



TO: Dr. Koultourides and Members of Council

FROM: Dustin Anderson, Town Manager
Mark Heintz, Director of Parks and Recreation

SUBJECT: Well Field Balancing

DATE: April 19, 2021

Background

The Town operates a Landfill Gas to Energy (LFGTE) Facility that produces power by utilizing the methane gas from the closed landfill at Centennial Park. Several consultants and contractors are involved to ensure we fulfill the requirements necessary to sample, report, test and maintain the site and GTE facility at the former landfill as required by varying governing agencies.

The Town is frequently operating the jenbacher genset, which produces power that is sold back to NIPSCO, at an infrequent schedule. The Jenbacher genset utilizes sophisticated controls which will automatically shut the unit down for any component/engine malfunction or if gas quality is not within a reasonable parameter, such as low methane content as it requires a minimum BTU in order to operate safely and efficiently.

Methodology

In March, the Town's Director of Parks and Recreation convened a meeting with all consultants, contractors and Town staff involved with the landfill and GTE facility operations. There are several key components associated with the production of methane gas from the closed landfill that our current staff does not have the ability or knowledge to check on or maintain that would help better operate the GTE facility in a more consistent manner. These specialized tasks would help achieve a more consistent delivery of methane to the Jenbacher engine and will also help better project a plan for future rebuilds and replacement to the GTE facility equipment which is anticipated in the next few years.

One of the steps to help operate the GCCS (Gas Collection & Control System) with more consistent flow and consistent gas quality is to balance and tune the wellfield on a monthly basis which is a minimum with the industry nationwide. Having a monthly visit from the contractor, Cabeno Environmental Field Services, who has been assisting with critical GCCS repairs and observations over the past year on ways to maximize the methane gas being conveyed to the GTE facility, making emergency repairs in order to allow the GTE facility to operate with minimal disruptions, and also provide review of the critical infrastructure for any necessary repairs or system improvements is needed.

The attached proposal from Cabeno Environmental Field Services is for monthly balancing and tuning of the wellfield, which will be beneficial for allowing the GTE facility to operate with increased runtime which translates to increased revenue, as well as avoid any potential issues related to the compliance aspect of the landfill whether it be odor complaints from the general public/neighbors, leachate breakouts, subsurface oxidation (underground fire), and potential offsite migration. Repairs and system improvements that are noted during each monthly balancing & tuning event would be shared and completed on a time and material basis plus the cost of parts to facilitate repairs. Any additional well monitoring would also be completed on a time and material basis upon approval for the additional scope of work.

All of those attending the meeting agreed that this step would be considered a best practice in the operation of the landfill and GTE facility. It was also noted by Clerk Treasurer's office staff that the solid waste fund would be the appropriate fund to pay for such expenses as work is completed.

Funding for these engagements would be sourced from Fund 270 Solid Waste Fund.

Recommendation

By motion and roll-call vote, approve the attached two proposals dated April 13, 2021 from Cabeno Environmental Field Services for 1) monthly balancing and monitoring of the methane wellfield at the Centennial Park landfill and 2) the time and material basis for any repairs that are beyond the monthly scope.