Ann Arbor, the better the wind resource is. In the density of a city like Ann Arbor, we [just](#) don't have the space or the wind resource to have wind be a strong part of the SEUs energy portfolio. But if we are considering offsite generation, wind is a definite candidate to help us diversify our clean energy to include both solar storage and wind.

IS POWER GENERATION FROM THE HURON RIVER BEING CONSIDERED FOR THE SEU?

The city already does generate energy from a series of dams that we have in the system. That energy is sold into the market, and we will continue doing that for the time being. There is no plan, however, to add more dams on the river. What we have is likely what we will have for the foreseeable future.

WHY WOULD THE ENERGY GENERATED BY OUR DAMS GO TO THE MARKET RATHER THAN THE SEU?

We signed contracts for selling the power generated by our dams, and we have not evaluated those contracts to understand whether those are contracts that could be terminated early and what the clause would be if they were terminated.

APPENDIX A: MUNICIPAL UTILITIES IN MICHIGAN

Utility/ website	City Name	Year Founded	Customers Served
Village of Baraga	Baraga, MI	No data	
City of Bay City	Bay City, MI	1868	20,000
City of Charlevoix	Charlevoix, MI	No data	4,400
Chelsea Light and Power	Chelsea, MI	1898	2,800
Village of Clinton	Clinton, MI	1893	
Coldwater Board of Public Utilities	Coldwater, MI	1891	
Croswell Municipal Light & Power Dept.	Croswell, MI	No data	
City of Crystal Falls	Crystal Falls, MI	1890	
Daggett Electric Department	Daggett, MI	No data	
City of Dowagiac	Dowagiac, MI	No data	
City of Eaton Rapids	Eaton Rapids, MI	1898	2,755
City of Escanaba	Escanaba, MI	No data	
City of Gladstone	Gladstone, MI	1897	
Grand Haven Board of Light & Power	Grand Haven, MI	1896	14,500
City of Harbor Springs	Harbor Springs, MI	No data	3,600
City of Hart	Hart, MI	No data	1,300
Hillsdale Board of Public Utilities	Hillsdale, MI	1892	6,300
Holland Board of Public Works	Holland, MI	1893	28,000
Village of L'Anse	L'Anse, MI	No data	
Lansing Board of Water & Light	Lansing, MI	1885	95,000
Lowell Light & Power	Lowell, MI	1895	2,600
Marquette Board of Light & Power	Marquette, MI	1889	16,000
City of Marshall	Marshall, MI	1893	4,500
City of Negaunee Dept. of Public Works	Negaunee, MI	1885	
Newberry Water and Light Board	Newberry, MI	No data	
Niles Utilities Department	Niles, MI	No data	7,500
City of Norway	Norway, MI	No data	
Village of Paw Paw	Paw Paw, MI	1890	
City of Petoskey	Petoskey, MI	No data	5,481
City of Portland	Portland, MI	1896	2,500
Sebewaing Light & Water	Sebewaing, MI	1911	
City of South Haven	South Haven, MI	No data	7,400
City of St. Louis	St. Louis, MI	No data	1,900
City of Stephenson	Stephenson, MI	No data	
City of Sturgis	Sturgis, MI	1896	7,200
Traverse City Light & Power	Traverse City, MI	1912	12,000
Union City Electric Department	Union City, MI	"Early 1920s"	
City of Wakefield	Wakefield, MI	No data	
Wyandotte Municipal Services	Wyandotte, MI	1894	12,000
Zeeland Board of Public Works	Zeeland, MI	1902	6,200