

Alameda County APWRA Compliance Reporting

2/13/2008

Terminology: Blade; Tower; Turbine = blade + motor + tower

Exhibit G-1 Numbering and Language			Compliance Reporting		
Item #	Deadline	Required Action	Quick Reference Name	Status	Notes
YEAR ONE through FOUR – September 2005 to January 2010					
1	11/30/2005	Wind Power Companies shall provide a schedule for implementing the on-site strategies to reduce avian mortality as identified by the CEC research, including the following (and in general accordance with the timetable below):			
1a	Within 180 days of Permit approval	Retrofitting electrical power poles and power lines to be compliant with the Edison Electric Institute’s Avian Power Line Interaction Committee (APLIC), in order to prevent electrocution of birds		Confirmation required on the power line remaining in Oct 07	FPLE removed overhead powerlines and put the lines for Diablo Winds project underground. EnXco uses the remaining overhead lines and scheduled to remove it by the end of the year. Confirmation by EnXco is still needed.
1b	50% removed within 180 days of Permit approval, 100% within 1 year	Removing derelict and non-operating turbines, allowing towers to remain at ends of rows if deemed beneficial as flight diverters by the SRC, and replacing turbines only with SRC approval;		In Progress	Companies reported removal of derelict and non-operating turbines but inconsistency in definition appears to be an on-going issue. The County is working with companies to develop a definition when a vacant turbine becomes derelict.
2	11/1/2009	The Wind Power Companies shall achieve a 50% reduction in raptor mortality.		In Progress	At its August and September 2007 meetings, the SRC expressed concern that the settling parties may not be able to achieve the goal of a 50% reduction in the focal raptor mortality before November 2009.
2a		The baseline for determining the percentage reduction in raptor mortality at the APWRA is thirteen hundred (1300).	Baseline & scaling factors	Evaluation in progress	The SRC has had discussions regarding the baseline based on the preliminary and draft monitoring data/report. However, as of its February 2008 meeting, the monitoring team is

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2a1		The raptor species that shall be evaluated to determine the percentage reduction in raptor mortality are Golden Eagle, Burrowing Owl, American Kestrel, and Red-Tailed Hawk.			expected to complete the final report by May of 2008.
2a2		The percentage reduction in raptor mortality shall be determined using field monitoring data collected by the County Consultant in accordance with Condition 6 of the Permit and scaling factors for searcher efficiency and scavenging as approved by the SRC.			
2a3		In the event the above-referenced scaling factors exceed 2.5, the Wind Power Companies, Audubon, and the County along with any other individuals or entities that both the Wind Power Companies, Audubon and the County agree to, shall meet and confer to re-determine a mutually acceptable baseline for determining raptor mortality and/or reduction percentage in raptor mortality that triggers adaptive management measures as specified in section 2(c) below.			
2b	At least annually	The Wind Power Companies, Audubon, and the County shall meet and confer to determine if mutually acceptable mid-course corrections in measures to reduce raptor mortality are appropriate after the SRC evaluates the prior year's monitoring data. Agreed upon mid-course corrections shall be forwarded to the County for consideration pursuant to Condition 5 of the Permit if the measures require permit modifications.		On-going	Settling parties met in October 2007 and are currently in Mediation.
2c		Adaptive management measures will be implemented if a 50% reduction in raptor mortality is not achieved by November 1, 2009.	Adaptive Management		

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2c1	SRC shall use its best efforts to achieve prioritization by June 1, 2009	The SRC will prioritize management measures, including an evaluation of management measures that have not reduced raptor mortality at the expense of energy production, after analyzing field monitoring data.	Adaptive Management		
2c2	8/1/2009	Wind Power Companies and Audubon will propose an adaptive management plan to the SRC/County for review pursuant to Condition 5 of the Permit if a 50% reduction in raptor mortality has not previously been achieved and is not projected to be achieved by November 1, 2009. The adaptive management plan will be designed to achieve a 50% reduction in raptor mortality with the least impact on energy production, and may include the elimination or reduction of seasonal shutdowns.	Adaptive Management		
2c2	11/1/2009	The SRC shall act (pursuant to Condition 5 of the Permit, as necessary) on the adaptive management plan.	Adaptive Management		
2c3		Nothing in this Program shall preclude the Wind Power Companies from implementing other measures, such as rodent trapping, reasonably designed to reduce raptor fatalities and help achieve the objective of a 50% reduction in raptor mortality, provided the measures are consistent with the objectives of this Agreement and not outside the terms of the Permit.			
3a	From November 1, 2005 until December 31, 2005	The Permittee(s) shall cease operations for approximately ½ of the existing (non-repowered) turbines, after which operation of this ½ of the turbines may recommence.	Seasonal Shutdown	Completed	

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3a	From January 1, 2006 to February 28, 2006	The Permittee(s) shall cease operations of the other half of the existing (non-repowered) turbines, after which operations may recommence.		Completed	Implemented a two-month universal wintertime shutdown as a minor scheduling modification within the general scope set forth by the Permit and its conditions. This was to be consistent with the aspect that the two-month crossover shutdown design was not having the desired effect with respect to mortality reduction.
3b	From November 1, 2006 to December 31, 2006	The Permittee(s) shall cease operations for approximately ½ of the existing (non-repowered) turbines, after which operation of this ½ of the turbines may recommence.		Completed	
3b	From January 1, 2007 to February 28, 2007	The Permittee(s) shall cease operations of the other half of the existing (non-repowered) turbines, after which operation of this ½ of the turbines may recommence.		Completed	
3c	From November 1, 2007 to December 31, 2007	Wind Power Companies shall cease operations for approximately ½ of existing (non-repowered) operating Applicable Turbines, after which operation of this ½ of the Applicable Turbines may recommence.		Completed – Permit Modification	
3c	From January 1, 2008 to February 28, 2008	Wind Power Companies shall cease operations of the other half of the existing (non-repowered) operating Applicable Turbines, after which operation of this ½ of the Applicable Turbines may recommence.		Completed – Permit Modification	
4a	Within 30 days of the effective date of this Agreement or, if an alternative list is presented, within 15 days of SRC approval of such list, whichever is later.	Wind Power Companies shall shut down Tiers 1 and 2 Applicable Turbines or, in the event an alternative list of Applicable Turbines is presented to the SRC, as specified in section 4(a)(2)	Turbine removal or relocation	Completed	There are 6 Tier 1 and 34 Tier 2 turbines operating in Alameda County according to the applicable permits.

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4a1		Tiers 1 and 2 Applicable Turbines means those turbines identified as Tiers 1 or 2 per Smallwood-Spiegel June 2005 report Group C ranking, confirmed by WEST July 2005 (currently 131 turbines unless the remaining 24 turbines are specifically identified by the SRC prior to the implementation date set forth in (a) above) and as therein allocated per each Wind Power Company and per each Wind Power Company's individual projects.			
4a2		Any time after the execution of this Agreement, each Wind Power Company may submit to Audubon and the SRC a list and description of high risk Applicable Turbines already shut down and ask for credit against this Tier 1 and 2 shut down requirement. The SRC will grant credit for such Applicable Turbines reasonably determined on a scientific and technical basis to be high risk, provided such Applicable Turbines were shut down on or after May, 2002, and the fact that the turbines were not listed as Tier 1 or 2 will not prejudice this evaluation.		Completed	Four of five SRC members agreed, with varying degrees of endorsement, to grant FPLE credit for removing the turbines as a substitute for removing all Tier 1 & 2 turbines. The Planning Director agreed to grant FPLE the requested credit. This included the removal of the additional string of Tier 1 turbines (#4286 to 4294) and continued removal of Tier 1&2 turbines through attrition.
4b	10/31/2008	Wind Power Companies shall shut down Tier 3 Applicable Turbines or Applicable Turbines identified pursuant to section 4(b)(2).		In progress with permit modification	
4b1		Tier 3 Applicable Turbines consist of no more than 152 turbines in total, and no more for each Wind Power Company and each Wind Power Company's individual project than the number allocated to each Wind Power Company and each Wind Power Company's individual project for Tier 3 turbines in the Smallwood-Spiegel June 2005 report, confirmed by WEST in July 2005.			Based on SRC's field review, evaluation of high risk turbines, recommendation to remove newly classified 10 to 8 turbines, and the companies' commitment to accelerate the removal of Tier 3 turbines (or an alternative list), the County has granted the removal of 51 turbines rated 9.5 to 10. This permit modification still requires that the remaining number of Tier 3 or alternative classified turbines be removed by 10/31/08.

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4b2	7/1/2007	Each Wind Power Company may present to the SRC an alternative list of Applicable Turbines for shutdown and ask for credit against this Tier 3 shutdown requirement. Applicable Turbines for consideration may include previously removed Applicable Turbines that were among those considered in the Smallwood-Spiegel June 2005 report provided such Applicable Turbines were non-derelict when removed. The SRC shall select for shutdown, on a scientific and technical basis, the highest risk Applicable Turbines of those presented to it by each Wind Power Company (Tier 3 list vs. proposed alternatives).			
4c		Wind Power Companies shall remove each Applicable Turbine that is subject to a shutdown requirement as specified in this Agreement unless the SRC, on a scientific and technical basis, approves of its continued existence (e.g., end-row turbine that serves as a flight diverter) or renewed operation (e.g., middle of a string with low risk). Any Applicable Turbine may be relocated to a non-Tier 1, 2, or 3 existing turbine site, provided it is relocated in accordance with the criteria specified in Exhibit A attached (Exhibit 1).		In progress	SRC is also finalizing its recommendations on relocation.
5	Turbines shall be painted by 12/31/2007 or as soon thereafter as reasonably possible, depending on the timing of SRC approval of the study design	Wind Power Companies may participate in a SRC approved study to determine whether blade painting reduces raptor mortality. Up to 450 Applicable Turbines may be painted as part of this study, with a corresponding number of Applicable Turbines included as a control group.	Blade painting study		BACI blade painting is not available to the Settlement Companies.

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5a		Wind Power Companies shall present a proposed before/after control/impact (“BACI”) design study to the SRC for review and approval to evaluate the effectiveness of the blade painting program in reducing raptor mortality. The SRC must also approve the blade painting design.			
5b		The SRC shall either approve the BACI design study within 30 days from submittal, or respond within 30 days from submittal with changes necessary for approval, so that the BACI design study can be incorporated into the ongoing monitoring program as soon as possible.			
5c		Painted blade turbines and control group turbines included in the approved BACI design study shall be exempted from all permanent and/or seasonal shutdown requirements for the period of the study.			
5d		Blade painting initial allocations subject to further provisions of section 5(e) below are as follows:			
5d1		ESI – up to 285 Applicable Turbines (plus 285 control group Applicable Turbines);			
5d2		enXco – up to 108 Applicable Turbines (plus 108 control group Applicable Turbines); and			
5d3		SeaWest – up to 57 Applicable Turbines (plus 57 control group Applicable Turbines).			
5e		Nothing in subsection (d) shall prevent one Wind Power Company from assuming by mutual agreement all or part of another Wind Power Company’s initial allocation for blade-painting. The final allocations of Applicable Turbines beyond the allocations stated in subsection (d), and up to 450 painted Applicable Turbines, shall be by the agreement of the Wind Power Companies and subject to an SRC approved BACI design.			

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<u>YEARS TWO through FOUR and beyond</u>					
6a		It is the intent of the Parties to develop a Natural Communities Conservation Plan (“NCCP”) pursuant to section 2801 et seq. of the California Fish and Game Code or similar agreement approved by the California Department of Fish and Game (“CDFG”) to address the long-term operation of wind turbines at the APWRA and the conservation of impacted species of concern and their natural communities. The NCCP or similar agreement shall only apply to the operation, construction, maintenance and repowering of wind turbines and will not apply to land use development or farming, ranching, or other agricultural activities except with the express consent of the applicable property owners.	NCCP	In progress	The County is contracting with a biological consultant to develop the NCCP with the settling parties. The initial phase of the NCCP is scheduled to be completed in 2-3 months.
6b		The County will be the local sponsor of the NCCP or similar agreement. The Wind Power Companies shall be responsible for funding the County’s expenses in serving as local sponsor for the NCCP or similar agreement, including, but not limited to, funding consultants and/or employees necessary to fill this role. This expense shall be divided among the Wind Power Companies as set forth in the Applicable CUPs.			
6c		The NCCP or similar agreement may lead to modifications to the terms of the Permits. The Parties acknowledge that future repowering of the Altamont will play an important role in the adoption of adaptive management measures as provided for in section 1(c) of this Program and/or in the development of the NCCP or similar agreement. Future repowering requirements will be governed by the adaptive management plan, the NCCP, or any similar agreement approved by both the County and CDFG. If no modifying documents are agreed to, the County may amend the Permit in light of then current conditions to address repowering obligations.			

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6d		If the NCCP or similar agreement has not been approved and implemented, or the Parties to the Agreement have not agreed to modifications to the CUP relating to seasonal shutdown that have been approved by the County, the seasonal shutdown provisions shall continue as follows:			
6d1	From 11/1/2008 to 2/1/2009 (an increase of half a month over the prior winter), or for a different 3-month minimum period if agreed to by the SRC based on the monitoring results from the prior three winters	The Wind Power Companies shall cease operations of approximately ½ of the existing (non-repowered) Applicable Turbines. From December 1, 2008, until February 28, 2009, or for a different 3-month minimum period also based on monitoring results as above, the Wind Power Companies shall cease operations of the other half of the Applicable Turbines (also increasing their total shutdown by half a month over the prior winter, and overlapping with the shutdown of the first half of the turbines).	Wintertime shutdown		
6d2	From 11/1/2009 to 2/15/2010 (an increase of half a month over the prior winter), or for a different 3-½-month minimum period if agreed to by the SRC	The Wind Power Companies shall cease operations of approximately ½ of the existing (non-repowered) Applicable Turbines. From November 15, 2009 until February 28, 2010, or for a different 3-½-month minimum period also based on monitoring results as above, the Wind Power Companies shall cease operations of the other half of the Applicable Turbines (also increasing their total shutdown by half a month over the prior winter, and overlapping with the shutdown of the first half of the turbines).	Wintertime shutdown		

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	based on the monitoring results from the prior four winters				
6d3		Beginning on November 1, 2010, the seasonal shutdown shall continue as follows: From November 1 of each year to the following February 15 (the maximum period of the 3-½ month shutdown), or for a different 3-½-month minimum period if agreed to by the SRC based on the monitoring results from the prior five winters, the Wind Power Companies shall cease operations for approximately ½ of the existing (non-repowered) Applicable Turbines. From November 15 until February 28 of each year, or for a different 3-½-month minimum period also based on monitoring results, the Wind Power Companies shall cease operations of the other half of the Applicable Turbines (also consistent with the maximum period of the 3-½ month shutdown).	Wintertime shutdown		
Exhibit G-2 Numbering and Language			Compliance Reporting		
Item #	Deadline	Required Action	Quick Reference Name	Status	Notes
1	10/31/2005	Subject to confirmed determination by the SRC, the Permittee shall shutdown or relocate the individual turbines specifically identified by Smallwood & Spiegel, June 2005, in their research for the CEC as "Tier 1" hazardous turbines (approximately 1%)	Tier 1 Shut Down or Removal	Complete	Altamont Winds, Inc. (AWI), the only company subject to Exhibit G-2 conditions, has shut down all of their nine (9) Tier 1 turbines and one quarter (5) of their nineteen (19) Tier 2 turbines.
2	11/30/2005	The Permittee shall provide a schedule for implementing the on-site strategies to reduce avian mortality as identified by the CEC-sponsored		Incomplete	

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		research, including the following			
2a	Within 180 Days of Approval	Retrofitting electrical power poles and power lines to be compliant with the Edison Electric Institute's Avian Power Line Interaction Committee to prevent electrocution of birds	Electrical Retrofit	Complete	
2b	50% removed within 180 days, 100% within one year	<p>Removing derelict and non-operating turbines, allowing towers to remain at ends of rows if deemed beneficial as flight diverters by the SRC, and replacing turbines only with SRC approval;</p> <p><i>SRC Recommendation:</i> Removing derelict and non-operating turbines, removing all end-row lattice towers, allowing non-perching pylons or towers to remain with minimal or no perching capacity on structures or removing the towers or pylons entirely,</p> <p>The SRC's preference is (1) non-perching pylons or towers or (2) removing the towers entirely.</p>	Derelict Turbines	In progress	Companies reported removal of derelict and non-operating turbines but inconsistency in definition appears to be an on-going issue. The County is working with companies to develop a definition when a vacant turbine becomes derelict.
2c	Within 180 Days of Approval <i>SRC Recommends by 9/1/07</i>	Subject to approval by the US Fish & Wildlife Service, relocating all artificially-created rock piles away from turbines;	Rock piles	Not recommended	Considered less feasible as an immediate management tool due to the requirement to conduct an environmental review.
2d	Within 180 days	Implement other on-site management measures identified in the CEC-sponsored research, if recommended by the SRC and approved by the Planning Director or the Board of Zoning Adjustments if applicable, including, but not limited to:	Strategies		

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2d		1) retrofit tower platforms to prevent under-burrowing by small mammals;	Tower Platforms - burrowing	Not recommended	<p>There is no formal agreement with landowners but companies are no longer funding a rodent control program. County has not issued any mandates.</p> <p>AWI presented preliminary data from blade painting on 34 turbines. The SRC agreed that AWI should move forward with study to implement additional blade painting. Study plan is under development</p> <p>The SRC is finalizing their guidelines on turbine location.</p> <p>AWI has no applicable equipment</p>
2d		2) cease rodent control program activities on all sites;	Rodent Control	Complete	
2d		3) paint turbine blades according to the Hodos scheme on a trial or larger basis;	Blade Painting	Study under consideration	
2d		4) use turbine designs and concentrated siting to discourage raptor use;	Design & Siting		
2d		5) reduce or eliminate vertical and lateral edges;	Edges	Not recommended	
2d		6) replacement of guyed turbine and meteorological towers;	Guyed Turbine	Not applicable	
2d		7) restrict cattle from grazing near turbines on a seasonal or more extended basis;	Grazing	Not recommended	
2d		8) install accelerometers;	Accelerometers	Not recommended	
2d		9) install improved turbine monitoring equipment.	Monitoring equipment	Not recommended	

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3	11/1/2005 to 12/31/2005 AND 1/1/2006 to 2/28/2006	From November 1, 2005 until December 31, 2005, the Permittee(s) shall cease operations for approximately ½ of the existing (non-repowered) turbines, after which operation of this ½ of the turbines may recommence. From January 1, 2006 to February 28, 2006, the Permittee(s) shall cease operations of the other half of the existing (non-repowered) turbines, after which operations may recommence.	Seasonal Shutdown	2005-2006 complete	
4	1/15/2006	Using data and other information from the Permittee(s), the County consultant shall provide a report to the SRC on the seasonal shutdown of all turbines between November 1 and February 28 of the previous winter.	Report on Seasonal Shutdown	Completed	
5	3/31/2006	Permittee shall provide a first annual letter report to the Planning Director regarding first steps and progress toward repowering of 10 (ten) percent of the Permittee's total number of turbines on all sites by the end of the fourth year	Plans for Repowering	Complete	
6	9/22/2006	SRC report to Planning Director with recommendations for potential on- or off-site strategies for conservation of critical wildlife habitat.	Strategies	In progress	Initial SRC discussion held. No formal recommendations issued.
<u>YEARS TWO & THREE – October 2006 to September 2008</u>					
1	11/1/2006 to 1/1/2007	Permittee(s) shall cease operations for approximately ½ of the existing (non-repowered) turbines, after which operation of this ½ of the turbines may recommence. From January 1, 2007 to February 28, 2007, the Permittee(s) shall cease operations of the other half of the existing (non-repowered) turbines, after which operations may recommence. (Year Two)	Seasonal Shutdown	Completed	
2	11/1/2007 to 1/15/2008	In an increase of half a month over the prior winter, or for a different 2-½-month minimum period if agreed to by the SRC based on the monitoring results from the prior two winters, the Permittee(s) shall cease operations of approximately ½ of the existing (non-repowered) turbines. From December	2.5 month Seasonal Shutdown	Completed with permit modification. Shutdown for 2 months	The County requested that AWI participate in the universal shutdown consistent with the settling parties' shutdown permit modification.

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		15, 2007 until February 28, 2008, or for a different 2-½-month minimum period also based on monitoring results as above, the Permittee(s) shall cease operations of the other half of the turbines (also increasing their total shutdown by half a month over the prior winter, and overlapping with the shutdown of the first half of the turbines). (Year Three)			
3	3/31/2007	Permittee shall provide a second annual letter report to the Planning Director regarding additional progress toward repowering of 10 percent of the Permittee's turbines by the end of the fourth year.	Report	Completed	AWI repowering efforts are subject CEQA requirements. The County will begin the EIR development process in May 2008.
	3/31/2008	Permittee shall provide the third annual letter regarding such progress.	Report		