

**OPEN SESSION MINUTES
WINNEBAGO COUNTY BOARD OF SUPERVISORS
SOLID WASTE MANAGEMENT BOARD**

DATE: November 16, 2022

TIME: 9:00 a.m.

LOCATION: Solid Waste Administration Office
100 W. County Road Y
Oshkosh, WI

PRESENT: Pat O'Brien, Chairman
Jim Wise, Secretary
Mike Easker
Paul Eisen
Gerry Konrad
Howard Miller
Shanah Zastera

EXCUSED: Kevin Konrad
Doug Nelson, Vice Chairman

ALSO PRESENT: John Rabe, Director of Solid Waste
Cassie Stadtmueller, Office Supervisor

ALSO PRESENT BY

ZOOM OR TELEPHONE: Chris Anderson, Foth Infrastructure & Environment (9:00 a.m. – 10:10 a.m.)
Sara Beine, Foth Infrastructure & Environment (9:00 a.m. – 10:10 a.m.)
Chelsa Anderson, EcoEngineers (9:00 a.m. – 10:10 a.m.)
Sean Gassen, EcoEngineers (9:00 a.m. – 10:10 a.m.)
Kathy MacBeth, EcoEngineers (9:02 a.m. – 9:30 a.m.)

1. Call to Order: P. O'Brien called the meeting to order at 9:00 a.m.
2. Approve Agenda: Motion to approve the November 16, 2022 agenda, made by G. Konrad and seconded by H. Miller. Motion carried 7-0.
3. Public Comments on Agenda Items: None.
4. Communications Shared by Solid Waste Management Board Members: G. Konrad asked if our department was fully staffed. J. Rabe explained to the Solid Waste Management Board (SWMB) that the Environmental Manager and Mechanical Technician positions have been posted but are still vacant.

5. Approval of Minutes – October 19, 2022, Open and Closed Session: Motion to approve the October 19, 2022 Open and Closed Session, made by P. Eisen and seconded by J. Wise. Motion carried 7-0.
6. Discussion/Action – Landfill Gas Utilization Analysis Report: J. Rabe introduced C. Anderson and S. Beine from Foth Infrastructure and Environment (Foth) and explained that there are three representatives from EcoEngineers. S. Beine introduced C. Anderson, S. Gassen and K. MacBeth of EcoEngineers to the SWMB.

C. Anderson (Foth) presented the Landfill Gas Utilization Analysis Report as follows:

- Purpose
 - Reviewed Tetra Tech report and applied sensitivity analysis
 - Estimated actual gas flows and utilization potential
 - Environmental energy market and attribute/credit report by Eco- Engineers
 - Review of existing third-party credit offers received
 - Prepare an economic options analysis and summary
- Foth Review of Tetra Tech Report
 - Recommended using a more conservative approach for gas generation based on current flows and annual reductions
 - Identified the risk associated with potential issues with air contamination in aging landfill infrastructure
 - Advised a review of renewable energy markets and environmental attribute/credit value by EcoEngineers

S. Beine presented the Landfill Gas Utilization Analysis Report as follows:

- Landfill Gas Collection and Generation
 - Actual current landfill gas collection is approximately 600-650 scfm
- Options Analysis
 - Flare Only
 - Engine Generation Options
 - Maintain current operations with optimization/upgrades
 - Engine relocation (eliminate pipeline and Snell Road Landfill air permitting)
 - Replacement engine (small)
 - Other Options
 - RNG
 - BioCNG – vehicle use
 - Prison Landfill Gas Use
 - Bitcoin Mining – electric generation

C. Anderson (Foth) explained to the SWMB that EcoEngineers was brought in to review the valuation of environmental attributes.

K. MacBeth, Director of Strategic Development with EcoEngineers, explained to the SWMB that EcoEngineers is a renewable energy auditing consulting firm that has been in business since 2009. K. MacBeth explained that their headquarters is located in Des Moines, Iowa, with

offices throughout the country. EcoEngineers specializes in renewable markets and have a significant market share in renewable natural gas.

S. Gassen explained that EcoEngineers has a strong understanding of regulated markets for renewable natural gas. S. Gassen explained that EcoEngineers reviewed different market options based on Tetra Tech's report including renewable fuel standard (RFS), California low carbon fuel standard (LCFS), voluntary market and e-RINs (electric fuel credits).

S. Gassen presented EcoEngineers report as follows:

- Renewable Natural Gas (RNG)
 - high capital and operational costs
 - after approximately 6 years, operating at a loss
- e-RINs
 - most lucrative potential
 - wont know if this is an actual option until the EPA sets regulations
 - regulations potentially set in late-November 2022
- Proposals
 - Karbone
 - Offering 5 year term
 - Purchase RECs at \$15/mwh
 - Take complete title to generate eRINs
 - OCI Fuels
 - Offering to buy renewable natural gas at \$8/mmbtu and sell the physical brown gas back to the project at \$3/mmbtu for gas in the engines
 - Would need to produce pipeline quality natural gas
 - Upgrades to our system would be required
- Recommendations
 - eRINs (electric generation)
 - most lucrative
 - wait until the end of the month to determine if this is a viable option

C. Anderson, Foth, presented the economic results comparison (2023-2028) to the SWMB as follows:

<u>Option</u>	<u>6-Year Capital Cost</u>	<u>6-Year Predicted Net Revenue</u>
1 – Flare Only	(\$360,000)	(\$540,000)
2 – Continued GTE "As Is"	(\$1,211,000)	(\$115,000)
3 – Engine Relocation	(\$1,361,000)	(\$265,000)
4 – Engine Replacement	(\$1,961,000)	(\$1,204,000)
5 – RNG (Tetra Tech Adjusted)	(\$14,225,000)	(\$10,702,000)
5B – RNG (EcoEngineers)	(\$14,225,000)	(\$6,289,055)
6 – Vehicle Fuel	(\$5,273,000)	(\$3,925,000)
7 – Prison LFG Use	(\$2,820,000)	\$621,286
<u>Note</u> – average electricity rate of \$0.05975/kWh & REC of \$0.015/kWh		

C. Anderson (Foth) presented the economic results sensitivity to the SWMB as follows:

<u>Option</u>	<u>6-Year Capital Cost</u>	<u>6-Year Predicted Net Revenue</u>
1 – Flare Only	(\$360,000)	(\$540,000)
2 – Continued GTE "As Is"	(\$1,211,000)	\$402,000
3 – Engine Relocation	(\$1,361,000)	\$252,000
4 – Engine Replacement	(\$1,961,000)	(\$730,000)

Note – average electricity rate of \$0.069/kWh & REC of \$0.015/kWh

<u>Option</u>	<u>6-Year Capital Cost</u>	<u>6-Year Predicted Net Revenue</u>
1 – Flare Only	(\$360,000)	(\$540,000)
2 – Continued GTE "As Is"	(\$1,211,000)	\$2,399,000
3 – Engine Relocation	(\$1,361,000)	\$2,249,000
4 – Engine Replacement	(\$1,961,000)	\$1,106,000

Note – average electricity rate of \$0.05975/kWh & e-RIN of \$0.060/kWh

<u>Option</u>	<u>6-Year Capital Cost</u>	<u>6-Year Predicted Net Revenue</u>
7 – Prison LFG USe	(\$3,911,000)	(\$469,646)

Note – capital investment of \$5.5M split between SWMB/State Prison (only SWMB expense/revenue shown)

C. Anderson presented Foth's 2023 Landfill Gas Utilization recommendations as follows:

- Continue current electrical operations since it offers the least risk, with lowest investments
- Negotiate fair power purchase agreement rates from the utility and pursue the electrical environmental attributes (e-RINs) as soon as rules are confirmed
- Recall that ~\$17 Million (net) generated with the gas-to-energy since 2007
- Note that Flare Only option starting in 2023 will cost >\$500,000 over the next 6-years
- Begin the design and bidding process for the replacement flare skid and gas compressor/treatment system as soon as possible

Discussion ensued amongst the SWMB.

M. Easker asked for further explanation on the current Sunnyview flare system set-up. J. Rabe explained that we need to right-size our flare system to current operational needs. J. Rabe further explained that there is \$1 Million in the 2023 Budget to upgrade the flare and compressor system equipment.

J. Wise asked if we have reached out to the State Prison to see if they are receptive to that option. J. Rabe explained that previously they were not receptive when this option was brought up to them in the past and we are waiting on consensus of the SWMB to proceed with communications if we choose to go that route.

Discussion ensued amongst the SWMB.

Motion to proceed with developing a Request for Proposals for landfill gas flare and compressor system equipment upgrades made by, G. Konrad and seconded by H. Miller. Motion carried 7-0.

7. Discussion/Action – 2022 Budget Adjustment: J. Rabe presented the 2022 Budget Adjustment to the SWMB as follows:

- Repairs are needed in a portion of the blacktop yard waste storage area which was not included in the 2023 Budget
- Finance Department stated that repairs to blacktop parking areas or roadways should be budgeted under Maintenance Grounds – 74021 (not Capital Outlay), and a budget adjustment should be done to move funds into this account
- Received an estimate from the Highway Department of ~\$25,000 to repair a portion of the blacktop yard waste storage area
- Solid Waste Staff recommends moving \$30,000 into account 52801-74021 to cover the cost of this repair
 - Surplus funds or retained earnings will cover this expense

Discussion ensued amongst the SWMB.

Motion to authorize a Budget Adjustment to increase account 52801-74021 (Maintenance Grounds) in the 2022 Budget by \$30,000 made by, P. Eisen and seconded by J. Wise. Motion carried 7-0.

8. Director's Report on Department Operations: J. Rabe presented the Director's Report on Department Operations to the SWMB as follows:

- Solid Waste Department 2023 Budget was discussed with County Board on Tuesday, November 1, 2022 late afternoon; Supervisor Norton had questions about who sets tipping fees, how the SWMB is structured compared to Brown County (BC)/Outagamie County (OC); how the \$34 Million in Solid Waste Retained Earning fund are managed/invested and how this compares to BC/OC; County Board adopted the 2023 Budget late in the afternoon on Wednesday, November 12, 2022
- J. Rabe participated in Youth Government Day on Thursday, November 13, 2022 – Public Works & Land Use Department Directors gave short presentations about what each department does; approx. 100 students participated in (3) groups at the Courthouse
- Two episodes of illegal dumping occurred at the Snell Road Landfill off Fernau Ave – November 1, 2022 approximately ½ ton of tires and 3 TV's thrown over fence (we cleaned up and absorbed ~\$200 in landfill fees); November 8, 2022 two stacked piles of tires (approximately 25 in total) inside fence noted in same area as November 1, 2022 episode; City of Oshkosh called and they filed a report with Oshkosh Police Department, and loaded/brought tires to the landfill and we billed the City (they will use this information in the police report)
- WPS corrected the August/September 2022 billing errors and will honor the Power Purchases Agreement terms/rates through December 31, 2022
- Trane chiller repairs are completed as of November 11, 2022
- Engine #2R repairs completed as of October 31, 2022 and engine is back operational
- Engine #3 repairs are in progress, then the decoke will be completed by Fabick

- Engine #4 is having operational issues, and we also have a planned decoke by Fabick once Engine #3 is operational
- LFG system repair project was performed by Landfill Drilling & Piping on east side of Sunnyview Landfill; started on November 7, 2022 and substantial completion reached on November 15, 2022 and initial result show improved LFG quality in this area of the site

Discussion ensued amongst the SWMB.

9. Future Agenda Items: J. Rabe would like to discuss the 2023 Standard Rate Sheet and Rebate Program changes, the Capital Improvement Plan 2023-2027, and the Chapter 15 Recodification project with the SWMB at a future meeting.
10. Set Next Meeting Date: The next SWMB meeting date is scheduled tentatively for December 7, 2022 at 9:00 a.m.
11. Adjournment: Motion to adjourn made by G. Konrad and seconded by H. Miller. Motion carried 7-0. Meeting was adjourned at 10:40 a.m.

Respectfully Submitted,

Cassie Stadtmueller
Office Supervisor

Approved by SWMB – December 7, 2022