



ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY  
PLANNING DEPARTMENT

Chris Bazar  
Agency Director

Albert Lopez  
Planning Director

224  
West Winton Ave.  
Room 111

Hayward  
California  
94544

phone  
510.670.5400  
fax  
510.785.8793

www.acgov.org/cda

## Memorandum

To: Altamont Pass Wind Resource Area Scientific Review Committee  
 CC: Board of Zoning Adjustments – East County  
 Altamont Winds, Inc., Altamont Infrastructure Co.  
 From: Sandra Rivera, Assistant Planning Director  
 Date: October 16, 2009  
 Re: Restoration Bonds – Condition No. 4, Board of Supervisors’ Resolution R-2005-453

The operations of the wind farms in the Altamont Pass Wind Resource Area (APWRA) were approved in 2005 by the Board of Supervisors with the following condition:

4. **Restoration Bond:** The Permittee(s) shall post a bond or provide an equivalent financial instrument to ensure an adequate sum of money (the specific amount to be determined by the Planning Director with input from the Permittees and the Scientific Review Committee by December 31, 2005) is available to guarantee reclamation of abandoned facilities and restoration of properties to pre-installation conditions, in the event of failure by the Permittee(s) to implement the terms of the conditions herein except as determined by the Planning Director for reasons outside of the Permittee(s)’ reasonable control or ability to foresee.

A separate condition (No. 16), carried over almost directly from the standard conditions of approval for wind turbine operations in the 1990s, includes provisions for determining when a wind farm may be declared abandoned, and refers to deposit funds for restoring turbine sites to their preconstruction condition. However, it did not have a specific bond or funding requirement.<sup>1</sup> Condition No. 4 provides an explicit means of ensuring funds are available to carry out any required restoration of land to pre-construction conditions, in the event of abandonment.

The Restoration Bond requirement was developed as part of the 2005 resolution for the use permits to ensure reclamation of land with wind energy facilities in the event they were abandoned, as had been the case on some parcels of land in the APWRA. In general terms, a bond is like an insurance policy, with a certain face value that either the wind energy operator or their bank provides to guarantee that funds can be made available to the bondholder (the County Community Development Agency – which would hold the bond from the operating company). The operating company may make payments on that “policy” over time.

The bonds would be held by the County in a manner similar to the way that the County holds bonds for surface mining permits (i.e., quarries). State Surface Mining and Reclamation Act language may be helpful, as it requires “financial assurances” that “may take the form of surety bonds executed by an admitted surety insurer... irrevocable letters of credit, trust

<sup>1</sup> The original standard condition of approval required \$20 per turbine in accordance with General Ordinance requirements, or \$30 per turbine if it had not already been paid.

funds, or other forms of financial assurances... which the lead agency reasonably determines are adequate to perform reclamation in accordance with the ... approved reclamation plan.” (Section § 2773.1. (a)(1)). Under the Surface Mining Act, the financial assurances remain in effect for the full duration of the permitted activity, and must be adjusted annually to account for new lands affected by the activity or operations, inflation, and reclamation that has already been accomplished. Lastly, the financial assurances are required to be made payable to the lead agency and the department. (Section §2773.1.(a)).

Restoration bonds have not been posted by the Permittees to date, because the specific amount of the bond or other financial instrument has not been identified yet. However, as provided for in Condition No. 4, the County has asked the Permittees to conduct research to estimate the costs of restoring land in the APWRA to pre-installation conditions on a per-turbine basis, including the costs of removing turbines and blades, dismantling towers, removing the tower pads and above-ground power lines and infrastructure, as well as regrading areas disturbed by roads. Once a suitably-detailed scope of work has been prepared to define the required extent of reclamation activities, the operating companies will obtain bids by engineering and/ or construction companies on the costs of undertaking those steps, and may also account for the salvage values of turbines and tower materials. The County, including its Public Works Agency, will review the proposed bids, and may include independent peer review of those estimates.

More specifically, in order to estimate a reasonable basis for the face value of the restoration bond, the companies must determine in greater detail the particular characteristics of restoration that would be required by the County. Discussions with the companies have thus far led to certain parameters or “Draft Guidelines”. Planning Staff request that the SRC review the following and comment, particularly with regard to their implications on biological resources and wildlife habitat:

1. The restoration of roads should account for different classes of roads, including main roads, service roads, and “finger” (or string) roads that provide access to the individual turbines, each of which have different widths.
2. Roadway reclamation should also account for a limited number of different classes of roads according to their slope and the resulting extent of associated cuts and fills that may need to be removed. For example, in level areas, reclamation may only require scoring the road bed to bury the gravel, and reseeding the area, whereas in steeper areas, removal of cut and fill grading may be required to recover the desired contour of a hillside. It is expected that available GIS data and software can provide a survey or estimate of the total miles of roads with different width and slope characteristics.
3. A certain degree of service roads to provide general access for agricultural uses and activities is expected to be retained. The operating companies will have to survey the property owners to assess their requirements for such roads.
4. Removal of the top two feet of foundations and "exposed" electrical equipment would be required. Removing foundations or underground electrical conduit below that depth (most of the existing electrical conduits in the APWRA) would not be required, primarily because it is assumed that the extent of work required to remove deeply-buried lines would be excessively-disruptive to habitat and restoration objectives.
5. Fire breaks or guards that are currently in place may typically be reclaimed by merely allowing grasslands to recover naturally.
6. The cost of removing overhead lines and poles may be estimated based on the average distances between poles.

7. Biological surveys would need to be done in advance of any reclamation activities, so that the work can be tailored to fit the specific needs of the site and surroundings. For example, in some circumstances the removal of foundations, artificial rock piles, ponds created by new roads, cuts and fills or other alterations may be more disruptive to the ecology or habitat values. In these or other cases, phased reclamation by initially plowing under roadbeds and reseeded could be followed at a later time with re-contouring cuts and fills.
8. Reclamation activities may need to be reconciled with lease or easement requirements previously arranged between landowners and wind operating companies.
9. Reclamation plans must address inflation with adoption of a cost index, such as the Engineering News Record (ENR) index or other appropriate reference.
10. Roads (in concurrence with the landowner's wishes) that are no longer required will be ripped and contour graded to conform to natural surrounding ground levels. The disturbed, ripped and contoured surfaces will be re-seeded with an appropriate seed mixture, based on adjacent vegetation and on consultation with the landowner and the Resource Conservation District.
11. The existing turbine foundations will be partially removed to a depth of approximately 36 inches. The remaining concrete foundation will be covered with topsoil and contour graded to conform to natural surrounding ground levels. The disturbed, contour sloped and restored ground surfaces will be re-seeded with an appropriate seed mixture.
12. Existing pad mount transformer foundations will be removed. Remaining electrical conduits will be cut to approximately 36 inches below the existing ground level. Underground conduits and wire will remain in place. The old foundation pad will be graded to conform to natural surrounding ground levels. The disturbed, contoured ground will be re-seeded with an appropriate seed mixture in consultation with the landowner and the Resource Conservation District.
13. All power poles, met towers and other miscellaneous structures not needed for the project will be removed and transported off-site

The estimates of costs for reclamation will serve as a basis for the restoration bonds. Attachment A, List of facilities and actions to be included in the Scope of Work, provides another breakdown of how costs will be estimated.