

BEFORE THE STATE OF WASHINGTON

ENERGY FACILITY SITE EVALUATION COUNCIL

In the matter of:	)	
Application No. 2004-01	)	
	)	
WIND RIDGE POWER PARTNERS, LLC,	)	Adjudicative Hearing
	)	
WILD HORSE WIND POWER PROJECT	)	Pages 180 - 291
_____	)	

A hearing in the above matter was held in the presence of a court reporter on March 8, 2005, at 9:02 a.m., at the Kittitas County Fairgrounds in the Fine Arts Building at 512 North Poplar Street, Ellensburg, Washington, in Olympia, Washington, before Energy Facility Site Evaluation Councilmembers.

\* \* \* \* \*

The parties were present as follows:

WIND RIDGE POWER PARTNERS, LLC, Darrel Peeples, Attorney at Law, 325 Washington Street N.E., Suite 440, Olympia, Washington 98501; and Timothy McMahan, Attorney at Law, Stoel Rives, LLP, 805 Broadway Street, Suite 725, Vancouver, Washington 98660.

COUNSEL FOR THE ENVIRONMENT, John Lane, Assistant Attorney General, 1125 Washington Street S.E., P.O. Box 40100, Olympia, Washington 98504-0100.

DEPARTMENT OF COMMUNITY, TRADE, AND ECONOMIC DEVELOPMENT, Tony Usibelli, Assistant Director, Energy Policy Division, P.O. Box 43173, Olympia, Washington 98504-3173

Reported by:

Shaun Linse, CCR #2029

1     Appearances (cont'd):

2                     ECONOMIC DEVELOPMENT GROUP OF KITTITAS COUNTY,  
3     Debbie Strand, Executive Director, 1000 Prospect Street,  
4     P.O. Box 598, Ellensburg, Washington 98926.

5                                     \* \* \* \* \*

6                     JUDGE TOREM:   Good morning.   This is Judge  
7     Adam Torem calling to order the proceedings in the Wild  
8     Horse Wind Power Project on Tuesday, March 8, 2005, at a  
9     couple minutes after nine o'clock in the morning.   All the  
10    Councilmembers that were present yesterday are again  
11    assembled.   Councilmember Ifie continues to be sick and  
12    won't be joining us today.   He will again review the  
13    transcript prior to participating in any deliberations.  
14    This morning our first witness is available already by  
15    telephone.   This is Henrik Jorgensen on the telephone from  
16    Denmark.

17                                     Mr. Jorgensen, can you hear me?

18                                     MR. JORGENSEN:   Yes, I can.

19                     JUDGE TOREM:   All right.   Very well.   We  
20    have a court reporter who needs to take down your  
21    testimony as well as all the questions.   Yesterday we  
22    encountered some difficulty with the quality of the sound  
23    coming through the phone.   It sounds better today, but I  
24    just want to remind you to speak slowly and deliberately,  
25    so they she can get everything.   All right?

1 MR. JORGENSEN: That sounds right.

2 JUDGE TOREM: I'm going to give you the oath  
3 of witness and then have Darrel Peeples, the attorney for  
4 the Applicant, ask you the pro forma questions I'm sure  
5 he's discussed with you and see if the Councilmembers then  
6 have any questions for you as well. If you will raise  
7 your right hand there long distance in Denmark, I'm doing  
8 the same thing here in Ellensburg, Washington.

9 (Henrik Jorgensen sworn on oath.)

10 JUDGE TOREM: Mr. Peeples.

11

12 HENRIK JORGENSEN,  
13 being first duly sworn on oath,  
14 testified as follows:

15

16 DIRECT EXAMINATION

17 BY MR. PEEPLES:

18 Q. Mr. Jorgensen, you have submitted prefiled  
19 testimony which is denoted as Exhibit 36 with an  
20 attachment of your resume'. With regard to that exhibit  
21 of your prefiled testimony, which has already been entered  
22 into evidence as an exhibit, if I were to ask you those  
23 questions, you would respond to them the way that it is  
24 set out in that exhibit prefiled testimony; is that  
25 correct?

1           A.           Yes.

2                       MR. PEEPLES: I have no further questions.  
3       Now, Mr. Jorgensen, you may receive some questions from  
4       the Council on this matter which are made up of seven  
5       people who may ask you some questions, so I will turn it  
6       back to Adam Torem, the ALJ for this case, to see if  
7       there's any questions from Councilmembers.

8                       JUDGE TOREM: Thank you, Mr. Peeples.  
9       Councilmembers, you've reviewed Exhibit 36, and do you  
10      have any questions for Mr. Jorgensen?

11                      MS. TOWNE: I have one question.

12                      JUDGE TOREM: Councilmember Towne has a  
13      question.

14                      MR. PEEPLES: Could you come up.

15                      JUDGE TOREM: She's going to come to the  
16      microphone, Mr. Jorgensen, so you can better hear her.

17                      MS. TOWNE: Mr. Jorgensen, does the industry  
18      have any ongoing work to deal with ice formation on blades  
19      to your knowledge?

20                      THE WITNESS: In what regards? To prevent  
21      ice buildup?

22                      MS. TOWNE: Yes.

23                      THE WITNESS: What do you mean here?

24                      MS. TOWNE: It is a concern that has been  
25      expressed, and I believe there was an estimate that four

1 or five days a year such buildup might occur, and that ice  
2 throw was indicated as a concern by some of the citizens  
3 who have been involved in this case. I wondered if the  
4 industry is trying to figure out a way to avoid the  
5 buildup or disperse the ice as it builds up?

6 THE WITNESS: As I tried to describe in my  
7 answer, the normal procedure is that most of the ice  
8 buildup is when the turbine is standing still, and then we  
9 can detect whether the ice is there and make a slow  
10 start-up basically. So if there's any ice thrown, it's  
11 not thrown very far because it's started at a slow speed.  
12 That's the best that I've seen.

13 I recently saw some examples. We have a  
14 similar site in Austria in the mountains where there's a  
15 lot of ice buildup, and I talked to the people down at  
16 that site, and they hadn't experienced that the ice would  
17 come off during start up in this case. That was also what  
18 was suppose to be. It's rare occasions.

19 MS. TOWNE: Thank you.

20 JUDGE TOREM: Councilmembers, any other  
21 questions for Mr. Jorgensen?

22 Mr. Jorgensen, this is Judge Torem again.  
23 Part of the application, it's on Section 2.2.4 for those  
24 in the room, talks about ice and snow storms, and there  
25 was some indication that the vanes of wind turbines might

1 be heated units. Can you expound a little bit. It wasn't  
2 strictly addressed in your testimony on the heated vanes  
3 of these wind turbines and whether that would be something  
4 to prevent icing to begin with.

5 THE WITNESS: The heated vanes is there to  
6 prevent ice buildup on these instruments, so we can have a  
7 better signal from them.

8 JUDGE TOREM: Is that heating provided when  
9 the turbines are not sitting as well?

10 THE WITNESS: Yes. As long as there's power  
11 on the turbines, then those sensors are heated when that  
12 potential icing condition exists.

13 JUDGE TOREM: So your testimony talked about  
14 the turbines being without power for more than 48 hours  
15 and the blades need to be locked in a parked position. Am  
16 I to understand that that is a manual locking of the  
17 blades by a worker that goes out to the turbines?

18 THE WITNESS: Yes.

19 JUDGE TOREM: There's not an automatic  
20 fail-safe, if you will, where if the power goes out the  
21 blades lock themselves out into a parked position  
22 available?

23 THE WITNESS: The blades are locked in the  
24 parked position automatically if there's a power loss.  
25 Now, the rule we have here is only if the turbines are

1 standing still for a long time. That's an extra safety  
2 measure one could say because the hydraulic pressure  
3 system keeps the system locked for three to four months or  
4 something like that, but it's normal. Sometimes when  
5 there's no power, we don't know up front how long it takes  
6 them. So to be sure we have this rule that people have to  
7 go there manually.

8 JUDGE TOREM: So that's a backup safety  
9 system, the manual.

10 THE WITNESS: Yes, it is.

11 JUDGE TOREM: Councilmembers, are there any  
12 questions for this witness?

13 CHAIR LUCE: Just one clarifying question.

14 Mr. Jorgensen, this is Chairman Luce. I  
15 have just one clarifying question. Are the heating units  
16 on the sensors on the blades themselves?

17 THE WITNESS: They are on the sensors.

18 CHAIR LUCE: Thank you.

19 JUDGE TOREM: Councilmembers, any other  
20 questions?

21 THE WITNESS: All right. Mr. Jorgensen,  
22 thank you very much. Let me see if any other parties have  
23 questions for you besides the Councilmembers.

24 Counsel for the Environment?

25 MR. LANE: No questions.

1 JUDGE TOREM: Ms. Strand?

2 MS. STRAND: No.

3 JUDGE TOREM: Mr. Peeples, any other  
4 questions for this witness?

5 MR. PEEPLES: No further questions.

6 JUDGE TOREM: All right. Thank you very  
7 much, Mr. Jorgensen. You may hang up the phone at this  
8 time.

9 THE WITNESS: Thank you.

10 JUDGE TOREM: Thank you. Bye-bye.

11 Councilmembers, we're now ready for  
12 testimony on wildlife issues. This will be from Wally  
13 Erickson and Elizabeth Lack who are already seated at the  
14 witness table.

15 Mr. Peeples, are you ready to proceed?

16 MR. PEEPLES: Yes, Mr. McMahan, will be  
17 handling these witnesses.

18 JUDGE TOREM: Let me swear them in, and,  
19 Mr. McMahan, I'll turn it over to you.

20 (Wally Erickson and Elizabeth Lack sworn on  
21 oath.)

22 JUDGE TOREM: Mr. McMahan, your witnesses.

23 MR. McMAHAN: Thank you, Mr. Torem.

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WALLY ERICKSON,  
being first duly sworn on oath,  
testified as follows:  
  
DIRECT EXAMINATION  
BY MR. McMAHAN:  
Q. Mr. Erickson, you have I think with you there  
the testimony exhibits that's been presented to the  
Council with prefiled testimony. I believe it's Exhibit  
28, plus the rebuttal and Exhibit 28. If I were to ask  
you those questions today, would you provide the same  
answers as you did with the prefiled testimony?  
A. Yes.  
MR. McMAHAN: Mr. Torem, I assume you would  
like to take these witnesses one at a time for  
cross-examination, so we will provide Mr. Erickson to  
Mr. Lane at this time.  
JUDGE TOREM: All right. Mr. Lane.  
MR. LANE: Thank you.  
  
CROSS-EXAMINATION  
BY MR. LANE:  
Q. Good morning, Mr. Erickson. You conducted  
the baseline studies at the Wild Horse Wind Power Project.  
A. Yes, our firm did.

1           Q.        The baseline studies indicate the presence of  
2           certain species within the project area.

3           A.        Yes.

4           Q.        Baseline studies do not provide information  
5           about population numbers of particular species using that  
6           area.

7           A.        No.

8           Q.        So based on the baseline studies you  
9           conducted while you're able to estimate the projected  
10          kills for a particular species, you're unable to determine  
11          whether those kills will have a population impact,  
12          correct?

13          A.        No, based on the avian-use data that we  
14          collected, but we used other information.

15          Q.        What other information did you use then?

16          A.        The baseline for the three-project assessment  
17          for impacts is based on the avian-use data collected at  
18          the site, as well as raptor nesting data collected at the  
19          site, as well as information on the species present at the  
20          site, and what's known about their populations in a more  
21          interregional context.

22          Q.        So you did conduct studies. Is it your  
23          testimony you conducted studies where you are able to say  
24          that there will be no population impact on avian species  
25          within the area?

1           A.           Yes, we gave our opinion on whether we expect  
2           there to be population level consequences for the species  
3           that we have studied.

4           Q.           You suggested a range of avian mortality  
5           rates which you expect to occur at the project. Are you  
6           confident that those are the outer limits that we should  
7           expect on avian mortality rates from this project?

8           A.           No. I'm -- no. I'm confident that those are  
9           probabilistic estimates of what will occur and that the  
10          process is that a Technical Advisory Committee review what  
11          information is collected and whether the data that's  
12          collected during the operational monitoring will change,  
13          whether we believe the levels are significant or not.

14          Q.           Why are you unwilling to state that those are  
15          expected outer limits of avian mortality at this project?

16          A.           Because the assessments, the impact  
17          assessments are based on information collected at this  
18          site, as well as a lot of other sites, and there is  
19          uncertainty in those estimates. But we've developed an  
20          adaptive process to deal with any unforeseen impacts that  
21          weren't necessarily anticipated.

22          Q.           Would a two-year avian mortality study  
23          provide you with more confident numbers?

24          A.           Yes, a two-year avian mortality study. We  
25          are going to be conducting a two-year avian mortality

1 study.

2 Q. But you did not conduct a two-year avian  
3 mortality study prior to construction of this project.

4 A. Well, what we did conduct was a one-year  
5 baseline study to assess the avian use and species that  
6 are located at this project, as well as reviewed a lot of  
7 other existing information; several studies that were  
8 conducted as existing wind projects that provided  
9 mortality estimates.

10 Q. My understanding is that the justification  
11 for the single-year study is that you would be confident  
12 that those numbers are accurate based on the information  
13 that you gathered from the other wind power projects and  
14 that a two-year study would not be necessary; is that  
15 correct?

16 A. The one-year study we used in coordination  
17 with the other mortality studies conducted in the region  
18 from many different projects, Stateline, Vansycle in  
19 Oregon, Washington are used to assess the impacts. We  
20 feel confident that the mortality estimates are reasonably  
21 accurate and will not have any population level  
22 consequences for the species evidenced.

23 Q. So there is a possibility that the avian  
24 mortality rates could exceed in a significant fashion  
25 those which are inherently projected.

1           A.           My personal opinion is that I don't believe  
2           that will be the case, but we have a Technical Advisory  
3           Committee set up to address whether unforeseen impacts do  
4           occur. You may end up having even lower mortality. But  
5           if something shows up of concern, a particular species,  
6           then the TAC and the adaptive management process would be  
7           used to try to make decisions on what to do, whether we  
8           need to do more monitoring or other measures.

9           Q.           Is it your professional opinion that sage  
10          grouse do not avoid tall structures?

11          A.           My opinion is that there hasn't been  
12          sufficient studies at wind projects and other tall  
13          structures to know for sure.

14          Q.           Have you conducted any specific studies into  
15          sage grouse avoidance of tall structures?

16          A.           We haven't specifically looked at sage  
17          grouse. We haven't conducted studies of sage grouse in  
18          relation to tall structures, but we have, for example, at  
19          Foote Creek Rim Wyoming we have observed sage grouse and  
20          hen with broods in close proximity to wind turbines. I  
21          wouldn't consider it a study, but it's observations of  
22          sage grouse near wind turbines.

23          Q.           You have reviewed the U.S. Fish and Wildlife  
24          Services recommendations regarding wind projects with sage  
25          grouse.

1           A.           Yes, I have.

2           Q.           You're aware that in that project the U.S.  
3 Fish and Wildlife Services actually their information  
4 indicated that an 11-mile buffer zone may be appropriate  
5 for sage grouse and yet recommended only a five-mile  
6 buffer.

7           A.           Yes, they did recommend a five-mile buffer  
8 for avoiding siting of wind farms in proximity to active  
9 lek complexes.

10          Q.           So you would agree with me that the U.S. Fish  
11 and Wildlife Services recommendation of a five-mile buffer  
12 would be a very conservative estimate on their part.

13          A.           No, their recommendation is a voluntary  
14 recommendation. They actually clarified after the  
15 guidelines went out that the buffer is not -- that  
16 five-mile buffer is not a strict restriction on siting  
17 wind turbines in proximity to the leks, but it's an  
18 analysis area I guess. And there are no active lek  
19 complexes within five miles of the Wild Horse facility.

20          Q.           My question would be is the five-mile buffer  
21 would that be considered a conservative estimate on the  
22 part of Fish and Wildlife Service, not whether or not  
23 their recommendations are voluntary?

24          A.           No, I don't believe so.

25          Q.           Why is that the case?

1           A.           Because there is no science to base that  
2 recommendation at this point.

3           Q.           They cited several studies in that paper; did  
4 they not?

5           A.           Yes, they did.

6           Q.           You don't have any studies that would  
7 counteract what they recommended; do you?

8           A.           Yes, we have some observations which is in  
9 our testimony. The observations of sage grouse within  
10 close proximity at the Foote Creek Rim power line, sage  
11 grouse lek complexes, and the observations of sage grouse  
12 within close proximity to the wind turbines at Foote Creek  
13 Rim.

14          Q.           Again, you have stated in your testimony here  
15 today and both in your written that the Fish and Wildlife  
16 Service and others don't have scientific data to back up  
17 that sage grouse avoid tall structures. So my question to  
18 you is do you have any scientific data that would suggest  
19 the sage grouse do not avoid tall structures?

20          A.           Yes, we have data that suggests that some  
21 sage grouse do not avoid tall structures based on the  
22 location of the hen with broods at Foote Creek Rim Wyoming  
23 and the lek complexes that continue to stay there within a  
24 mile and a half; within a mile, a mile and a half of a  
25 power line.

1           Q.           Mr. Erickson, you would agree weather  
2 conditions could have an impact on the presence of avian  
3 species in particular during any one year.

4           A.           Yes.

5           Q.           The studies that you looked at for other wind  
6 farms did you control for weather variables between those  
7 wind farms and the studies that you conducted at the Wild  
8 Horse Wind Power Project?

9           A.           Not specifically, although we used studies  
10 from several studies replicated across a bunch of  
11 different areas.

12          Q.           Did you control for the differences in  
13 habitat settings amongst those various wind power  
14 projects?

15          A.           Yes, in some ways. Foote Creek Rim, for  
16 example, is located in shrub-steppe habitat. The rim is  
17 short grass. On the western edge of it is shrub-steppe  
18 habitat where there were sage grouse observations. There  
19 is -- that's my answer.

20                       MR. LANE: I don't have any further  
21 questions at this time.

22                       JUDGE TOREM: Mr. Peeples, any follow up for  
23 this witness?

24                       Mr. McMahan?

25                       MR. McMAHAN: Yes, Mr. Torem, I have a few



1       redirect questions.

2

3

REDIRECT EXAMINATION

4       BY MR. McMAHAN:

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Q.       Mr. Erickson, there's been a lot of

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discussion yesterday and today about the baseline study.

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Can you for the Council just explain what is meant by a

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baseline study, what you do with baseline studies, and how

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it's correlated to other projects.

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A.       Yes. The approach we take for assessing

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impacts to any development, but wind projects in

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particular, is a review of existing information. This

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includes the WDFW priority habitat database that shows

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locations of historic raptor nests, for example, in the

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project area. We map the habitat of the project site. We

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review potential existing studies in the region or in

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similar habitats relative to impacts at the -- relative to

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impacts from winds projects.

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One of the biggest sources of information we

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use is realizing impacts at existing facilities. If

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in-use data that we collect at the site is useful for

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describing the presence and absence of species and the

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levels of use during that particular study, a big focus of

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the impact assessment is the fairly large data sets that

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are available for measuring direct impacts to birds, for

1 example, or bats, for example.

2 Q. Mr. Erickson, those data sets that you've  
3 referred to have some of those for other projects, have  
4 some of those been gathered from Northwest projects within  
5 the vicinity or general vicinity of Wild Horse?

6 A. Yes. The Northwest has probably more data at  
7 existing wind facilities than any part of the country.  
8 Klondike in Oregon is about seven miles south of the  
9 Columbia River. It has similar species, raptors species,  
10 birds of prey specie assemblages as Wild Horse.  
11 Red-tailed hawks and American Kestrels are the most common  
12 raptor. In the winter it's rough-legged hawks. The  
13 Stateline Wind Project near the Columbia River it's about  
14 mile and a half south of the Columbia River, the northern  
15 end is, and that has similar specie assemblages;  
16 red-tailed hawks, American Kestrels again being the most  
17 common raptor at that site.

18 There's also in comparison to Wild Horse, for  
19 example, there's also a higher raptor nest density  
20 associated with the Stateline Project compared to the Wild  
21 Horse Project. The Nine Canyon Wind Project near  
22 Kennewick it's about three miles from the Columbia River  
23 and has similar, again similar raptor specie assemblages,  
24 open habitat. All these are open habitat sites, so there  
25 is quite a bit of information from those projects in the

1 region.

2 Q. Has your firm been involved in correlating  
3 results of the post-construction avian mortality  
4 monitoring with the preproject assessments on all those  
5 projects?

6 A. Yes.

7 Q. Can you explain to the Council how that  
8 correlation works. Do the post-construction avian  
9 monitoring programs confirm the preproject assessments?  
10 Can you explain how that's worked on those projects.

11 A. Well, unfortunately at the sites that we've  
12 been studying the raptor mortality which was the biggest  
13 concern primarily due to the Altamont Pass, the raptor  
14 mortality is low, relatively low. You're looking at  
15 anywhere from three to six raptors for every hundred  
16 turbines per year, so the rates have been quite low, and  
17 the raptor use at those sites is similar, for example, to  
18 what we observed at Wild Horse. So, yes, there is that  
19 correlation.

20 We also have looked at one of the principal  
21 goals of the preproject assessment is to assess the  
22 general level of risk at the site; whether you're in the  
23 very low risk situation, or whether you're in a moderate  
24 risk situation, or a high risk situation for raptors and  
25 birds of prey and other birds.

1                   The Altamont, for example, in California  
2                   which has had high raptor mortality there is 5,400  
3                   turbines in a 60 square mile area, so there's about a  
4                   hundred turbines per square mile at that site. Very high  
5                   raptor use at that site, and the mortality levels are  
6                   high, and there is a correlation there. There is also  
7                   other factors that go into why Altamont is a high  
8                   mortality site.

9                   Q.           Mr. Lane asked you whether you felt there was  
10                  a risk that post-construction avian mortality monitoring  
11                  would show that avian mortalities "significantly exceed",  
12                  somewhat of a objective term, but "significantly exceed"  
13                  particular projections. Have you seen that significantly  
14                  exceed projections on any project in the Northwest?

15                 A.           No.

16                 Q.           On those projects in the Northwest would you  
17                  characterize those habitats to be relatively similar to  
18                  the Wild Horse project or ways that you feel  
19                  scientifically are a valid correlation?

20                 A.           For most of the species that you're dealing  
21                  with here, the raptor species specifically, you have  
22                  similar assemblages. If you include Foote Creek Rim in  
23                  the west, then you get into more shrub-steppe habitat and  
24                  more shrub-steppe species.

25                 Q.           You indicated in your question with Mr. Lane

1 that you did not believe that there would be significant  
2 population impacts with avian species. Can you explain  
3 how you derive that opinion.

4 A. It's primarily based on the data collected at  
5 other wind projects relative to what species seem to be at  
6 risk. For example, red-tailed hawks and American Kestrels  
7 are typically the most common raptor fatality that have  
8 been observed at most wind projects in the west. These  
9 are two of the most common raptor species in the U.S.  
10 They're spread out throughout North America. American  
11 Kestrels I believe are designated the most common raptor  
12 species in North America and red-tailed hawks are also.  
13 So that's one of the pieces of information we use to  
14 determine whether there is some sort of population level  
15 impact on those species.

16 Horned larks are one of those most common  
17 songbird species, daytime resident songbird species at the  
18 Wild Horse Project. It's also been one of the most common  
19 fatalities observed at the regional projects. In using  
20 some crude estimates from breeding birds survey data for  
21 the Columbia Basin you can calculate that there's millions  
22 of horned larks in the Columbia Basin, and the level of  
23 mortality likely is not going to have any population level  
24 consequences.

25 The other piece of information that we use in

1 sort of assessing whether there's going to be some sort of  
2 population level impact is the mortality from other  
3 sources of impacts. You know, for certain species, for  
4 example, songbirds species cats are estimated to kill 40  
5 to 100 billion. I've heard some estimates of a billion  
6 per year by cats. Windows are estimated to kill based on  
7 studies in the literature one to ten per residence.  
8 There's approximately a hundred million residents in the  
9 U.S., so there's very large numbers of mortality occurring  
10 from other development, and so you sort of use the  
11 information you collect at the wind project to put some  
12 perspective into what level of mortality you're dealing  
13 with from the wind turbines.

14 Q. Mr. Erickson, you also answered some  
15 questions about one year versus two years of avian  
16 baseline study. I recall your testimony talks about one  
17 year being a greater period of time than other projects,  
18 other places have used. So can you explain why you have a  
19 high level of confidence in a one-year baseline study  
20 based upon your work you've done on other projects.

21 A. Well, I think there's several components to  
22 that. One is that the impacts for the species, the raptor  
23 species in particular, have not been very high at these  
24 other projects, and our baseline studies were one year at  
25 those sites, and our impacts were reasonably close to what

1 we ended up realizing.

2 The other main point is that there is a lot  
3 of mortality information that directly measures the impact  
4 at these projects, but, in general again, for raptors,  
5 similar specie assemblages for some of the songbird  
6 species, similar specie assemblages we've been able to  
7 directly measure the impacts as opposed to providing some  
8 preproject indexes that really aren't a direct measure of  
9 the impact.

10 Q. Now you've also conducted, your firm I should  
11 say has conducted a study on behalf of BPA, a META  
12 analysis. Can you explain that analysis, and how it  
13 confirms the opinions that you've stated today.

14 A. Yes. We were asked to synthesize all the  
15 existing information on avian use and mortality at wind  
16 projects that have used similar methods. So we looked at  
17 over 20 preproject baseline studies and looked at how a  
18 single season worth of data collection predicts what the  
19 avian use might have been for an entire full-year project  
20 and whether you rank a site as relatively high risk,  
21 moderate risk, or low risk based on a single season,  
22 whether that changed if you collected a full year's worth  
23 of data. So that was part of the information that went in  
24 to develop the guidelines relative to preproject  
25 assessment.

1           Q.       On behalf of the members of the industry,  
2 developers, have you actually analyzed sites that you have  
3 found in a prepermitting analysis, baseline analysis that  
4 you have found would pose probable significant impacts in  
5 avian species?

6           A.       There are definitely some sites that would  
7 have a lot higher mortality rates. Significance is, you  
8 know, population level significance in those high risk  
9 situations is a little bit more difficult to deal with  
10 because you're dealing with more fatalities.

11                   The only site that there has been any  
12 discussion of potential population level impact is the  
13 Altamont for golden eagles, and at that site there was a  
14 study of the populations surrounding the Altamont, and a  
15 radio telemetry study to look at the golden eagle  
16 population. The results of that four- or five-year study  
17 suggested that the population was still increasing even  
18 with the amount of mortality from the wind project, but  
19 there was some concern over the long-term impact to the  
20 floating population, the nonbreeders. Those are the ones  
21 that seemed to be most impacted at the site. So there was  
22 some concern. Otherwise, I'm not aware of any study that  
23 suggested any population level impacts from wind turbine  
24 mortality.

25           Q.       Turning to sage grouse for a moment is there



1 evidence of current or past use of sage grouse on the Wild  
2 Horse site?

3 A. Yes.

4 Q. Can you explain your analysis, your firm's  
5 analysis of sage grouse on the site.

6 A. There's some historic leks in the vicinity of  
7 the project. They haven't been active in the near term.  
8 The PHS data I think goes back to maybe 1987 as the last  
9 active lek complex. That's the PHS data. There are no  
10 active lek complexes based on the sage grouse recovery  
11 plan within the whole Colockum sage grouse management unit  
12 which includes Wild Horse, as well as the two wildlife  
13 areas to the east. There has been incidental observations  
14 in the past of sage grouse in the project area but no  
15 known active leks. We did three ground surveys and two  
16 aerial surveys to look for sage grouse and sage grouse  
17 leks.

18 The protocol that we used was reviewed by  
19 WDFW, and we didn't document any sage grouse leks  
20 consistent with what WDFW has done in the past relative to  
21 sage grouse. They spent some time at the project site in  
22 the mid '90s looking for leks in the springs area. They  
23 never documented any active leks. We also have a person  
24 on site doing surveys for the year baseline study. They  
25 didn't document any live grouse.

1 Q. Are you familiar with the efforts to  
2 reintroduce sage grouse into the area?

3 A. Yes.

4 Q. Can you explain the success or lack of  
5 success of those efforts.

6 A. Yes. The Yakima Training Center they're  
7 trying to augment the populations at the Yakima Training  
8 Center. It's one of the two remaining known active  
9 populations in Washington, and they translocated around 25  
10 sage grouse from Nevada taken off leks in Nevada, moved  
11 them to the YTC, and put radios on them, and of the -- let  
12 me check my numbers -- but of the 25 two of the sage  
13 grouse did move up towards the Wild Horse area. One spent  
14 some time in the project vicinity and one further to the  
15 east down lower in elevation in that area. Both of those  
16 ended up dying, but there was two out of the 25 that moved  
17 up to the area.

18 I don't believe -- I have to check my  
19 testimony. I believe there was maybe one that  
20 successfully nested, but I'm not positive on that. So in  
21 general the disbursed translocation wasn't very successful  
22 in terms of establishing breeding birds. In general,  
23 translocations are difficult because of the difficulty in  
24 getting breeding reestablished in areas where there's no  
25 longer activity. It's very difficult.

1           Q.           Okay. Relating to the questions concerning  
2           the avoidance of tall structures, you had indicated at  
3           least a question about scientific validity of the  
4           information supporting the U.S. Fish and Wildlife buffer  
5           suggestion recommendation. Can you explain further your  
6           opinion that there was some question about scientific  
7           validity of those studies.

8           A.           Yes. I think the five-mile buffer was not  
9           developed based on much science. There is a lack of  
10          science in this area. One study that has been referenced  
11          in California, Frank Hall, the California Department of  
12          Fish and Game, it's a study that nobody has seen. There's  
13          been some summary information provided, and apparently  
14          this is a communication line, a telephone line that was  
15          established, and they looked at long-term monitoring in  
16          relation to that telephone line in California. There's  
17          been some suggestion that there was some avoidance of that  
18          particular telephone line; yet, the study hasn't been  
19          reviewed, peer reviewed and released. We've waited for  
20          two years to get a copy of the study, and it just hasn't  
21          been released yet.

22                        The questions I would have is what other  
23          changes went on relative to this communication line? Has  
24          there been changes in habitat? Has there been changes in  
25          residential development? We are talking about California,

1 so I expect there might be some changes in land use, and  
2 those are the things that are important to look at.  
3 Again, I haven't seen the study. I've only seen the  
4 summary points relative to the study, and I know it's been  
5 in review for several years.

6 Q. Just a couple of other questions. Can you  
7 explain the interaction you had, you and your firm had  
8 with the Washington State Department of Fish and Wildlife  
9 which you established the protocols for the various  
10 studies to the project.

11 A. Yes. We met with them early on and outlined  
12 our protocol we planned on using. They reviewed the  
13 protocol. They reviewed for the various components of  
14 sage grouse, the avian-use surveys, and basically approved  
15 the protocol.

16 Q. Was that a continuous communication  
17 throughout your process?

18 A. Yes, it was continuous communication  
19 throughout the process.

20 Q. To your knowledge has your firm's work, your  
21 biological work for this project been reviewed, peer  
22 reviewed by other consulting firms?

23 A. Well, yes. As far as EIS development the  
24 consultants that developed the EIS, both Huckell/Weinman  
25 and Jones & Stokes who are the independent consultants

1 that reviewed the work and incorporated it into the  
2 various documents, have reviewed it.

3 Q. One last one. Can you explain your  
4 involvement with Washington State Department of Fish and  
5 Wildlife in formulating the guidelines perhaps to help the  
6 Council understand sort of the education process you have  
7 assisted the Department with.

8 A. We were asked by Renewable Northwest Project  
9 to provide scientific information in the development of  
10 the guidelines. We've been involved in impact assessment  
11 throughout the country both for wind projects, as well as  
12 things like the Exxon Valdez oil spill. We were  
13 contracted by the State of Alaska to collect information  
14 to look at the impacts of the Exxon Valdez oil spill on  
15 wildlife, and we provided a lot of the scientific studies,  
16 peer reviewed studies, published studies that have been  
17 conducted at wind projects and provided the baseline  
18 studies that have been conducted at those wind projects.

19 In general, it indicated various groups on  
20 what the impacts have been on those projects, what the  
21 studies have shown, especially the mortality studies, and  
22 helped guide the development of primarily the preproject  
23 assessment according to those guidelines.

24 MR. McMAHAN: Nothing further. Thank you.

25 JUDGE TOREM: Mr. Lane, any follow up?

1 MR. LANE: Yes.

2

3 RE-CROSS-EXAMINATION

4 BY MR. LANE:

5 Q. Mr. Erickson, despite all of your review of  
6 the information from various wind farms across the country  
7 and in the Northwest and your study of the avian baseline  
8 study at the Wild Horse Wind Power Project and all the  
9 information you've gained from a variety of sources,  
10 you're still unwilling today to state that the projected  
11 avian mortality rates established in the baseline study  
12 are the outer limits of what could be expected to occur if  
13 this project is built.

14 A. I feel confident that they will not be  
15 significantly exceeded.

16 Q. Okay.

17 A. If they are, there is a process through the  
18 Technical Advisory Committee to react to that. Even if  
19 they are significantly higher, the question will be what  
20 species are you dealing with and what is the significance.  
21 I'm not going to be the person to provide that answer.  
22 It's going to be a group of technical experts that are  
23 WDFW and others that will look at the information and make  
24 decisions on whether something needs to be done, needs to  
25 be changed, additional monitoring needs to be conducted,

1 things like that.

2 Q. So you're unwilling to say the projected  
3 avian mortality rates predicted in this project are the  
4 outer limits of what can be expected if this project is  
5 conducted.

6 A. I stand by that previous answer.

7 Q. Okay.

8 JUDGE TOREM: Mr. Erickson, I want to follow  
9 up just on the baseline studies, and the comparisons you  
10 made to other wind power projects in the Northwest.  
11 Mr. McMahan asked you I thought it was going to be the  
12 answer I was looking for as to the habitat comparisons,  
13 and you mentioned one of them I think was of shrub steppe  
14 similar habitat. Were any of the others also shrub  
15 steppe?

16 THE WITNESS: The Stateline Project has some  
17 shrub-steppe habitat within it. It's a mixture of ag,  
18 grassland, and some shrub-steppe habitat.

19 The Nine Canyon project has some shrub-steppe  
20 habitat just to the north of the strings along the ridge.  
21 Most of it there's some grassland, and then the rest is  
22 wheat. The Klondike project is located in wheat.

23 JUDGE TOREM: It sounds as though there were  
24 kestrels and red-tailed hawks at most of these as similar  
25 raptors.

1 THE WITNESS: Yes.

2 JUDGE TOREM: Were there any other birds of  
3 significance and concern at this area that were also found  
4 at others, perhaps if not sage grouse, something that  
5 might be used to habitat similarly or have similar  
6 breeding requirements or habitat requirements at those  
7 other areas?

8 THE WITNESS: One of the most common  
9 songbirds at all these projects is horned larks, including  
10 the Wild Horse project. A lot of the raptors, most of the  
11 raptor species, birds of prey, red-tailed hawks, American  
12 Kestrels, northern harriers, prairie falcons, those  
13 species aren't found at those sites as well compared to  
14 Wild Horse. Rough-legged hawks in the are winter found at  
15 Wild Horse. We've got them at Wild Horse, and they're  
16 documented at all those other sites. Some of the breeding  
17 songbird species that only breed in shrub-steppe habitat  
18 are not found at those wheat field sites or those  
19 grassland sites.

20 Although, again, in assessing the impacts of  
21 those species you take into consideration their behaviors.  
22 Sage thrashers, for example, are typically not found  
23 flying high into the likely rotor swept area of the  
24 project. So you use the behavior data for the individual  
25 species. Golden eagles, there are some golden eagles



1 found at Wild Horse, occasional golden eagles seen at  
2 those other sites probably not at the same level. But  
3 Foote Creek Rim Wyoming is a site that has very high  
4 golden eagle use, and I think it's a good comparison.  
5 It's actually I would say a high-end comparison for golden  
6 eagles.

7 JUDGE TOREM: It sounds as though for the  
8 sage grouse through and ground fowl it's not so much the  
9 blades, but the habitat disturbance in introducing these  
10 taller structures which aren't otherwise present in a  
11 shrub steppe flat habitat. Have you seen any other  
12 species that have similar concerns at other sites?

13 THE WITNESS: We have collected data on  
14 disturbances or displacement to songbird species like  
15 horned larks, grasshopper sparrows, species that are found  
16 at these different projects. And there's also some data  
17 that you will see in the record from other sources like  
18 roads and some where they studied the effect of roads, for  
19 example, on shrub-steppe species, sage thrashers, for  
20 example. So there is data on those other species on  
21 disturbance and displacement.

22 The Stateline project had a disturbance and  
23 displacement study. It's of grassland songbird species,  
24 many of which are found at Wild Horse. I'm trying to  
25 think of the other disturbance and displacement studies.

1 There was work done at Buffalo Ridge Minnesota on  
2 grassland songbird species and their disturbance and  
3 displacement.

4 JUDGE TOREM: Councilmembers, any other  
5 questions? I see Councilmember Towne has a question for  
6 you.

7 MS. TOWNE: Mr. Erickson, in your initial  
8 testimony you talked about the Fish and Wildlife Service  
9 U.S. Status Review and a report due December '04 on sage  
10 grouse.

11 THE WITNESS: Yes, they made a decision that  
12 listing was not warranted.

13 MS. TOWNE: Thank you. On the rebuttal  
14 testimony at Page 8 you talk about bat mortality. I  
15 assume you're talking about a mortality rate being how  
16 many dead bodies were found at the base of the turbines.

17 THE WITNESS: The mortality rates we're  
18 talking about how many are found and then adjustments for  
19 the fact that you don't find all of them.

20 MS. TOWNE: Because you have raptors.

21 THE WITNESS: Well, either the raptors or  
22 you have scavengers, as well as you walk through a  
23 grassland area and you don't detect everything. So  
24 there's adjustment for scavenging and certain efficiency  
25 biases.

1 MS. TOWNE: In reading the testimony and the  
2 documents presented in this case, I did not find evidence  
3 of knowledge of how many bats there are, and there was  
4 some reference to the difficulty of counting the bats  
5 because of their predilection for flying at night. But  
6 that there probably weren't bat colonies because of  
7 topography, lack of caves.

8 THE WITNESS: The habitat, yes. I'll  
9 explain in a minute. Our assessment for bats in general  
10 in these open habitats has been habitat based for several  
11 reasons; habitat based and what we observed from mortality  
12 at other sites. The bats that are being found at Western  
13 Northest sites, as well as throughout the west are tree  
14 foliage roosting bat species, such as the hoary bat and  
15 the silver-haired bat, and so they roost in trees or under  
16 the bark of trees.

17 The mortality levels that we have observed in  
18 these own habitats have been relatively consistent within  
19 regions. We know pretty much you're going to have some  
20 silver haired and hoary bat fatalities. Hoary bats are  
21 one of the most widely distributed bat across North  
22 America. They're found throughout North America. They're  
23 the species that are found most commonly at all wind  
24 projects throughout the U.S, whether you're talking about  
25 in the east, in the mid west, or in the west. The methods

1 -- and it also is occurring during what appears to be  
2 migration. So in the fall migration period. So mid July  
3 through end of September, and it's pretty well defined.  
4 It's very consistent among all these projects.

5 There's very few bats found during the  
6 resident bat periods spring through July. It appears  
7 these bats start migrating in July, and we're finding bat  
8 fatalities during that time. The peak at Stateline, for  
9 example, is and the Northwest projects is early September,  
10 and we have a pretty good handle on what the rates are.

11 As far as being able to quantify how many  
12 bats are passing, migrating or passing over a particular  
13 site that technology is very weak and not really well  
14 defined. I think there is research that's occurring right  
15 now in the east to try to maybe develop some methods that  
16 can be used to quantify bat use. It's very preliminary.  
17 They're really not sure what they're going to end up  
18 recommending. They also are dealing with a much different  
19 situation there. They're dealing with forested ridge tops  
20 and much higher bat fatality rates than have been observed  
21 in any project in the Midwest or the west.

22 MS. TOWNE: Thank you. That's very helpful.  
23 One last question. In your rebuttal testimony you say  
24 that impact assessments are based on real-life impacts at  
25 other sites, and I wondered if the impact assessments at

1 other sites now built whether the realized impacts  
2 correlate with the predicted impacts?

3 THE WITNESS: Yes. In general, we've seen  
4 consistent and relatively low level of impacts at these  
5 sites, so I would say, yes.

6 MS. TOWNE: But if the preconstruction study  
7 predicts X fatalities of a species is that what you get?  
8 What's the range?

9 THE WITNESS: What's the range? For Foote  
10 Creek Rim Wyoming, Nine Canyon, Washington; Stateline,  
11 Washington; Klondike you're looking at zero to around .06  
12 raptors per turbine per year.

13 MS. TOWNE: I'm looking for what was  
14 predicted and what was found.

15 THE WITNESS: One to three birds, bat  
16 fatalities per year in general.

17 MS. TOWNE: Predicted?

18 THE WITNESS: Predicted, and that's about  
19 what the range you're getting. I mean there might be days  
20 where at Vansycle was the original project we had to base  
21 our impacts on. Vansycle there was 37 turbines, a  
22 one-year study. So some of the original predictions were  
23 based on Vansycle which had two birds a turbine a year  
24 roughly. Actually one bird a turbine a year and during  
25 that one-year study no raptors. Now we've got a much

1 bigger data set replicated across those different  
2 projects, multiple years. We have a better handle on the  
3 range.

4 MS. TOWNE: Thank you. No further  
5 questions.

6 JUDGE TOREM: Councilmember Adelsman.

7 MS. ADELSMAN: I have just a couple  
8 questions. One of them relate to the impact on  
9 construction from lots of blasting and others that would  
10 have an impact on getting this wildlife to leave the area  
11 or whatever.

12 Then the second one is in your testimony you  
13 talked about a large area of the project will remain  
14 undisturbed, and I think you know there is going to be a  
15 conservation easement that would allow some public access.

16 Do you feel that would change a little bit  
17 some of the impacts? I know that there will be a  
18 Technical Advisory Committee that's going to be looking at  
19 that, but have you looked at whether a conservation  
20 easement that would allow some public access will have as  
21 an impact or at least will change, whether it will change  
22 some of your analysis or not?

23 THE WITNESS: The first question regarding  
24 blasting I think the EIS recognizes that there could be  
25 some temporary disturbance or displacement of wildlife

1 during construction when the blasting occurs, and I think  
2 the EIS recognizes that.

3 As far as the conservation easement, I guess  
4 I'll go back to the WDFW guidelines first. The mitigation  
5 that is being proposed for the permanent and temporary  
6 impacts from the footprint, I think that's around 165  
7 acres for the permanent and around 350 to 400 for  
8 temporary. The guidelines specify a two-to-one ratio for  
9 shrub steppe habitat protection for the permanent impact,  
10 so that's 320 acres, roughly 330 acres, two times 165.  
11 Then you have the temporary impacts at .5 acres for every  
12 one acre loss. So that gives you .5 times around 400, so  
13 200 acres. So you're looking at 535 or so acres that the  
14 guidelines specify you should do in this case for  
15 shrub-steppe habitat because of the difficulty in  
16 restoring, some difficulty and the timing of restoration  
17 of the shrub-steppe habitat.

18 The mitigation parcel that they selected  
19 that WDFW has agreed upon that they're going to protect by  
20 fencing and keeping cattle out is 600 acres, so that  
21 mitigation does exceed the guideline requirements for  
22 permanent and temporary impacts.

23 The other things that are being done in  
24 mitigation is fencing of the riparian areas associated  
25 with the springs unless cattle are -- depending on the

1 livestock grazing plan. But the riparian areas are going  
2 to be fenced, and that's going to add additional acreage  
3 to the mitigation that should be a benefit for lots of  
4 wildlife, birds, potentially sage grouse, you know, lots  
5 of wildlife.

6 Then the Applicant I think has agreed to  
7 manage cattle in a way that can benefit the wildlife  
8 habitat by removing, by rest rotations or some other  
9 grazing management which will be done by the Technical  
10 Advisory Committee who will have a role into what that  
11 livestock grazing management plan will be.

12 All those things put together should be I  
13 believe a net benefit in general to the wildlife. You're  
14 looking at improved habitat in over 5,000 acres,  
15 potentially improved habitat from the use of grazing and  
16 improving habitat along the riparian areas still allowing  
17 water sources for cattle and wildlife.

18 As far as the conservation easement, I  
19 obviously think they voluntarily agreed to add that in.  
20 That obviously will have a benefit to wildlife as well.  
21 Does that answer your question?

22 JUDGE TOREM: Would you address the public  
23 access that comes with that conservation easement?

24 MS. ADELSMAN: Yes.

25 THE WITNESS: You know, I guess I don't feel



1 I'm necessarily the person to do that. It's my  
2 understanding that they have agreed to allow public  
3 access, controlled public access, controlled hunting, but  
4 I don't believe that's something that -- maybe the  
5 Applicant or somebody else might address that.

6 JUDGE TOREM: Councilmembers, any other  
7 questions for this witness?

8 Mr. McMahan, any follow up?

9 MR. McMAHAN: None, thank you.

10 JUDGE TOREM: Mr. Lane?

11 MR. LANE: No.

12 JUDGE TOREM: All right.

13 Ms. Strand, anything?

14 MS. STRAND: No.

15 JUDGE TOREM: Then I think, Mr. Erickson,  
16 we're done with your testimony. Mr. McMahan, we've  
17 already sworn in Ms. Lack, and I don't anticipate as many  
18 question for her. I don't know how long Counsel for the  
19 Environment's cross is, but I think we can press on unless  
20 anybody needs a break.

21 MR. LANE: Judge, can I take just a quick  
22 minute break. My witness has been calling, so I think he  
23 might be having a problem getting to the bridge line, so I  
24 just need to check it.

25 JUDGE TOREM: We will take a one minute just

1 to stay in place break, and we'll get Mr. Cullinan lined  
2 up as to when he should call in.

3 (Recess taken.)

4 JUDGE TOREM: Let's go back on the record.  
5 It's now five minutes after 10:00, and I'll note that we  
6 have several witnesses scheduled to call in, and we may  
7 just have to interrupt the proceedings briefly and  
8 testimony to have them wait, so if they come in and hear  
9 voices they will know what's going on.

10 Right now we're scheduled to have Ms. Lack's  
11 testimony, and I understand Mr. Cullinan for the Counsel  
12 for the Environment has been trying to call in, but he has  
13 been told to call in about five to ten minutes. We have  
14 also some witnesses scheduled I believe Mr. Grover at ten  
15 o'clock, he may be calling in, and then Mr. Sterzinger,  
16 and I think that's it for our 10:30.

17 MR. PEEPLES: I moved those to 11:30 because  
18 of trying to get everybody organized, so they're to call  
19 at 11:30, if that's okay.

20 JUDGE TOREM: All right. Ms. Lack, if you  
21 hear the phone beep, I may have you finish your answer and  
22 then let whoever called in identify themselves and tell  
23 them to hold tight, and we'll get them on as soon as your  
24 cross-examination is done. All right?

25 MS. LACK: Yes.

1 JUDGE TOREM: Mr. McMahan, are you ready to  
2 proceed?

3 MR. McMAHAN: Yes, thank you.  
4

5 ELIZABETH LACK,  
6 being first duly sworn on oath,  
7 testified as follows:  
8

9 DIRECT EXAMINATION

10 BY MR. McMAHAN:

11 Q. Ms. Lack, we have prefiled testimony marked  
12 Exhibit 29 from you. If I were to ask you those questions  
13 today, would those answers be same as provided?

14 A. Yes, they would.

15 MR. McMAHAN: Thank you.

16 JUDGE TOREM: Mr. Lane.

17 MR. LANE: Thank you.  
18

19 CROSS-EXAMINATION

20 BY MR. LANE:

21 Q. Good morning, Ms. Lack. Ms. Lack, have you  
22 undertaken to regrow shrub-steppe habitat before?

23 A. Could you repeat the question.

24 Q. Have you been involved in a program to regrow  
25 shrub-steppe habitat before?

1           A.       No, I have not.

2           Q.       Have you reviewed any study regarding what is  
3 necessary to regrow shrub-steppe habitat?

4           A.       I haven't reviewed studies. I've spoken to  
5 people anecdotically about their success with it.

6           Q.       What is your understanding regarding the  
7 success of regrowing shrub-steppe habitat?

8           A.       It can be done. Sometimes it's difficult.  
9 There's a lot of variability involved that are outside of  
10 anybody's control, but I have heard success stories for  
11 this.

12          Q.       You've reviewed the shrub-steppe habitat  
13 currently present at Wild Horse Wind Power Project?

14          A.       Correct.

15          Q.       In your understanding of temporarily  
16 disturbed areas how long will it take them to return to  
17 their current status under a revegetation program?

18          A.       That's very difficult to say because as I  
19 said there's so many variables involved that are outside  
20 of anybody's control, obviously the weather conditions.  
21 It could be a couple years to quite a bit longer. It's  
22 just dependent on a lot of factors.

23          Q.       Okay. So is it fair to say that you're  
24 unable to provide us with any answers as to how long that  
25 might take?

1           A.           Yes, that is correct.

2                       MR. LANE: No further questions.

3                       JUDGE TOREM: Mr. McMahan, any follow up?

4                       MR. McMAHAN: Just a couple.

5

6

REDIRECT EXAMINATION

7 BY MR. McMAHAN:

8           Q.           Ms. Lack, can you characterize for the  
9 Council the quality of shrub-steppe habitat, particularly  
10 the area proposed for development on the Wild Horse site.

11           A.           Yes, the quality ranges from fair to good.  
12 Most of it was good quality habitat and none came out as  
13 excellent habitat.

14           Q.           Have there been activities at the site that  
15 have impaired the quality of the habitat over time?

16           A.           I think the rating of fair and good reflects  
17 the past grazing honestly.

18           Q.           Are there currently cattle on site?

19           A.           When I was out there, I observed both cattle  
20 and horses.

21                       MR. McMAHAN: Nothing further.

22                       JUDGE TOREM: Councilmembers? Ms. Towne?

23                       MS. TOWNE: One question. In your testimony  
24 at Page 5 you noted that quote, "I mapped areas dominated  
25 by herbaceous species with little or no shrub cover as

1 'herbaceous'. The Washington Department of Fish and  
2 Wildlife has since said they consider these areas as  
3 shrub-steppe and will calculate mitigation requirements  
4 accordingly."

5 THE WITNESS: Yes, that's correct.

6 MS. TOWNE: Can you explain why they did  
7 that and what the logic is.

8 THE WITNESS: Yes. They were looking at a  
9 broader context and considering that whole area of Eastern  
10 Washington shrub steppe. That's how its mapped according  
11 to Daubenmire. I was focusing more on the site itself.

12 MS. TOWNE: What was on the ground?

13 THE WITNESS: And what was on the ground and  
14 calling out various shrub cover, but they preferred to  
15 leave the whole thing as Eastern Washington shrub steppe.

16 MS. TOWNE: To your knowledge was the  
17 mitigation requirement adjusted to accommodate that  
18 particular location?

19 THE WITNESS: Yes, to my knowledge it was.  
20 There is a higher mitigation ratio for shrub steppe than  
21 if it was considered grassland herbaceous, so they did go  
22 with a higher ratio in considering the shrub steppe.

23 MS. TOWNE: So your conclusion was what's on  
24 the ground and what you call; what we see on the ground.

25 THE WITNESS: That's correct.

1 JUDGE TOREM: Councilmember Towne, anything  
2 further?

3 MS. TOWNE: No, thank you.

4 JUDGE TOREM: Any other Councilmember  
5 questions?

6 Mr. Lane, any follow up?

7 MR. LANE: No.

8 JUDGE TOREM: Mr. McMahan?

9

10 CONTINUED REDIRECT EXAMINATION

11 BY MR. McMAHAN:

12 Q. Ms. Lack, what percentage if you can estimate  
13 of the 165 acres is actually shrub steppe, of the 165  
14 acres of the project, the development area?

15 A. I believe about 90 percent of the whole area  
16 is shrub steppe, so I would assume about 90 percent of the  
17 165 would be shrub steppe.

18 MR. McMAHAN: Thank you.

19 JUDGE TOREM: Is there anything further for  
20 this witness?

21 All right. Thank you, Ms. Lack. We  
22 appreciate your time coming out to testify.

23 Before we move to the next witness who is  
24 scheduled to be Mr. Cullinan who we should hear call in  
25 hopefully in the next few moments, Mr. Lane, it came to

1 the Council's attention that some of the exhibits being  
2 discussed with Mr. Erickson were actually exhibits that  
3 had not yet been admitted into evidence because of the  
4 withdrawal of Mr. Stream's testimony.

5 Mr. Cullinan, is that you on the phone?

6 MR. CULLINAN: Yes, this is me.

7 JUDGE TOREM: Okay. Hold tight. This is  
8 Judge Torem. I'm going to finish a procedural point with  
9 Counsel for the Environment, and then we will swear you  
10 in. All right?

11 MR. CULLINAN: Okay.

12 JUDGE TOREM: Mr. Lane, I just wanted at the  
13 next break for you to take a look at the exhibits behind  
14 Exhibit 101 and see which of those, if any, should be  
15 moved into evidence, and you might consult with  
16 Mr. Peeples and see what objections he might have to some  
17 of those. But a number of them are the sage grouse  
18 recovery plan and the five-mile buffer study that was  
19 discussed in some detail with Mr. Erickson. If the  
20 Council is to have that before them, they will need to be  
21 moved into evidence at a later time. All right?

22 MR. LANE: Okay.

23 JUDGE TOREM: We just didn't want to  
24 mistakenly and inadvertently leave out copies of an  
25 exhibit that I don't think has come in in other parts. At



1 least not all of those have come in as other parts of  
2 other exhibits.

3 MR. LANE: I would agree that those exhibits  
4 have currently been withdrawn, those studies that were  
5 referenced by Mr. Erickson in his testimony and in the  
6 Draft Environmental Impact Statement, so the Applicant and  
7 I can discuss admitting those documents. I don't believe  
8 there's a question they're outside the scope of what he  
9 has testified too.

10 JUDGE TOREM: I'm not suggesting that the  
11 questions were heard, but the studies themselves if you  
12 want the Council to have them before them.

13 MR. LANE: Yes.

14 JUDGE TOREM: Mr. Cullinan, I believe we're  
15 ready for your testimony, so you're calling in I believe  
16 from Sequim; is that right?

17 THE WITNESS: That's correct.

18 JUDGE TOREM: If you'll raise your right  
19 hand there in Sequim, I'm going to have Mr. Lane come to  
20 the microphone where he can best hear you and be heard.  
21 If you will raise your right hand there in Sequim, I'm  
22 doing so here in Ellensburg.

23 (Tim Cullinan sworn on oath.)

24 JUDGE TOREM: We do have a court reporter  
25 taking your testimony down for a transcript. If you'll

1 speak slowly and deliberately that will help with the  
2 sound quality we have from the modified speaker phone  
3 here.

4 Mr. Lane, your witness.

5

6

TIM CULLINAN,

7

being first duly sworn on oath,

8

Testified as follows:

9

10

DIRECT EXAMINATION

11 BY MR. LANE:

12 Q. Good morning, Mr. Cullinan. Can you hear me  
13 okay?

14 A. Yes.

15 Q. You presented prefiled testimony marked as  
16 Exhibit 71 for these proceedings, correct?

17 A. Yes, I did.

18 Q. If I were to ask you those same questions  
19 here today, you would provide the same answers.

20 A. Yes, I would.

21 MR. LANE: I don't have any further  
22 questions at this time.

23 JUDGE TOREM: Cross-examination is going to  
24 be Mr. McMahan or Mr. Peeples.

25 MR. McMAHAN: No cross-examination of this

1 witness from the Applicant.

2 JUDGE TOREM: All right. Councilmembers,  
3 Exhibit 71 is this person's testimony. Does anyone have  
4 any questions? All right. Hold on, Mr. Cullinan. I'm  
5 going to have the Councilmembers individually come to this  
6 microphone and introduce themselves and then ask their  
7 questions.

8 MS. TOWNE: Mr. Cullinan, I'm Chris Towne  
9 representing the Department of Fish and Wildlife. On Page  
10 6 your prefiled direct you speak of increasing evidence  
11 from studies of other open country grouse, presumably  
12 other than sage grouse, that tall structures in the  
13 landscape render habitat less suitable. Where are those  
14 studies? Who did them? How recently? What kind of  
15 topography and vegetation? Tell me some more about them.

16 THE WITNESS: Okay. There was a study done  
17 in 19 -- well, it was host in 1999 in the Wilson Bulletin,  
18 an ornithological journal about looking at density of  
19 grassland birds at a site. I believe it was -- I believe  
20 it was -- well, it was in Wyoming I believe, Wyoming or  
21 Minnesota at a lake called Lake Benton which showed lower  
22 density of grassland birds near the immediate vicinity of  
23 turbine towers. There are some other evidence of reduced  
24 density of grassland birds, prairie grouse in close  
25 proximity to other things on the landscape like power

1 lines and power poles.

2 For example, there was some research done I  
3 believe it was in Idaho. This was reported at a  
4 conference on the impacts, potential impacts of wind power  
5 development on wildlife. The Idaho Fish and Game  
6 Department has collected selected data on sage grouse  
7 avoidance of tall structures in the landscape, and their  
8 survey of breeding leks for sage grouse have shown that  
9 they've looked at power line corridors on Interstate 80  
10 going through Idaho and found that there is no sage grouse  
11 sites at all for miles of those power line corridors. And  
12 they found that as you get out further from two miles the  
13 density of sage grouse was lower than it was elsewhere in  
14 the habitat.

15 The same occurs with nesting sites for some  
16 of these grouse, some of these prairie grouse. There was  
17 work done and a survey of prairie chickens' nesting area  
18 showing that the prairie chickens seldom nest within four  
19 or five hundred feet of transit lines. So there hasn't  
20 actually been -- maybe I misled you a little bit with the  
21 way it was written in my prefiled testimony. There hasn't  
22 actually been -- there is no history, no select research  
23 of wind impact on sage grouse habitat specifically. The  
24 evidence comes from a search on other prairie grouse such  
25 as prairie chickens. But based on professional judgment

1 we can predict that habitat impacts will include -- could  
2 affect sage grouse as well.

3 MS. TOWNE: Is there any evidence that  
4 prairie chickens and sage grouse behave similarly, respond  
5 to stimuli in the same fashion or habitat alteration?

6 THE WITNESS: Well, yes. Much of that  
7 evidence comes from as I said other uses, other human  
8 impacts on the landscape or other energy development  
9 projects. There have been projects done in Colorado and  
10 Wyoming looking at the impacts of oil development  
11 facilities, for example, on sage grouse, looking at  
12 displacement or disturbance of sage grouse as a result of  
13 putting in tall structures on the landscape, and those  
14 have shown reduced habitat availability for sage grouse  
15 specifically. What we don't have right now is a study of  
16 impacts of wind turbine towers on sage grouse.

17 MS. TOWNE: Thank you. No further  
18 questions.

19 JUDGE TOREM: Other Councilmember questions  
20 for this witness?

21 Seeing none, Counsel for the Environment any  
22 follow up?

23 MR. LANE: No.

24 Mr. McMahan has a question.

25 MR. McMAHAN: Yes.

1 JUDGE TOREM: Can you hear Mr. McMahan when  
2 he speaks? We are going to solve that problem.

3 THE WITNESS: I will need him to get closer  
4 to the microphone.

5 JUDGE TOREM: He's doing it.

6

7

CROSS-EXAMINATION

8 BY MR. McMAHAN:

9 Q. Good morning, Mr. Cullinan. Tim McMahan  
10 here. Just a few questions. Concerning the study you  
11 cited from 1999, I think it was the Wilson Bulletin; is  
12 that correct?

13 A. Yes.

14 Q. Isn't it true that that was related to  
15 songbirds and not grouse?

16 A. Yes, it is. That looked at songbirds  
17 particularly. I've got it here someplace. But it was on  
18 songbirds.

19 Q. The study you indicated in Idaho along I-80.

20 A. Yes.

21 Q. Interstate 80. That was actually in Wyoming;  
22 is that correct?

23 A. You know, I think it was issued from an  
24 employee of the Fish and Wildlife Department in Wyoming  
25 named Jack Connelly. The way he expressed it he said we

1 have data on sage grouse avoidance for several types of  
2 man-made structures. When he said we, I thought he was  
3 referring to the Idaho Fish and Game Department. He may  
4 be talking -- it may be more of a general we that he was  
5 referring there.

6 Q. Sort of a royal we.

7 A. Yes.

8 Q. So your information on that was based upon a  
9 telephone conversation with a Fish and Wildlife guy in  
10 Wyoming; is that right?

11 A. No, Idaho. And it wasn't a phone  
12 conversation. It was a, you know, it was a face-to-face  
13 conversation.

14 Q. Are you aware that in that vicinity 20,000  
15 cars per day are in the vicinity of the project or the  
16 area that was studied?

17 A. No.

18 Q. Wouldn't it be true to say that there are  
19 other factors beyond just simply the size of these  
20 structures that can explain some of the opinions that you  
21 have regarding avoidance by sage grouse or other species;  
22 for example, number of vehicles?

23 A. Yes, that's a possibility.

24 Q. The study you cited from Kansas that I guess  
25 was with regard to prairie chickens versus sage grouse

1 that was actually related to a coal-fired power plant; is  
2 that correct?

3 A. I don't know right off the top of my head.

4 Q. Just one other question. Concerning tall  
5 structures isn't it true that part of the problem -- well,  
6 isn't it true that some of these studies haven't  
7 distinguished the risk of raptors perching on tall  
8 structures versus simply the presence of tall structures  
9 themselves?

10 A. Well, yes. The prevailing hypothesis is that  
11 these birds have evolved in places that don't have tall  
12 structures, and that tall structures on the landscape they  
13 recognize them as a threat whether or not a raptor perched  
14 on one of them.

15 Q. In terms of actual risk to the species and  
16 avoidance or mortality isn't it true that the raptors  
17 using tall structures would account for some of that?

18 A. Well, yeah. Raptors on tall structures  
19 create a predation risk, but there's also an avoidance  
20 effect as well.

21 Q. Based upon the information that you've cited.

22 A. Well, based on the general knowledge of the  
23 habitat requirements of prairie grouse.

24 Q. Are you aware that the wind turbines for this  
25 project will be designed to preclude perching on them by



1 raptors?

2 A. Yes.

3 MR. McMAHAN: I have nothing further.

4 A. Yes, you know, the risk I cited were not --  
5 it was not -- I was not specifically talking about risk of  
6 predation. I understand that it will cause the raptors to  
7 perch on these, but it's just that avoidance effect of  
8 having those tall structures in proximity to an area that  
9 could be suitable for sage grouse habitat.

10 MR. McMAHAN: Okay. Thank you,  
11 Mr. Cullinan.

12 JUDGE TOREM: Mr. Lane, any follow up?

13 MR. LANE: No.

14 JUDGE TOREM: Councilmembers, any other  
15 questions for Mr. Cullinan?

16 Thank you, sir, for your time. I think we  
17 can let you go at this time. It's now almost 10:30. We  
18 are going to take a break. Mr. Cullinan, if you want to  
19 speak with Mr. Lane, I'll have you just contact him  
20 otherwise, and thank you for your time today.

21 MR. CULLINAN: Okay. Thank you.

22 JUDGE TOREM: Folks, we'll take a brief  
23 recess for about ten minutes and we'll come back I think  
24 with testimony from Mr. Priestley and Mr. DeLacy and the  
25 other witnesses that are here in person. We are at

1 recess.

2 (Recess taken.)

3 JUDGE TOREM: We will be back in order. It's  
4 now 17 minutes before 11:00, and we have a number of  
5 witnesses here in person before our scheduled telephone  
6 call-in witnesses at 11:30. I see that we have Tony  
7 Usibelli from the Community Trade and Economic Development  
8 agency, as well as Barton DeLacy and Thomas Priestley who  
9 will give their testimony in a few moments.

10 I think best-case scenario is to take  
11 Mr. Usibelli's testimony next and as necessary get him  
12 back on his way to Olympia, if that's where he's headed  
13 today and then take Mr. DeLacy and Mr. Priestley in  
14 whatever order the Applicant wants to have them adopt  
15 their testimony, but I will swear all three of you in now.

16 (P. Barton Delacy, Thomas Priestley, and  
17 Tony Usibelli sworn on oath.)

18 TONY USIBELLI,  
19 being first duly sworn on oath,  
20 testified as follows:

21

22 EXAMINATION

23 BY JUDGE TOREM:

24 Q. Mr. Usibelli, I recognize you're here  
25 representing your agency, and you have your own testimony

1 to adopt but no lawyer to ask you to do so, so I'll do you  
2 the courtesy.

3 A. Thank you. I appreciate that.

4 Q. Mr. Usibelli, if I've got this rehearsed  
5 correctly from watching the others, if someone were to ask  
6 you the questions adopted that you were asked in Exhibit  
7 50, would you answer them the same way today as you did  
8 when you gave these answers?

9 A. Yes, I would.

10 Q. So you're adopting your testimony and all  
11 supporting exhibits.

12 A. Yes, that's correct.

13 JUDGE TOREM: All right. Mr. Peeples, any  
14 questions for Mr. Usibelli?

15 MR. PEEPLES: No questions.

16 JUDGE TOREM: Mr. Lane?

17 MR. LANE: No.

18 JUDGE TOREM: Any other Councilmembers have  
19 questions for Mr. Usibelli? I don't think there were any  
20 planned, so we will see here.

21 MS. TOWNE: I have one. On Page 13 of  
22 Exhibit 50, you talk about reliability of hydro and wind,  
23 and the integration of wind generation into the existing  
24 system producing reliability benefits. You go on to  
25 state, "State and regional utilities are examining ways to

1 link the wind and hydro systems more efficiently -- using  
2 wind generated electricity to defer the need to run water  
3 through hydro turbines, thus effectively providing a  
4 storage medium for intermittent wind resources."

5           Could you elaborate a little on that. This  
6 is an idea I wasn't aware of.

7           THE WITNESS: One of the issues that you see  
8 with respect to wind generation is that it's an  
9 intermittent resource. The wind will blow for a period of  
10 perhaps one-third of the time the maximum rated capacity  
11 of a wind project. A 100-megawatt project you might be  
12 able to generate 30 average megawatts over the course of a  
13 year or 35 average megawatts depending on the wind regime.  
14 So there is an issue with respect to integrating that  
15 resource into the electricity system because for a number  
16 of other kind of resources conventional fossil fuel kind  
17 of generation they may have a capacity factor of 70 or 80  
18 percent. In other words, that they're available most of  
19 the time and are dispatchable, and as a result can be used  
20 when they're needed on the system.

21           One of the inherent advantages of having  
22 wind in the Pacific Northwest is that we have a  
23 hydroelectric system which can be essentially turned on  
24 and off in very rough approximation pretty readily. We'll  
25 run more water through the dam. We don't run water

1 through the dam. So you can integrate wind. You can say,  
2 well, when the wind is not blowing that may be then an  
3 opportunity to run somewhat more water through the  
4 hydroelectric system and make up for that, fill in the  
5 valley if you will, of lack of wind generation. Or when  
6 the wind is generating power from a wind system say in the  
7 middle of the night when there may not be significant  
8 demand for that may mean that you would then not have to  
9 run a hydroelectric system and store some of the water  
10 behind the dam and be able to use it later. So there are  
11 some advantages there, and most of the utilities in the  
12 Pacific Northwest area employing wind are looking at ways  
13 to do that integration and to say how do we operate given  
14 the limitations and the parameters on the hydro system and  
15 the transmission system and so forth; how do we integrate  
16 those two together.

17 MS. TOWNE: Given the constraints on  
18 Bonneville through fish ESA listing what is their  
19 flexibility to accommodate wind power in the fashion you  
20 described?

21 THE WITNESS: I would say probably at the  
22 moment they have a reasonable amount of flexibility  
23 because the amount of wind power in the system is  
24 relatively small compared to the literally tens of  
25 thousands of megawatts of capacity that they have in their

1 system. If that were to grow to a very large number of  
2 wind amount, then it may be more difficult for them to do  
3 that. But, for example, right now Bonneville is offering  
4 what's called a conditional firm product where they would  
5 essentially firm up the wind resources because they  
6 believe their system is able to accommodate that.

7 The upper limit of that in terms of how much  
8 capacity I think is something that's being examined right  
9 now at Bonneville. We don't know precisely where that is.  
10 My judgment is at least for the next several projects that  
11 are coming on it probably doesn't represent any big  
12 constraint on their system.

13 MS. TOWNE: Which leads me to a related  
14 question. Does the Energy Policy Division of CTED have a  
15 numerical aspiration or goal, if you will, for wind power?

16 THE WITNESS: We have not articulated a  
17 specific goal. As I cited in my testimony, we've depended  
18 in particular on the work of the Northwest Power and  
19 Conservation Council who does a very rigorous analytical  
20 analysis of the needs for electricity demand and  
21 electricity supply for a period of 20 years into the  
22 future. As I cited in my testimony they believe that the  
23 system over the next 20 years, meaning the entire  
24 essentially Bonneville system, the four states of the  
25 Northwest, could accommodate about 5,000 megawatts. What

1 proportion of that would be in the State of Washington is  
2 hard to say, but I would say that's probably at least the  
3 best guidance that we're using for in the sense of how  
4 much wind power makes economic and energy sense for the  
5 Northwest.

6 MS. TOWNE: Thank you. No further  
7 questions.

8 JUDGE TOREM: Other Councilmembers,  
9 questions for Mr. Usibelli?

10 Parties?

11 All right. Mr. Usibelli, thank you for your  
12 presence today.

13 Mr. Peeples, who is going to be asking the  
14 questions of these other gentlemen?

15 All right. It appears to be Mr. McMahan.

16 MR. McMAHAN: Since we are not asking any  
17 questions. Tim McMahan, for the record on behalf of the  
18 Applicant. I think we will start with Tom Priestley which  
19 would probably make better logical sense.

20

21 THOMAS PRIESTLEY,  
22 being first duly sworn on oath,  
23 testified as follows:

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DIRECT EXAMINATION

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BY MR. McMAHAN:

Q. Mr. Priestley, we have filed Exhibit 33 which is your prefiled written direct testimony. If I were to ask you all those questions in that testimony today, would your answers be the same?

A. Yes, it would.

MR. McMAHAN: Thank you. No further questions.

JUDGE TOREM: All right. There is no scheduled cross-examination for this witness. Any parties have questions for Mr. Priestley?  
Councilmembers?

MS. TOWNE: I'm sorry. I am a step behind. You state in Exhibit 33 at Page 7 you're describing WindPro software system and Zones of Visual Influence. It says the analysis was run using topographic data only, didn't account for the screening of views by vegetation and buildings. The patterns of project visibility displayed represent the maximum potential visibility of the turbines and thus likely overstates the extent to which the turbines will actually be visible.

THE WITNESS: That's correct.

MS. TOWNE: So since there isn't much vegetation in the intervening distance from your



1 observation point of the project, would I expect that  
2 vegetation would play a significant role in lessening the  
3 visual impact?

4 THE WITNESS: Actually in specific places,  
5 yes. For example, in the regions to the north of the  
6 project there is in fact varying amounts of forest cover.  
7 In some places it's quite thick. So if you were up in a  
8 high-land area which is heavily vegetated, your views  
9 toward the project would be screened.

10 Then, for example, in the communities,  
11 places like Kittitas in Ellensburg which are theoretically  
12 within the zone of visual influence in fact there would be  
13 considerable screening by the urban trees and the  
14 vegetation, as well as, of course, the structures that are  
15 in the immediate foreground as one views.

16 MS. TOWNE: All right. Thank you. No  
17 further questions.

18 CHAIR LUCE: I have one question.

19 JUDGE TOREM: Chairman Luce.

20 CHAIR LUCE: Mr. Priestley, I have one  
21 question. On Page 16 of your testimony at the bottom of  
22 the carryover paragraph the sentence states, "Over time,  
23 the surfaces of the turbine equipment, like any coated  
24 surface exposed to the elements, will tend to weather, and  
25 the effect of this weathering will be to dull the

1 surfaces, producing further decreases in the levels of  
2 reflectivity."

3 Then I think in your summary of your  
4 testimony you conclude on Page 27, fifth bullet, "A  
5 low-reflectivity finish will be used for all surfaces of  
6 the turbines to minimize the reflections."

7 I wasn't sure those were perfectly  
8 consistent. One, it seemed to be that the finish would be  
9 less reflective over time, and then the last bullet on  
10 Page 27 said that a low-reflectivity finish would be used  
11 for all surfaces. Does that mean at the outset a  
12 low-reflectivity finish will be used for everything, and  
13 it will be even lower over time?

14 THE WITNESS: Exactly. Exactly. My  
15 understanding in conversations with those who are involved  
16 in the project design is that a semi-gloss finish would be  
17 specified at the beginning to reduce the reflectivity to  
18 the degree that's feasible without technical restraints.  
19 Then as time goes on and weathering takes place, then the  
20 finish will become even less reflective than it was at the  
21 outset.

22 CHAIR LUCE: All right. It just seems to  
23 me, and I'm not an expert on reflectivity material or  
24 reflective material, but the towers themselves seemed  
25 fairly reflective or reflective to some extent, and I was

1       curious whether you had analyzed or examined, perhaps  
2       you're not on an expert in this area, whether to what  
3       extent they could be made less reflective. Maybe that's  
4       not your area of expertise.

5                   THE WITNESS: My discussions with the  
6       technical people has been that it's possible to specify a  
7       semi-gloss finish as opposed to a full-gloss finish which  
8       would add conditionally at least to some degree reduce the  
9       degree of reflectivity.

10                  CHAIR LUCE: Okay. It sounds like you're  
11       not the expert on reflectivity or finish.

12                  THE WITNESS: Let's say my expertise in this  
13       area only goes so far.

14                  CHAIR LUCE: Thank you.

15                  JUDGE TOREM: Anything further?

16                  CHAIR LUCE: No.

17                  JUDGE TOREM: Pardon me for just a moment,  
18       Mr. Priestley, but it sounds like we had somebody else  
19       come onto the telephone line.

20                  Who's on the line at this time?

21                  MS. NELSON: My name is Janet Nelson from  
22       the Audubon Society, and I was given this number to call  
23       in for the audience.

24                  JUDGE TOREM: Oh, okay.

25                  MR. LANE: Ms. Nelson is a member of the

1 Kittitas Audubon Society.

2 JUDGE TOREM: All right, Ms. Nelson. We're  
3 in the midst of testimony from Mr. Priestley and  
4 Mr. DeLacy, and I'm not so sure how much of it you will be  
5 able to hear. But bear with us, and I just wanted to make  
6 sure it wasn't a witness calling in.

7 Do Councilmembers have any additional  
8 questions for Mr. Priestley?

9 MS. ADELSMAN: I need to just do a follow  
10 up. Is there a reason why it cannot be painted with flat?  
11 I know semi-gloss is a little bit more durable and so on,  
12 but is there a reason why the blades are not painted flat?

13 MR. McMAHAN: Mr. Chair or Mr. Hearings  
14 Officer, if there are questions about this, Mr. Taylor is  
15 available and Mr. Young can answer further questions if  
16 you wish. I'm not sure that Mr. Priestley can go any  
17 further in his testimony. We do have the information here  
18 if you want some further clarification on those issues.

19 JUDGE TOREM: I think that would be more  
20 appropriate. Thank you, Mr. McMahan.

21 Mr. Priestley, did you have any other  
22 comments you wanted to make on the degree of reflectivity  
23 from anyone's property in the view shed to clarify what  
24 may have been asked already today?

25 THE WITNESS: Yeah, I'm not so sure that --

1 has that come up as an issue? Because the properties are  
2 so far away, residential properties are so far away, I'm  
3 not sure that this is --

4 JUDGE TOREM: Prior to last Friday,  
5 Mr. Steven Lathrop was an intervenor in the case, and he  
6 has since withdrawn. I know that you prepared some  
7 rebuttal testimony, the last two paragraphs of which on  
8 Page 17 specifically rebutted his question as to whether  
9 the towers might be painted white or this gray that we're  
10 having a discussion about now. There's now apparently  
11 been some Council concern even though that testimony has  
12 been withdrawn as to the visibility in the far distance  
13 and the light would glint off these structures or as the  
14 blades rotated they will have a repeating glint. I don't  
15 think anybody is concerned so far as shadow flicker which  
16 would come up with Mr. Nielsen's testimony later I  
17 believe. But if there's anything you want to add to  
18 clarify about your opinion regarding reflectivity, the  
19 Council has expressed at least a general interest in  
20 hearing that.

21 THE WITNESS: No, I don't think there is  
22 anything else that I can add.

23 CHAIR LUCE: Let me clarify my question. To  
24 clarify my question, based on what I've seen with respect  
25 to the distances involved from residences, I'm not

1 concerned about this specific project. I am concerned  
2 about industry standards, and having reviewed what I've  
3 seen here, I'm curious about what the industry standards  
4 are because it does seem to having looked at the poles and  
5 nacelles it does seem like there is an issue there, and I  
6 would like to be educated upon this particular issue.

7 This particular site is some very  
8 substantial distance away from any residential area or  
9 appears to be. That's what the testimony so far has  
10 evidenced. But I am curious about the type of material  
11 reflected, the degree of reflectivity that is used on the  
12 poles and nacelles.

13 JUDGE TOREM: Mr. McMahan, did you want me  
14 to defer those questions to Mr. Taylor?

15 MR. McMAHAN: Yes. We can take him right  
16 now if you want to just kind of go through this issue  
17 right now.

18 JUDGE TOREM: All right. It sounds as good  
19 a time as any.

20 Mr. Taylor, you've already been sworn  
21 yesterday in the proceedings, so if you remit to them.

22 MR. TAYLOR: It carries over to today.

23 JUDGE TOREM: It carries over to today.

24 MR. TAYLOR: I will attempt to address the  
25 questions about reflectivity. I was involved with

1 Mr. Priestley in working with the two leading turbine  
2 manufacturers to obtain information about the colors of  
3 coatings that are available for the various components,  
4 the turbines, as well as the reflectivity ratings. I'm  
5 not going to be able to scrounge out of my memory, but  
6 there's a specific rating reflectivity scale. Tom may  
7 actually remember that. There are values associated with  
8 it that's an objective way of measuring reflectivity of a  
9 coating. I'm not going to be able to remember right now  
10 exactly what that number was. We can provide it for you.  
11 We did use that information in the modeling by providing  
12 that to Mr. Priestley.

13 I think going to Mr. Luce's, Chair Luce's  
14 question about industry standard, to break it down for  
15 you, the tower itself, the largest component of the  
16 turbine can be coated with a very flat finish. The issue  
17 about white versus gray the industry standards are you  
18 asking with respect to the United States or in other  
19 countries? I think there is some variability out there.  
20 I think there is a consensus in the United States at  
21 present that the off-white or light gray color blends best  
22 into the landscape under most conditions.

23 Now we heard testimony from Mr. Jorgensen  
24 today about a sight in Mount Austria. White might be a  
25 great color there, but in this landscape it probably

1        isn't. I think it's in the record already that under  
2        Dr. Priestley's direction we did actually experiment with  
3        using some tan colors that would seem to blend in with the  
4        dry shrub-steppe environment. But when they're skylighted  
5        or is that skylined against, when you see them with the  
6        backdrop with blue sky, they're much more visually  
7        prominent than if they're this gray color.

8                        So it's our understanding from conversations  
9        at least with two of the leading manufacturers, G.E. and  
10       Vestas, that you can purchase the equipment in either a  
11       white color or an off-gray color.

12                       So the towers can be -- to answer  
13       Ms. Adelsman's question, the towers themselves there's no  
14       technical reason why they have to be glossy, so that's why  
15       we said we will specify a semi-gloss finish.

16                       The nacelles are usually -- there's two  
17       different types of nacelles. They're made out of  
18       reinforced fiberglass or metal. The fiberglass ones I'm  
19       not sure if those are painted or if that's the color that  
20       are manufactured with that pigment built into them. But  
21       those can also -- there's no reason why the nacelles have  
22       to be of a glossy nature, the nacelles, the gearbox at the  
23       top where the generator is located.

24                       The blades there is a technical reason why  
25       those can't be totally flat finish. It has to do with



1 aerodynamic efficiency. If you want to get into that, I  
2 would defer to my colleague, Andrew Young, but there is a  
3 performance-driven reason to have a glossier finish on the  
4 blades themselves and within the realm of what's  
5 technically feasible we will try to go to the low end of  
6 the glossiness that's necessary for efficient energy  
7 production, but that's solely for the blades. The nacelle  
8 and the tower and all the other appurtenances, the  
9 substation, the control facility, the step-up transformers  
10 there's no reason why those facilities can't be at a low  
11 reflectivity finish, and that's what Dr. Priestley's  
12 testimony speaks to. Does that answer your question?

13 CHAIR LUCE: That satisfies me. It's a  
14 curiosity question, and the curiosity has been satisfied.  
15 Thank you.

16 JUDGE TOREM: Other Councilmember questions  
17 for Mr. Taylor or Mr. Priestley on the reflectivity or the  
18 technical restraints on painting the materials?

19 Seeing none, are there any other general  
20 questions for Mr. Priestley on his studies on the visual  
21 impacts?

22 Seeing none, let's move to Mr. DeLacy.

23 Mr. McMahan.

24 MR. McMAHAN: Thank you, Mr. Torem.

25 ///

1 P. BARTON DeLACY,  
2 being first duly sworn on oath,  
3 testified as follows:  
4

5 DIRECT EXAMINATION

6 BY MR. McMAHAN:

7 Q. Mr. DeLacy, we have filed on your behalf  
8 Exhibit 35 plus rebuttal Exhibit 35 with your resume'  
9 attached. If I were to ask you those questions set forth  
10 in that prefiled testimony, would your responses be the  
11 same today?

12 A. Yes, they would.

13 MR. McMAHAN: Thank you. Nothing further.

14 JUDGE TOREM: Any cross-examination from the  
15 parties for Mr. DeLacy about property values?

16 Any cross-examination questions from  
17 Council?

18 Ms. Towne.

19 MS. TOWNE: Mr. DeLacy, on Page 8 of your  
20 testimony, Exhibit 35, you state, "The REPP study showed  
21 that in most communities tested property values increased  
22 post installation at the same rate or at faster rates than  
23 the control community. We found the same trends to be  
24 true in the Kittitas Valley."

25 We haven't had an installation, so how could

1 the same thing be true?

2 THE WITNESS: Good question. What we did  
3 have in the Kittitas Valley is, of course, the  
4 announcement of a wind project, which I believe was as of  
5 2002, and we discovered that there was an active market in  
6 subdivision and sale of home sites on Bettas Road which  
7 were clearly in sight of where some of the towers were  
8 going to be placed.

9 One of the issues we encounter in judging  
10 impacts or whether impacts have an influence on property  
11 value has as much to do with the fear of what might happen  
12 as to the actual construction of the event itself. So,  
13 therefore, the mere announcement that a wind turbine  
14 project was going to be built could potentially impact  
15 property values as much as actually having the project  
16 built itself. So given those scenarios, I was impressed  
17 that there had been ongoing sale activity notwithstanding  
18 the fact that there was a known event that was going to  
19 occur.

20 MS. TOWNE: So if I could restate it,  
21 perhaps what I should drop is, is that the REPP study post  
22 installation which is comparable to the KV study post  
23 announcement of potential installation.

24 THE WITNESS: Correct.

25 MS. TOWNE: It's not apples and apples in

1 fact.

2 THE WITNESS: It's not exact, but it was as  
3 close as we could get at this time.

4 MS. TOWNE: The second question on the  
5 previous page you're talking about personal preference,  
6 evidence of potential property owner preferences, and a  
7 poll done by Evergreen Research by enXco. Presumably that  
8 poll was taken of residents or ex ante property owners in  
9 Kittitas.

10 THE WITNESS: Yes.

11 MS. TOWNE: As I have read in other evidence  
12 here or perhaps in KV, I'm not sure, buyers tend in large  
13 part to be from outside Kittitas County; therefore, I  
14 assume they were not polled. So what do you know about  
15 potential buyers resident in King County which is more  
16 probable I would suspect?

17 THE WITNESS: Well, maybe that poll needs to  
18 be taken I guess in terms of determining if in fact your  
19 major source of home buyers in that particular area which  
20 is second home buyers live in King County. What my  
21 understanding of the poll was that it talked about those,  
22 it interviewed people that either live here or intended --  
23 well, basically lived here in the county. I'm not sure  
24 that polls of residents in King County who might look at  
25 buying here would be very helpful.

1 Well, so you're saying this poll as I  
2 understood was of the, you know, the residents here in the  
3 county who may or may not have been aware, and you're  
4 concerned about buyers from outside the area could be King  
5 County. It could be anywhere else --

6 MS. TOWNE: Right.

7 THE WITNESS: -- and what would their  
8 reaction be. I would say I don't think this study really  
9 addresses that point.

10 MS. TOWNE: That was basically my question.  
11 You say also on Page 14, "The REPP study was not able to  
12 establish any evidence that property values were adversely  
13 affected after the date that wind turbines began  
14 operating." So we don't know what happens before.

15 THE WITNESS: That's true. That study dealt  
16 with existing facilities that had been on line for at  
17 least a couple of years.

18 MS. TOWNE: Thank you. No further  
19 questions.

20 JUDGE TOREM: Councilmember Adelsman.

21 MS. ADELSMAN: Yes, I just have a quick  
22 follow up on Page 7 regarding the poll. It says 70  
23 percent of the people supported the project. Do you know  
24 if the question was asked of these people whether they  
25 have actually seen sites with wind turbines on them and

1 kind of visualize them when your question was asked?

2 THE WITNESS: I can't recall the specific  
3 question that was asked. I will say this. That what we  
4 often find is that conceptually there will not be  
5 objections to it unless it's next to your house, and that  
6 is where you get this ambivalence on the part of people  
7 you've heard of as in my back yard. It's a great idea,  
8 but I don't want to live next to it, or at least that's  
9 their preference.

10 The disconnect is that there's  
11 unquestionably an impact if something is placed next door.  
12 If you have a vacant lot next to your house, and your  
13 neighbor decides to build a house on it, you're  
14 unquestionably impacted. There's an impact here. But  
15 whether that impact diminishes your property value or not  
16 is another question, and even if personally you would  
17 rather not have a house there, and you would rather have a  
18 vacant lot, that still doesn't necessarily diminish the  
19 value of your property. That's where some of these  
20 studies have difficulty reaching that stage where they're  
21 actually observing the transactions that truly will  
22 demonstrate whether or not there has been a diminution of  
23 value.

24 MS. TOWNE: I have just a quick question for  
25 Mr. Peeples. I am confused on Mr. DeLacy's testimony.

1 His rebuttal is labeled Exhibit 33-R which I think is  
2 assigned to Mr. Priestley, and his direct testimony was  
3 labeled Exhibit 36, and I think it should be 35.

4 MR. PEEPLES: It might have been  
5 misnumbered. I'm sorry on that. I did not realize that.  
6 Tim hands me the phone on the tough questions. That is  
7 probably a mistake then. So it should be -- what is it?

8 JUDGE TOREM: Let me clarify for you,  
9 Mr. Peeples.

10 MS. TOWNE: 35 and 35-R I think.

11 MR. PEEPLES: The one I have says 35-R.

12 JUDGE TOREM: The footer is labeled 33.  
13 That's where the confusion is.

14 MR. PEEPLES: So the footer is wrong. The  
15 top is right; the footer is wrong.

16 MS. TOWNE: The top and the footer are wrong  
17 on the direct I think.

18 JUDGE TOREM: The other source of confusion  
19 I think is that attached to the rebuttal testimony is  
20 another exhibit from another case in the Kittitas Valley  
21 Wind project that's attached, and in that particular case  
22 Mr. DeLacy's testimony is Exhibit 36. But if you look at  
23 the caption for that, that's in another case. It's just  
24 attached as part of the rebuttal.

25 MS. TOWNE: Oh, okay. Sorry. I missed that

1 one.

2 JUDGE TOREM: So it is Exhibit 35 and 35-R  
3 for our purposes.

4 MS. TOWNE: Okay. Gotcha.

5 JUDGE TOREM: So now that we've got that  
6 clerical matter clarified, anything else for this witness,  
7 for Mr. DeLacy?

8 CHAIR LUCE: I have a question.

9 JUDGE TOREM: Chairman Luce.

10 CHAIR LUCE: One question, Mr. DeLacy, and  
11 answer this to the best of your ability if you can. On  
12 Page 14 of your testimony you cite the Blomquist Study  
13 reported in Land Economics 1974 regarding a coal burning  
14 power plant. Based on your professional experience, if  
15 you can, would you consider living next to a coal burning  
16 power plant from a land value point of view, coal burning  
17 power plant or a wind project to be more or less  
18 desirable?

19 THE WITNESS: Well, the size and place of  
20 the coal burning plant is considerably more obtrusive, and  
21 there are issues of emissions from a coal burning plant  
22 that you do not have with a wind project.

23 CHAIR LUCE: So from that could I conclude  
24 that the damage I guess from the Blomquist Study says that  
25 more than two miles away from the coal burning power plant



1       there was no measurable impact.  So I'm assuming, I'm  
2       extrapolating from that study and assuming that more than  
3       two miles away from the wind project there would be no  
4       measurable impact from the wind project.

5                   THE WITNESS:  That's correct.  What I tried  
6       to do is create a distinction that impacts can be viewed  
7       on a continuum, and I think we can agree that there are  
8       certain very egregious influences that would have an  
9       adverse impact, and in fact you can measure in urban areas  
10      with transactions.  You mentioned, brought up the coal  
11      burning plant.  There's also an important study on a lead  
12      smelter in Dallas where again within about a two-mile  
13      radius there was measurable impact, but that after that it  
14      diminished with distance.  After two miles even with a  
15      lead smelter, and all that's involved the impact you just  
16      there was not again a measurable impact or statement.  So  
17      I attempted to apply that standard here.

18                   CHAIR LUCE:  Correct.  Now recognizing, of  
19      course, you still have to find a willing buyer and a  
20      willing seller and that will depend on a whole raft of  
21      variables which may or may not have anything to do with  
22      externalities.

23                   THE WITNESS:  Exactly.

24                   CHAIR LUCE:  Schools or sewers or the next  
25      door neighbor or whatever.

1 THE WITNESS: There are a lot of different  
2 drivers.

3 CHAIR LUCE: Thank you. That's all I have.

4 JUDGE TOREM: All right. Any other  
5 questions for this witness from Councilmembers or parties?

6 All right. Seeing none, thank you,  
7 Mr. DeLacy, for coming up. The next witness, Mr. Peeples.

8 MR. PEEPLES: I think they're all on the  
9 phone.

10 JUDGE TOREM: I think they're all by phone  
11 now. I think we're down to the point where we have still  
12 scheduled Ms. Acutanza, Mr. Grover, Mr. Sterzinger, and  
13 then Mr. Bernay, Kammen, and Mr. Nielsen. I think from  
14 our discussions they're all at 11:30.

15 MR. PEEPLES: Yes, we made them at 11:30.

16 JUDGE TOREM: It's now almost 11:20. So if  
17 everybody can be little bit more attentive to being back  
18 in their seats at 11:28.

19 CHAIR LUCE: Did we just have somebody call  
20 in?

21 JUDGE TOREM: No, we just had somebody hang  
22 up. That was the tone for somebody hanging up.

23 Is anybody on the line right now?

24 Okay. So with that we will wait, and we'll  
25 keep the phone line open. We'll listen for those of us at

1 the table here, but we will be at recess for the next  
2 eight to ten minutes.

3 (Recess taken.)

4 JUDGE TOREM: We're back on the record at  
5 11:33 in the morning on Tuesday, March 8. This is Judge  
6 Torem again, and all the Councilmembers that were present  
7 earlier today are again present in the room. We have now  
8 six witnesses joining us by telephone bridge line. They  
9 are, George Sterzinger. Are you there, sir?

10 MR. STERZINGER: Yes I am.

11 JUDGE TOREM: They also include Michael  
12 Bernay.

13 MR. BERNAY: Yes, I'm here.

14 JUDGE TOREM: Dan Kammen.

15 MR. KAMMEN: Here.

16 JUDGE TOREM: Arne Nielsen.

17 MR. NIELSEN: Yes.

18 JUDGE TOREM: Stephen Grover.

19 MR. GROVER: Yes.

20 JUDGE TOREM: And Jeanne Acutanza.

21 MS. ACUTANZA: I'm here.

22 JUDGE TOREM: Excellent. Most of these  
23 witnesses are called by the Applicant, and Mr. Grover is  
24 being called by Debbie Strand and the Economic Development  
25 Group.

1 I'm going to ask each of you wherever you  
2 respectively are to raise your right hand as I'm doing  
3 here in Ellensburg so I can administer an oath of witness  
4 to each of you. I'll call your names one by one when I'm  
5 done with the oath question, so you can say, yes, you do.

6 (Jeanne Acutanza, Stephen Grover, George  
7 Sterzinger, Michael Bernay, Dan Kammen, and Arne Nielsen  
8 sworn on oath.)

9 JUDGE TOREM: All right. Thank you. I'm  
10 going to turn this over now to Mr. Peeples, and he is  
11 going to ask each of you I think in sequence to adopt your  
12 testimonies. He'll identify for the Council which  
13 prefiled exhibits those are, and as he noted there is no  
14 scheduled cross-examination from any of the parties in the  
15 case; however, the Councilmembers may have questions, and  
16 we'll go through each of you. If any of you when you're  
17 done with your potential cross-examination wishes to hang  
18 up, feel free to do so. We'll hear a tone indicating that  
19 your line has dropped off, and then we will proceed to the  
20 next witness. If you would like to stick around for  
21 whatever reason to hear the other witnesses, feel free.

22 Mr. Peeples, I'll let you call out the  
23 order.

24 MR. PEEPLES: I'm going to go through each  
25 witness and verify that the testimony that you have

1 submitted as prefiled testimony is the testimony that you  
2 would give if I'd asked you those questions.

3 Stephen Grover, I'll ask it for you also  
4 even though you are not technically our witness. It would  
5 just be easier for me to do it because I'm closer to the  
6 mike, and Debbie is away from it a bit.

7

8 JEANNE ACUTANZA,  
9 being first duly sworn on oath,  
10 testified as follows:

11

12 DIRECT EXAMINATION

13 BY MR. PEEPLES:

14 Q. Jeanne Acutanza, your prefiled testimony is  
15 marked as Exhibit 32. It's been previously admitted by  
16 the Council into evidence. If I were to ask you the  
17 questions contained in that prefiled, would your answers  
18 be the same as set out therein?

19 A. They would.

20 Q. And your testimony has to do with  
21 transportation, correct?

22 A. Yes.

23 STEPHEN GROVER,  
24 being first duly sworn on oath,  
25 testified as follows:

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DIRECT EXAMINATION

BY MR. PEEPLES:

Q. Steve Grover, your prefiled testimony was Exhibit 90. It had it do with economic impact, and if I or Debbie Strand asked you the questions contained in that prefiled testimony, would your answers be the same as set out there?

A. Yes.

GEORGE STERZINGER,  
being first duly sworn on oath,  
testified as follows:

DIRECT EXAMINATION

BY MR. PEEPLES:

Q. George Sterzinger, your prefiled testimony is Exhibit 34. If I were to ask you all the questions contained in Exhibit 34, would you give the same answers therein?

A. Yes, I would.

MR. PEEPLES: George's testimony has to do with property values. He was the one that did the REPP study. Stephen Grover did the economic study for EDG.

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MICHAEL BERNAY,

being first duly sworn on oath,

testified as follows:

DIRECT EXAMINATION

BY MR. PEEPLES:

Q. Michael Bernay, your prefiled testimony is Exhibit 37. If I were to ask you those questions contained in that exhibit, would your responses be the same?

A. They would.

MR. PEEPLES: Michael Bernay's testimony was with regard to wind farm related risks from an insurance perspective.

DANIEL KAMMEN,

being first duly sworn on oath,

testified as follows:

DIRECT EXAMINATION

BY MR. PEEPLES:

Q. Dan Kammen, your prefiled testimony is contained in Exhibit 38. If I were to ask you those same questions set out in Exhibit 38, would your answers be the same?

1           A.           Yes, they would.

2                       MR. PEEPLES: Dan Kammen's testimony is with  
3 regard to wind farm risk analysis.

4

5                               ARNE NIELSEN,  
6                       being first duly sworn on oath,  
7                       testified as follows:

8

9                               DIRECT EXAMINATION

10 BY MR. PEEPLES:

11           Q.           Arne Nielsen, your testimony had to do with  
12 shadow flicker, and you did the visual simulations of the  
13 wind farm. Your prefiled testimony is set out in Exhibit  
14 39, and you also have rebuttal testimony within that  
15 Exhibit 39. If I were to ask you the questions contained  
16 in those two sets of testimony, would your answers be the  
17 same?

18           A.           Yes, they would.

19                       MR. PEEPLES: I have nothing further, Your  
20 Honor.

21                       JUDGE TOREM: Do any of the parties have any  
22 cross-examination questions they've come up with they want  
23 to ask these witnesses?

24                               Seeing none as I expected, Councilmembers,  
25 let's start with Ms. Acutanza. She is again the



1 transportation witness regarding the potential impacts of  
2 the project. Does anyone have a question?

3 Councilmember Towne is going to come to the  
4 microphone and ask her question.

5 MS. TOWNE: Ms. Acutanza, I'm looking at  
6 Page 6, Line 8. You say Main Street through the town of  
7 Kittitas will experience slight degradation in traffic  
8 operations due to construction vehicles in the peak  
9 period. Then the sentence I'm interested in is, "The  
10 effect was considered reasonable because the peak of  
11 construction would be temporary," etc.

12 It's the passive voice problem. Who  
13 considered it reasonable? Did the town of Kittitas?

14 MS. ACUTANZA: We based our assessment for  
15 reasonableness as standard practice of how that would be  
16 on a daily basis. In our experience on these types of  
17 projects that kind of an inconvenience is acceptable for a  
18 short period of time.

19 MS. TOWNE: Did you check with the town or  
20 municipality of Kittitas?

21 MS. ACUTANZA: They looked at our work.

22 JUDGE TOREM: Ms. Acutanza, this is Judge  
23 Torem. Can you restate that answer, and I will remind all  
24 of the witnesses on the phone that we have you on a  
25 speaker system, and we have a court reporter trying to

1 take down each word. It's no fault of yours, but if you  
2 speak a little too quickly, our technology just can't keep  
3 up.

4 So, Ms. Acutanza, if you could just  
5 enunciate your answer one more time about the coordination  
6 you had with the municipality of Kittitas.

7 MS. ACUTANZA: We worked with Kittitas  
8 County on getting information from them. They don't have  
9 set standards on what is acceptable as far as construction  
10 impact time frames, but they are aware of the construction  
11 period through their review of our materials.

12 MS. TOWNE: The question I had was Kittitas  
13 County is not the municipality of Kittitas. I assume it's  
14 a municipality. It is not? It is. I wondered if you  
15 talked with the local government in charge of the Main  
16 Street through the town?

17 MS. ACUTANZA: We did get the information on  
18 the street from them, yes, on what the roadway duration  
19 was like, and we get did information on counts that are  
20 from them, as well as state.

21 MS. TOWNE: Thank you.

22 JUDGE TOREM: Ms. Acutanza, this is Judge  
23 Torem. It sounds like Councilmember Towne is interested  
24 in hearing whether or not perhaps the town engineer or any  
25 of the town elected officials on behalf of the residents

1       expressed directly any concerns or acquiescence to the  
2       construction period or perhaps were just aware of it and  
3       made no comments. Can you tell us a little bit more about  
4       any direct contacts with the people that live in that town  
5       or work and represent members in that town.

6                   MS. ACUTANZA: We did not have any direct  
7       contact with elected officials. We did get information.  
8       I'm going to have to look through my files to see who we  
9       might have contacted. It's been a while. But they did  
10      not raise any concerns about the impacts.

11                   JUDGE TOREM: Thank you. Other  
12      Councilmembers, questions for Ms. Acutanza regarding  
13      transportation impacts?

14                   I see none. Do any other parties have any  
15      other follow-up questions?

16                   All right. Thank you, Ms. Acutanza. If  
17      you'd like to hang up, you may, and the rest of the  
18      witnesses we'll see who is next.

19                   MS. ACUTANZA: Thank you.

20                   MR. PEEPLES: Steve Grover.

21                   JUDGE TOREM: Stephen Grover, are you there?

22                   MR. GROVER: Yes.

23                   JUDGE TOREM: Are there any questions for  
24      this witness from other parties?

25                   Councilmembers, this is Exhibit 90 regarding

1 economic impacts. Any questions for Mr. Grover? Hold on  
2 for one minute, Mr. Grover. We're finding the particular  
3 question as we shuffle through some materials.

4 MR. GROVER: Sure.

5 JUDGE TOREM: Ms. Towne, did you have one?

6 MS. TOWNE: No.

7 JUDGE TOREM: Any other questions for  
8 Mr. Grover?

9 It doesn't look like there are any. I'm  
10 going to let this witness go.

11 Thank you, Mr. Grover, for calling in.

12 MR. GROVER: Thank you.

13 JUDGE TOREM: The next witness will be  
14 George Sterzinger who I understand is back in Washington,  
15 D.C.

16 MR. STERZINGER: I am.

17 JUDGE TOREM: Any follow-up or  
18 cross-examining questions for Mr. Sterzinger on property  
19 values, particularly the REPP study that Mr. Priestley  
20 discussed earlier today?

21 Chris, do you have any?

22 JUDGE TOREM: Mr. Sterzinger, I don't think  
23 there are any questions. Although, Mr. Priestley dealt  
24 with a number regarding the study today, there are none  
25 directly for you, so thank you for your participation.

1 MR. STERZINGER: All right. Thank you.

2 JUDGE TOREM: Mr. Bernay, are you there,  
3 sir?

4 MR. BERNAY: Yes.

5 JUDGE TOREM: Your testimony would be  
6 Exhibit 37 regarding wind farm related risks from an  
7 insurance perspective.

8 Are there any questions that parties or  
9 Councilmembers have for Mr. Bernay?

10 Mr. Bernay, I had identified one on Page 7  
11 of your testimony. You have some discussion about claims  
12 that were processed and paid since Wind Pro has been in  
13 business regarding fires, and it may be the same question  
14 can be posed to Mr. Kammen as well. I'm not sure which of  
15 you would be best poised to answer this.

16 What is the potential in your opinion,  
17 Mr. Bernay, for brush fires to be caused by the wind  
18 turbines themselves or perhaps by, if there is such a  
19 thing, increased likelihood of a lightning strike being  
20 transmitted because of the location of the wind towers to  
21 cause a brush fire?

22 MR. BERNAY: Would you like me to, Mike  
23 Bernay, to address that?

24 JUDGE TOREM: Yes, please, Mr. Bernay, and  
25 if, Mr. Kammen, you feel that you have something to add to

1 that, let me know and identify yourself. That way the  
2 court reporter will know who's talking.

3 MR. BERNAY: The experience that we have had  
4 within our encounter of the risk of the last couple years  
5 indicate that the majority of brush fires actually come  
6 from more I think where we'll have people doing regular  
7 types of work on site, but they very rarely come from a  
8 lightning strike through an actual wind turbine  
9 themselves. So what we've experienced is maintenance  
10 people just from human on the ground work. So while there  
11 is, it's very small.

12 JUDGE TOREM: If I understood your answer,  
13 the increase in fire risk would be due to human beings  
14 around the wind turbines doing the maintenance or  
15 construction.

16 MR. BERNAY: Exactly.

17 JUDGE TOREM: But not from the wind turbine  
18 operation itself.

19 MR. BERNAY: Exactly.

20 JUDGE TOREM: Mr. Kammen, since you're in  
21 this.

22 MR. KAMMEN: Certainly. This is Daniel  
23 Kammen. There's been a number of studies on all of these  
24 sorts of area risks primarily in Denmark where there's  
25 been a number of wind turbine wind farms put in.

1 JUDGE TOREM: Mr. Kammen, you're going just  
2 a little too fast for the system here.

3 MR. KAMMEN: In a study in Denmark they  
4 actually find that there is no increase and potentially a  
5 slight decrease in lightning strikes in areas of wind  
6 farms. The nacelles actually if they were to be struck  
7 reduce the risk of wild fires because the strikes would  
8 more likely hit the turbine tower than go to the ground.  
9 So we say the risk to the community it's a net wash or a  
10 slight decrease.

11 JUDGE TOREM: All right. Thank you.  
12 Counsel for the Environment, did you have a question you  
13 want to follow up with this?

14 MR. LANE: My question would be for  
15 Mr. Bernay.

16 JUDGE TOREM: I'm not sure if Mr. Bernay can  
17 hear you without you coming to these other microphones.

18 MR. PEEPLES: Right here, John.

19 JUDGE TOREM: Mr. Bernay, this is a question  
20 from Assistant Attorney General John Lane. He's the  
21 Counsel for the Environment in these proceedings.

22 MR. LANE: Mr. Bernay, my question is just a  
23 clarification. You just said that the majority of fires  
24 caused and yet your testimony only refers to two fires  
25 that you've known of. Could you clarify that for us.

1 MR. BERNAY: With regard to the Georgia  
2 fires versus?

3 JUDGE TOREM: Just a combination of your  
4 testimony refers to two fires. One I think from I think  
5 from a weld and one from a discarded cigarette butt, and  
6 the language you used in responding to my question  
7 Mr. Lane is pointing out said the majority of fires. Were  
8 there any other fires that you were aware of?

9 MR. BERNAY: There have been other fires to  
10 the internal workings themselves, but one that would not  
11 affect either property damage or third-party property  
12 damage or any third-party bodily injury damage.

13 JUDGE TOREM: So that was an internal to the  
14 structure itself fire?

15 MR. BERNAY: Exactly. To the turbine  
16 itself.

17 JUDGE TOREM: Thank you. Are there any  
18 other Council questions for Mr. Bernay?

19 All right. Let me turn to Mr. Kammen. He's  
20 at Exhibit 38.

21 Mr. Bernay, if you will do us the courtesy  
22 of staying on the line in case one of these questions  
23 bounces back to you, that would be helpful.

24 MR. BERNAY: Sure.

25 JUDGE TOREM: Mr. Kammen's testimony is in



1 Exhibit 38.

2 Parties, are there any questions for

3 Mr. Kammen?

4 Councilmembers, are there any questions for

5 Mr. Kammen?

6 MS. TOWNE: I have one.

7 JUDGE TOREM: Hold on for a second,

8 Mr. Kammen. We have Ms. Towne with a question.

9 MR. KAMMEN: Sure.

10 MS. TOWNE: Mr. Kammen, on Page 5 of your  
11 testimony at Line 7 you answer a question about local,  
12 national, or international regulatory standards for public  
13 safety risks related to wind turbines.

14 MR. KAMMEN: Correct.

15 MS. TOWNE: The answer is no local or  
16 national standards, and then you go on to say that the  
17 guidance documents have been developed in some European  
18 countries. No uniform international standards. Then you  
19 state, "However, third-party certification programs for  
20 wind turbines do incorporate safety features and  
21 performance in their review of turbines for  
22 certification".

23 In your professional judgment are those  
24 third-party certification programs the functional  
25 equivalent of regulatory standards?

1                   MR. KAMMEN: Well, they vary. The standards  
2 are developed by the industry to look at similar  
3 construction type projects, and so they are not legal.  
4 They are not legal standards set by government, but they  
5 are the industry's best practice standards.

6                   MS. TOWNE: Is there any effort to create  
7 regulatory standards?

8                   MR. KAMMEN: That process is underway in  
9 Europe right now because of the dramatic approach to wind  
10 industry there. So we expect there will likely be  
11 guidelines, and whether they are adopted as standards or  
12 they remain as guidelines we'll see over the coming years.

13                   MS. TOWNE: Thank you. No further  
14 questions.

15                   JUDGE TOREM: Any other questions for  
16 Mr. Kammen?

17                   All right. I don't see any from any of the  
18 Councilmembers or from the parties.

19                   Mr. Bernay and Mr. Kammen, thank you very  
20 much for your time.

21                   MR. BERNAY: Thank you.

22                   MR. KAMMEN: Thank you.

23                   JUDGE TOREM: Mr. Nielsen, are you still  
24 there?

25                   MR. NIELSEN: Yes, I am.

1 JUDGE TOREM: I'm waiting for one more beep,  
2 Mr. Nielsen, and then we'll get to you.

3 MR. NIELSEN: All right.

4 JUDGE TOREM: We'll see if it comes.

5 All right. I'm not going to guess how old  
6 anybody is or how much they weigh. That's the extent of  
7 predicting the future.

8 Mr. Nielsen, you've been sworn, and you've  
9 already adopted your testimony I believe. Do any of the  
10 parties have any questions for Mr. Nielsen on his studies,  
11 visual simulations of the shadow flicker?

12 All right. I see none from the parties.

13 Councilmembers?

14 I think given the distance of this project  
15 from residents, Mr. Nielsen, your testimony was sufficient  
16 to address Councilmember concerns, but I don't think it  
17 will be the case as future cases come up. So we will be  
18 prepared to hear from you at another time. Thank you for  
19 your participation today, sir. We'll let you go, and I  
20 guess we saved you a trip from Amarillo.

21 MR. NIELSEN: Yes, I'm still here.

22 JUDGE TOREM: Well, very well. Back to  
23 Amarillo.

24 MR. NIELSEN: Thank you.

25 JUDGE TOREM: Councilmembers, it appears

1 that has fairly efficiently gone through the rest of the  
2 witnesses today. There are no other witnesses pending.  
3 We have a couple of other issues that are still to be  
4 determined today though before we close the adjudication.

5 First, I want to remind Councilmembers that  
6 we will be reassembling in the neighboring building  
7 tonight at seven o'clock to hear public testimony on the  
8 project itself. This is a public hearing not simply to  
9 talk about the Draft Environmental Impact but the overall  
10 project itself. We don't know what the degree of  
11 participation will be tonight and the interest level in  
12 the project, but the range of topics is fairly unlimited.  
13 It's just public comment on the project. That will be  
14 tonight at seven o'clock.

15 Counsel for the Environment was going to let  
16 us know what exhibits in subexhibits from 101 might need  
17 to be moved into the record, so I'll ask Mr. Lane to  
18 identify those and justify any additional exhibits that  
19 would have supported Mr. Stream's testimony but through  
20 their reference in earlier testimony are now perhaps of  
21 help to the Council.

22 MR. LANE: My understanding in speaking with  
23 Counsel for the Applicant that Exhibits 101.4 and 101.5  
24 will be moved into the record. 101.4 is the U.S. Fish and  
25 Wildlife Service discussion about sage grouse, and 101.5

1 is the Department of Fish and Wildlife Washington State  
2 Wind Power Guidelines. Both of those documents were  
3 referenced in the Draft Environmental Impact Statement and  
4 the testimony of Mr. Erickson, and we believe that those  
5 could be included in the record.

6 JUDGE TOREM: So the motion is to introduce  
7 101.4 and 101.5 as part of the record in the case.

8 Mr. Peeples, any objection?

9 MR. PEEPLES: No, none.

10 JUDGE TOREM: Councilmembers, any questions  
11 about those two exhibits?

12 They will become part of the record.

13 (Exhibit Nos. 101.4 and 101.5 admitted into  
14 evidence.)

15 JUDGE TOREM: Still to be clear then Exhibit  
16 101.1, the article called Teetering on the Edge or too  
17 late? will still not be part of the record; 101.2, the  
18 property ownership map; and 101.3, the excerpts from the  
19 greater sage grouse recovery plan will still not be part  
20 of the record.

21 Did Counsel for the Environment or the  
22 Applicant want to identify for members of the Council any  
23 portion of the sage grouse recovery plan that may have  
24 already been referenced in the Draft EIS and the  
25 application or other testimony that if they have in

1       deliberations any questions about sage grouse issues they  
2       might use as a reference document?

3                   MR. PEEPLES: I believe they were referenced  
4       as part of the DEIS, and if the Council wants to review  
5       that whole thing, that is fine. I don't have any  
6       objection. I mean it's not part of the record for the  
7       contested hearing, but I think it could be used to review  
8       on the EIS issues.

9                   JUDGE TOREM: Counsel for the Environment,  
10       any need for further making it part of the record as just  
11       to excerpts today?

12                   MR. LANE: I don't have any objection to the  
13       full document coming in. I think that the Applicant and I  
14       have discussed the concerns about putting part of a  
15       document in, and if the document is going to be considered  
16       a full document, it should be included. Either one of us  
17       could make it available.

18                   JUDGE TOREM: If I find during  
19       deliberations, which we're going to talk about a schedule  
20       for that in just a moment, that the sage grouse issue  
21       becomes such that we need to get a copy of that, I think  
22       it's reasonably available directly from the federal agency  
23       and from any state agency that have copies. If we use it,  
24       we will reference it in the decision, and we'll simply  
25       take judicial notice that that's a document that's out

1       there, and that's where we might be referring to any  
2       concerns that have been discussed by the witnesses. My  
3       hope is though that the parties have already presented  
4       sufficient highlights about that document that  
5       Councilmembers will have what they need.

6               All right. Thank you, Mr. Lane. That takes  
7       care of the outstanding evidentiary issues.

8               As to schedule, Ms. Strand and Mr. Lane and  
9       Mr. Peeples, post-hearing briefs on this matter in a case  
10      like this typically revolve around submitting from the  
11      Applicant's perspective any proposed site certification  
12      agreement, and we've already had a discussion this morning  
13      with EFSEC staff as to the format that might be expected  
14      and how to work the Development Agreement and the Fish and  
15      Wildlife Settlement Agreement into portions of that.

16              Ms. Makarow is going to be working with each  
17      of you as necessary to get essentially a rough draft  
18      outline started, and then, Mr. Peeples, I understand  
19      you're willing to as needed to take the laboring for the  
20      draft site certification agreement with findings of facts  
21      and conclusions of law, share that with Mr. Lane, and then  
22      once you've worked out any minor bumps that might be  
23      anticipated in language and wordsmithing, you'll turn that  
24      in as your first brief, if you will. Mr. Lane will then  
25      respond to that and Ms. Strand will have her opportunity

1 to file a response brief as well. Did you need to file a  
2 rebuttal brief to anything?

3 MR. PEEPLES: I guess the way I anticipated  
4 it would be that we would develop our draft and sit down  
5 with John and figure out where we might disagree and then  
6 try to get common language that we could agree on and then  
7 we could identify exactly where we are apart and just file  
8 it at the same time. We should know exactly where each  
9 other is at that point and what our differences are. We  
10 would just file one document, and then John would file an  
11 abbreviated document referring to those things that he  
12 thinks should come in with regard to the language and why.

13 JUDGE TOREM: For completion sake we have  
14 another party, Ms. Strand, still participating as an  
15 intervenor on the limited economic issues. I take it you  
16 will be working with her on those portions.

17 MR. PEEPLES: Yes. That would be my  
18 suggestion that we just file it all at one time.

19 JUDGE TOREM: Mr. Lane, is that going to  
20 work for you?

21 MR. LANE: Yes, I'm agreeable to that  
22 procedure.

23 JUDGE TOREM: Ms. Strand?

24 MS. STRAND: Yes.

25 JUDGE TOREM: When do you anticipate filing



1       that document, Mr. Peeples?

2                   MR. PEEPLES: I would hope that we would  
3       have something to CFE by -- when did you say you have  
4       trial, John?

5                   MR. LANE: The 21st of March.

6                   MR. PEEPLES: The 21st of March.

7                   MR. LANE: I'm sorry. The 23rd of March.

8                   MR. PEEPLES: The 23rd of March. Our goal  
9       would be to have something to him by that time when he  
10      gets out for his review and then sit down with him and go  
11      over it, and we would do the same thing with EDG and try  
12      to hopefully our deadline would be maybe have something  
13      maybe by April 4. Would you be able to respond and get  
14      something filed by then?

15                   MR. LANE: I can take a look at it,  
16      certainly.

17                   MR. PEEPLES: I would like to set April 4 to  
18      do that.

19                   JUDGE TOREM: Is that to file with the  
20      Council?

21                   MR. PEEPLES: Yes, for everybody to file  
22      with the Council.

23                   JUDGE TOREM: You're anticipating that you  
24      would file and Mr. Lane would be filing simultaneously  
25      because he would have knowledge of what the document said.

1 MR. PEEPLES: Exactly.

2 JUDGE TOREM: Mr. Lane, is that agreeable  
3 then, April 4?

4 MR. LANE: Yes, I think that having  
5 discussed with the Applicant I believe the issues dividing  
6 us are certainly identified at this point. We can work on  
7 those in the process of drafting, so I think by April 4 we  
8 should have something.

9 JUDGE TOREM: Councilmembers, we had talked  
10 a little bit about when we might be available to  
11 deliberate and then a potential set of dates. There's a  
12 scheduled EFSEC meeting on the afternoon of April 12. It  
13 looks like Monday, April 11 we could have a full day in  
14 deliberation and if necessary carrying through the first  
15 half of the day on April 12. This case looks as though  
16 because of the relatively uncontested issues and the  
17 settlement that it could be done in a day and a half's  
18 time.

19 Will having those briefs a full week in  
20 advance be sufficient to do that? I'm getting nods of  
21 agreement.

22 The alternate appears given Council  
23 availability if for reason there's a delay, Mr. Peeples,  
24 or if the Council is not able, we don't have Mr. Ifie here  
25 to ask directly if there's a conflict in schedule with him

1 or something overlooked today by Councilmembers, we would  
2 be falling back probably to the week of April 25 for a few  
3 days that week if we needed to. So I think we'll be able  
4 to give you a final answer on that next Tuesday when the  
5 Council convenes its meeting on March 15 to talk. I think  
6 we're getting an update on the Kittitas Valley Wind Power  
7 Project at that time and input from the Applicant if  
8 possible on whether or not that going forward would occur  
9 in this calendar year or next depending on issues with the  
10 County and issues with waiting to see where the  
11 disposition of this matter lies. But, again, April 11 or  
12 12 or perhaps two weeks later for several days the week of  
13 April 25th would be the proposed deliberation dates. We  
14 will finalize those and announce those next Tuesday.

15 I'm not going to issue a written order for  
16 the deadline for the briefs, but we'll just adopt it here  
17 that April 4 will be the deadline by close of business on  
18 that Monday, and we'll distribute it to the rest of the  
19 Councilmembers in written form. If you can file it  
20 electronically and in writing, that would be helpful.

21 MR. PEEPLES: Absolutely. I just want to  
22 point out you said brief. If there is a brief for  
23 anything we write on that, it's only going to be in those  
24 areas where we have disagreement. We will do those. It's  
25 not going to be the usual brief. I don't think we need to

1 do that, a 20-page brief along those lines. We're just  
2 going to concentrate on areas that we do not agree.

3 JUDGE TOREM: But you will be sending in a  
4 Draft Site Certification Agreement.

5 MR. PEEPLES: Yes, Findings of Fact and  
6 Conclusions of Law Order, Draft Site Certification  
7 Agreement. If there's anything in the nature of a brief,  
8 it will be just specifically related to those areas we  
9 have disagreement in.

10 JUDGE TOREM: Excellent. Other parties any  
11 comments on the schedule?

12 Councilmembers?

13 MS. TOWNE: Clarification question,  
14 Mr. Torem. If the Council receives the draft on the 4th,  
15 and we are going to convene and consider and decide on the  
16 11th, when does Council staff have an opportunity to  
17 review and propose modifications or is that not the  
18 process envisioned?

19 JUDGE TOREM: Ms. Makarow and Mr. Fiksdal,  
20 do you want to weigh in on that? Do you need additional  
21 time between the filing and the actual deliberations?

22 MS. MAKAROW: I believe we would be able to  
23 get something to the Council by Friday at the latest prior  
24 to the 11th.

25 JUDGE TOREM: So they will get the site

1 certification agreement and the other briefing as it comes  
2 in on the 4th, and then staff input prior to the weekend.

3 MS. MAKAROW: Correct. That would be Friday  
4 the 8th.

5 MS. TOWNE: Thank you.

6 JUDGE TOREM: Other issues to take up on the  
7 record today?

8 All right. Seeing none, the adjudication in  
9 the Wild Horse Wind Power Project is adjourned. We will  
10 have a public comment session tonight.

11 \* \* \* \* \*

12 (Adjudication hearing adjourned at 12:04  
13 p.m.)

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16	101.4	USDFW report on 5-mile		280	
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A F F I D A V I T

I, Shaun Linse, CCR, Certified Court Reporter,  
do hereby certify that the foregoing transcript  
prepared under my direction is a true and accurate  
record of the proceedings taken on March 8, 2005,  
in Ellensburg, Washington.

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Shaun Linse, CCR

CCR NO. 2029