Ann Arbor's Sustainable Energy Utility: FAQ

This document includes the answers to frequently asked questions by the community about Ann Arbor's proposed Sustainable Energy Utility (SEU). Reviewers are welcome to read through this entire document, or to use the interactive table of contents to find or to go directly to sections they are most interested in.

If you have a question not covered in this FAQ, please submit those questions to sustainability@a2gov.org and we'll try to get you and answer and update this FAQ as soon as possible.

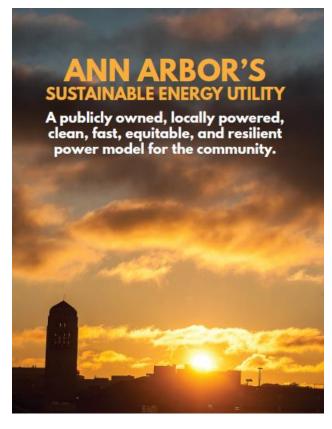


Table of Contents

GENERAL QUESTIONS	5
WHAT IS A SUSTAINABLE ENERGY UTILITY (SEU)?	5
WHAT SERVICES COULD AN SEU OFFER?	5
WHAT SERVICES MIGHT AN SEU OFFER AT THE START?	6
ARE THERE EXAMPLES OF SEUs ELSEWHERE?	
DOES AN SEU REQUIRE STATE LEGISLATIVE CHANGES?	6
DOES AN SEU REQUIRE A VOTE OF THE PEOPLE?	6
WHAT ARE THE OBJECTIVES FOR CREATING AN SEU?	6
WHY AN SEU?	7
IS AN SEU PUBLIC POWER?	7
WHO OWNS AND MAINTAINS THE SEU?	7
HOW DOES AN SEU ALIGN WITH A ² ZERO?	7
WHAT STEPS WOULD BE NECESSARY TO START AN SEU?	
HOW DO I REGISTER MY INTEREST IN THE SEU?	8
WHAT ARE THE LIMIATIONS OF THE SEU?	8
CAN AN SEU POWER 100% OF THE COMMUNITY'S ENERGY NEEDS?	8
SEU BALLOT LANGUAGE	9
WHAT DOES THE PROPOSED NOVEMBER 2024 BALLOT LANGUAGE AUTHORIZE?	
WHY DOES THE BALLOT LANGUAGE INCLUDE THE WORD "OPT-IN"?	9
WHY DOES THE BALLOT LANGUAGE INCLUDE REFERENCE TO "ALL FROM RENEWABLE SOURCES"?	9
WHY DOES THE BALLOT LANGUAGE INCLUDE THE WORD "FEE-BASED?"	9
DOES THIS BALLOT LANGUAGE CLOSE THE DOOR TO TRADITIONAL MUNICIPALIZATION?	9
WOULD THIS BALLOT LANGUAGE APPLY TO A FUTURE TRADITIONAL MUNICIPAL ELECTRIC UTILITY?	9
SEU VERSUS TRADITIONAL MUNICIPALIZTION	10
WHAT IS THE DIFFERENCE BETWEEN AN SEU AND A TRADITIONAL MUNICIPAL ELECTRIC UTILITY?	10
IS THE CITY LOOKING INTO A TRADITIONAL MUNICIPAL UTILITY?	10
WHY NOT WAIT TO LAUNCH THE SEU UNTIL THE CITY DECIDES IF IT WILL PURSUE A TRADITIONAL MUNICIPAL UTILITY?	
WHAT IS A TRADITIONAL MUNICIPAL UTILITY FEASIBILITY STUDY (PHASE ONE STUDY)?	11
WOULD A PHASE TWO STUDY OF TRADITIONAL MUNICIPALIZATION BE NEEDED?	11
WHAT IS THE UPFRONT COST OF STARTING AN SEU COMPARED TO STARTING A TRADITIONAL MUNICIPAL I	
WHEN WERE OTHER MUNICIPAL UTILITIES IN MICHIGAN FORMED?	11
HOW DOES THE SEU COMPARE TO THE ANN ARBOR FOR PUBLIC POWER PLAN?	11
SEU SERVICE OFFERINGS	12
WHAT IS A MICROGRID AND IS IT SAFE?	12

WHY CONSIDER MICROGRIDDING?	12
HOW COULD THE SEU SUPPORT ENERGY WASTE REDUCTION?	12
HOW DOES AN SEU COMPARE TO COMMUNITY CHOICE AGGREGATION?	12
IN THE CASE OF COMMUNITY SOLAR, HOW WOULD THE ELECTRICITY BE DISTRIBUTED?	13
WOULD DEEP DRAW ITEMS SUCH AS HEAT PUMPS CONTINUE TO BE POWERED BY DTE OR WILL THE SEU BE CAPABLE OF SUPPORTING THESE ITEMS?	13
DOES THE CITY HAVE ANY PLANS OR INTEREST IN BUILDING WIND TURBINES FOR GENERATION OR IS THE PLAN JUST TO PURSUE SOLAR?	13
IS POWER GENERATION FROM THE HURON RIVER BEING CONSIDERED FOR THE SEU?	13
PARTICIPATION IN THE SEU	14
DO I HAVE TO GET SOLAR PANELS ON MY ROOF TO PARTICIPATE IN THE SEU?	14
HOW WOULD A HOMEOWNER DETERMINE IF SEU OWNED SOLAR IS A POSSIBILITY?	14
IF I ALREADY OWN MY SOLAR PANELS, CAN I STILL CONNECT TO THE SEU?	14
IS A BATTERY IN MY HOME REQUIRED FOR ME TO PARTICIPATE IN THE SEU?	14
IS IT POSSIBLE TO USE THE SEU AS MY SOLE SOURCE OF ENERGY?	14
DO I HAVE TO CHOOSE BETWEEN MY CURRENT UTILITY AND THE SEU?	15
WOULD THE CITY/SEU OR PROPERTY OWNER DECIDE ON THE MANUFACTURE, SIZING, APPEARANCE, OR LOCATION OF SOLAR PANELS OR BATTERY?	
WHO CAN JOIN THE SEU? AND WHEN CAN PEOPLE JOIN?	15
WILL THE SEU PROVIDE SERVICES TO RESIDENTS AND BUSINESSES WITHIN WASHTENAW COUNTY OR THOSE LIV IN ADJACENT TOWNSHIPS?	
HOW CAN THE SEU SUPPORT RENTERS?	15
WHAT ABOUT CONDO COMPLEXES?	15
DTE INFRASTRUCTURE / OPERATIONAL QUESTIONS	16
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?	16
WILL THERE BE ADDITIONAL POLES, OR WILL SOLAR POWER ON A POLE/TOWER BE PERMITTED FOR RESIDENTS?	
DTE HAS AGREED ON PRINCIPLE TO BUILD A SOLAR FACILITY IN ANN ARBOR, HOW DOES THIS COORDINATE WIT	Ή
WHAT ISSUES DO YOU ANTICIPATE WITH DTE?	
DOES DTES CURRENT RATE CASE POSE BARRIERS OR PROBLEMS FOR SEU ADOPTION.	
COMMUNITY AND HEALTH	
WHAT ARE THE HEALTH BENEFITS ASSOCIATED WITH THE PROPOSED SEU?	
DO YOU HAVE A QUANTITATIVE HANDLE ON THE TRADEOFF BETWEEN RELYING ON ROOFTOP SOLAR AND DESIR	
FOR FOREST CANOPY?	
DOES THE LOCALLY BUILT SYSTEM INCLUDE SYSTEM COMPONENTS SUCH AS SOLAR EQUIPMENT?	
HAS THE UNIVERSITY OF MICHIGAN BEEN BOUGHT INTO THIS PROGRAM?	
BILLING AND FINANCING	
WILL THE SEU INCREASE MY ENERGY COSTS?	18

HOW WOULD I BE BILLED IF I PARTICIPATE IN THE SEU?18
WILL THERE BE A CREDIT CHECK TO JOIN THE SEU? WILL I NEED TO BE UP TO DATE WITH MY PROPERTY TAXES? 18
IF I GET SOLAR, ENERGY EFFICIENCY, OR ELECTRIFICATION WORK THROUGH THE SEU, WILL MY PROPERTY TAXES INCREASE?
WILL THE CITY MAKE A PROFIT FROM THE SEU?
WHAT KIND OF OVERSIGHT WOULD AN ANN ARBOR SEU HAVE TO ENSURE OVERHEAD COSTS ARE LEGITIMATE AND RATES ARE FAIR?
WILL THE CITY'S OPERATION OF THE SEU BE SIMILAR TO CURRENTLY OPERATED UTILITIES (E.G., WATER, WASTEWATER, STORMWATER)?
IS THE SEU PART OF THE RECENTLY PASSED COMMUNITY CLIMATE ACTION MILLAGE?
CAN RESIDENTS INVEST MONEY TO BUILD THE SEU FUND POOL?
WHEN I SELL MY HOUSE, IF THE NEW OWNER DOES NOT WANT THE SEU, WHAT HAPPENS WITH THE ONBILL FINANCING? OR THE SOLAR PANELS ON THE ROOF?
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?18
WILL THE COST PER KILOWATT HOUR BE THE SAME FOR COMMUNITY SOLAR AND DTE?19
CAN I LEAVE THE SEU AND RETURN TO MY REGULAR UTILITY PROVIDER?19
MAINTENANCE OF THE SEU
HOW WILL THE CITY MAINTAIN AND REPAIR THE SEU?20
CAN FLOODING OR EXTREME WEATHER EVENTS AFFECT THE SEU?
DO YOU HAVE A PLAN FOR TREE MAINTENANCE?
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?
WHAT WOULD HAPPEN IF A HOMEOWNER NEEDED TO REROOF AFTER INSTALLING THE SEU SOLAR PANELS? 20
WOULD THIS BE RUN OUT OF THE OFFICE OF SUSTAINABILTY AND INNOVATIONS? WHAT TYPES OF STAFF AND HOW MANY PEOPLE WOULD THE CITY NEED TO HIRE TO HAVE THE SKILL SET TO EXECUTE THIS?
Appendix A: Municipal Utilities in Michigan

GENERAL QUESTIONS

WHAT IS A SUSTAINABLE ENERGY UTILITY (SEU)?

The Ann Arbor Sustainable Energy Utility is an opt-in, supplemental community-owned energy utility that provides energy from local solar and battery storage systems and networked geothermal systems installed at participating homes and businesses in the City. The SEU provides 100% clean, reliable, resilience, locally built, and affordable energy – energy 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; energy storage; networked geothermal) and advancements in energy technologies mean we can think about that differently now — and the SEU envisions a new type of utility that focuses on community installed and community-owned clean energy. As an optional utility, no one would have to subscribe to the SEU, but everyone would have the option of participating in an SEU program (renewable energy, energy storage, energy waste reduction initiatives, or appliance replacement programs). 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 AN SEU OFFER?

Ann Arbor's SEU would be a municipal utility that delivers energy waste reduction programs, appliance replacement initiatives, along with clean, local, and reliable energy to residents by building local renewable energy systems on roofs, carports, in the ground, 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 such as networked systems or 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 and shared geothermal systems.
- Robust energy waste reduction (efficiency and weatherization) 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 things like appliance replacements and efficiency upgrades.
- 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 SEU 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 and beneficial electrification support, as well as on-bill financing will be early service offerings. Over time, these offerings will grow to include shared energy solutions for multiple neighbors (e.g., microgrids) as well as networked geothermal for sustainable heating and cooling.



ARE THERE EXAMPLES OF SEUS ELSEWHERE?

An 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. 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 established by the SEU Therefore, there are many utility program examples which Ann Arbor could emulate and learn from.

DOES AN SEU REQUIRE STATE LEGISLATIVE CHANGES?

No. All that is required to start an SEU is the adoption of an ordinance enabling its creation by City Council. Staff are recommending that a vote of the people also take place to ensure there is enough public support to launch a successful SEU.

DOES AN SEU REQUIRE A VOTE OF THE PEOPLE?

A vote of the people is not required unless bonding (or certain other financing options) were selected as the funding mechanism. However, staff are recommending that the SEU go to a vote of the people in November of 2024 to ensure that the public is supportive of the work and to help engage residents in shaping what the Ann Arbor SEU could look like.



WHAT ARE THE OBJECTIVES FOR CREATING AN SEU?

In designing an 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 A^2ZERO ,
- 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 AN SEU?

An SEU allows us to immediately start making progress on 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 start designing networked or shared geothermal systems to provide sustainable heating and cooling solutions. We can reduce our use of and reliance on the failing electrical grid. Put another way, owning the grid is not the goal — But decarbonization, resilience, and equity are. An SEU allows us to make progress towards those goals immediately.



An SEU does not need the assets of a traditional municipal utility to start offering new energy options to residents and businesses. Starting an SEU also does not prevent the later formation of a traditional municipal utility, should the public be interested in pursuing that pathway. In other words, an SEU offers a cost-effective path that can be taken now, as the City explores the benefits and challenges of traditional municipalization and condemnation of our investor-owned utility's assets.

IS AN SEU PUBLIC POWER?

Yes! An SEU is a municipal utility, which is run by the government (just as our water and sewer services are). An SEU is different, however, than traditional municipal utilities in that it would start as a complementary utility to DTE and be optional for residents (aka, you don't have to enroll in the SEU). This means that residents currently served by DTE could choose to enroll in the SEU to receive clean energy, energy waste reduction offerings, and energy storage solutions not currently offered by DTE, reducing their reliance on the grid. But they would also still get some service from DTE. 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 resilient, reliable, and affordable clean energy.

WHO OWNS AND MAINTAINS THE SEU?

The SEU would be a public utility, owned and operated by the City of Ann Arbor.

HOW DOES AN 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 fossil 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).

An 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 tackles local decarbonization in a holistic way.

WHAT STEPS WOULD BE NECESSARY TO START AN SEU?

Starting an 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. In addition, given the significance of starting an SEU, staff recommend taking the creation of an SEU to a vote of the people in November 2024.

HOW DO I REGISTER MY INTEREST IN THE SEU?

If you are interested in joining the waitlist for the SEU, all you need to do if fill out this short form.

WHAT ARE THE LIMIATIONS 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 this supply will have to scale. The good news is that energy efficiency can help reduce the amount of energy we need, making it more likely the SEU can provide nearly all of our community's energy needs.

SEU BALLOT LANGUAGE

WHAT DOES THE PROPOSED NOVEMBER 2024 BALLOT LANGUAGE AUTHORIZE?

The proposed 2024 ballot language authorizes the creation and operation of a Sustainable Energy Utility in Ann Arbor. The proposed ballot language is:

ANN ARBOR CITY CHARTER AMENDMENT

CREATION OF A SUSTAINABLE ENERGY UTILITY

The City of Ann Arbor proposes to create within its boundaries an opt-in, publicly-owned Sustainable Energy Utility ("SEU") to (i) supply, generate, transmit, distribute, and store electricity, heat, cooling, light, and power (all from renewable sources); and (ii) provide energy-related services. The SEU could, for example, provide individual or networked rooftop solar panels, heat pumps, geothermal systems, or batteries to customers to supplement existing utility services. The SEU will be fee-based. This proposal does not authorize new taxes.

Shall the Charter be amended to authorize the City to establish, construct, own, and operate an optin Sustainable Energy Utility?

□ Yes		No
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WHY DOES THE BALLOT LANGUAGE INCLUDE THE WORD "OPT-IN"?

Opt-in is included because the SEU is optional for residents. No one is required to take service from the SEU, but everyone will have the choice of enrolling in an SEU offering. It is important to let residents know that, even if they don't want to participate in the SEU, authorizing its creation allows their friends, neighbors, and colleagues to choose if the SEU is right for them.

WHY DOES THE BALLOT LANGUAGE INCLUDE REFERENCE TO "ALL FROM RENEWABLE SOURCES"?

The SEU is envisioned as a powerful tool to help the community advance the installation and access to clean, renewable energy. The goal is not to generate dirty power, but to ensure that everyone has access to healthy, safe, affordable, and clean energy. As such, the reference to renewables is important as it ensures the SEU only invests in clean energy solutions.

WHY DOES THE BALLOT LANGUAGE INCLUDE THE WORD "FEE-BASED?"

The cost of the SEU will only be borne by those that take service from the SEU. Another way to put that is that the SEU is rate-based – if you take service for the SEU, you pay for that service. If you choose not to take service from the SEU, you don't pay for the SEU. This is an important operational point that helps explain why and how the SEU will be funded.

DOES THIS BALLOT LANGUAGE CLOSE THE DOOR TO TRADITIONAL MUNICIPALIZATION?

No. This ballot language does not close the door to traditional municipalization should the community choose to pursue that path. This ballot language is about creating the structures and systems necessary to create a successful Sustainable Energy Utility. That Utility could lay the foundation for a traditional municipalization effort, but it wouldn't have to grow to become a traditional municipal utility. In this way, the ballot language provides the ultimate flexibility for the community to start a public utility that provides immediate services and benefits to the community while continuing to explore if traditional municipalization is right for us.

WOULD THIS BALLOT LANGUAGE APPLY TO A FUTURE TRADITIONAL MUNICIPAL ELECTRIC UTILITY?

No. If the City and the residents decide to pursue traditional municipalization through the taking of DTE's assets, a separate series of public votes would be necessary, including one that changes the City Charter to allow for the creation of the traditional municipal electric utility. As such, the vote on the SEU has no impact on the future of an MEU.

SEU AND TRADITIONAL MUNICIPALIZTION

WHAT IS THE DIFFERENCE BETWEEN AN 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 immediately focus on deploying clean energy generation, greening our electricity and improving local resilience. The SEU could grow to become a traditional municipal electric utility, but it would not have to. The focus of the SEU is generation — not owning the distribution network (aka, poles and wires). In this way, the SEU allows the community to immediately begin investing in our energy future without being saddled with the legacy electric infrastructure of our past. Doing this means that Ann Arbor becomes less dependent on the traditional grid and distant fossil fuel power plants while increasing reliability and resilience, improving affordability, and powering our lives with clean energy.



IS THE CITY LOOKING INTO A TRADITIONAL MUNICIPAL UTILITY?

City Council recently received a report from 5 Lakes Energy exploring the feasibility of various pathways to achieve our goal of powering the community with 100% renewable electricity, inclusive of creation of an SEU or a Traditional Municipal Electric Utility. In this report, the Consultants found that an MEU might be possible, but almost certainly could not be operational by 2030. They also found that there are a wide range of possible costs for acquiring the investor-owned utility's assets (see more about this report and the Consultant's findings here). Based on these findings, staff recommend moving forward with creating the SEU.

Staff are also investigating the practicalities surrounding a Phase II Municipalization Study (i.e., the full takeover of DTE's assets). At this time, this is a secondary consideration to advancement of a SEU given that municipalization was found, in the report, not to be a viable pathway to meeting the City's A²ZERO goals and Council's clean energy priorities.

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

Why wait? With an 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 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 an SEU, we can start almost immediately to reduce our environmental footprint, enhance reliability, increase resilience, invest in the energy system of the future, and make our community stronger!

WHAT IS A TRADITIONAL MUNICIPAL UTILITY FEASIBILITY STUDY (PHASE ONE STUDY)?

A traditional municipal utility feasibility study (Phase 1) 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. In late 2023, the City's consultants finished this Phase 1 study, which can be found here. This study does not evaluate the cost of upgrading the utility infrastructure to improve reliability as this is a separate analysis, but it does provide a range of potential costs associated with purchasing the investor-owned utilities infrastructure, any stranded costs, and the potential cost of the franchise.

WOULD A PHASE TWO STUDY OF TRADITIONAL MUNICIPALIZATION BE NEEDED?

Should the City decide to continue pursuing a taking of our investor-owned utility's infrastructure, we will need a second study that provides a detailed appraisal of the value of all the utility's infrastructure. This appraisal would be used to inform a public vote of whether the City should make a formal offer to purchase that infrastructure, at the price indicated. City Council is currently exploring whether to budget for a Phase Two study.

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

Starting an 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 power purchase agreement, from impact investors, through private philanthropic or federal grant dollars, 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 OTHER 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.

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

Ann Arbor for Public Power is a group of local citizens who are advocating for a full municipalization effort (the condemnation and buying out of DTE's infrastructure and right to serve the Ann Arbor community). Essentially, the Ann Arbor for Public Power Plan would require the city to own all existing infrastructure, provide all the community's power, and handle all the operational elements associated with running a full-service utility. In this scenario, residents of Ann Arbor would have to take electricity from the public utility.

This approach is different than the SEU in that the SEU does not plan to purchase any of the distribution network from DTE, would not require anyone to participate as enrollment would be optional, focuses exclusively on providing energy from renewable sources, and would be supplemental meaning that the SEU would not have to provide 24-7 energy.

SEU SERVICE OFFERINGS

WHAT IS A MICROGRID AND IS IT SAFE?

When we picture our current grid, there is a large power generation site that sends energy through large-scale transmission networks into more local distribution systems and then into our homes. A microgrid is a grid that is smaller and more localized. It would serve a cluster of homes within a neighborhood and only focus on generation and limited distribution. 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, and there's a battery located in or near one of the homes being powered by solar. Those homes are connected on a microgrid.



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 an 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.

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 of 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% clean energy every minute of the day). This means that Ann Arbor's SEU would not only invest in 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.

HOW DOES AN SEU COMPARE TO COMMUNITY CHOICE AGGREGATION?

Community Choice Aggregation (CCA) disaggregates energy infrastructure from the commodity costs of electricity. In this way, it puts the CCA entity in control of where electricity is procured, enabling access to 100% clean energy at competitive rates. 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 law. 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 (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. At this point, all those who did not opt-out of the CCA would become customers and have access to 100% renewable electricity.

Creating an SEU and pursuing CCA legislation are not mutually exclusive. Rather, an 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.

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

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



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, thereby helping ensure most of our appliances are powered with renewable energy.

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 resources are. In the density of a city like Ann Arbor, we just don't have the space or the wind resource consistency 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 today is likely what we will have for the foreseeable future.

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, sustainable heating and cooling solutions, 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, sustainable heating, and beneficial electrification programs offered by the SEU.

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.

IS IT POSSIBLE TO USE THE SEU AS MY SOLE SOURCE OF ENERGY?

To begin with, the SEU will be a supplemental utility meaning you would be receiving electricity from both the SEU and DTE.



DO I HAVE TO CHOOSE BETWEEN MY CURRENT UTILITY AND 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 renewable energy systems 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. It is expected most offerings from the SEU will be fairly standardized with modest customization.

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.

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, multifamily homes, and businesses.

WHAT ABOUT CONDO COMPLEXES?

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

DTE INFRASTRUCTURE / OPERATIONAL 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.

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 we hope to break ground on this year.

WHAT ISSUES DO YOU ANTICIPATE WITH DTE?

The City has not received any communications from DTE regarding the proposed SEU. Our hope is that DTE sees the value of investing in local and distributed clean energy solutions and scales up its support for these systems throughout its service territory.

DOES DTES CURRENT RATE CASE POSE BARRIERS OR PROBLEMS FOR SEU ADOPTION. No, it does not.

COMMUNITY AND 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 solar 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 manufacturers in Ann Arbor. The SEU would leverage and expand local installers and workers, but the parts deployed through the SEU would have to be sourced competitively.

HAS THE UNIVERSITY OF MICHIGAN BEEN BOUGHT INTO THIS PROGRAM?

We talk to them regularly about this work, and they are excited about the concepts. 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.

BILLING AND FINANCING

WILL THE SEU INCREASE MY ENERGY COSTS?

A rate analysis is currently being finalized with preliminary findings showing that the SEU solar option will lower rates and the SEU solar+storage option will be less expensive than the cost of investing in a generator.

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?

The SEU would be governed like other city utilities, with a full-time executive manager, budgeting and finance transparency through, City Council authorization for spending, and regular public engagement.

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.

IS THE SEU PART OF THE RECENTLY PASSED COMMUNITY CLIMATE ACTION MILLAGE?

No. Funds from the climate millage will not pay for the SEU. However, funds from the millage could be loaned to the SEU to help finance start-up costs associated with establishing the SEU. But these funds would have to be paid back through the rates.

CAN RESIDENTS INVEST MONEY TO BUILD THE SEU FUND POOL?

Philanthropic donations are very welcome.

WHEN I SELL MY HOUSE, IF THE NEW OWNER DOES NOT WANT THE SEU, WHAT HAPPENS WITH THE ONBILL 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, 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 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.

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.

CAN I LEAVE THE SEU AND RETURN TO MY REGULAR UTILITY PROVIDER	{?
Yes, joining the SEU is a choice.	

MAINTENANCE 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 and have built these structures into our rate analysis.

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 in good enough condition to support a solar installation.

WOULD THIS BE RUN OUT OF THE OFFICE OF SUSTAINABILTY AND INNOVATIONS? 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 but this program would not be run out of the Office of Sustainability and Innovations but instead be in Public Services with the other City utilities.

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
<u>Village of Clinton</u>	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
<u>City of Hart</u>	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	
<u>Village of Paw Paw</u>	Paw Paw, MI	1890	
<u>City of Petoskey</u>	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
<u>City of Stephenson</u>	Stephenson, MI	No data	
<u>City of Sturgis</u>	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