



850 NW View Ridge Court
Camas, WA 98607
(360) 210-4066
Fax (360) 210-4039

November 13, 2003

Mr. Chris Taylor
Zilkha Renewable Energy
210 SW Morrison Street, Suite 310
Portland, OR 97204

Re: Frequency of icing events at proposed windfarm near Kittitas, WA

Dear Chris:

In order to estimate the frequency of icing events at the Wild Horse Windfarm site, I have obtained meteorological records from the Ellensburg Airport. The airport became an automated 24-hour station in mid 1998. Therefore there are about five years of reliable records from the airport. During this 5-year period there were an average of three days per year of freezing rain. Freezing rain is the condition that could cause icing on the wind turbine blades, so it is the most relevant weather event.

Because the elevation of the proposed windfarm is about 1000-ft to 1500-ft higher than the airport, I would estimate that icing events would occur slightly more frequently than at the airport. Therefore, I would estimate that there would be approximately four to five days per year where ice might accumulate on the turbine blades. It is impossible to determine the thickness that the ice would build up on the blades from the airport data.

Truly Yours,

Ron Nierenberg

Ron Nierenberg