

August 9, 2007

Carl J. Keller

c/o Bonneville Power Administration
Public Affairs Office – DKC-7
PO Box 14428
Portland, OR 97293-4428

Re: Environmental review of UPC's proposed Cascade Wind Interconnection Project

Dear Mr. Keller:

Thank you for the opportunity to write you concerning BPA's environmental review of UPC's request to interconnect up to 50-megawatts of electricity from their proposed Cascade Wind Energy Project in Wasco County, Oregon. In this process the Bonneville Power Administration (BPA) is required under the National Environmental Policy Act (NEPA) to analyze all Cumulative Impacts of this proposed Cascade Wind Interconnection Project. This would include all wind energy projects proposed in this area now and in the future, such as the proposed Saddleback Wind project on Underwood Mt., WA, next to the Columbia Gorge National Scenic Area (CGNSA) again and immediately upwind from White Salmon, WA and Hood River, OR in the heart of the Gorge!! We have reviewed UPC's initial April 2007 application which is the only document submitted to which we can refer, although it has not been deemed complete or accepted by the OR Energy Facility Siting Council (EFSC). We find this document is not consistent with BPA's Business Plan Final Environmental Impact Statement (EIS).

In reading this document, we are struck not only by the frequent inadequate and missing data from this UPC application, but discover that whole sections addressing various studies for rare plants and wildlife species, among others, have not even been conducted in the new southern array configuration of the proposed wind turbines, and very inadequately in the other arrays!! These studies need to be fully completed before any of the UPC application begins to adhere to BPA's Business Plan Final EIS!! Protocol for sufficient studies typically extends over several full years, covering ALL seasons. We will attempt to enumerate many examples and references to the excluded studies and data. Since much of these studies were done by computer modeling and analysis, and this project has been compared to other locales that are quite dissimilar to our local area, many of the study's conclusions are erroneous.

For the above mentioned reasons among many others, we are opposed to the proposed Cascade Wind Interconnection Project. The entire Cascade Wind project has been sited completely in the wrong location for numerous reasons, primarily being its location far too close to residences with all its associated problems such as noise, health risks from: audible noise levels, low frequency impulse sound and shadow flicker, and additional health risks from the extensive dust, vibration, odors and other elements associated with the construction, operation and retirement of a wind energy facility.

Additionally, there would be irreparable impact damage to the soils, aquifers, springs, anomaly water pockets that occur in fractured basaltic rock typical to the proposed southern array area, and to residential wells throughout the area, as well as erosion into three watersheds (Chenowith, Rowena and Mosier Creeks) from constant blasting during the construction phase, which is never even disclosed in UPC's application, and from erosion from 15 miles of road construction, drilling, cement

pouring, heavy equipment use, logging, and denuding the landscape around each turbine site (up to 10 acres per turbine base and layout zone at each turbine!!)

Nearly all of the proposed wind energy project and BPA's proposed substation and interconnection project are located in a Big Game Winter Range, and much of the proposed central and southern arrays also occur in (F2 zoned), forested areas of Wasco Oaks, identified in both OR Dept of Fish & Wildlife's (ODFW) Conservation Strategy (Jan. 2006) and the OR Habitat Joint Venture for Bird Conservation in Eastern Oregon (2005), as needing preservation since almost 99% of its original range is now gone. Wasco White Oaks have been identified by the US Fish & Wildlife Service (USFWS), US Forest Service (USFS), ODFW, the National Audubon Society (NAS), the American Bird Conservancy (ABC), Bureau of Land Management (BLM), OR Dept. of Transportation (ODOT), and the Natural Resources Conservation Service as one of the highest priority habitats in Oregon, needing conservation measures since Wasco Oaks are so threatened by residential development, agricultural conversions, and firewood logging, etc. This Wasco Oaks habitat is one of only two protected areas of Oaks in the state.

Over 300 species, according to the USFS, use and are dependent upon this oak habitat type for nesting, resting, roosting, feeding & watering in the hollow cores, hunting and shelter.. ODFW's Conservation Strategy recommends limiting ANY kind of development in oak forest/savannah, and also restoring as much oak woodlands as possible!! Due to the Wasco White Oak's extreme sensitivity, oak trees cannot be easily grown or replaced. Mitigation or replanting is therefore not a valid option in the Wasco Oaks issue.

My husband and I are neighbors and property owners within 500 ft. of the proposed Cascade Wind project site. Our home is approximately 1600 ft from proposed turbine # 28 and very near the others in that string, in very hilly topography. We have lived here on Wasco Butte, adjacent to the proposed southern array of wind turbines, for over 30 years and have been continually accumulating a 320 acre corridor extending from close to the summit of Wasco Butte, around 2200' elevation, west down into Mosier Creek canyon, and up onto the west slope of the canyon.

We are both board members and I am an officer of the Columbia Gorge Audubon Society (CGAS) which is a non-profit bi-state conservation group in the Columbia River Gorge. Over the years our group has conducted numerous bird surveys, oak mapping overlays, and has had many field trips in the vicinity of the proposed project site. We have read the letter and comments that were submitted to ODOE's "Application Completeness" comments in May 2007 by the Columbia Gorge Audubon Society and Bonnie White and adopt these comments as our own by reference hereto. Additionally, regarding the sensitive wildlife habitat, soil erosion and vegetative characteristics of the project study area, the applicant's reference to Exhibits I, J, P & Q in UPC's application are insufficient for reasons set forth by the Columbia Gorge Audubon Society, Fred Walasavage, Gary Casady, and Claire Puchy's comments all of which are included in the CD disc of the May 25th "Comments To the Oregon Dept. of Energy (ODOE) Regarding UPC's Application Completeness" which will be submitted to you by us to add to the record. We also find the UPC project insufficient and incomplete for the reasons set forth by ODFW and the USFWS.

We have requested party status in this UPC application matter since we are "specifically, personally, and adversely" affected by the Decision of the EFSC. We are very concerned about the habitat and wildlife impacts in the proposed project site. We are equally concerned over the health risks which include vibroacoustic diseases (i.e. cancer, heart & pulmonary disease, and neurological toxicity) and other noise disturbances and illness, as well as seizures, disorientation, dizziness and nausea from "shadow flicker". In addition, the project is totally incompatible with the surrounding uses which in this case is rural-residential use!! This incompatibility violates Wasco County's Land Use and Development Ordinances (LUDO), Chapter 19, to which the UPC Wind Facility must comply!!

There is extensive impact from noise pollution levels which UPC admits will exceed the OR Dept of Environmental Quality's (DEQ) noise limits. In the Mars Hill, Maine where it has been proven in a recent noise analysis that UPC's new wind energy project DOES exceed the state's maximum allowable decibel level, even with a 5 decibel waiver, UPC refuses to comply with state law and will not remove any turbines, and will only agree to more tests!! This noise will never be reduced at the turbines, so the turbines must not be allowed to be built, especially knowing ahead of time that they will likely exceed Oregon's noise limits!!! There should be at least a 2 – 3 mile setback from any homes, and 5 mile setback from any towns!!!!

The turbines add to the already existing extreme fire danger in these dry forest lands by attracting lightning (which already is the most common cause of fire) and/or by the potential for turbine motors seizing up (each turbine must always have 700 gallons of oil at each turbine site).

The mere perception of any wind turbines being built in this area has already caused a virtual freeze on property sales and plummeted property values by 30 – 40%. There are also associated water shortages and disruption from construction and blasting, as well as the actual excessive water use at the project itself. Traffic congestion, visual & scenic impacts and quality of life issues are real threats that this project poses to the hundreds of residents of the Sevenmile Hill and Wasco Butte area. We would like at this time to notify the Oregon Dept. of Energy that we will hold Wasco County, UPC Windpower (the developers), the lessors who own the land where the project would be built, BPA and the state of Oregon all responsible for any damages occurring from construction, operation or retirement of this proposed Cascade Wind project if it is permitted, along with the BPA Interconnection project.

In UPC's so-called environmental review, we would like to point out that the habitat classification was only done during "breeding season walk-throughs" (page P-3 in the application). It does not specify when, how often or how long these walk-throughs occurred. Also, only a draft habitat category map was prepared. The final habitat category map "will be prepared in spring 2007 following a field review of areas not yet assessed." These areas are depicted on Figure P-11 and appear to be substantial, contrary to what the application states. These need to be included in this application to render it complete.

As was stated in the CGAS comments, we also disagree that there are very few Category 2 Habitats in the project site. Much of this proposed project is located in a mosaic of four Oregon White Oak habitat types (the Wasco Oaks) which are rare and threatened throughout Oregon and contain a significant diversity of wildlife species, including 17 special status species that were identified in the applicant's surveys, and also include many rare, sensitive and endemic plant communities that are irreplaceable. These oak forests which are high-priority habitats and potentially home to over 300 species, occur at the rare and unique interface between the forest and open grasslands, on the eastern foothills of Mt. Hood. Most of this project lies in a Big Game Winter Range sensitive wildlife overlay and that issue has not been addressed at all!!

In addition, in Category 3 Habitat types, the application states that some sites "were reviewed from a distance and will be assessed in spring of 2007. The vegetation appears relatively undisturbed. In most localities, native grass species appear to be present" (page P-5 of the application). However on page P-6 under Category 4 Habitat under Grassland, the application states that "in most localities, observed native grass species are largely absent." This is a complete contradiction of the previous data and statements, and is inconsistent, as is often found throughout this document

The application later states in Grassland, Category 4 Habitat that "the sensitive species, *Lomatium suksdorfii* and *Astragalus hoodianus* tend to persist". *Lomatium suksdorfii*, though not found within

the micro-siting corridor (this was only surveyed in the first southern array configuration study area of 2004 and not in the present turbine configuration), is found on the slopes above Chenoweth Creek. This species is a USFWS "Species of Concern", OR Dept. of Agriculture's rank as a "candidate for listing as Threatened or Endangered – C", while under the state rank indicator #2, it is "imperiled because of rarity or because of other factors demonstrably make it very vulnerable to extinction." (page 18) in Appendix G of the 2004 Rare Plant Report. Under the Oregon Natural Heritage Program (ONHP), it's listed as a # 1- "critically imperiled because of extreme rarity or because some factor of its biology makes it especially vulnerable to extinction." Also, in Grassland, *Astragalus hoodianus*, under the state rank indicator is "rare or uncommon, but not imperiled", while the ONHP lists it as a #2, "Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction." These issues are not properly addressed in this application.

In the Category 4 Habitat, Grassland section (page P-6 of the application), 16 avian species were detected during breeding season passerine point-count surveys, yet none of these species were raptors who frequently hunt in this habitat. The application even states that "based on the vegetation & wildlife species use, Category 4 grassland habitat WITHIN the micro-siting corridor IS important habitat for wildlife species (page P-7). Raptor use was not reported on at all!!!!

In 2003 the ONHP provided special status plant and animal records. Of the animals of known or potential occurrence in the study area, the Townsend's Big-eared bat (federal status is Species of Concern (SoC) and the ODFW status is "Sensitive Critical" (listing as threatened or endangered is pending or may be appropriate if immediate conservation actions are not taken), is detected in the north & south area of the facility, though once again, with the turbine configuration changes, the new southern array placement change of about two miles has not even been studied. "It is not known if this species breeds in the study area or is strictly a migrant." It is uncommon though it is present in the study area. More studies need to be done to determine which species breed in the study area and which are strictly migrants.

The Silver-haired bat, small-footed myotis, long-eared myotis, long-legged myotis & fringed bat are all listed as a federal SoC and a ODFW Sensitive Undetermined, and are again detected throughout the study area, but again the applicant does not know if these species breed in the study area or are strictly migrants. Judging by this lack of information, it is obvious that the Bat Studies are very incomplete, especially since August is the primary time to survey for bats and no surveys were conducted during this month in either 2005 or 2006. Surveys were only conducted on Sept 4-12 in 2005 with 11 potential bat species identified and 7 species confirmed with software programs and only 2 were visually confirmed. In 2006 between May 21 and July 20, again not the optimum months for surveys under bat survey protocol, nine bat species were identified and a male Townsend's Big-eared bat was visually detected.

The application goes on to say that due to "wide, undeveloped gaps between the three primary turbine arrays" (page P-27), "bats traveling through the habitats would NOT encounter turbines in these areas and could easily traverse the landscape". This is a huge, unsubstantiated assumption that the bats would know somehow to avoid the turbine arrays, of which there is absolutely NO evidence and some studies indicate that wind turbines can actually scramble radar and is a problem to bats' sonar. In UPC's inconclusive summary it is stated that bat fatality in the 60mw facility is expected to be 60-240 bats per year. This is merely estimated and even these numbers are unacceptable and entirely too high!!! No consideration was given to the fact that this project site is situated along a critical and major north-south Pacific Migratory Flyway intersecting with flyways traveling east-west down the Columbia River corridor, in their shift from the Chelan Ridge flyway to the Bonney Butte flyway, occurring directly over the project site!! Birds and bats frequent these flyways.

There have been NO Bat or Bird Migration studies and NO Nocturnal studies of any kind!! They have conducted NO Owl or Nocturnal Owl studies, proving the application to be very incomplete once again.

P-5, the section of significant potential impacts of the proposed facility to habitat & wildlife is said to be subject to field verification during spring 2007. This must still be done and included in the application. Also, on page P-27 "it is assumed all aquatic habitats will be spanned and avoided and no direct impacts will occur". This is hardly realistic given that the transmission lines will follow and cross directly over Chenoweth Creek near a significant spring area with old growth trees of Category 2 Habitat. Without a doubt this would directly impact Chenoweth Creek and Chenoweth Spring!! There is also no mention of the many ponds and wet areas in the vicinity of the proposed northern array.

Also there is no mention of any pond turtles present at any of the ponds in the facility complex. Western Pond Turtles are known to frequent most ponds around the northern, central, and southern arrays, which we have observed ourselves, so we know that proper surveys for this species were not conducted. Also there is no mention of the time of the surveys other than mid-morning to noon, but at what year or months?

In regard to the pileated woodpecker, the application states that the pileated woodpecker appears to be at a low level of risk due to limited occurrence in the project site, however, due to its rarity, the numbers mentioned in the application seem to be quite significant and should be more adequately evaluated.

Much of this project is within Wasco County's F2 Forest Zone where there is a moratorium on building ANY new homes. The applicant has failed to adequately address whether a wind generation facility greater than 25 mw is allowed as a conditional use in the F2 Forest Zone under LUDO 3.120(D)(9). In regard to this matter and many other matters of this application, we find this application insufficient for reasons set forth in the comments of Mark Womble in his completeness review.

It is well known that this project area lies in a major corridor of the Pacific Migratory Bird/Bat Flyway as has been documented by Hawk Watch International through their migration monitoring for a couple of decades at their Bonney Butte site, SE of Mt. Hood in one of the most significant migratory flyways in the US, and just SW of the proposed project site. This migratory bird corridor data has not even been considered in the application, and its omission is unacceptable, rendering the application once again insufficient.

The Oregon Dept. of Forestry (ODF) has declared this entire study area a very high fire-risk hazard area in regard to the Oregon Forestland-Urban Interface Fire Protection Act of 1997. ODF is asking landowners to comply with this fire protection act or else be subject to liability claims of up to \$100,000 for state fire-fighting costs if a wildfire either started on or spread through their property. We see no evidence that the applicant has sufficiently or adequately addressed this fire risk or submitted an adequate fire plan. They have not even delineated their liability responsibility in the event that a wildfire would start on or be accelerated at any point along the project site. We see no evidence that UPC has contacted or has been working with ODF in regard to these issues.

The Wasco County Soil and Water Conservation District and the USGS are conducting groundwater studies through the Mosier Watershed Council because of the local declining aquifers and water shortages within the Mosier Valley and surrounding areas. Soil erosion and depletion are also of great concern and we are certain that much of the project area soils would be significantly disturbed and impacted to a serious degree in the Mosier, Chenoweth (The Dalles) and Rowena watersheds.

This issue has not been properly addressed in the application, and the Mosier Watershed Council has not been involved or notified of this application process.

Several years ago when UPC first arrived in Wasco County in 2004 and was speaking initially with the County Court, the Court suggested that they hold a meeting with all the local affected and neighboring land owners, but UPC refused to do this. The Cascade Wind proposed project site is NOT Compatible with the Surrounding Area of residences and other permitted uses under Wasco County's LUDO, or with the Columbia River Gorge National Scenic Area. The application has not addressed this issue mentioned under the Conditional Use Criteria in Wasco County's LUDO Section 5.020 Section K5.4. The project would definitely have significant adverse effects to scenic qualities of the surrounding area.

Relating to Public Facilities and Traffic Flow, Exhibit U in the application is insufficient for reasons set forth in the comments of Linda Casady on the "Comments on the Incompleteness of the Application" CD disc that we have included in our comments.. Additionally, regarding noise, dust and odor, Exhibit X is insufficient for reasons set forth in the comments of James and Dr. Fran Yuhas in this same CD "Comment" disc.

In Exhibit K on page K-3, the application states that the final transportation plan describing access routes to the project site will be submitted prior to construction of the project. This information must be included in the application for meaningful completeness review. How can the public or any agency comment on the transportation routes if they are not disclosed or revealed by UPC? This information must be supplied during the permitting process review and NOT only prior to construction!!!! Already, UPC has hired an engineering firm from Portland, David Evans and Assoc. Inc., who are in the process right now of surveying and staking roads to the project site that UPC deems need to be straightened, widened or otherwise changed. We do not know why this process is taking place now when the project has not even been approved or any permits issued!! It is more of their strong-arm tactics when they forge ahead without permission or permits and do exactly what they choose to do, regardless of law or ethics!!! They act like, "we're here, we'll do as we please, and there's nothing you can do about it!!" The Wasco Co. Road Department has barely been notified of their intent and is not involved in their activity.

This application fails to address any impacts on the air, water, or land resource quality in the project study area since there is no mention of the residential use in the project area or other characteristics of the wildlife, plant, scenic or aesthetic qualities of the surrounding area. It must be noted that the project area maps do NOT clearly delineate where residences occur around and adjacent to the project site and are therefore incomplete.

In Exhibit R the Visual Impacts of the proposed project are not properly addressed and are insufficient for reasons set forth in the comments of Sheila Dooley in her comments on the Application's Completeness, found on the CD disc we have submitted.

In Exhibit J – Wetlands - Under the jurisdiction of OAR 345-021-0010(1)(j) the application states that there will be NO impacts to wetlands from the proposed Cascade Wind project, either in the construction or operation of the facility "because facilities were designed to avoid wetland impacts." This is an unrealistic assessment without basis of facts. Significant impact is very possible to vernal or year-round ponds and wet areas in the case of a major weather event such as the Flood of 1996. The project application cannot rule out these possibilities with weather conditions being a major factor in the siting, construction, operation and retirement of this facility on the top of steep hills and ridgelines with fragile and irreplaceable soils and microclimates. The building of 15 miles of roads on ridgelines could cause catastrophic damage from erosion to downslope residents and their property/homes, all the way down Mosier, Rowena and Chenoweth Creeks and thus into The Dalles.

The flash flood or extreme winter-storm episode potential could cause a great deal of soil erosion, property loss & devaluation, not to mention possible death to anyone in the way of a flood event.

Since no Local Wetland Inventory data has been collected for the project site, we think now that the burden of conducting a Local Wetland Inventory lies with the developer. Additionally, no consideration of the long term impact to coastal Cutthroat Trout which reside in Rowena Creek (and Mosier Creek) was assessed, (see Figure P-13, Habitat for Fish Species of Concern, under Exhibit P.)

Recently there was a US Congressional Hearing in Washington DC on May 1 on wind power, titled, "Gone With the Wind: Impacts of Wind Turbines on Birds and Bats". The National Academy of Sciences, the National Audubon Society's (NAS) ornithologists and many other bird experts questioned the wind power industry's claims of NO significant impacts to birds and bats from wind turbines. The hearing was held because there are national concerns that bird/bat mortality is so extreme at wind turbine sites. Many birds and thousands of bats, mostly migratory, are being killed at some turbine sites. Cumulative impacts are mounting!!!

The NAS "supports properly-sited wind power as a necessary solution to global warming, but recommends further action to ensure migratory birds are provided with adequate safeguards." The National Academy of Science released a major report on the impacts of wind power on birds and bats. The report concludes that "our challenge is to design and locate wind power projects to minimize negative impacts on birds/bats."

NAS, Defenders of Wildlife, the American Bird Conservancy and other groups filed comments on a Federal Communication Commission (FCC) Notice of Proposed Rulemaking to reduce bird kill. To comply with obligations under the National Environmental Policy Act, the Endangered Species Act, the Migratory Bird Treaty Act and the Eagle Protection Act, the FCC must adopt regulations to require analysis of effects of its licensing and permitting actions on migratory birds.

The National Academy of Science's first rule of "avoiding negative impacts is: location, location, location". "It's essential that industry-wide environmental safeguards be developed so that each wind project can be considered on its OWN MERITS with appropriate studies before (and sometimes after) construction".

Rep. Nick Rahall (D-WV) introduced a bill, HR 2337, "Ensuring Safety of Wildlife with Respect to Wind Energy". There are NO wind power facility SITING STANDARDS now at any level – not at the local, state, or federal levels. Standards would help determine what siting criteria and guidelines are necessary to reduce bird/bat mortality.

We are very concerned about the potential health risks to humans (and animals) of vibroacoustic disease from low frequency impulse sound, resulting possibly in cancer, pulmonary and heart disease and neurological toxicity for reasons set forth in the comments of Dr. Keith Stelzer, Chair of the Cancer Committee at the Celilo Cancer Center of the Mid Columbia Medical Center in The Dalles in his Application Completeness comments. We also know the potential of health risks from shadow flicker which can and has resulted in dizziness, disorientation, and seizures in humans and animals. The visual and noise pollution is also of great concern as referenced earlier in this letter. Even the perceived health threats are enough to cause property values to drop-off drastically, threatening all the residents' economic investments, quality of living and general well-being!!!

We have contacted the Whidbey Island Naval Air Station to inform them of UPC's Cascade Wind Project which is directly in the path of their Military Training Route, IR344, which has been established for decades, presumably back to World War II, and is on all standard aviation maps. The

Range Manager for the NW region knew nothing about this proposed wind project and said that it is a very important issue. He further said that they support wind power where it “doesn’t interfere with (their) flight operations and Training Routes.”!! These aircraft fly at 480mph, 500 ft. above ground level to avoid radar detection, using ground-following instruments in any weather, day or night, and stray 4 miles to the left or right of the route centerline. Fighter jets and air fuel and cargo tankers all use this route and it is actively being used on a regular basis which we observe almost every day. Not even the Energy Facility Siting Council has been notified about this Military Training Route, IR344, as of Aug. 9th, 2007. There are on-going jurisdictional discussions between the Navy, Air Force, National Guard and the FAA regarding this proposed project. Some sort of action needs to occur at this planning stage to avoid conflicts with military flight operations and training routes in the future.

We would like to reiterate that there have been insufficient studies throughout this entire application, and these omitted studies and all the incomplete data needs to be included in any UPC application document so that this information can be carefully assessed and understood by all reviewing parties. The applicant has failed to do a full environmental assessment of this project site in both the scope of their investigations and wildlife/habitat study protocol. For this reason we think that BPA should deny UPC’s request for interconnection.

In conclusion, BPA must evaluate the proposed UPC project and the BPA substation, new roads, turbines and transmission lines with all their Cumulative Impacts on this very scenic, fragile, high-priority habitat of rare native plants and grasses, in a major Pacific/Columbia River Bird/Bat Flyway, in a Big Game Winter Range and in ODFW’s Wasco Oaks Conservation Area that is surrounding well-established residential neighborhoods immediately adjacent to the Columbia Gorge National Scenic Area!!! Since we all know that the project is very badly sited, then obviously the BPA Interconnection project is poorly sited too. Thank you for your time and consideration of our comments.

Respectfully submitted,

Jill and Charles Barker

Submitted to BPA Public Affairs Office:- CD of “Comments to ODOE on UPC’s Application Completeness – May 2007”