

## NOTES | 7/20/2007

### Altamont Pass Wind Resource Area Scientific Review Committee Conference Call

Prepared by the Center for Collaborative Policy  
Reviewed and Approved by the SRC 10/16/2007

#### Agenda Items

FPLE Credit Request

Monitoring Protocols—Final Review

#### FPLE Credit Request

##### Summary of Previous Discussions

The FPLE Credit request is related to a provision of the settlement agreed to by the County of Alameda, many of the wind companies operating at Altamont, Golden Gate Audubon, and Californians for Renewable Energy. ([See Settlement-Related Documents](#)) The settlement agreement requires that each company shut down all turbines classified Tier 1 and 2, but allows any of the wind power companies to request credit against this requirement for high risk turbines they have already removed or relocated. FPLE was the only company that requested these credits by the settlement agreement's specified deadline.

In February 2007, FPLE requested credit for removing or relocating 96 turbines, 52 of which were associated with documented raptor fatalities and 8 of which were associated with multiple raptor fatalities. FPLE also said it would continue removing or relocating Tier 1 and 2 turbines through attrition as part of an exchange for the settlement requirement that the company shut down 60 Tier 1 and 2 turbines. During discussions with the SRC, FPLE agreed to remove or relocate 9 additional Tier 1 turbines as part of the credit request. At that time, the SRC requested additional information and deferred its decision. (See [SRC Meeting Summary Feb 2007 Final](#) and [FPLE Credit Request Documents P24](#))

In April 2007, the SRC reviewed additional information and was unable to reach consensus on the credit request. Three members supported granting credit with shut down of the additional string of 9 turbines. A fourth member supported granting the credit if linked to a study on some type of management strategy. The fifth member was unable to support granting the credit because of concern about reaching the required 50% raptor mortality reduction and the application of the criteria FPLE used to determine which turbines to remove or relocate. (See [P28 SRC Meeting Summary Apr 2007](#))

On April 23, 2007, SRC member Shawn Smallwood presented new information and raised questions about the shut down dates of turbines and the factors that FPLE used to evaluate the turbine shut down. Smallwood sent this information to the County to forward to FPLE for review and discussion at a future SRC meeting. (See [P29 SRC Meeting Notes 4-23-07](#))

On May 8, 2007, the SRC again considered the FPLE credit request including the shut down of the string of 9 Tier 1 turbines. The SRC had remaining questions about how FPLE applied the criteria and dates of shut down and removal. The SRC decided to take additional time for members to review the map and other materials. (See [P31 SRC Meeting Notes 5-8-07](#))

On June 12, 2007, SRC questions focused on whether 18 of the 96 turbines were operating in 2004. Smallwood and Thelander (2004) data indicated that the 18 turbines were derelict in 2002. As a result of these questions, the SRC requested FPLE monthly power data for 2002-2004 for the 18 turbines in question. (See [P34 SRC Meeting Notes 6-12-07](#))

On July 20, 2007, FPLE provided revised and new information for SRC consideration. Four SRC members supported granting the credit with varying degrees of endorsement; one member opposed. The SRC decision will go to the Planning Director, in the form of a memo, which the SRC will have an opportunity to review beforehand. This is consistent with the SRC protocols set forth in its charter.

### **Current FPLE Proposal on Credit Request**

In exchange for removing FPLE's 27 Tier 1 and 33 Tier 2 turbines, FPLE is requesting credit for:

- 1) 96 previously removed or relocated turbines
- 2) Relocating 9 Tier 1 turbines in a string
- 3) Shutting down the remaining Tier 1 and 2 turbines through attrition associated with maintenance

### **New FPLE Materials**

Related Materials: *NEW INFORMATION*

[P24E: FPLE Turbine Operating Hours 2002-2004 for Derelict List](#)

[P24F: FPLE Partnership – Green Ridge Power Wind Turbine Removal and Relocation Project 7-15-2007 \(Update of P24A\)](#)

[P24G: FPL Energy Letter to Sandra Rivera on Remaining SRC Questions on FPLE Credits 7/15/2007](#)

[P24H.1: E-mail Additional supporting documents referred to in 7-15-07 letter re FPLE credits](#)

[P24H.2: Smallwood NWCC Nov 2003](#)

[P24H.3: Thelander presentation at FWS meeting 1-28-04](#)

[P24H.4: Spiegel Altamont NWCC presentation 11-04](#)

[P24I.1: Email Additional supporting documents referred to in 7-15-07 letter re FPLE credits - 2 of 2](#)

[P24I.2: Thelander Expert Letter on Altamont](#)

Since June, FPLE reported that three Tier 2 turbines have been put on “vacant status,” which means that they are not operating. FPLE representative Joan Stewart reported she was unsure if the blades are present, but, at the very least, the towers are still there.

FPLE confirmed that 22 of the 27 Tier 1 turbines are remaining. FPLE would relocate 9 turbines in a string, leaving 13 Tier 1 turbines in operation. Twenty-five of the 33 Tier 2 turbines are operating. FPLE clarified that it had relocated 5 Tier 1 and 12 Tier 2 turbines. FPLE would not relocate the turbines to Tier 1, 2 and 3 sites, as specified in settlement clause 5c. (See [Settlement Agreement S1](#).)

If the SRC denied the credit, 38 Tier 1 and 2 turbines would be shut down and relocated to any of the vacant sites within 15 days of the credit denial.

### **Public Comments**

- Use “relocate” or “shut down” language when appropriate, in which “shut down” refers to the turbine no longer operating and not being relocated.
- FPLE has to act on the decision on the credit within 15 days of the SRC decision.

### **SRC Readiness to Reach a Decision**

After discussion, all SRC members were ready to decide on this matter. The facilitator introduced a “gradients of agreement” decision-making tool to assist the SRC with reaching a decision on granting the credit. ([P37: SRC Decision-Making Worksheet.](#)) One SRC member stated his opposition to the gradients of agreement approach because it presents five ways to vote “yes” and only one way to vote “no.” He agreed to go along with the facilitator’s request that the approach be used to get a feel where the SRC members stood on the matter. The gradients of agreement approach were used as an indicator of the vote, then each member shared thoughts behind the decision s/he had reached. Four SRC members stated they were in the range of 2-3, with 2 being “endorsement with minor point of contention” and 3 being “agreement with reservations.” One member indicated a gradient of 6, meaning a “block or veto.”

### **Support for Granting the Credit**

Four of five members agreed to grant FPLE credit for its proposed package of previously removed/relocated turbines and additional shut downs as a substitute for the settlement requirement to shut down all Tier 1 and 2 turbines.

One member felt this was a reasonable alternative and generally approved the proposal despite some remaining unresolved questions. This member de-linked the credit from the 50% reduction because the settlement allows this credit to occur. This member wanted to move forward and focus on the management strategies to get to the 50% reduction.

A second member cited the difficulty in comparing the risk associated with the 96 removed/relocated turbines and the remaining 51 (60 minus 9 to be shut down) Tier 1 and 2 turbines because there was no control over the survey conditions for the data reported on the original 96 or the 51. However, since some of the Tier 1 and 2 turbines have been removed or relocated, this member viewed this as a hedging of risks in granting the credit. Ultimately, this member agreed to grant the credit, thinking that the risk associated with the 96 turbines was comparable to the Tier 1 and 2 turbines based on the available data.

The third member voted to grant the credit in order to acknowledge that the company attempted to take action prior to receiving formal direction. This member recognized that the data aren’t perfect.

The fourth member expressed desire to reduce mortality as much as possible. This member would have preferred to link the credits if FPLE would have agreed to participate in another study on a management strategy, such as the pylon study, if other companies also agreed to do so.

The fifth member was unable to support the agreement. This member expressed that it was incumbent on the SRC to assist the companies to achieve the 50% reduction in mortality and did not believe the companies would be able to achieve the 50% reduction in three years with the strategies committed to date. The member believed that the potential mortality reduction that might result from removing the high risk turbines could help achieve the 50% target. Also, the evidence provided did not convince this member that the applicable turbines were removed specifically to reduce mortality or that the applicable turbines, which were removed, would reduce mortality more than any other turbines.

The SRC also discussed a concern related to the settling parties being able to meet the 50% reduction requirement without substantial measures being implemented to reduce mortality. As a result of this conversation, the SRC realized that members have different opinions about how the 50% reduction will be calculated and what the monitoring period to measure the 50% reduction should be. Memos, related to

this discussion, are listed below. The SRC also agreed to make this a formal agenda item at a subsequent conference call or meeting.

### **Documents Related to this Discussion**

[P41 Smallwood Response to P24 Documents on FPLE Credits, 19 July 2007](#)

[P43 Smallwood Memo: Opinion of Some SRC Members that the Period over which Post-Management Mortality will be Estimated Remains Undefined, 26 July 2007](#)

[P44 Smallwood: Effects of Monitoring Duration and Inter-Annual Variability on Precision of Wind-Turbine Causes mortality Estimates in the Altamont Pass Wind Resource Area, California, 26 July 2007](#)

[P45 Yee Email: Monitoring Period and Using Averages to Measure Reduction, 26 July 2007 \(response to P43 and P44\)](#)

[P46 Memo on Yee Decision on FPLE Credit, July 2007](#)

### **Future Agenda Items**

How to Measure the 50% Reduction: Method and Monitoring Period (Please see 8/17/07 SRC Conference Call Meeting Notes for discussion on this topic.)

### **Monitoring Protocols—SRC Final Review**

#### **M1: Monitoring Protocols**

- Figure 3 does not reflect the change in the distance limit on behavior observations.
- Table 1 doesn't indicate how decisions are being made. The SRC and monitoring team have agreed that field staff will make an initial determination on the cause of death and the supervisor will review the field staff's opinion and make the final determination.
- Page 1, Paragraph 3. "Any evidence less than this..." All estimates should be listed in datasheets.
- Page 4, at the top: birds will be taken to a rehabilitation facility. Is there any payment or financial assistance to these centers to assist them in caring for the birds? FPL made a \$10,000 donation to Lindsey Museum last year and \$5,000 per year in previous years.
- Sulpher Creek, located in Hayward, also takes birds. The SRC may recommend providing them with some financial support.
- For carcass studies, concern was expressed about the effect on predators of using birds from rehab centers that have been euthanized. Someone on the call confirmed that a vet or biologist had said that using these birds would be dangerous for predators due to the presence of the toxicant used to euthanize the birds. For the carcass studies, the monitoring team should never use birds that have been euthanized.
- Page 5, 180 degree coverage. Propose changing it to whatever coverage is appropriate for the site.
- Page 6, sentence: for the 10-minute point-count survey, replace "data is" with "data are." Make this replacement throughout document. Data are plural, whereas datum is singular.
- Follow-Up Brian Latta with the SRC
  - Diablo Winds has 8 sites. If the radius is reduced to 500 m, then is it possible that they might lose observation of some of the turbines?

**Participants**

**SRC**

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Jim Estep  
Sue Orloff  
Shawn Smallwood  
Julie Yee

**Identified Members of Public**

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Emory Fergus, FPL  
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