



## MEMORANDUM

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**TO:** Environmental Commission

**FROM:** City of Ann Arbor Office of Sustainability and Innovations (OSI) Staff

**DATE:** April 16, 2024

**SUBJECT:** Responses to Environmental Commission questions following the 3/28/24 presentation titled, "100% Renewable Energy Options Analysis"

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During the Environmental Commission meeting on March 28, 2024, Dr. Missy Stultz, the Sustainability and Innovations Director with the City of Ann Arbor presented on the 100% Renewable Energy Options Analysis. The following are the questions generated by the Environmental Commission following the presentation, and answers provided by OSI staff:

### **Question Set 1**

#### **Sustainable Energy Utility (SEU)**

- **For the SEU, what is the maximum number of people (or percent population) that the SEU can handle? If more people sign up than the SEU can handle, what is the plan?**

It's unlimited. People have discussed the 10% estimate but that was a conservative estimate of what the City could serve by 2030 --- This number could be larger (or smaller) but also always has the opportunity to grow!

- **If the number of people who want to opt in to the SEU increases over time, will the SEU be scalable if the number of participants increases over time?**

Yes – it's an extremely flexible model that can grow quickly.

- **AAPS has committed to renewable energy but the Ann Arbor Public School (AAPS) buildings are mostly vacant on weekends and during the summer. Could the City purchase the AAPS's additional power as part of the SEU?**

Yes, this is one of the things we've discussed with them – as well as designing shared geothermal systems.

#### **Municipal Energy Utility (MEU)**

- **The MEU seems to have 3 main cost drivers. (1) Purchasing the DTE assets (phase 2 study estimate) (2) Purchasing the right for Ann Arbor power from DTE (determined by a judge) (3) Making the system more reliable and resilient. Would the estimate for making the system more reliable and resilient be done prior to the Ann Arbor residents voting on approving the MEU?**

A separate reliability assessment would be needed to estimate the costs of repairing the DTE assets, should the City procure them. This study would not be done before an offer to purchase (after an appraisal and an authorizing vote of the people) were done. However, we would



anticipate doing this study before a final vote of the people authorizing the purchase of the system. The reason the City does not recommend doing a reliability study now is two-fold – 1) we do not have the money for the study and 2) it would be outdated long before we acquired the system so would need to be redone.

## **Question set 2**

- **What metrics will be used to track performance on Resilience and Reliability as time progresses?**

This is to be determined but will likely be standard industry metrics such as outage times, response times, system uptimes, and the three most commonly used reliability metrics: system average interruptions frequency index (SAIDI), system average interruption frequency index (SAIFI), and customer average interruption duration index (CAIDI). But again, these are just preliminary recommendations.

- **For the SEU, DTE's power mix includes multiple types of energy sources, including biogas and nuclear power, both controversial and associated with methane and carbon emissions (from extraction, refining, transportation, and long term storage). How will the SEU be assured that DTE's energy is clean renewables? (refer to 3/28/34 Environmental Commission presentation slide 23).**

It's not the job of the SEU to ensure that DTE's power system is clean – it's the job of all of us in the City and beyond. That is why our existing work will continue, which focuses on greening the DTE grid. This work will continue to push the entire utility towards 100% renewable energy, ideally, and, at a minimum, 100% of Ann Arbor's usage renewable. We fully anticipate continuing to intervene in Integrated Resource Plans, rate cases, and other initiatives to push the utility towards clean energy.

- **Describe how those who opt in to the SEU will be determined/selected? First come/first served? Other?**

Since it's opt-in, it will be those that sign-up.

- **What rates for SEU electric service will be charged?**

The final rates will be determined based on the number of subscribers – since it is rate-based/fee-based. The City is finalizing a validation of the SEU analysis to confirm rate offerings but initial results show that rates for solar only will be less than current utility rates and solar+storage will be less than the costs of a generator.

- **At what point will networked geothermal service be provided? Is geothermal infrastructure being included in current large project street replacements (ex: Miller Ave, the Crescents, that are intended to have lengthy lifespans)?**

It is not possible to answer this question with the specificity requested. Geothermal would be installed as opportunities present themselves and dependent on the work the City is currently doing to validate geothermal potential, rate structures, and overall costs through our work in the Bryant neighborhood and in tandem with Stantec through our current geothermal planning contract. As such, we will not speculate now on when geothermal will be installed but the City is currently doing the foundational work needed to eventually answer this question.

- **What administrative services will be required to support the SEU? Will there be a need to increase staff to track and bill for services?**



Staff, billing, contracting support services, and management.

- **Slide 27: Assuming that DTE reaches a goal of 50% renewable power by 2030, DTE’s contribution to the community total, including Voluntary Green Pricing (VGP) will be 60% of Ann Arbor’s power need. Is that a correct interpretation?**

A projection in the study was different pathways the City could take as a community to meet our clean energy goals. One scenario is a 50% clean energy generation from DTE (through requirements) plus the continued sign-ups that Ann Arborites have to the VGP program, supplemented with other strategies. That was one of the scenarios presented.

- **Will DTE address the reliability and resilience of its grid by 2030, indicated as a concern by the community survey?**

While the City can’t speak to what DTE will or will not do, the City is actively working and advocating for reliability and resilience improvements as evidenced in all of our recent testimonies and interventions. We continually push DTE towards resilience and reliability improvements ranging from large-scale grid upgrades, undergrounding infrastructure where it makes sense, and smaller scale programs such as bring your own device systems, amongst many others.

- **What is anticipated for DTE rates for electric service by 2030 and beyond?**

This is not a question staff can answer.

- **Describe how the Virtual Power Purchase Agreement (VPPA) will affect greenhouse gases in Ann Arbor.**

The VPPA is a contract for energy. Staff would like to release a Request for Proposal (RFP) for the development of new, renewable energy systems equivalent to the amount of power the City uses. This new energy would be 100% renewable and placed onto the grid – displacing fossil fuels.

- **Slide 34: Explain “transferability”.**

Something that can be transferred or replicated in other places.