

RE-Powering America's Land: Evaluating the Feasibility of Siting Renewable Energy Production on Potentially Contaminated Land

Kansas City, Missouri

Feasibility Studies to RE-Power Communities

The U.S. Environmental Protection Agency's RE-Powering America's Land initiative encourages renewable energy development on current and formerly contaminated land and mine sites when it is aligned with the community's vision for the site. EPA and the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) are collaborating on a project to evaluate the feasibility of siting renewable energy production on potentially contaminated sites. This effort pairs EPA's expertise on contaminated sites with NREL's expertise in renewable energy. The feasibility studies will provide site owners and communities with a realistic and achievable plan for putting renewable energy on a given site.

Site Description

The 327-acre Municipal Farm site is a group of brownfield properties owned by the City of Kansas City. The property includes the Round Grove Creek Landfill and the Western Portion sites. Operating between 1971 and 1972, the Round Grove Creek Landfill accepted about 70,000 tons of domestic, construction, demolition, and hospital wastes. The Western Portion sites saw various uses including a police firing range, bomb detonation field, and a state-approved deposit of fill material from a nearby steel plant. A third site, the Health Emergency Hazmat site, also may be evaluated.

Community Goals

The Round Grove Creek Landfill offers 14.3 acres of clear, level land located less than 500 feet from a public utility substation and power lines, giving it strong potential for solar energy production. The Western Portion of the Municipal Farm property contains about 19 acres of eligible brownfield sites and 120 acres of additional vacant, level property within a quarter mile of power lines and railroad lines. It may be suitable for biopower development. The proposed renewable energy feasibility study will be integrated into a concurrent area-wide, master-planning process for the Municipal Farm brownfield sites.

Feasibility Study: Solar or Biopower

EPA and NREL are collaborating to conduct a study on the potential for solar or biopower potential generation on the Municipal Farm site. The feasibility study will evaluate the technical and economic opportunities and challenges at the site. It will:

- Provide a preliminary analysis of the viability of the site;
- Assess solar resource availability or biopower potential;
- Identify possible system or facility size, design and location; and
- Review the economics of the proposed facility.

Municipal Farm Site

Kansas City, Missouri

Site Facts:

Site type: Brownfield, Landfill

Renewable technology: Solar or Biopower

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The information presented in this fact sheet comes from the proposal; EPA cannot attest to the accuracy of this information. Therefore, activities described in this fact sheet are subject to change.

For more information, visit www.epa.gov/renewableenergyland or contact cleanenergy@epa.gov

