

**UPC Anemometer Sites
Proposed Action
Paisley and Silver Lake Ranger Districts
Fremont-Winema National Forests**

Introduction/Current Condition

UPC Wind Partners has requested to use federal lands managed by the Fremont-Winema National Forests for the exploration and determination of wind energy resource development. Wind is a form of solar energy and is caused by uneven heating of the atmosphere by the sun, the irregularities of the earth's surface, and the rotation of the earth. The drastic change in elevation along Winter Ridge creates wind flows from the east, across the top of the ridge, and cascading down the slope to the valley below. Monitoring of wind flow across this ridge would determine the potential for commercial wind energy.

The proposed sites are located along Winter Ridge in T33S, R16E, section 23; T32S, R16E, section 29; T31S, R16E, sections 5 and 29; and T30S, R16E, sections 10 and 21 (see maps). Vegetation types consist of ponderosa pine, mixed conifer, and lodgepole pine ecotypes. Scab-rock flats, aspen groves, and meadows are scattered across the terrain. The sites identified are in openings along the ridge. Portions of the landscape were burned in the Toolbox or Winter Fires of 2002. Salvage of the burned material has been completed at site 5 and will be completed by November 2004 near sites 3 and 4. Other resource use in the area is cattle grazing, which occurs from June through the first part of September, and dispersed recreation.

Proposed Action

UPC would erect temporary guyed tall meter towers for monitoring and evaluation of wind resources. Up to six tall anemometer towers, 40 or 50m tall, would be erected on the selected test sites for the purpose of gathering wind resource data. The initial effort will be to determine the general wind resource on a macro scale, over a minimum of one year. If the macro testing determines favorable winds, several more towers may be requested for micro siting within the boundary areas.

Equipment is easily transported by utility or flat bed truck and all work can be performed using existing roads requiring no earth movement or grading. During the assembly period of the tower all cables are laid out on the ground in an area the length of the tower 40-50 m. Each 40m or 50m tower consists of 13-15 6-8" diameter galvanized steel tubes that slide into each other. Sturdy steel cables of 1/4 to 3/8" are collared to the tube tower at five levels and guyed to the ground at the four cardinal points 60' from the base. The tower is assembled and connected to the guy wires. The installation requires four people and a utility truck with four-wheel drive and a winch. The four square foot base of the tower and the four-guyed cables are the only components touching the ground once the tower is erected. The towers can be removed by lowering the tower to the ground, dismantling of all components and the site is back to its natural state.

Monthly visits may be required to download data and verify tower and equipment inspection. A dial up modem is available and if the remote telemetry system can be utilized with adequate phone

signal, these towers will only require visits for maintenance. Downloading data is then done by phone and computer.

Identified Benefits of Proposal:

- Installation of monitoring towers would provide wind pattern information across the northern length of Winter Ridge, contributing additional data for all resources.

Identified Concerns:

The resource specialists identified several issues or preliminary concerns during project introduction:

- A section of the National Recreation Trail is located close to the proposed project area.
- Proposed sites are within or near current salvage timber sales.