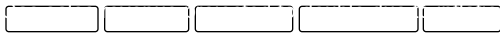


## City landfill methane project set to begin construction in July



Alexander Ewald | Enid News & Eagle

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A compactor works atop the city of Enid's landfill in this December 2020 file photo. (Billy Hefton / Enid News & Eagle)

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How does the city of Enid solve a problem like methane? It's catching the cloud of excess gas and pinning it down into a nearby pipeline— then turning a profit from the third-party sales.

Contractors are less than a year out from beginning construction on a long-planned gas well pipeline system that's meant to remediate the city landfill's methane levels, representatives said Tuesday.

Norman Guerrero, with project manager Sparq Natural Gas, told city commissioners he expects final DEQ permit approval on the project to take six months; construction would begin by July.

The new treatment system, which Sparq would run and maintain, would take another year to be fully operational, by July 4, 2023.

"The opportunity for the city is, as you drop that banana peel in the trash, in seven years, you go from something aerobic to something anaerobic — that means the banana peel becomes gas that can be harvested," Guerrero said. "It solves the city's issues you have with emissions that are current today."

While Enid has a lot of business with organic byproducts such as the Tyson Foods plant and slaughterhouses, Guerrero said the company also had approached other businesses about sending more of their waste to the landfill instead of somewhere else, thereby creating more methane to collect and sell.

“And that’s a pretty interesting business development proposition. I’m coming to you as a business and saying, ‘We want more trash at the landfill instead of less trash,’” he said.

Sparq is covering the \$2 million construction costs for the project nearly three years in the making. City commissioners approved the 25-year agreement in May 2020.

“It’s an opportunity to solve a problem at essentially no cost for the city,” City Manager Jerald Gilbert later said Wednesday.

The city’s emissions levels have risen out of state noncompliance in some of its landfill wells in the last several years, which called for a remediation plan in 2019. Gilbert said city engineering staff are requesting a six-month deadline extension from Oklahoma Department of Environmental Quality, in the meantime.

Engineers will install the interconnected well field into the northeast corner. The wells would collect excess gas caused by organic waste using reverse-suction pressure, then at around 100-150 feet underground push it through a forced pipeline to a nearby treatment plant.

Sparq told commissioners in May 2021 that 52 wells were initially intended for the space, but this number has more than doubled to 118, Guerrero said Tuesday.

He said Sparq and design firm SCS Engineers had decided on the so-called “magic number” — between possibly 58 and 170 wells — because the system would be able to provide enough collection density (without overpowering the wells) and to minimize intrusion of nitrogen and oxygen. The wells would also limit odor at the landfill by collecting methane underground.

The remediated gas would then be injected into an existing nearby transmission line owned by Oklahoma gas company OneOK.

Guerrero said the OneOK pipeline would be the easiest option in which to inject the “cleaned” gas, despite higher operating costs than using an ONG pipeline along U.S. 81. Negotiating easements with the 80 or so private landowners along the pipeline would take more time, he said.

The leftover gas would then be sold for profit to a third party, with the city of Enid receiving 25% of the royalties as monthly rent for the landfill property.

As the gas prices go up, so will the city’s projected revenues to Enid Municipal Authority.

In December 2020, Guerrero said this sales percentage would’ve come to over \$100,000 in 2020 based on a natural gas price on a dollar index of \$2.539. But on Tuesday, he cited that day’s natural gas prices at \$4.88, having nearly doubled because of inflation; December 2021’s prices were even higher, at around \$6.

“That’s one good aspect of inflation,” Gilbert later said.