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Influence of Wind Generators on Grassland-Breeding Birds

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As the Nation strives for energy independence, interest in renewable energy sources intensifies. Wind energy is one such source, and North Dakota, South Dakota, and Montana are ranked among the top five states for wind potential by the Department of Energy. The Missouri Coteau is especially rich in wind energy potential. With its hilly topography and rocky soils, the Coteau also contains large tracts of unplowed grasslands and undrained wetlands. Accordingly, the Coteau is a prime area for nesting waterfowl and other grassland birds, many of which have suffered marked population declines in recent decades. To help maintain breeding populations of these birds, the U.S. Fish and Wildlife Service has established a Grassland Easement Program, which provides landowners with an economic incentive to keep the land in native prairie, rather than converting it to cropland. The USFWS is keenly interested to know if wind turbines are compatible with the goals of their Grassland Easement Program.

To address that question, researchers at Northern Prairie Wildlife Research Center (NPWRC) are conducting a study to determine if wind turbines constructed in mixed-grass prairie affect the density of breeding grassland birds. The study design involves censusing birds at sites both before and after wind turbines have been constructed, as well as at control sites without turbines. Study sites are in North Dakota, South Dakota, and Montana. Cooperators in this study include Acciona Energía, Bureau of Land Management, FPL Energy, Global Wind Harvest, the Rosebud Sioux Reservation, U.S. Fish and Wildlife Service, and numerous private landowners.

The study is currently in progress, and we are adding new sites as plans for new turbine locations develop. Ultimately, results of this study will provide agencies and the wind-energy industry with scientific information helpful for selecting the location of wind farms.

Technical Assistance

NPWRC scientists provide scientific information and technical assistance to the National Wind Coordinating Committee, a consensus-based consortium that includes the electrical and wind industries, environmental organizations, state utility regulators, state legislators and staff, and local, regional, tribal, state, and federal agencies.

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