

# RE-Powering America's Land

## Evaluating the Feasibility of Siting Renewable Energy Production on Potentially Contaminated Land

Rantoul, Illinois

### RE-Powering: EPA/NREL Feasibility Studies

The U.S. Environmental Protection Agency's (EPA) *RE-Powering America's Land* Initiative encourages renewable energy development on current and formerly contaminated land, landfills and mine sites when it is aligned with the community's vision for the site. EPA and the U.S. Department of Energy's (DOE) 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 provide site owners and communities with a technical and economic assessment of installing renewable energy on a given site.

### Site Description

The Former Chanute Air Force Base Site is located in and managed by the Village of Rantoul in east-central Illinois, about 120 miles south of Chicago. Chanute was used as a military airfield from 1917 until it was closed in 1993 under the federal Base Realignment and Closure program. The site was proposed for listing on the EPA Superfund National Priorities List in 2000; but ultimately, the site was not placed on the list. Cleanup efforts are being conducted under Illinois EPA. A 200-acre portion in the southeast corner of the base, known as Operable Unit 2 (OU2), contains jet engine testing facilities, several landfills, and contaminated parcels that are unsuitable for traditional development.

### Community Goals

Building on its experience managing energy production and distribution as a municipal utility district, the Village of Rantoul is looking to introduce renewable energy production into its portfolio. Installation of a viable utility-scale renewable energy project will reduce local and regional fossil fuel consumption and greenhouse gas emissions. The results of this analysis will be incorporated into the overall master plan for final remediation and reuse of the Chanute Air Force Base Site.

### Feasibility Study: Biopower

EPA and NREL conducted a study on the potential for biopower generation on the Former Chanute Air Force Base Site. The feasibility study evaluated the technical and economic opportunities and challenges at the site. The completed study:

- Provides a preliminary analysis of the viability of the site;
- Assesses biopower resource availability;
- Identifies possible system or facility type, size, and location; and
- Reviews the economics of the proposed facility.

Based on available acreage, the former Chanute Air Force Base Site could host a future 10 to 20 megawatt (MW) biopower plant. Because economic feasibility depends on the cost of feedstock (fuel for the biopower plant) and selling price of the electricity produced, additional analysis is merited as electricity rates increase, new incentives become available, or biomass feedstock prices decrease.

### Former Chanute Air Force Base Site Rantoul, Illinois

#### Site Facts:

**Site type:** State-Lead Superfund  
**Renewable technology:** Biopower

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*The information presented in this fact sheet is from the site's initial proposal, site visit(s), discussions with community stakeholders, and other information collected in preparation of the feasibility study. This fact sheet is for informational purposes only and may not reflect the site's current regulatory or remediation status.*

For more information, visit [www.epa.gov/renewableenergyland](http://www.epa.gov/renewableenergyland) or contact [cleanenergy@epa.gov](mailto:cleanenergy@epa.gov)



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