

RE-Powering America's Land

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

St. Marks, Florida

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 City of St. Marks, Florida was originally founded in 1528 and is the third oldest settlement in North America. The community's early sea-port business of shipping and warehousing were supplemented by petroleum refineries and heavy industry. The former St. Marks Refinery is the city's largest eyesore and a significant impediment to economic development. Built in 1954, the refinery processed crude oil for jet fuel and asphalt, and manufactured specialty chemicals until it closed in 2001 after 47 years of operation.

EPA's Region 4 Office is working with the City of St. Marks to further assess environmental issues at the site. The site has river access and is adjacent to a City of Tallahassee power plant. It is available for redevelopment as a commercial or industrial installation.

Community Goals

Two locations designated by the City of St. Marks at the former St. Marks Refinery were identified for possible solar photovoltaic (PV) installation. Given current site conditions, these locations are not suitable for residential development; however, the property size, excellent solar exposure, and electrical tie-ins onsite make renewable energy a viable reuse. Additionally, a power plant is across the road from the site that could potentially accept the power from the system. After a long history as a refinery, renewable energy could be a clean boost to economic development for the historic city.

Feasibility Study: Solar

EPA and NREL conducted a study on the potential for solar power generation on the St. Marks Refinery site. The feasibility study evaluated the technical and economic opportunities and challenges at the site. The completed study:

- Identifies possible photovoltaic system size and type;
- Reviews the economics of the potential solar system; and
- Highlights financing options for the system.

Both locations at the St. Marks Refinery were found suitable to host PV systems ranging in size from 1 to 3 megawatts (MW). According to the feasibility study, additional incentives would be required to develop a solar project with a viable payback period. Additional analysis is merited as market conditions change and new incentives become available.

St. Marks Refinery, Inc.
627 Port Leon Drive
St. Marks, Florida

Site Facts:

Site type: RCRA

Renewable technology: Solar

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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 or contact cleanenergy@epa.gov



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