



Saint Antoine Community – N. Smithfield, RI *Feasibility & Met Tower Installation 2009-Present*

In January and February 2009, EAPC Wind performed a feasibility study for the St. Antoine Community. The purpose of the study was to determine if a wind project at the site could offset the St. Antoine Community electrical usage. The results from the study provided St. Antoine Community with key data necessary to make educated decisions about the viability of a wind project according to their needs and goals.

The feasibility study included a fatal flaw analysis, wind resource assessment, and a financial model. EAPC Wind performed fatal flaw study using ARCView GIS software to review the site for potential fatal flaws and to establish a buildable area where a turbine could be considered. The study included reviewing wetlands, nearby airports, microwave interference, transportation/constructability constraints, environmentally sensitive areas, zoning regulations, and other exclusion areas.



The second part of the study was a wind resource assessment. EAPC Wind modeled the predicted wind resource and potential energy production figures for three different wind turbine models. The developed wind model incorporated nearby meteorological

data along with local features and potential obstacles that could influence the wind resource. Incorporating local data greatly reduced the uncertainty in the wind model.

Finally, EAPC Wind ran an economic model for St. Antoine Community tailored to their needs and goals. In March 2009, St. Antoine, supported by EAPC Wind, applied for a state grant to purchase, install, and monitor a 50 meter high meteorological tower to be installed on St. Antoine's property.

In July 2009, St. Antoine was awarded a grant from RIEDC to install the tower. In the winter of 2009/2010, the meteorological tower will be installed and wind measurements will be recorded and analyzed for 1-2 years.

Client:

St. Antoine Community
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Services Rendered:

- Feasibility
- Wind Assessment
- Economic Analysis
- Grant Funding
- Met Tower Permitting
- Met Tower Purchase & Installation

Key Achievements:

- Awarded RIEDC Grant based on services provided by EAPC
- Reviewed potential fatal flaws and established buildable area for turbine
- Identified optimal turbine model and calculated annual energy production
- Provided project economics for potential project
- Client equipped to make informed project decisions