



# FPL Energy

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Sandra Rivera  
Alameda County Community Development Agency  
Planning Department  
224 W. Winton Ave., Rm. 111  
Hayward, CA 94544

Dear Sandra,

Would you please provide this to the SRC in response to: Remaining SRC Questions on FPLE credits

I have reviewed the file Shawn Smallwood sent with 18 turbines listed as being "derelict" as of fall 2002. I believe that the turbine ID numbers match our data by using the elevation data column and converting meters to feet. I could not determine what datum was used for the Northing and Easting column data so couldn't check against those to confirm the match.

I also could not in all cases match the "position in string" column data to actual situation in the field. As an example, turbine 2060, which is listed as "End", is actually the second turbine structure (tower) in the string. Turbine 2059 (the end turbine structure) was a vacant tower that was removed in the fall of 2004. Or 2242, which is listed as "Middle" and yet the adjacent turbine site 2243 was removed in the 1990's. Some other "position in string" attributes are also confusing. See additional comments in response to question 2 about this data.

After reviewing this data I wonder if the "position in string" does not actually consider the physical turbine structures in a turbine string but where the surveyors thought turbines were operating and not operating at the time of their survey. It would be useful to know how these attributes were used in the model.

Never the less, assuming that the turbine numbers match, I am providing the following information in response to the SRC's questions and in support of the fact that the 18 turbines sites were "operating turbines" at the time they were put in vacant status. This also addresses that FPLE Partnerships made a thorough review of available data and thoughtful and reasoned decisions in taking the removal and relocation actions.

Question 1.

Recognizing that all fatality data is included in WR[R]S, the SRC would like to know which fatalities documented in FPLE's presentation were from a specific study, rather than incidental finds.

See the attached file - "Proposal for credit Tier 1-2 fple v9 update"

An earlier revision this file was provided on February 6, 2007 to the SRC to show that FPLE Partnerships removed operating turbines, in the fall of 2004, based on a list of general and specific reasons. It also showed the June tier 1 (27) & 2 (33) turbines for which an FPLE Partnership was requesting credit. After reviewing the request for credit, the SRC asked for additional supporting information. I then added the columns showing the criteria for removal on an individual turbine basis rather than generally as is shown on the notes page. And though I had provided fatality by turbine data on an accompanying map, I was requested to provide that data on this spreadsheet as well. This revision was provided at the SRC meeting April 10, 2007. (SRC document p24a)

This latest revision (v9), adds the "reporting party" columns to the file worksheet titled "2004 Operating Removed (96)", but at this point in time I cannot respond to question 1, if the finds were discovered as part of a systematic survey or not, because at times a monitoring group may find a bird incidentally and report it when it is from outside of their study surveys. We do not record that information.

Question 2.

On the turbines identified in the attached chart, please confirm the date of shutdown and/or removal.

See the attached file, " FPLE turbs shut down by fall 02 per Smallwood-SRC 7-20-07".

These 18 turbines were shut down on August 2, 2004 and then removed or relocated during the remainder of the year. There is one exception. The machine for turbine site 2060 was taken down on June 14, 2004 for a yaw bearing repair and would have been repaired and returned to the tower, if it had not been included as part of this project, therefore, because it was out of service for repair for only a month and a half, it is included in this group.

This file provides a worksheet with operating hours by month for 2002, 2003 & 2004 for the 18 turbines said to be derelict, along with adjacent turbines. Another worksheet shows that most of the 18 turbines had maintenance visits during 2002. Another worksheet shows that most of the "derelict" turbines were adjacent to turbines that were in fact non-operating. Could it be that these 18 were mistakenly recorded as "derelict"?

The final worksheet in the file is based on information provided to me by WEST in July 2004, in part from data files they received from the CEC, while we were trying to confirm risk locations. I couldn't then and still can't, reconcile the data in the columns "DERELICT", "DERELICT\_2", and "CONDITION". I would be interested in understanding how these attributes were used, why they seem to be contradictory and if they are properly attributed to the turbine IDs?

### Question 3

The SRC has questions about FPLE's explanation for removal or how the criteria identified was applied. The SRC requests that FPLE be more specific about the criteria used, when it was applied, and if there were other criteria. For example, it looks like some of the turbines may have been shut down (not removed) in 2002 so it is unclear how the criteria were applied to those turbines.

### Question 4.

The SRC would like FPLE to provide specific citations, including the page number, for the criteria.

As shown above, the 18 turbines were not shut down in 2002, so the criteria listed apply.

We started working on this removal and relocation project in March 2004. The information available to us at the time came from the sources listed on the Notes page of file, "Proposal for credit Tier 1-2 fple v9 update"

Though the CEC report was not published until August 2004, CEC staff and consultants were making presentations about the report at meetings with the FWS that we attended and National Wind Coordinating Committee (NWCC) workshops. In July I briefly reviewed and commented on the Draft report.

Smallwood provided a PowerPoint presentation at the NWCC meeting in November 2003. Among the points were:

- Page 48 - Perch availability on towers might be less important than previously believed.
- Page 59 - Isolated wind turbines should be relocated and clustered up with other groups of wind turbines.
- Page 60 - Remove derelict or non-operating turbines or lay down derelict towers.
- Page 60 - Erect benign physical structures to divert birds away from the ends of turbine rows, and/or experiment with strategically placed raptor perches.

In addition, Thelander and Smallwood provided a letter for Alameda County Planning Department describing their recommendations.

From page 8 of the letter from Smallwood and Thelander to Alameda County dated November 10, 2003.

- We suggested that wind turbines in canyons be relocated to areas outside canyons, and that isolated wind turbines be relocated and clustered up with groups of other wind turbines.
- We suggested that lattice towers may be preferable to tubular towers because they are visually busier and may be perceived by birds as more of an obstacle to flight.
- We suggested that derelict and non-operating turbines be removed or that their towers be laid down.
- We proposed that wind turbines at the edge of the wind farm and at the ends of turbine rows be given special attention, such as the Hodos painting scheme or physical structures

erected to divert bird flights further from the ends of turbine rows or the edges of turbine clusters.

Care was taken in making the original decisions in 2004 and additional commitments have recently been made to the SRC to further reduce the number of Tier 1 and Tier 2 turbines in the fleet:

1. FPLE Partnerships acted using the best available information, including instructions from the USFWS to consider actual fatality location data and not just models, in making our treatment decisions.
2. FPLE Partnerships have proposed that as turbines classified as Tier 1 & 2 are shut down for maintenance, they will be put in vacant status and not be repaired. Since the last SRC meeting an additional 3 turbines have been put in vacant status.
3. FPLE Partnerships agreed to the request of the SRC to relocate an additional 9 turbines in the Tier 1 classification

I believe that we have provided the information necessary for the SRC to make the determination that the FPLE Partnerships be allowed Tier 1 and 2 credits for removing and relocating turbines in 2004.

Thank you for your consideration.



M. Joan Stewart  
FPL Energy