



MEMORANDUM

TO: Mayor and City Council
THRU: Howard S. Lazarus, City Administrator
FROM: Missy Stults, Sustainability and Innovations Manager
SUBJECT: Update on Potential Solar Farm on Closed Landfill
DATE: December 30, 2019

In order to meet the City's climate and clean energy goals, staff has been exploring opportunities for onsite renewable energy deployment throughout the City. After careful analysis, the area known as the former landfill, the area abutting the Wheeler service center, and a portion of the land currently within the Planned Unit Development the City has with Pittsfield Township (throughout the remainder of this document, this area is referred to as "the landfill") was identified as a very strong location for a large solar installation (see below for a visual of the site being considered). Staff will be presenting a resolution to Council in an upcoming meeting, and the intent of this memorandum is to provide sufficient for this unique opportunity.

When the City identified the landfill as a strong contender for an onsite solar installation, staff reached out to DTE Energy to explore their interest in partnering on developing the site as a solar farm. DTE Energy agreed but noted that they would be considered a developer through the eyes of the Michigan Public Service Commission and, therefore, would have to follow the same procedures as every other solar developer in the state. The City understood and agreed to this process as long as DTE Energy agreed to be fully transparent about all steps and associated costs, and



include the City as a main decision-maker at each point in the process. DTE agreed, thus putting the project into motion.

The first step in this process was conducting a preliminary assessment of the solar potential at the landfill. Working in partnership with the City and Black and Veatch, DTE Energy discovered that the site has a potential for just under 24MW worth of electricity (nearly the equivalent of all municipal energy usage). Preliminary site designs were created that maximized the amount of solar on site, the amount of land preserved for ground nesting birds, and optimized proximity to existing power lines. During this analysis, care was taken to ensure that designs allowed for ground vegetation and pollinators habitats.

In mid-December, these preliminary site designs were submitted to DTE Energy's grid interconnection team for an analysis of their completeness. We anticipate hearing whether or not these drawings are sufficient to initiate the next phase of the analysis in early January. If the submitted materials are viewed as complete, the engineering team at DTE will notify the City. At this point, the City will need to complete an Engineering Review Form and submit a fee to cover the costs of a preliminary engineering analysis. The conducting of a preliminary engineering analysis and the payment of time and materials associated with this analysis are steps all solar developers must undertake. The results of this analysis will provide an understanding of how much renewable energy can be integrated into the grid at this specific location.

Once the fees have been paid and the Engineering Review Form application filed, the engineering team will have up to 45 business days to conduct their study. If the study finds no fatal flaws, the next step is to complete a distribution study and pay the associated fees. Similar to the engineering analysis, all developers are expected to pay the costs encumbered through the conducting of a distribution study (i.e., time and materials). The distribution study can take up to 60 business days to complete and, once complete, will provide an understanding for what, if any, system upgrades would be needed in order to receive the energy from the potential solar farm. Depending on the findings from this study, the City will either:

1. Work with DTE to move forward on making required improvements and move forward with installing the solar farm (which will come back to Council as a separate resolution with associated costs);
2. Decide to get into the queue for the Midcontinent Independent System Operator (MISO) network and see if MISO can accept the potential solar from the landfill (note: the MISO queue is at least 2 years long); or
3. Terminate the project.

In parallel with the process outlined above, the City has been working with Pittsfield Township to amend our Planned Unit Development. This amendment would allow significant portions of the PUD to be developed as a solar farm. Staff from the City have had multiple meetings with staff from Pittsfield to understand what is needed to move the amendment forward. As of the end of 2019, a formal application was submitted to Pittsfield to amend the PUD. A public meeting is scheduled to review the proposed amendment on January 7th, 2020. It is anticipated that the

Pittsfield Planning Commission will review the proposed amendment in the first quarter of 2020 or shortly thereafter. Staff will keep City Council abreast of this progress.

At this point in the project, the most immediate need staff has is support from City Council to open a purchase order with DTE Energy to cover the costs for the first two studies: the preliminary engineering analysis and the distribution study. DTE Energy has confirmed that these studies, combined, will not cost more than \$90,000. As such, at Council's January 21st meeting, staff will be requesting approval to open a purchase order with DTE Energy, not to exceed \$90,000 for the completion of a preliminary engineering analysis and distribution study for a potential solar installation at the landfill.

The funding for these two studies currently exists within the FY2020 Office of Sustainability and Innovations budget. As such, there are no budgetary impacts associated with conducting these studies. Moreover, if the studies show that it is possible to put nearly 24MW of solar energy onto the grid at the landfill, this energy will be attributed to the energy and will allow the City to make significant and immediate progress towards achieving our goal of powering municipal operations with 100% clean and renewable energy.

Please do not hesitate to contact me if I can be of further assistance or if you have any questions.