

Flat Water Wind Farm

Located on 5,000 acres in Nebraska's Richardson County, the Flat Water Wind Farm will provide more than 18,000 homes with clean, renewable energy. The 60-megawatt (MW) project includes 40 1.5 MW GE wind turbines and a substation. Kleinfelder provided complete design services for the project, including environmental, geotechnical, structural and civil.

PROJECT RESULTS

As lead design engineer through each project ownership transition, Kleinfelder's commitment to the client and proactive response to schedule demands has enabled construction of the project to proceed as planned. The wind farm is currently on schedule to deliver power according to the terms of the power purchase agreement.



AVOIDING LIQUIDATED DAMAGES

The power purchase agreement between Kleinfelder's client (wind developer/owner) and the utility included a substantial liquidated damages provision in the event the facility was not commercially delivering electricity by a certain date, making the design/permitting/construction schedule critical to the success of the project. Additionally, negotiations with natural resource agencies on mitigation strategies for potential wildlife/habitat impacts and two ownership transitions could adversely affect the project's schedule and constructability.

INNOVATIVE DESIGN AND MITIGATION STRATEGIES

Mobilizing scientists and engineers from four states, Kleinfelder efficiently completed the biological, environmental, and engineering design studies for design and permitting of the project. Kleinfelder incorporated innovative mitigation strategies including strategically locating wind turbines to avoid sensitive wildlife habitat and designing bridges and culverts to minimize impacts of access roads and haul routes on stream channels and wetlands. Kleinfelder also conducted geotechnical evaluations and provided design recommendations for the proposed turbine generators.

Location:

Richardson County,
Nebraska

Owner:

Flat Water Wind Farm,
LLC

