

BACKGROUND: Greenhouse gases are a natural byproduct of landfills, the most common method of solid-waste disposal. Typically, 40 to 50 percent of landfill gas produced is methane (CH₄) with the rest primarily carbon dioxide (CO₂) plus a small portion of non-methane organic compounds (NMOCs). United States landfills are required to collect and control landfill gas if they are large enough to produce 55 or more tons of NMOCs per year. The guidelines for these requirements are found in 40 CFR, subpart WWW, New Source Performance Standards.

Some landfills have implemented gas collection and control systems voluntarily prior to reaching this level in order to control off-site gas migration and other reasons such as energy production. Many small landfills, however, do not reach the level requiring collection. However, they are viable locations for developing gas control and destruction and/or energy production projects. These projects can contribute to controlling greenhouse gas emissions while providing carbon credits for a growing market that's addressing global warming.

CONCEPT: Midwest Assistance Program would like to work with landfills small enough that they aren't under NSPS requirements but generating levels of gas that could be beneficially collected and controlled to reduce greenhouse gas emissions. Here's how the project would proceed:

- Feasibility of the project would be evaluated;
- Existing and needed equipment components would be identified;
- Landfill collection lines and wells would be installed on the landfill site, if none are in place.
- Modular, unitized landfill gas flare and monitoring/control station would be installed at the site and incorporated into the collection system.
- Flare and control station would be used at the site until gas production drops to a level that's no longer feasible. then moved to another site. Depending on the age and composition of the waste and the soil-to-garbage ratio from daily landfill operations, the station could remain at a site five to 15 years.



Once equipment is in place, landfill gas flows would be recorded by the system and verified for use in the carbon credit exchange market. Marketing arrangements would be coordinated through the most appropriate buyer. This could include application to the

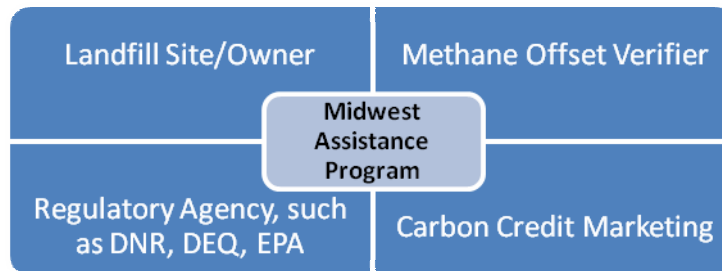


Small Landfill Methane Offset Carbon Credit Project

Chicago Climate Exchange for the landfill site to be named an approved Landfill Methane Emission Offset project. With this designation, an approved verifier from the Exchange is selected to work on the project. This expert verifies initial operations and makes required periodic checks.

MAP also would work with a CCX aggregator to record and market the credits generated by the methane offset project. Carbon credit revenues, minus a minimal aggregator fee, would be returned to the owners of the landfills for offsetting operational costs, developing community environmental programs, etc. MAP may coordinate marketing of carbon credits directly to businesses that have their own programs for buying and selling carbon credits.

Here are the key players in the Small Landfill Methane Offset Carbon Credit Project:



ABOUT US: Midwest Assistance Program equips small rural communities with the tools and technical expertise to help them address community infrastructure issues including water, wastewater and solid waste management as well as housing, eldercare and renewable energy. Our mission is to help these communities become self-sustaining, experience growth, improve their quality of life, strengthen their economic base and retain and attract new residents and businesses. MAP is one of six regional nonprofit organizations that make up the national Rural Community Assistance Partnership.

For more information or assistance relating to Small Landfill Methane Offset Carbon Credit projects, please contact:

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