



TO: Mayor and Council

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SUBJECT: July 15, 2024 Council Agenda Response Memo

DATE: July 11, 2024

CA-4 - Resolution to Authorize a Sole Source Purchase Order to Michigan Lighting Systems East in the amount of \$185,060.00 for Spring City Street Light Poles and Associated Fixtures and Luminaires and to Appropriate \$120,000.00 from the Central Stores Unobligated Fund Balance (8 Votes Required)

Question: Was there staff review of replacements that adhere to our dark sky ordinance, which aims to promote good lighting practices and reduce human-sourced light pollution? Reading the spec sheet, it seems that the lights have a color temp of "warm white" while the ordinance specifies "Outdoor lighting must use colors no bluer than "warm white" (Correlated Color Temperature no greater than 3000 K)". Also, it's unclear if there is shielding? (Councilmember Akmon)

Response: As this is a renewal of the original purchase order, with most of the details remaining unchanged, it may not conform to the relatively recent local dark sky ordinance as presently written. However, staff have inquired with the vendor and confirmed that different color temperatures can be provided with no cost difference, and also that shielding can be purchased as well.

CA-5 – Resolution to Accept Carbon Reduction Program Grant Funds from Southeast Michigan Council of Governments, Execute a Contract with DTE Energy to Convert DTE Streetlights to LED Technology (\$1,250,000.00) and Appropriate Funding (8 Votes Required)

Question: I don't see anything in the materials regarding shielding to prevent light trespass. Should this/could this be part of the purchase agreement? How can we ensure that DTE will provide this? (Councilmember Akmon)

Response: DTE has committed to installing shields on all streetlights converted as part of this project. While language regarding shielding is not part of the DTE Purchase Agreement attached to the Council resolution, staff will work with DTE to add this language prior to the agreement being signed by both DTE and City.

Question 1: I appreciate that City staff sought and secured a \$980k SEMCOG grant to convert all of the city's street lights (including those owned by DTE) to a more energy-efficient bulb. Can staff sharing what the impact of not accepting this grant would be? What is DTE's plan for conversion? (Councilmember Briggs)

Response: DTE Community Lighting has announced (separately from this project) that they will be phasing out the use of high-pressure sodium (HPS) lights and installing LED replacements instead. In the absence of a special-order agreement for a preferred alternative, those replacements will be one of DTE's standard 4000K LED fixtures, at varying wattages. A decision to do nothing at this time - whether to conduct further analysis or evaluate alternatives - will result in DTE slowly installing their standard lights across the city through routine replacement.

Question 2: Ann Arbor has adopted a dark skies ordinance for private development to minimize light pollution and ensure light is directed where intended and useful, on the ground. Will all of these streets lights be shielded? If so, is this standard operating procedure for DTE? (Councilmember Briggs)

Response: DTE has committed to installing shields on all streetlights converted as part of this project. While language regarding shielding is not part of the DTE Purchase Agreement attached to the Council Resolution, staff will work with DTE to add this language prior to the agreement being signed by both DTE and City. Staff are not in a position to comment on what is a DTE standard operating procedure; however, staff's experience to date has been that DTE has retroactively installed shields on a small portion of lights primarily driven by resident complaints.

Question 3: The total cost of conversion of all the streetlights is \$1.25 million, city staff is proposing to use \$270k from the Climate Action Millage to cover the 20% match required by the grant. If this grant was not in play and DTE was transitioning their bulb stock, would DTE charge the City for the light bulbs? Or does the City pay only for energy usage? (Councilmember Briggs)

Response: There would be no installation cost if DTE were to replace these fixtures as a matter of routine repair and replacement. However, as indicated above, replacement fixtures in this scenario would be one of DTE’s standard 4000K LED fixtures at varying wattages. In addition, staff note this process would be quite slow – letting the ~4,000 lights that are in the project scope be replaced through outages would certainly last beyond the A2Zero target year of 2030.

Question 4: As the staff memo/project website accurately notes, public input was sought and utilized during this process. Dark Skies advocates recommended the City test and considered a warmer color temperature 2700k rather than 3000k and the recommendation to utilize a 2700k bulb has been incorporated in the final staff recommendation. However, the [project website](#) indicates “ *The public feedback was also clear in that most people thought the brighter of the two alternatives shown would be appropriate to install on a residential street and that “most people who gave feedback thought the brighter light would still be acceptable on a residential street”* This does not seem to accurately reflect the survey results. Rather more residents, in this small sample, appear to prefer the 29W/2700k bulb and, additionally, when tallied together more believe that both of these bulbs are “too bright”, than believe that either is just right. Further, there is no available data for 29W bulb in neighborhoods to make a comparison statement. The staff memo clearly indicates the significant challenge of maintaining a dual stock and there appear to be strong operational reasons to utilize a 58W, but survey preferences does not appear to be one of them if the data provided below is accurate. Can the project website Q and A be revised to accurately reflect the survey responses and decision-making process. (Councilmember Briggs)

DTE Street Light Survey Result Summary				
From December 8, 2023, to January 12, 2024, the city requested that DTE install LED fixtures in streetlights at Easy Street and Packard Road and West Liberty Street and Eberwhite Boulevard to demonstrate the color temperature and wattage of LEDs being considered. A QR code was posted at each location so that residents could share their input via an online survey. The results combined are listed below.				
	58w 3000K	29w 3000K	58w 2700K	29w 2700K
Temperature	17 just right 33 too cool 6 too warm	22 just right 31 too cool 3 too warm	41 just right 13 too cool 3 too warm	42 just right 12 too cool 4 too warm
Brightness	27 just right 30 too bright 0 too dim	27 just right 23 too bright 6 too dim	31 just right 25 too bright 2 too dim	34 just right 15 too bright 9 too dim
Agree with Placing Light in Residential Area?	16 Yes 27 No 11 Maybe 2 No Preference	N/A	25 Yes 19 No 12 Maybe 0 No Preference	N/A

Response: Yes, the Q and A’s on the project web page have been edited based on the concerns noted above.

CA-7 - Resolution to Approve a Professional Services Agreements with Sam Schwartz Consulting, LLC for Safe Streets for All Grant Coordination (\$1,073,636.22) and to Appropriate \$855,000.00 from the Climate Action Millage Fund (8 Votes Required)

Question 1: The scope of work says "we will apply the Speed Management toolbox and other proven safety treatments consistent with SS4A demonstration projects to develop design alternatives for each location." Is road reconfiguration (aka road diet) part of this toolbox? (Councilmember Akmon)

Response: Yes, road reconfigurations/road diets are a part of the Speed Management toolbox. Staff will coordinate the work performed under this contract with work performed under [R-23-415](#), which directs staff to perform road diet analysis on specific corridors.

Question 2: The proposal also says "we recommend carefully selecting locations to avoid NEPA impacts,"... can you describe potential NEPA impacts that the Cit is trying to avoid? (Councilmember Akmon)

Response: Projects that require a review under NEPA (National Environmental Policy Act) typically have significant disturbances beneath the ground surface within the project area, and consequently often undergo longer review by MDOT. It is staff's understanding that the type of construction work that falls within the scope of the Quick Build and Speed Management programs would generally not have significant NEPA impacts. Staff will work with the SS4A Coordinator team to select and design projects using this as an important consideration.

Question 3: Am I correct in understanding the cost of this contract does not cover installation, but would instead be bid out and come for later approval? (Councilmember Akmon)

Response: Yes, construction for Quick Build and Speed Management locations will be bid out in separate future contracts. Those construction plans will be part of the deliverables package from this SS4A Coordinator contract.

Question 4: It seems like we have had several obstacles to the City's transportation plan goal to install 5-miles/year of All Ages All Abilities bike network (the purchase of a narrow sweeper, which has been addressed and then the design and installation of flexposts on ~11 miles of constructed and painted bike lanes). Is that flexpost installation part of this work? If so, how soon can it be accomplished? I'm concerned that right now it looks like (according to the workplan), no installation work is happening before August of 2025. (Councilmember Akmon)

Response: The design for the second phase of the Quick Builds (QB2, for short) is almost complete at this time, which includes installation of CityPosts within existing buffered bike lanes as well as the installation of hardened centerlines. Work on that design

effort was delayed to focus on other high-priority projects (such as the Huron/Jackson crosswalks and the Miller Avenue cycle track). The delay in the design has made the original goal of construction in 2024 unlikely. While that is undesirable, it also led to the possibility of combining QB2 with the larger Safe Streets For All (SS4A) coordination effort. The thinking behind that is that the SS4A funding could be utilized for construction of QB2 (as Quick Builds are one of the core components of the City's SS4A grant application) using the plans that are just being completed now. One outcome of this approach would be a delay in installation of QB2. However, there was agreement among staff that the benefits of coordinating all SS4A funded activities through the Sam Schwartz team's contract were worth this delay. It is possible that the QB2 portion of the construction work could be prioritized such that it is completed early in 2025.

B-1 – An Ordinance to Amend the Zoning Map, Being a Part of Section 5.10.2 of Chapter 55 of Title V of the Code of the City of Ann Arbor, of 1.7 Acres from C1A/R With [2023] Conditions (Campus Business Residential) to C1A/R With [2024] Conditions (Campus Business Residential), Southtown Rezoning (CPC Recommendation: Approval - 9 Yeas and 0 Nays) (ORD-24-13)

Question: Does whatever fuel the petitioner chooses actually reduce emissions to the 60-75% threshold? Is Staff confident that existing data sources make it possible to verify the emissions standard for this project? (Councilmember Disch)

Response: To answer this question, we need to start with an understanding of our current state or *business as usual* emissions. What this requires in practice is knowing exactly how much energy the petitioner's entire project is using every year, in MMBTU, to be able to calculate what their emissions profile would look like if the development were all electric, relying on DTE as their provider, with fossil gas as a back-up/generator fuel type. This is our baseline. This means annually, they will need to report their MMBTU usage from all fuel sources, including the proposed fuel cell (or the RNG that is used by the fuel cell). We'll be able to then put it into our GHG calculator to understand what their emissions would look like with grid electricity and then subtract 60-75 to understand what their reduction needs to look like. This is pretty straight forward.

For nearly all fuel sources, the above will be easy to calculate. For the fuel cell, however, we need more information. Explicitly, we need to know the emissions associated with the fuel they are using (RNG) and whether these emissions exceed the emissions profile they would have if they relied on DTE as their electricity provider, with fossil gas as a back-up/generator fuel type. In this case, we really need to understand the emissions associated with: 1) generating/extracting and processing the fuel source that is powering the RNG, 2) the emissions associated with transmission and distribution of that fuel, and 3) the emissions associated with combustion (which are generally considered zero with RNG). Transmission and distribution calculations are pretty straightforward because we already calculate these for fossil gas / natural gas usage. And combustion emissions for approved RNG sources are considered zero (at least with current protocols) because these fuel sources are considered biogenic. That leaves us with the first part – the

generating/extracting and processing. And those emission vary depending on the fuel you are using for RNG.

Without going into detail, the State commissioned [a report](#) from the consulting firm ICF that attempts to calculate these emissions. I believe the petitioner relies on this report for their reduction calculations (see matrix below). The City could choose to use this math because it would make us consistent with the State. If we did that, then the calculations are pretty straightforward. OSI would use these estimates and fact check the RNG credits the petitioner submits to validate their 60-75% reduction from a business-as-usual operation.

If we choose to take a more holistic look at emissions from generation/extraction and processing, we'll find that this math might not provide a complete accounting of the emissions associated with agricultural RNG (especially when it derives from CAFO's). Some research on other parts of the US (notably, California) has shown that tax incentives for RNG capture from CAFOs are "driving CAFO expansion for the purpose of manure gas production," increasing emissions independent of demand for dairy products (Younes, A. and Fingerman, K. (2021). Quantification of Dairy Farm Subsidies Under California's Low Carbon Fuel Standard. Arcata, CA; See also Watergas, C. and Armus, M. (2024) "Biogas or Bull****" Friends of the Earth). Of course, RNG capture lowers emissions at each agricultural site, but some research suggests that the market is stimulating more CAFO generated gas. And therein lies the conundrum.

Given this context, OSI recommends that the petitioner secure their RNG (as a bridge fuel to green hydrogen) from water recovery facility biodigestion or food waste biodigestion. If they can do that, then the estimates from the State of Michigan can be used to demonstrate their reduction. City Staff has updated the development agreement to reflect this change. If they can't specify these fuel types, for example, if DTE blends all their RNG, then Staff will calculate the emissions profiles based on DTE's publicly reported data. Either way, the City does have a framework for measuring emissions from this project, with the majority of that calculation methodology being extremely straightforward, especially for the onsite renewable energy generation proposed.

Table B-1. Estimated CI Values for RNG from Different Feedstocks (MI specific)

Fuel / Feedstock	Extraction & Processing	Transportation & Distribution	Stationary Combustion	Total
Conventional natural gas	8.27	4.11	50.35	62.72
Animal manure				
Dairy cows	-90.63	0.29	0.05	-90.29
Broilers & Turkeys	46.15	0.29	0.05	46.50
Beef	-12.24	0.29	0.05	-11.89
Swine	-235.00	0.29	0.05	-234.65
Food waste	-99.22	0.29	0.05	-98.87
Landfill gas	10.91	0.29	0.05	11.26
WRRF	-94.45	0.29	0.05	-94.10
Thermal gasification Agricultural residue Energy crops Forestry residue MSW	50-55	0.29	0.05	50.34-55.34

Reference available at:

Watergas and Armus: <https://foe.org/resources/biogas-or-bull/#:~:text=The%20Deceptive%20Promise%20of%20Manure%20Biogas%20as%20a%20Methane%20Solution&text=Creating%20energy%20from%20animal%20manure,an%20extremely%20potent%20greenhouse%20gas.>

PH-4/DS-1 – Resolution to Approve the State Street Business Improvement Zone

Question: If Council approves this and it goes to a vote of the property owners, is it a raw percentage (60% is the threshold described) of all of the existing property owners that must vote to approve? Or is it, like the petition itself, weighted by allocation of assessments in accordance with the proposed Zone Plan? (Councilmember Akmon)

Response: As authorized by BIZ Statute, the vote by property owners to approve the Business Improvement Zone and Zone Plan will be weighted, and each property owner's vote will be proportionate to the amount that the assessed value their individual property bears to the assessed value of all assessable property in the zone area. The proportional vote allocated to any 1 property owner cannot exceed 25% of the total vote.

Question: Would this impact homeowners (i.e. noncommercial buildings)/are there any within the proposed BIZ? (Councilmember Akmon)

Response: A BIZ area is required to be contiguous, therefore some non-commercial areas are included within the Zone. However, the residential property owners and tax-exempt property owners are not required to pay any BIZ assessments, although they may incidentally benefit from certain BIZ services such as area beautification and the BIZ may seek voluntary contributions from these non-assessed owners.

Question 1: Will the BIZ board include someone from AAATA? (Councilmember Harrison)

Response: No, the Zone Plan indicates that the following individuals will serve on the BIZ board:

Kevin Norris – CIG Eisenhower LLC
Jeff Hauptman – Oxford Companies
Margaret Wyzlic – Oxford Companies
Danie Fine – Kensington hotel
Rob Aldrich – MAVD
Erica Chappell – Simon Property Group
TBD – City of Ann Arbor Appointee (appointed by the City Administrator)

Question 2: I saw marketing and beautification items listed in Exhibit A, like signage and flowers (hopefully native plants). Does the petitioner plan to also conduct business recruitment and retention activities, perform hospitality functions like having “ambassadors”, develop job training programs, or manage any public space regulations? (Councilmember Harrison)

Response: Under Michigan’s BIZ statute, a BIZ is authorized to serve a range of economic development functions with the general purpose to “enhance the economic prosperity, enjoyment, appearance, image, and safety of the zone area.”

According to the State Street Zone Plan the proposed State Street BIZ is intended to create “an appealing and hospitable entry point to the City of Ann Arbor from I-94 and surrounding areas to the south” and “seeks to establish a commercially thriving and diverse business district catering to research, innovation, retail, and office endeavors.”

The Zone Plan lists four general projects/service areas and a budget to support those four projects, which include median enhancements along State Street, landscaping along the state street corridor, gateway signage, and a marketing package.

Therefore, business recruitment and retention, hospitality ambassadors, job training programs, and public space regulations are not currently contemplated in the Zone plan or budget. The projects and services in the zone plan are subject to amendment by the BIZ Board of Directors with approval by a vote of the property owners. Any amendment that changes the assessment amount must also be approved by City Council.

Question 3: This creates a zone within the newly created TC-1 correct? Does this include all of the Briarwood area TC-1? (Councilmember Harrison)

Response: There is significant overlap between the proposed Business Improvement Zone and the Briarwood TC1 District. With the exception of three parcels in the northwest corner of the Briarwood TC1 (2992 S. Main St., 250 W Eisenhower Pkwy., 801 Briarwood Cir.) the entire Briarwood TC1 is included within the proposed BIZ. However, the proposed BIZ is larger than the Briarwood TC1 and also includes areas with other zoning classifications.

The proposed boundaries of the State Street BIZ were determined by the petitioner.