

Hamm Sanitary Landfill – Environmental and Economic Benefits Summary

Background:

Hamm Sanitary Landfill is an active, KDHE compliant disposal facility located on US Highway 24 approximately five miles north of Lawrence, Kansas. This sanitary landfill currently provides disposal capacity to over 500,000 Kansas residents and will continue to play an important environmental role in the state for the next 50-100 years. Portions of the facility are now closed and are ready for landfill gas development; landfill gas (LFG) is produced by the anaerobic decomposition of buried organic waste. LFG must meet strict quality standards and, with beneficiation, can be used to produce high quality gas for direct injection into natural gas pipelines. The beneficial use of LFG is a well proven, environmentally beneficial, and economically attractive means to help satisfy our nation's energy requirements. Hamm has entered into a joint venture with Renewable Power Producers to develop the landfill well field, gas processing plant, pipeline, and interstate pipeline interconnect. Both entities have a long track record of executing on similar projects. The following details outline the economic and environmental benefits associated with this project.



Economic benefits to Kansas:

- Total Project Capital Investment: \$16 million dollars.
- LFG energy projects create jobs associated with the design, construction, and operation of energy recovery systems. For this Hamm project we estimate the following:
 - Project jobs created (full time and continuing): 4 personnel
 - Project jobs created (part time and continuing): 4 personnel
 - One year, Construction Phase, jobs created: 50 personnel (2500 hotel nights and 6000+ meals.)
 - Additionally, EPA estimates that LFG projects create a ripple effect, which will increase the statewide economic output by \$4.3 million and employ 20-26 people above and beyond the aforementioned job creation.



- State Revenue: Kansas will receive increased taxes from the employment and sales tax from resulting activities.
- Companies that use landfill gas to meet their energy needs: General Motors, Lafarge, Coca Cola, DuPont, Ford, Tyson, Cargill, SC Johnson, BMW, Anheuser-Busch, Honeywell, NASA, Sunoco, Kimberly-Clark, Tropicana, M&M Mars. Our project will help other companies meet their energy and sustainability goals.

Environmental benefits to Kansas:

- LFG energy projects such as Hamm's lead to cleaner air, including reductions of smog, odor, and greenhouse gas emissions.
- A reduction in greenhouse gas emissions by eliminating the uncontrolled release of methane to the atmosphere;
- A reduction in emissions of hazardous organic air pollutants to the atmosphere;
- The use of recovered LFG as a fuel results in additional benefits, including:
 - Reduced consumption of fossil fuel, a finite resource, with a renewable resource;
 - Reduction in greenhouse gas emissions through deferral of consumption of fossil fuel.



Kansas Community benefits:

- LFG energy projects help ensure that local landfills are well managed and make the area around the site a better place to live.

Kansas Energy benefits

- LFG is a reliable, renewable, local fuel source. LFG is one of the few renewable resources that directly reduces pollution to the atmosphere. Since LFG occurs naturally, when it is collected and converted to energy a fuel source is used that would otherwise be wasted. LFG energy projects are available to generate electricity over 90 percent of the time, 24 hours a day, 7 days a week.



Right of Way Needs:

As a part of the project, we must build out a six mile pipeline in order to connect our site to an interstate major pipeline. Hamm is willing to pay an easement fee as we have with the other landowners.

This plant and pipeline will be good for the state's economic development and will generate long-term jobs, growth, and taxes for Kansas.

