THE HASSAYAMPA WASTE-TO-ENERGY PROJECT

Exploring Opportunities for Renewable Energy from Agricultural Biomass in Arizona

The Hassayampa Waste-to-Energy Project explores opportunities to develop and produce renewable energy at or near Superfund sites in Arizona. The project is part of the U.S. Environmental Protection Agency's Cleanup – Clean Air Initiative, which promotes greenhouse gas emissions reductions at Superfund sites and coordinates efforts to use and develop renewable energy.

The Project

To achieve the goals of the Cleanup - Clean Air Initiative, the U.S. EPA has begun studying the opportunities and challenges to developing renewable energy at or near the Hassayampa Landfill Superfund site in Maricopa County. Currently, the area surrounding the former landfill is used for a variety of agricultural activities, including livestock, egg, and crop production. These activities produce biomass in the form of manure and other agricultural wastes, which can be used to generate renewable energy.

An Opportunity for Collaboration

In the preliminary stages of the project, the U.S. EPA and partnering agencies and organizations in Arizona have learned that renewable energy production from biomass is a complex process, requiring participation from several key players. These key players include farmers, utilities, energy developers, government and non-government agencies and organizations and others, representing the various phases of the process from energy production to distribution.

Next Step: Waste-to-Energy Workshop

The next phase of the Hassayampa Waste-to-Energy Project encourages collaboration between these key players to find ways to take advantage of the opportunities and address the challenges of renewable energy development. To facilitate this collaboration, the U.S. EPA and the Arizona Department of Agriculture plan to hold a Waste-to-Energy Workshop in the fall. The goal of this workshop will be to discuss the issues and determine the steps necessary to enable renewable energy production from agricultural waste and manure in the future.

Biomass as a Renewable Energy Source: How Does It Work?

Agricultural biomass can be used to produce renewable energy in two ways:

- **Gasification**, which involves the heating of biomass with little or no oxygen. This process creates a synthesis gas—or syngas—that can be used to produce energy.
- **Anaerobic digestion**, which is the decomposition of organic materials—such as manure and agricultural waste—by bacteria in an oxygen-free environment. Anaerobic digestion produces biogas, which can be used to produce energy.

For more information on the Waste-to-Energy Project

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EPA Region 9 Cleanup - Clean Air Website
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