

# OFFICIAL COPY

1 PLACE: Dobbs Building, Raleigh, North Carolina

2 DATE: Tuesday, December 6, 2011

3 DOCKET NO.: EMP-61, Sub 0

4 TIME IN SESSION: 9:29 A.M. - 1:05 P.M.

5 BEFORE: Commissioner William T. Culpepper, III, Presiding  
6 Commissioner Susan W. Rabon  
7 Commissioner Lucy T. Allen

7

8 IN THE MATTER OF:

9 Pantego Wind Energy, LLC: Application for a Certificate of  
10 Public Convenience and Necessity to Construct an 80 MW Wind  
11 Turbine Generating Facility in Beaufort County, North  
12 Carolina

12 A P P E A R A N C E S:

13 FOR PANTEGO WIND ENERGY, LLC:

14 Henry C. Campen, Jr.  
15 Katherine E. Ross  
16 Parker Poe  
17 Wachovia Capitol Center  
18 150 Fayetteville Street, Suite 1400  
19 Raleigh, North Carolina 27601

17 Thomas N. Griffin, III  
18 Parker Poe  
19 Three Wachovia Center  
20 401 South Tryon Street, Suite 3000  
21 Charlotte, North Carolina 28202

21 FOR THE USING AND CONSUMING PUBLIC:

22 Tim Dodge, Staff Attorney  
23 Dianna Downey, Staff Attorney  
24 Public Staff - North Carolina Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4326

1     A P P E A R A N C E S (Continued):

2     FOR THE NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION:

3     Kurt Olson

4     Michael Youth

5     North Carolina Sustainable Energy Association

6     1111 Haynes Street, Suite 109

7     Raleigh, North Carolina 27604

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

INDEXPAGEPUBLIC WITNESS TESTIMONY

Multiple Witnesses. . . . . 12

PANEL: DAVID GROBERG AND KARYN COPPINGER

Direct Examination by Mr. Griffin . . . . . 119

Cross-Examination by Mr. Olson. . . . . 150

Cross-Examination by Mr. Dodge. . . . . 152

Redirect Examination by Mr. Griffin . . . . . 158

Examination by Commissioner Allen . . . . . 162

Examination by Commissioner Rabon . . . . . 163

Further Examination by Commissioner Allen . . . . . 165

Examination by Commissioner Culpepper . . . . . 168

Further Redirect Examination by Mr. Griffin . . . . . 174

PAUL QUINLAN

Direct Examination by Mr. Olson . . . . . 188

KENNIE ELLIS

Direct Examination by Mr. Dodge . . . . . 202

Cross-Examination by Mr. Olson. . . . . 219

Cross-Examination by Mr. Campen . . . . . 220

Redirect Examination by Mr. Dodge . . . . . 221

INDEX (Continued)

	<u>PAGE</u>
1	
2	
3	Examination by Commissioner Allen. . . . . 222
4	Further Redirect Examination by Mr. Dodge. . . . . 222
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	

E X H I B I T S I D E N T I F I E D / A D M I T T E DPAGE

1	Carter Exhibit No. 1 (From hearing held	
2	on 11-17-11) . . . . .	/11
3	Hodges' Exhibit No. 2 . . . . .	17/17
4	Hodges' Exhibit No. 3 . . . . .	17/17
5	Armstrong Exhibit Nos. 1 & 2. . . . .	34/37
6	Woll Exhibit No. 1. . . . .	40/40
7	Spruill Exhibit No. 1 . . . . .	57/57
8	Carter Exhibit No. 1. . . . .	59/69
9	Albea Exhibit No. 1 . . . . .	99/
10	Pantego Wind Energy Exhibit No. 1 . . . . .	118/118
11	Groberg Supplemental Exhibit A. . . . .	122/150
12	Pantego Wind Energy Groberg Redirect Examination	
13	Exhibit No. 1. . . . .	160/162
14	Affidavit of Calvin C. Craig, III . . . . .	/224
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		

P R O C E E D I N G S

COMMISSIONER CULPEPPER: Good morning.. Let's come to order, please, and go on the record. I am Commissioner Bill Culpepper and with me are Commissioners Susan Warren Rabon and Lucy T. Allen.

The Commission now calls for hearing at this time for the purpose of taking expert and non-expert public witness testimony in the form of an evidentiary hearing Docket No. EMP-61, Sub 0, in the Matter of the Application of Pantego Wind Energy, LLC for a Certificate of Public Convenience and Necessity to Construct a Wind Facility of up to 80 Megawatts in Beaufort County and Registration as a New Renewable Energy Facility.

On September 2, 2011, pursuant to G.S. 62-110.1 and Commission Rule R8-63, Pantego Wind Energy filed its application for a CPCN to construct a wind energy merchant power plant. According to the application, the Applicant proposes to construct a wind energy facility of up to 80 megawatts, having an estimated net capacity factor of 25 to 36 percent and an estimated annual electrical output of 174,000 to 250,000 megawatt hours.

The proposed facility is to be located on approximately 11,000 acres located near the communities of Terra Ceia and Pantego and approximately 20 miles east of

1 the City of Washington in Beaufort County. The project area  
2 is bounded by SR 1612, Terra Ceia Road, and SR 1619,  
3 Christian School Road, to the southwest, extends north along  
4 SR 1621, Old 97 Road, and SR 1625, Swindell Road, and  
5 continues east of Pantego along SR 1700, Beech Ridge Road.  
6 Property within the project area is said by the application  
7 to be privately owned and actively farmed. The proposed  
8 site layout is based on 49 1.6 megawatt wind turbines;  
9 however, the application indicates that the final site  
10 layout would be determined based on additional studies and  
11 data and final turbine selection.

12 Contemporaneously with the filing of its  
13 application, Pantego Wind Energy prefiled the direct  
14 testimony of its witnesses David Groberg and Steven Ryder.

15 On September 7, 2011, the Public Staff, North  
16 Carolina Utilities Commission filed a letter indicating that  
17 it has determined that the application is complete and  
18 requesting issuance of a Commission order setting this  
19 matter for hearing. Intervention and participation in this  
20 docket by the Public Staff is recognized and made pursuant  
21 to G.S. 62-15(d) and Commission Rule R1-19(e).

22 On September 13, 2011, the Commission issued  
23 its Order Scheduling Hearings, Establishing Procedural  
24 Deadlines, and Requiring Public Notice, which, among other

1 things, scheduled a public witness hearing on the  
2 application for Thursday, November 17, 2011, at the Beaufort  
3 County Courthouse in Washington, North Carolina, and  
4 scheduled this evidentiary hearing for this date, at this  
5 time and in this place.

6 The public witness hearing was thereafter  
7 held as scheduled, at which the Commission received the  
8 testimony of 17 public witnesses.

9 On November 4, 2011, the North Carolina  
10 Sustainable Energy Association filed its Motion to  
11 Intervene. NCSEA's intervention was allowed by Commission  
12 Order issued November 10, 2011.

13 On November 18, 2011, the Public Staff filed  
14 a Motion for Extension of Time to File Testimony, which was  
15 granted by Commission Order issued November 22, 2011.

16 On November 21, 2011, Pantego Wind Energy  
17 filed the supplemental testimony of David Groberg and Karyn  
18 Coppinger.

19 On November 23, 2011, NCSEA filed the direct  
20 testimony of Paul Quinlan. Also on November 23, 2011, the  
21 Public Staff filed the direct testimony of Kennie D. Ellis  
22 and the affidavit of Craig -- Calvin C. Craig, III, together  
23 with a notice of affidavit made pursuant to G.S. 62-68.

24 On November 30, 2011, Pantego Wind Energy



1 filed a motion to excuse its witness Steven Ryder from  
2 attending the evidentiary hearing. This motion was granted  
3 by Commission Order issued December 1, 2011.

4 Also on November 30, 2011, the Public Staff  
5 filed a letter in the docket stating that its Electric  
6 Division has completed its review of the Registration  
7 Statement for a new renewable energy facility and recommends  
8 that the Registration Statement be considered complete and  
9 that the proposed facility be considered a new renewable  
10 energy facility.

11 The Commission has received numerous  
12 expressions of opinion associated with this docket from  
13 members of the public, which expressions of opinion have  
14 been entered into the record of this proceeding.

15 Pursuant to G.S. 138A-15(e), I remind members  
16 of the Commission of their duty to avoid conflicts of  
17 interest and inquire at this time as to whether any  
18 Commissioner has any known conflict of interest with respect  
19 to this docket?

20 (No response.)

21 COMMISSIONER CULPEPPER: Let the record  
22 reflect that no such conflicts were identified.

23 I now call upon counsel for the parties to  
24 announce their appearances for the record, beginning with

1 the Applicant.

2 MR. CAMPEN: Commissioner Culpepper, members  
3 of the panel, my name is Henry Campen with the firm of  
4 Parker Poe Adams & Bernstein appearing on behalf of Pantego  
5 Wind, LLC, the Applicant in this proceeding. Appearing with  
6 me in this case are my partner Tom Griffin and my colleague  
7 Katherine Ross.

8 COMMISSIONER CULPEPPER: Good morning.

9 MR. OLSON: Good morning, Commissioner  
10 Culpepper, Commissioners. My name is Kurt Olson and I'm  
11 appearing on behalf of the North Carolina Sustainable Energy  
12 Association. With me today is Michael Youth who has just  
13 joined NCSEA as counsel. And you'll be seeing a lot of him  
14 in the future. Thank you.

15 COMMISSIONER CULPEPPER: Good morning,  
16 gentlemen.

17 MR. DODGE: Good morning, Commissioners. My  
18 name is Tim Dodge and I'm an attorney with the Public Staff  
19 here -- here in Raleigh. With me this morning is Dianna  
20 Downey, also an attorney in the Public Staff's Legal  
21 Division. We represent the Using and Consuming Public.

22 COMMISSIONER CULPEPPER: All right. Good  
23 morning, Mr. Dodge and Ms. Downey.

24 Counsel, I inquire of you collectively, does

1 anyone know of any preliminary matters that the Commission  
2 should take up at this time prior to commencing this  
3 evidentiary hearing?

4 MR. CAMPEN: I do not.

5 COMMISSIONER CULPEPPER: Okay. All right.

6 Mr. Dodge, I assume you have some public witnesses that want  
7 to testify?

8 MR. DODGE: We do.

9 COMMISSIONER CULPEPPER: Okay. Before we get  
10 to that, we'll -- before we get into receiving evidence --  
11 the public witness testimony portion of this evidentiary  
12 hearing is now in -- in session. And prior to receiving  
13 testimony this morning, I want to note for the record that  
14 at the November 17 public witness testimony hearing in  
15 Washington, North Carolina, there were a number of exhibits  
16 that were identified during the course of that hearing.  
17 Some of those exhibits might not have been received into  
18 evidence at that hearing. And, therefore, to make sure that  
19 the -- the record of this docket is complete, I am herein  
20 ordering that all exhibits that were identified at that  
21 public witness testimony (sic) are received into the  
22 evidence of this proceeding.

23 (Whereupon, Carter Exhibit No. 1 was  
24 admitted into evidence.)

1 COMMISSIONER CULPEPPER: All right. With  
2 that having been said, Mr. Dodge, you may call your first  
3 witness.

4 MR. DODGE: Larry Hodges.

5 COMMISSIONER CULPEPPER: Okay. Mr. Hodges.

6 LARRY HODGES; Being first duly sworn,  
7 testified as follows:

8 COMMISSIONER CULPEPPER: You may have a seat.  
9 Mr. Dodge, you may examine your witness.

10 THE WITNESS: I have some things for  
11 exhibits.

12 COMMISSIONER CULPEPPER: Well, Mr. Dodge or  
13 Ms. Downey, help us out there.

14 MR. DODGE: We'll get those documents.

15 DIRECT EXAMINATION BY MR. DODGE:

16 Q Mr. Hodges, could you please state your name and  
17 address?

18 A Larry C. Hodges. My address is 104 Arbor Drive,  
19 Washington, North Carolina.

20 Q Please proceed with your statement.

21 A Good morning, Commissioners. I'm a board member  
22 and spokesperson for the Friends of Pocosin Lakes National  
23 Wildlife Refuge. We are against the Pantego wind farm  
24 project in the location as proposed.

1           There are several areas of our concern. Number  
2 one would be environmental. Invenergy, LLC or Pantego wind  
3 farm project is being designed to avoid any public  
4 environmental review that requires consideration of impacts  
5 to waterfowl or to the Pocosin National Wildlife Refuge.  
6 The project, as planned, will proceed with nationwide  
7 general permits which will eliminate review under NEPA or  
8 coordination with the U.S. Fish and Wildlife Service on the  
9 potential impacts to threatened or endangered species. The  
10 lack of the NEPA review will also mean no formal  
11 opportunities for public comment or public hearings except  
12 for the Utility committee hearings -- Commission hearings.

13           Invenergy will be conducting surveys this winter  
14 to assess waterfowl and bald eagle use in the area. This  
15 work could lead to mitigation measures through avoidance or  
16 either minimization. They have no compensatory mitigation  
17 plan, avoidance or minimization plans at this time. Their  
18 basic position is to -- that they're doing on these surveys  
19 is to decide what they might have to do. In other words,  
20 they have no plans concerning mitigation of the bird and the  
21 wildlife or the waterfowl conflict that we know exist in  
22 this area.

23           A report from the -- or from the North Carolina  
24 Wildlife Resources Commission to the North Carolina

1 Department of Environmental and Natural Resources dated  
2 October the 14th, 2011, regarded the wind farm project as  
3 this: We have not received information regarding avoidance  
4 and the minimization of wetland impacts, temporary and  
5 permanent wetland impacts, completed and proposed bat  
6 surveys, completed and proposed bird surveys or details on  
7 monitoring post-construction if the project is constructed  
8 as proposed.

9           Most large bodied waterfowl fly to altitudes less  
10 than 600 feet, which is well within the sweep of the turbine  
11 blades. Avoidance of this forage habitat could compromise  
12 the overwintering health of the birds that utilize this  
13 area. Not only could this be detrimental to the health of  
14 the Atlantic Flyway, but to the revenue that's generated  
15 from the numerous people who come to eastern North Carolina  
16 to hunt and observe these birds. In summary, we believe  
17 that there is insufficient information to adequately assess  
18 the potential negative impacts of this project on the  
19 wildlife resources.

20           Another area of concern is economic. Beaufort  
21 County is a Tier 1 county. Every tax dollar that the county  
22 can generate is badly needed in Beaufort County. The North  
23 Carolina Department of Tourism reported that Beaufort County  
24 generated \$68 million in tourism revenue during 2010, which

1 is about \$164 in tax savings for each county resident for  
2 the last year. Invenergy states that five jobs will be  
3 created from this project once it is completed. As of to  
4 date, there are 440 jobs that are directly attributed to  
5 travel and tourism in 2010 in Beaufort County. Now, not all  
6 this -- not all of that \$68 million was spent in the Pocosin  
7 National Wildlife Refuge, but we did get more than our fair  
8 share of that.

9 In an article in "U.S. Today" dated August the 2nd  
10 of 2011, the Pocosin National Wildlife Refuge was selected  
11 as the number one wildlife viewing area in North Carolina.  
12 This is the nation's premier foraging area for snow geese  
13 and tundra swans. It's been called by numerous -- numerous  
14 people across the United States as the Serengeti of the  
15 United States.

16 Let's talk about the business of wind energy for a  
17 while. If my business were to drill for oil, I would want  
18 to drill in promising oil bearing locations. And if I were  
19 to be a coalminer, I would want to go in mines where I had  
20 promising coal deposits. Same would apply if I'm going to  
21 build a wind turbine. If I'm going to do that for the  
22 purpose for harnaging (sic) wind energy, I'd look to build  
23 where there's a good wind flow.

24 I've got several exhibits. At this time, I would

1 like to show an exhibit to the Commission on the wind energy  
2 that we have in this area if I could.

3 COMMISSIONER CULPEPPER: Well, you're going  
4 to have to work with your lawyers on that.

5 THE WITNESS: Okay.

6 COMMISSIONER CULPEPPER: Mr. Dodge and  
7 Ms. Downey, I --

8 MR. DODGE: Thank -- thank you, Commissioner  
9 Culpepper.

10 Q Mr. Hodges, you -- you presented an exhibit at the  
11 November 17th --

12 A That's correct.

13 Q -- hearing in Washington as well and that was  
14 entered into the record as Hodges' Exhibit No. 1, I believe,  
15 a large map?

16 A Yes, sir. That is a foraging area of -- of the  
17 swans and -- of the Pocosin National Wildlife Refuge, that's  
18 correct.

19 Q And today you provided two additional maps --

20 A Yes, sir.

21 Q -- to the Commission and to counsel?

22 MR. DODGE: Public Staff asks that the map  
23 entitled "North Carolina - Annual Average Wind Speed" be  
24 admitted as Hodges' Exhibit No. 2 and the --



1 COMMISSIONER CULPEPPER: Let -- let it be so  
2 identified and let it be admitted.

3 (Whereupon, Hodges' Exhibit No. 2  
4 was marked for identification and  
5 admitted into evidence.)

6 MR. DODGE: And the map entitled "Pantego  
7 Wind Map" be marked as Exhibit No. 3 and admitted.

8 COMMISSIONER CULPEPPER: All right. We don't  
9 have that now or I don't have a copy of that. Maybe --

10 COMMISSIONER RABON: I only have one, too.

11 COMMISSIONER CULPEPPER: I don't think we've  
12 got a copy of all of them, but I -- I -- we have at least  
13 one up here. We have two up here. Okay. So -- all right.  
14 So the document that is at the top labeled "Pantego Area  
15 Wind Map" will be identified for purpose of this proceeding  
16 as Hodges' Exhibit No. 3, and that exhibit is admitted into  
17 evidence.

18 (Whereupon, Hodges' Exhibit No. 3  
19 was marked for identification and  
20 admitted into evidence.)

21 MR. DODGE: Thank you.

22 COMMISSIONER CULPEPPER: All right. Does  
23 that conclude all of your exhibits, Mr. Hodges?

24 THE WITNESS: Yes, sir.

1 COMMISSIONER CULPEPPER: All right. Do you  
2 want to continue with your examination --

3 THE WITNESS: Yes, sir.

4 COMMISSIONER CULPEPPER: -- or testimony?

5 THE WITNESS: Yes, sir.

6 COMMISSIONER CULPEPPER: Go ahead, then.

7 THE WITNESS: Pull this map. The first one  
8 that we'll be looking at will be the one of the State of  
9 North Carolina that we have here.

10 This map is prepared by the National  
11 Renewable Energy Laboratory. According to the U.S.  
12 Department of Energy, land areas with an average annual wind  
13 speed of around 6.5 and greater at 80 meters of height,  
14 which is about the height that the turbine blades will be,  
15 are generally considered to have suitable wind resources for  
16 wind development.

17 This area that we're looking at here is going  
18 to be considered right in here. That's the foraging areas  
19 that would -- appeared on that first exhibit that I showed  
20 in Beaufort County. This includes the area in which the  
21 turbines are to be located. You can see from the sliding  
22 chart over here those areas are shaded showing where the  
23 wind turbines are going to be located are at an annual speed  
24 of 5 to 5.5. Why would you place these number of wind

1 turbines in an area that shows to have poor average wind  
2 speeds? But that's just my question to myself, I guess.

3 Map number two shows the same thing, but it's  
4 in a little different format. This data is from TruWind of  
5 North Carolina. It's used by the Audubon of North Carolina.  
6 This shows wind power density is rated as zero to 200 as  
7 poor, 200 to 300 as marginal, 300 to 400 as fair and so on  
8 up the scale. This, again, is showing the location. And  
9 most of the turbines are going to be in this area here,  
10 which you can see has been rated only poor to marginal.  
11 Again, why place these turbines in an area that do not  
12 produce a good steady wind flow?

13 There are more than 14,000 abandoned wind  
14 turbines in the United States today. My question is when  
15 the state and federal subsidies and the grants are  
16 exhausted, what will happen with these 49 turbines if  
17 they're constructed here?

18 Invenergy, LLC or Pantego wind farm is  
19 attempting to bypass these bases -- basic assessments in its  
20 attempt to secure its wind farm project in Beaufort County.  
21 We, the citizens of Beaufort County, feel that it's not in  
22 the best public interest to have any project approved  
23 without these basic questions answered. We, the citizens of  
24 Beaufort County, are asking the Utilities Commissions (sic)

1 of North Carolina to not grant approval to Invenergy, LLC or  
2 Pantego wind farm project to continue with this project  
3 until these issues are answered. Thank you, sir.

4 COMMISSIONER CULPEPPER: All right.  
5 Mr. Hodges, does that conclude your statement for the time  
6 being?

7 THE WITNESS: Yes, sir.

8 COMMISSIONER CULPEPPER: All right. Let's  
9 see if anybody has any questions of you. First, Mr. Dodge,  
10 you have any additional questions of your witness?

11 MR. DODGE: No questions.

12 COMMISSIONER CULPEPPER: Mr. Olson, you have  
13 any questions of the witness?

14 MR. OLSON: No questions.

15 COMMISSIONER CULPEPPER: Mr. Griffin?

16 MR. GRIFFIN: No questions.

17 COMMISSIONER CULPEPPER: Questions by the  
18 Commission?

19 (No response.)

20 COMMISSIONER CULPEPPER: All right. Thank  
21 you very much, Mr. Hodges. That will conclude your  
22 testimony. You may stand down from the witness chair.

23 You may call another witness.

24 MR. DODGE: Lena Gallitano.

1 LENA GALLITANO;                    Being first duly sworn,  
2    testified as follows:

3 DIRECT EXAMINATION BY MR. DODGE:

4                    COMMISSIONER CULPEPPER: Mr. Dodge.

5            Q        Would you please state your full name and address.

6            A        My name is Lena Gallitano. I live at 2907  
7 Hostetler Street in Raleigh, 27609.

8            Q        Please proceed with your statement.

9                    COMMISSIONER CULPEPPER: Well, before --  
10 before you do that, would you mind spelling your last name  
11 for the court reporter?

12                   THE WITNESS: Sure.

13                   COMMISSIONER CULPEPPER: Thank you.

14                   THE WITNESS: G-a-l-l-i-t-a-n-o.

15                   COMMISSIONER CULPEPPER: Thank you very much.  
16 You may proceed now.

17                   THE WITNESS: Thank you for taking my  
18 comments regarding the Pantego wind project. When properly  
19 cited and careful -- and after careful environmental review,  
20 I fully support wind energy. I believe the environmental  
21 and financial costs are too high for poorly sited projects.

22                   This project is nearly a remake of the Navy's  
23 proposal for an outlying landing field next to Pocosin Lakes  
24 National Wildlife Refuge. That surprises me for a profit

1 making company that has both public and private investment  
2 capital and should be making responsible decisions for their  
3 investors.

4           The Navy abandoned the outlying landing  
5 field, in part, because of the large number of wintering  
6 waterfowl. It appears foolhardy for a company to propose a  
7 wind farm with potentially the same risks to birds and  
8 equipment and then -- then to seek a fast-track review to  
9 circumvent further environmental studies. Surely a review  
10 of the Navy's work would have raised red flags about this  
11 location.

12           It is premature to issue a certificate for  
13 this project until a mitigation plan is developed to address  
14 or resolve the waterfowl and refuge conflict. The Navy  
15 found the birds unwilling to cooperate with mitigation. My  
16 guess is they will continue to fly to the Pantego fields for  
17 foraging no matter what mitigation is put into place on  
18 paper.

19           There are no invisible walls or directional  
20 signs for the thousands of snow geese and tundra swans that  
21 have used these fields for many years. Even if the farmers  
22 change to other crops, the birds will continue searching for  
23 food and fly into the areas. Seasonal studies currently  
24 underway by Invenergy will certainly show there is an issue

1 when thousands of birds descend on an area for the winter.  
2 One has to question the success and sustainability of this  
3 location if the turbines have to be closed down potentially  
4 -- from potentially November to March in order to avoid  
5 excessive bird kills.

6 Nature-based tourism is an economic driver in  
7 the area of the proposed turbines. Birding, hunting,  
8 photography and wildlife observation draw folks to the  
9 Albemarle Peninsula, particularly when the wintering  
10 waterfowl are present. If mitigation successfully drives  
11 wildlife away, the decline in tourism will be felt all  
12 across the region.

13 The Utilities Commission has an important  
14 role in this request because Invenenergy is pursuing the  
15 project in a manner to avoid environmental review as well as  
16 public review and comment. This under-the-radar approach is  
17 bad for business and bad for North Carolina. I ask that you  
18 require full environmental review of this project so the  
19 facts and the risks can be evaluated to ensure the project  
20 is a benefit to North Carolina and not a terrible mistake  
21 made of consequences.

22 COMMISSIONER CULPEPPER: Does that conclude  
23 your statement?

24 THE WITNESS: Yes.

1 COMMISSIONER CULPEPPER: Well, let's see if  
2 anybody has any questions for you to clarify anything that  
3 you may have said.

4 Mr. Dodge, you have any questions?

5 MR. DODGE: No questions.

6 COMMISSIONER CULPEPPER: Mr. Olson?

7 MR. OLSON: Yeah. I have a few questions.

8 COMMISSIONER CULPEPPER: All right. Go right  
9 ahead.

10 CROSS-EXAMINATION BY MR. OLSON:

11 Q Good morning. My name is Kurt Olson. I'm with  
12 the North Carolina Sustainable Energy Association.

13 You and the previous witness are both referring to  
14 a fast-track review, under-the-radar approach. What -- can  
15 you describe what that is and how that's being accomplished,  
16 if it is?

17 A It's my understanding that there is -- that the --  
18 the request from the Company was to have a re -- have lack  
19 of review and just to go ahead with the project. Maybe I'm  
20 incorrect on that, but --

21 Q Okay. So you don't really know; is that correct?

22 A It's what I've read.

23 Q And where did you read that?

24 A From scanning some of the documents that I have



1 seen from the Commission.

2 Q Okay. Thank you.

3 The other question is that you talk about bird  
4 kills. Do you have any data or are you aware of any data  
5 of, you know, the -- the result of bird kills at operating  
6 wind facilities?

7 A I have written numerous articles about wind farms  
8 that have been situated poorly. A classic example is the  
9 wind farm in California where the California Condors were.  
10 Those turbines have been taken out of commission as a result  
11 of bird kills. There are numerous studies all over the  
12 country that show bird kills, in addition, which I didn't  
13 mention, bat kills as well.

14 Q And -- and can you tell me the name of any study  
15 or citations of any of these studies you're referring to?

16 A Off the top of my head I cannot.

17 Q Okay. All right. Thank you.

18 COMMISSIONER CULPEPPER: Mr. Griffin?

19 MR. GRIFFIN: No further questions.

20 COMMISSIONER CULPEPPER: Redirect  
21 examination, Mr. Dodge?

22 MR. DODGE: No questions.

23 COMMISSIONER CULPEPPER: Questions by the  
24 Commission?

1 (No response.)

2 COMMISSIONER CULPEPPER: All right. Thanks  
3 very much. You may stand down.

4 MR. DODGE: Lisa Morris.

5 COMMISSIONER CULPEPPER: Ms. Morris.

6 LISA MORRIS; Being first duly sworn,

7 testified as follows:

8 DIRECT EXAMINATION BY MR. DODGE:

9 Q Morning, Mrs. Morris. Could you please provide  
10 your full name and address?

11 A Surely. My name is Lisa Respis Morris, 1113  
12 Windward Passage in Knightdale, North Carolina, 27545.

13 Q Please proceed with your statement.

14 A I grew up in Pantego. I live up in this area now,  
15 but I still have family, I still own property and I still  
16 have a great sense of pride in that area. We have long been  
17 considered kind of the country bumpkins of North Carolina,  
18 but I don't believe that's the case. I think we're a strong  
19 group of people, loving group of people and we have a strong  
20 sense of -- of loyalty to our area.

21 I remember when I was little you'd see the vast  
22 fields of swans come in covering fields just white. As I've  
23 grown up and left the area, I have seen those numbers  
24 diminish because they've been pulled somewhere else where

1 they're fed. This is my understanding.

2 But we were approached by Invenergy and I  
3 carefully considered their proposition to us. And after  
4 that consideration, I fully support this project, not only  
5 for the income, the tax base, but I also fully believe that  
6 they will take care of our property.

7 The 11,000 acres that have been mentioned for the  
8 wind field is a huge number. Makes it sound like there is  
9 going to be acres and acres and acres of turbines. Upon  
10 close inspection, with 49 turbines that will be put in place  
11 as scheduled right now, you're looking at maybe five acres  
12 that will be taken away from farming. Very, very small  
13 number when you look at the entire scope of it.

14 I fully support this project and hope you will  
15 give strong consideration to letting it continue.

16 COMMISSIONER CULPEPPER: Does that conclude  
17 your statement?

18 THE WITNESS: Yes, it does.

19 COMMISSIONER CULPEPPER: Okay. Let's see if  
20 we have any questions. Mr. Dodge?

21 MR. DODGE: No questions.

22 COMMISSIONER CULPEPPER: Mr. Olson?

23 MR. OLSON: I have no questions.

24 COMMISSIONER CULPEPPER: Mr. Griffin?

1 MR. GRIFFIN: No questions, sir.

2 COMMISSIONER CULPEPPER: Questions?

3 (No response.)

4 COMMISSIONER CULPEPPER: All right. Thank  
5 you very much, ma'am. You may stand down. Thanks very  
6 much.

7 MR. DODGE: Doris Morris..

8 DORIS MORRIS; Being first duly sworn,

9 testified as follows:

10 DIRECT EXAMINATION BY MR. DODGE:

11 THE WITNESS: Thank you for allowing me to  
12 have the opportunity to come and speak.

13 Q Just -- just one moment, Ms. Morris. Could you  
14 please state your full name and address?

15 A Doris Morris, 5276 NC Highway 32 South, Plymouth,  
16 North Carolina.

17 Q Please proceed with your statement.

18 COMMISSIONER CULPEPPER: Ms. Morris, I want  
19 you to drag that microphone up there so we -- you know, get  
20 that thing close -- close to you so we can hear what you've  
21 got to say today.

22 THE WITNESS: Okay. How's that? Can you  
23 hear me?

24 COMMISSIONER CULPEPPER: That sounds great.

1 Thank you.

2 THE WITNESS: Thank you. Sorry about that.

3 Okay. I just want to -- like many others, I  
4 do have concerns on the location of the windmills, but very  
5 positive of wind energy and it's very important that our  
6 state is a shining star of wind energy and that we do take  
7 all avenues to make sure that this is the correct location  
8 on this.

9 So the recent application with -- that was  
10 filed by the Pantego Wind Energy to build these 49 wind  
11 turbines near the Pungo Unit of Pocosin Lakes Refuge once  
12 again brings our attention to the incredible natural  
13 resources that the citizens of North Carolina have fought  
14 for over a decade to protect.

15 After a lengthy and complex assessment of  
16 potential for damaging the bird strikes, the U.S. Navy  
17 abandoned plans to build a outlying landing field aircraft  
18 landing facility in the area due to the extreme high density  
19 of the large waterfowl that winter in the area. Now,  
20 incredibly, we are once again standing up to protect this  
21 valuable natural resource.

22 I believe all of us would like to support the  
23 green energy project and look forward to a time when we can  
24 significantly reduce the dependence on oil, but we must be

1 sure that these renewable energy programs make sense, not  
2 only financially, but for environmentally.

3           There are hundreds of wind energy projects  
4 within the United States, as well as all over the world, and  
5 many of them do operate without significant impact on local  
6 bird populations. Others, such as the one in California,  
7 have had disastrous impacts.

8           The wintering waterfowl on the Pungo Unit of  
9 the Pocosin Lakes National Wildlife deserves more than the  
10 standard bird assessment commonly associated with  
11 environmental studies done for the wind energy. Traditional  
12 methods of bird counts are nearly meaningless when it comes  
13 to these large flocks. Flocks move day and night to feeding  
14 areas, which also vary throughout the wintering season. A  
15 study done one week may have no bearing on how the birds  
16 will react the second week. Further, simply watching birds  
17 from the ground will not provide necessary information on  
18 how many birds fly over the radar sweep area of a large wind  
19 turbine facility.

20           This community has spent untold hours and  
21 money protecting these birds over the past decade. We  
22 expect any further land use to be required to conduct highly  
23 detailed studies of bird movement patterns and altitudes,  
24 not just the bird counts, for more than just a few months to

1 fully understand the potential impact on the birds as well  
2 as to develop a comprehensive migration plan.

3 This is not a site where you can simply  
4 enhance one area to protect another sense -- sensitive area  
5 to offset the impacts. The birds will fly well beyond the  
6 10-mile range to forage throughout the winter, for a simple  
7 shutdown of one turbine or another is just not likely to be  
8 effective.

9 It is -- the potential impact of these  
10 wintering birds to -- is sufficient to send the Navy looking  
11 for another place for their fly of jet flies (sic). It  
12 makes perfect sense to require any new land use posed for  
13 this area to conduct a state-of-the-art study and provide  
14 compelling evidence that will im -- that any impact can be  
15 addressed.

16 So I respectfully ask that the North Carolina  
17 Utilities Commission to postpone any ruling until such  
18 independent studies can be done to make sure that our state  
19 does shine out in a positive attitude for -- in wind energy  
20 that we do welcome, we just want to make sure it is a safe  
21 area and that all measures have been taken to foresee that  
22 this does happen. Thank you for your time.

23 COMMISSIONER CULPEPPER: All right. Well,  
24 thank you. Now let's see if we have any questions for you,

1       okay.   Mr. Dodge?

2                       MR. DODGE:   Just one quick question.

3       BY MR. DODGE:

4               Q       Ms. Morris, you also presented at the November 17,  
5       2011, meeting in Washington, North Carolina?

6               A       Uh-huh.   Yes, I did.

7                       MR. DODGE:   Okay.   Thank you.

8                       COMMISSIONER CULPEPPER:   Mr. Olson?

9                       MR. OLSON:   I have no questions.

10                      COMMISSIONER CULPEPPER:   Mr. Griffin?

11                      MR. GRIFFIN:   No questions.

12                      COMMISSIONER CULPEPPER:   Wait just a minute  
13       now.

14                      THE WITNESS:   I'm sorry.

15                      COMMISSIONER CULPEPPER:   Now you may step  
16       down from the witness chair with our appreciation, Ms.  
17       Morris --

18                      THE WITNESS:   Thank you.

19                      COMMISSIONER CULPEPPER:   -- for having come  
20       today to offer your testimony in this docket.

21                      Got another witness?

22                      MR. DODGE:   Frances Armstrong.

23       FRANCES ARMSTRONG;                   Being first duly sworn,

24   testified as follows:



1 DIRECT EXAMINATION BY MR. DODGE:

2 COMMISSIONER CULPEPPER: Have a seat.

3 Q Good morning, Ms. Armstrong. Could you please  
4 state your full name and address for the record?

5 A Frances Thompson Armstrong.

6 Q And your address, please?

7 A 264 Teachs Cove, Bath, North Carolina.

8 Q Please proceed with your statement.

9 A Okay. I have two exhibits. They're both maps.

10 COMMISSIONER CULPEPPER: Ms. Armstrong, I  
11 want you to talk into that microphone now so we can hear  
12 you --

13 THE WITNESS: Okay.

14 COMMISSIONER CULPEPPER: -- and the court  
15 reporter can take down --

16 THE WITNESS: I -- I --

17 COMMISSIONER CULPEPPER: -- your testimony.

18 THE WITNESS: I'm turning in two exhibits  
19 that are maps with some text on the maps.

20 COMMISSIONER CULPEPPER: All right. Let's  
21 identify these. We have a -- a document that is already  
22 been introduced into evidence as Hodges' Exhibit No. 2. But  
23 anyhow, for purposes of this witness' testimony, the  
24 document that is entitled at the top "North Carolina -

1 Annual Average Wind Speed at 80 m" will be identified as  
2 Armstrong Exhibit No. 1.

3 There's another document here that is at the  
4 top labeled "Foraging Area, Other Sensitive Habitats and  
5 Proposed Industrial Wind Turbines." That will be marked for  
6 the purpose of this proceedings as Armstrong Exhibit No. 2.

7 (Whereupon, Armstrong Exhibit Nos. 1  
8 & 2 were marked for  
9 identification.)

10 COMMISSIONER CULPEPPER: All right. Now you  
11 may proceed.

12 THE WITNESS: I am not against industrial  
13 wind facilities, but it's been proven that the location of  
14 the industrial wind turbines is the most critical  
15 consideration. I am against the location of the Pantego  
16 Wind Energy project for two reasons: Insufficient wind  
17 power and harmful to wildlife.

18 When considering a location, I would think  
19 the first criteria considered by a wind power company would  
20 be sufficient wind power.. In the application filed, it was  
21 stated that the Pantego project should generate electricity  
22 between 25 percent and 36 percent of the time. This is the  
23 absolute minimum for a commercial project.

24 Wind power maps show that North Carolina's

1 best wind for power generation is offshore and in the  
2 mountains, not in this inland area. A wind speed map shows  
3 that the annual average wind speed in the area of the  
4 Panteo industrial wind turbines is significantly below the  
5 U.S. Government's annual average wind speed for wind  
6 development. Insufficient wind power should have eliminated  
7 this site from consideration.

8                   When considering the location, for me, the  
9 most important criteria considered by a wind power company  
10 should be wildlife. Industrial wind facilities are not  
11 supposed to be located in areas that cause extensive  
12 negative impacts for wildlife. This location is next to a  
13 waterfowl sanctuary, the Pungo Unit of Pocosin Lakes  
14 National Wildlife Refuge, which is a globally significant  
15 important bird area. A map of the area shows that the  
16 industrial wind turbines are located in the primary foraging  
17 area of the migratory waterfowl that rest on Pungo Lake and  
18 that feed in the surrounding farm fields.

19                   Tens of thousands migratory waterfowl make  
20 their winter home here from late October through early March  
21 every year, with peak numbers well in excess of 100,000.  
22 The migratory waterfowl, a national wildlife refuge that is  
23 a waterfowl sanctuary and a globally significant important  
24 bird area should have eliminated this site from

1 consideration. What was the criteria for selecting this  
2 location? Thank you.

3 COMMISSIONER CULPEPPER: Okay. Let's see if  
4 we have any additional questions. I take it that concludes  
5 your testimony --

6 THE WITNESS: Uh-huh.

7 COMMISSIONER CULPEPPER: -- is that right?

8 Mr. Dodge?

9 BY MR. DODGE:

10 Q Thank you, Mrs. Armstrong. You also filed a  
11 statement with the Commission on November 16, 2011?

12 A Yes.

13 Q And presented testimony at the November 17th  
14 public hearing as well?

15 A Yes.

16 Q And then you also filed an additional statement  
17 that consists of six pages on December 2nd with the  
18 Commission?

19 A Yes.

20 Q Okay. Thank you.

21 COMMISSIONER CULPEPPER: Mr. Olson?

22 MR. OLSON: I have no questions.

23 COMMISSIONER CULPEPPER: Mr. Griffin?

24 MR. GRIFFIN: No questions.

1 COMMISSIONER CULPEPPER: Questions by the  
2 Commission?

3 (No response.)

4 COMMISSIONER CULPEPPER: All right. Thank  
5 you very much. Let Armstrong Exhibit Nos. 1 and 2 be  
6 admitted into evidence.

7 (Whereupon, Armstrong Exhibit Nos. 1  
8 & 2 were admitted into evidence.)

9 MR. DODGE: Our next witness is Maurice (sic)  
10 Woll, I believe.

11 COMMISSIONER CULPEPPER: Wait, wait, wait  
12 just a minute. Let -- let -- let your lawyer handle that.

13 MARVIN WOLL; Being first duly sworn,  
14 testified as follows:

15 DIRECT EXAMINATION BY MR. DODGE:

16 COMMISSIONER CULPEPPER: Go ahead, Mr. Dodge.

17 MR. DODGE: Thank you.

18 Q Could you -- would you mind spelling your full  
19 name for me?

20 A Yeah. I don't print so well, so...

21 It's Marvin, M-a-r-v-i-n, last name is Woll,  
22 W-o-l-l. And my address is 1116 Vannstone, V as in Victor,  
23 a-n-n-s-t-o-n-e Drive, Raleigh, North Carolina, 27603.

24 Q Please proceed with your statement.

1           A     All right. I have given this a lot of  
2 consideration and I understand the wildfire -- fowl -- or  
3 the waterfowl problem, but I also wanted to present, you  
4 know, just some more information that we should all be  
5 considering relative to any wind development. Okay.

6                     I've given them an article that says the "Biggest  
7 jump ever seen in global warming gases." Another article  
8 here says that Mexico is suffering through worst drought in  
9 seven years. 1.7 million farm animals have died of  
10 starvation and thirst. Scarcity of water, they're having to  
11 truck in water for 2.5 million people.

12                    We need to think about how we do things here in  
13 North Carolina relative to the rest of the world because  
14 we're all connected.

15                    Just a few more comments about other things that  
16 have been going on in other parts of the world. In Central  
17 Europe, they've had the worst drought they've had in  
18 decades. The Danube was so low that 80 ships have been  
19 stranded on sandbars. Next year's wheat production will be  
20 20 percent below normal. Drought in Mexico is also  
21 connected to the worst drought on record in Texas. They  
22 have flooding in Thailand that is disrupting commerce there.  
23 And last and certainly not least, if you look at the  
24 records, you will see that we had record high temperatures

1 in cities around the globe this year and also record high  
2 nighttime lows.

3           Whether we move this project or something, but my  
4 emphasis is that we need to do as much wind and solar as  
5 possible. I would ask that Progress and Duke do whatever  
6 they can to increase the amounts of wind and solar that  
7 they're using. And it's not this body's prerogative, but we  
8 should be strengthening SB3 rather than, you know,  
9 downplaying it at -- at all.

10           So my reason for being here is to say that we need  
11 to move on wind and solar as fast as possible and get as  
12 much as we can. Study this issue. See if there's another  
13 adjustment to the location or anything like that, but we  
14 have to have more wind and solar, otherwise, you know,  
15 there's that possibility that in a hundred years from now we  
16 could be looking at a planet that is most inhospitable to  
17 any life whatsoever. And that's why I'm here. For the sake  
18 of our children and grandchildren, we need to do everything  
19 we can to support wind and solar. Thank you.

20           COMMISSIONER CULPEPPER: All right. Does  
21 that conclude your statement at this point?

22           THE WITNESS: Yes, sir. Yes, sir.

23           COMMISSIONER CULPEPPER: All right. Let's  
24 see if we have any questions of you.

1 First, Mr. Dodge, you want to identify your  
2 witness' exhibit?

3 MR. DODGE: Yes, sir. We ask that Mr. Woll's  
4 document be marked as Woll Exhibit No. 1 and admitted into  
5 evidence.

6 COMMISSIONER CULPEPPER: All right. Let the  
7 document which is entitled "Biggest jump ever seen in global  
8 warming gases" be so identified and it is received into  
9 evidence.

10 (Whereupon, Woll Exhibit No. 1 was  
11 marked for identification and  
12 admitted into evidence.)

13 COMMISSIONER CULPEPPER: Any questions --  
14 additional questions of your witness, Mr. Dodge?

15 MR. DODGE: No, sir.

16 COMMISSIONER CULPEPPER: Mr. Olson?

17 MR. OLSON: I have no questions. Thank you.

18 COMMISSIONER CULPEPPER: Mr. Griffin?

19 MR. GRIFFIN: No questions. Thank you.

20 COMMISSIONER CULPEPPER: Commissioners?

21 (No response.)

22 MR. CAMPEN: Commissioner Culpepper --

23 COMMISSIONER CULPEPPER: Yes.

24 MR. CAMPEN: -- before you move on, may we



1 see a copy of Armstrong Exhibit 2?

2 COMMISSIONER CULPEPPER: Yes. Don't let that  
3 get too far away. Hand that to the court reporter when  
4 you're through with it, okay. Thank you.

5 COURT REPORTER: I need the first one, too.

6 COMMISSIONER CULPEPPER: This one right here.  
7 Hand -- would you mind handing that to her, Mr. Campen.  
8 Thank you.

9 Well, you take whatever time you want to  
10 examine it now.

11 MR. CAMPEN: We're -- we're fine.

12 COMMISSIONER CULPEPPER: I was assuming you  
13 were through. Okay.

14 Okay. Mr. Woll, that will conclude your  
15 testimony.

16 THE WITNESS: Thank you. I appreciate it.

17 COMMISSIONER CULPEPPER: Well, we appreciate  
18 you coming today. Thank you, sir.

19 Do you have another witness?

20 MR. DODGE: Dick Hamilton.

21 COMMISSIONER CULPEPPER: Mr. Hamilton.

22 DICK HAMILTON; Being first duly sworn,

23 testified as follows:

24 DIRECT EXAMINATION BY MR. DODGE:

1 Q Good morning, Mr. Hamilton. Please --

2 A Morning.

3 Q Please state your full name and address.

4 A My name is Dick Hamilton. The address is 1024  
5 Washington Street in Raleigh, 27605.

6 Q Please proceed with your statement.

7 A Okay. Mr. Chairman, members of the Utilities  
8 Commission, thank you for this opportunity to present our  
9 position on this important issue.

10 This morning I'm representing the North Carolina  
11 Wildlife Federation on this application from Pantego Wind  
12 Energy to construct a wind facility in Beaufort County.

13 The Wildlife Res -- the Wildlife Federation --  
14 excuse me, a little slip there -- was formed in 1945 and  
15 it's a statewide nonprofit conservation organization that's  
16 dedicated to the perfection -- to protection and scientific  
17 management of North Carolina wildlife and its habitat.  
18 North Carolina Wildlife Federation has 30 affiliates, 8  
19 local chapters, over 10,000 members and supporters who work  
20 to communicate, cooperate and partner with state and federal  
21 resource agencies, corporations and other interested groups  
22 to advance the wellbeing of North Carolina's wildlife and  
23 its habitat.

24 The North Carolina Wildlife Federation is highly

1 supportive of responsible development of alternative energy  
2 projects such as wind power that lessen our dependence on  
3 energy that's generated from the combustion of fossil fuels.  
4 Our concerns with the Pantego project center mainly on its  
5 proposed location, which is proximate to seasonal  
6 concentrations of migratory waterfowl and also the absence  
7 of a completed evaluation of the project's impact on  
8 migratory and resident bird species.

9           The Pocosin Lakes area is nationally and  
10 internationally renowned for its wintering migratory bird  
11 population, waterfowl population particularly. The appeal  
12 to this area to provide a safe and fully usable habitat for  
13 these populations directly affects a substantial number of  
14 people throughout the United States and North America.

15           The U.S. Fish and Wildlife Service estimates that  
16 in 2006 2.3 million people in the United States hunted  
17 waterfowl and more than 15.4 million people traveled away  
18 from their homes to observe waterfowl. These two groups of  
19 people expended more than \$16 billion in pursuit of these  
20 activities. In North Carolina alone, 686,000 people  
21 traveled to watch wildlife and they spent \$917 million on  
22 this activity.

23           In North Carolina, there are approximately 40,000  
24 waterfowl hunters who were out there -- or who sought

1 migratory birds in North Carolina and they expended  
2 \$14.6 million in the pursuit of waterfowl. So obviously  
3 healthy populations of migratory waterfowl are important to  
4 the economic health of the local area down there in Pantego,  
5 North Carolina, and also the United States.

6           The proximity of the proposed project to the  
7 Pocosin Lakes National Wildlife Refuge and the active  
8 agricultural fields included in the area increase the  
9 probability that the project will have impact on birds, both  
10 resident and migratory birds that are known to occur in this  
11 area.

12           We understand the Applicant is conducting studies  
13 on these issues, but the final results and analyses of those  
14 results are incomplete and unreported at this time. We  
15 believe that it would be unwise to begin construction of the  
16 project until the biological studies are complete. The  
17 interest of the wildlife resources, the area and the public  
18 are best served in those instances where impacts to  
19 resources are avoided rather than mitigated.

20           Without a thorough review and analysis of the  
21 wildlife composition, the abundance, the distribution and  
22 behavior of these populations in the area, there's really no  
23 sound basis upon which we can build an impact avoidance  
24 plan. After construction begins, avoidance of impacts

1 rapidly becomes impractical and mitigation measures must be  
2 developed. Required mitigation measures are often  
3 ineffective, they're very costly and they must be maintained  
4 over a long period of time. So you can see it's better to  
5 avoid the problem than to mitigate it.

6 In summary, the project area supports large  
7 concentrations of migratory waterfowl, numerous resident  
8 avian populations and several species of bats. These  
9 species are important to the ecological balance of the area  
10 and the economy of the local area, as well as to the State  
11 and the rest of the country.

12 And the quality of life of millions of people is  
13 affected by the availability of these waterfowl for viewing  
14 and other recreational activities, so it's critical that any  
15 development activity in the area carefully evaluate  
16 potential impacts on the affected wildlife populations.

17 We strongly urge the Utilities Commission to  
18 require completion of a wildlife management plan for the  
19 project that has been vetted by appropriate resource  
20 agencies, organizations and interested members of the public  
21 before taking final action on this certificate of public  
22 convenience and necessity.

23 We thank you for the opportunity to appear and  
24 present these comments, sir.

1 COMMISSIONER CULPEPPER: All right. Does  
2 that conclude your statement?

3 THE WITNESS: Yes, sir.

4 COMMISSIONER CULPEPPER: Let's see if we have  
5 any additional questions of you. Mr. Dodge?

6 BY MR. DODGE:

7 Q Thank you, Mr. Hamilton. You indicated you are  
8 here representing the North Carolina Wildlife Federation --

9 A Yes.

10 Q -- today?

11 A Yes.

12 Q And your statement reflects the official position  
13 of the Wildlife Federation?

14 A Right. There is a written statement coming in the  
15 mail, according to y'all's procedures. It would be signed  
16 by the executive director. He could not be here today, so I  
17 volunteered to read it for him.

18 Q Thank you.

19 COMMISSIONER CULPEPPER: Mr. Olson, you have  
20 any questions of the witness?

21 MR. OLSON: No, I don't. Thank you.

22 COMMISSIONER CULPEPPER: Mr. Griffin?

23 MR. GRIFFIN: No, sir. No questions.

24 COMMISSIONER CULPEPPER: Commissioners?

1 Okay. Commissioner Allen. Wait -- wait just a minute, Mr.  
2 Hamilton. Commissioner Allen has a question for you.

3 THE WITNESS: Yes, Commissioner Allen.

4 EXAMINATION BY COMMISSIONER ALLEN:

5 Q Hello.

6 A Hi.

7 Q Mr. Hamilton, just for clarification, would you  
8 give us the figure again on the hunting -- waterfowl hunters  
9 and waterfowl observers, the number that you stated were in  
10 North Carolina?

11 A There are 40,000 licensed waterfowl hunters in  
12 North Carolina, according to recent survey information.

13 Q Okay. I'm sorry. I was actually -- you gave a  
14 number of some millions in --

15 A Yes.

16 Q -- North Carolina. What was that referring to?

17 A Yes. According to the Fish and Wildlife Service,  
18 which is the federal agency that controls sport or hunting,  
19 that in 19 -- in 2006, which is the last year they did the  
20 survey that they do every five years, there were 2.3 million  
21 waterfowl hunters in the United States and 15.4 million  
22 people traveled away from their home to view waterfowl;  
23 birdwatchers. That's in the country.

24 Q Thank you. And in North Carolina, did you say?

1           A     In North Carolina, there were 40,000 hunters and  
2 there are 686,000 birdwatchers.

3           Q     And -- and the economic impact in North Carolina?

4           A     Economic impacts, according to the Fish and  
5 Wildlife Service, again, is \$16 billion dollars in pursuit  
6 of the hunting and the birdwatching at the national level.  
7 At the State level, it's \$917 million.

8           Q     917 million?

9           A     Yes, ma'am.

10          Q     Thank you.

11          A     That's according to the Fish and Wildlife survey.

12          Q     Okay.

13                   COMMISSIONER CULPEPPER: Does that conclude  
14 your questions?

15                   COMMISSIONER ALLEN: Yes, it does.

16                   COMMISSIONER CULPEPPER: All right. Wait  
17 just a minute, Mr. Hamilton. Questions based on  
18 Commissioner Allen's questions, Mr. Dodge?

19                   MR. DODGE: One follow-up question.

20                   CONTINUED DIRECT EXAMINATION BY MR. DODGE:

21           Q     Mr. Hamilton, the numbers you're quoting for North  
22 Carolina, that represents figures for the entire state?

23           A     Yes.

24           Q     Okay.



1 A Yes, sir.

2 COMMISSIONER CULPEPPER: Mr. Olson?

3 MR. OLSON: I have no questions.

4 COMMISSIONER CULPEPPER: Mr. Griffin?

5 MR. GRIFFIN: No questions.

6 COMMISSIONER CULPEPPER: Now, Mr. Hamilton,  
7 you may stand down with our appreciation. Thank you very  
8 much, sir.

9 Do you have another witness, Mr. Dodge?

10 MR. DODGE: Jack Spruill.

11 JACK SPRUILL; Being first duly sworn,  
12 testified as follows:

13 DIRECT EXAMINATION BY MR. DODGE:

14 Q Good morning, Mr. Spruill. Could you please state  
15 your full name and address for the record?

16 A Yes. John R. Spruill. I reside at 1836 Corcus  
17 Ferry Road, Hampstead, 28443.

18 Q Please proceed with your statement.

19 A Good morning. Thank you very much for giving me  
20 the opportunity to speak on this very important matter.  
21 Yesterday I submitted a comment letter electronically. I  
22 just provided a paper copy here for your immediate use, and  
23 now I'd like to just give some high-level summary, personal  
24 comments, so we can go eyeball to eyeball without boring you

1 with reading it again.

2 COMMISSIONER CULPEPPER: That would be very  
3 helpful. Go right ahead.

4 THE WITNESS: Thank you. I am here primarily  
5 because of my strong historic and emotional attachment with  
6 the Albemarle-Pamlico Peninsula. For as many generations as  
7 I know of, all of my ancestors have come from Tyrrell  
8 County, Washington County, Beaufort County, Martin and  
9 Bertie. I grew up in Roper.

10 I am fortunate to own my Spruill family farm  
11 on the Albemarle Sound in Washington County, and I'm  
12 offering to donate that to the right kind of holder to be a  
13 permanent and perpetual place for low-impact public access,  
14 research, education and -- and similar matters. I hope that  
15 earns me a modest amount of credibility when I talk about my  
16 commitment to the Albemarle-Pamlico Peninsula.

17 It's a sad bit of irony of my ancestors'  
18 connection with this area. In 1892, my great grandfather,  
19 James L. Spruill, was killed in Pantego swamp while piling a  
20 juniper or Atlantic white cedar tree while he and his two  
21 sons, one of my -- one of whom was my grandfather, were  
22 logging for John L. Roper Lumber Company.

23 Now moving on to the important matter of wind  
24 power. Over some considerable time, I set out to educate

1 myself as a citizen about the pros and cons of wind power.  
2 I read. I talked to people. I went to conferences. I've  
3 outlined in my written statement some of the things I have  
4 done. And about two years ago, I crossed over the bar and  
5 decided on balance I feel that wind power should be a major  
6 part of our national energy strategy and should be pursued  
7 appropriately and aggressively here in North Carolina.

8 I have provided in my written statement  
9 summaries of presentations I have made to the State and  
10 federal hearings and public meetings in support of wind  
11 power in North Carolina. And at the same time, I've spoken  
12 against offshore drilling in North Carolina. I'm proud of  
13 that position as well.

14 There are compromises to be made in wind  
15 power: Visual issues; environmental site issues, especially  
16 relative to running the transmission lines; and of course  
17 there are bird strike issues. I believe that on a  
18 site-by-site basis evaluation that the alternative of  
19 dealing with some of those undesirable characteristics of  
20 wind power makes it on balance far superior to our continued  
21 reliance on coal to generate electricity. The negative  
22 impacts of burning coal on our atmosphere, our human health,  
23 on ocean acidification and on global climate make that a  
24 highly undesirable alternative.

1 I have offered to this North Carolina  
2 Department of Commerce for a research wind tower to be  
3 placed on my farm on the Albemarle without any charge to  
4 anybody to help determine if there is suitable, sustainable  
5 wind to support wind operation in the -- in the western  
6 Albemarle region.

7 That all being said, this site proposed is  
8 something very, very different; very, very unique. I had  
9 the very special opportunity to be on the shore of Pungo  
10 Lake at first light one winter morning when every tundra  
11 swan, snow goose, Canada goose and duck apparently decided  
12 to take off all at the same time and head out to feed. And  
13 I tell you, it is a life-changing experience.

14 First, the noise. The noise is so intense  
15 you cannot separate out whistles, quacks or honks. It all  
16 rolls together as one cacophony. The wing beat of these  
17 birds taking up all -- taking off on the lake coupled with  
18 the mixture of sounds would make you think you were more  
19 likely by a airport than by Pocosin Lake.

20 And then they bubble off the lake almost like  
21 popcorn out of a kettle as they soared out which way in  
22 Tyrrell County, Hyde, Beaufort or Washington they're heading  
23 to feed. It is an unbelievable sight.

24 Away from the lake, over to my many years in

1 the Peninsula, I have observed a lot about the flight  
2 patterns of these birds, including ones that pass over my  
3 farm to rest on the Albemarle or occasionally land on the  
4 fields of my farm to forage. And I'd like to talk to you  
5 about what I've observed as a layperson about those flight  
6 patterns and what I believe that computer simulation of  
7 their flight patterns with these wind turbines is likely to  
8 show.

9           Allow me to present to you the idea that this  
10 is the plane at which turbine -- turbine blades are turning.  
11 Doesn't matter if they're turning counterclockwise or  
12 clockwise. Just assume that's how they're turning.

13           These birds often fly in strings at low  
14 altitude, sometimes where the lead bird leads the string and  
15 so the path of the string or the shape of the string is the  
16 same as the path of the flight. Sometimes it's like this.  
17 I believe that computer simulation of the flight of these  
18 birds in a turbine field will show this potential, a string  
19 of these birds that flies into the plane of turbine  
20 rotation. Doesn't matter if the turbines are rotating  
21 clockwise at that time or counterclockwise. I believe  
22 simulation will show the high potential for not only one  
23 strike by the first blade, but multiple strikes by the first  
24 blade as it comes up into the string or over the top of the

1 string.

2                   Now, what happens next? Well, these birds --  
3 when the -- when the lead birds in a flock get disturbed or  
4 frightened or anything, the remaining birds then try to put  
5 on the brakes. They try to -- they have -- they use the  
6 energy to slow the forward movement to try to gain altitude  
7 or flare off to the left or the right. I believe it also  
8 could be shown in computer simulation that if that happens,  
9 by that -- by that time the second blade will have rotated  
10 around and it has a -- has the opportunity to smash into  
11 more birds in -- in that string.

12                   My idea of what I believe computer simulation  
13 would show. And obviously I'm painting the picture of the  
14 need for that kind of detailed study.

15                   Okay. We have some bird strikes. What  
16 happens? Birds fall to the ground. I believe that within  
17 two days vultures will descend on that site to feed on those  
18 carcasses or that carrion. Golly knows there are plenty of  
19 vultures in the Albemarle-Pamlico Peninsula looking for  
20 things to eat. Well, how are they going to get to those  
21 carcasses? That's not a flyover issue. That's a fly right  
22 down into the issue.

23                   I think that when -- if there's a direct  
24 strike on birds of this size, either snows, Canadas or

1 tundra swans or vultures, those creatures have enough blood  
2 in their body that if there's a clear severance or smashing  
3 of that body, I believe there will be blood spattered on the  
4 white blades of that turbine. Now, if they just collide and  
5 break their neck, then they'll fall to the ground and there  
6 won't be blood. But I believe there is a potential for  
7 blood spattered on the turbines to the degree it can be seen  
8 from the ground.

9           If it can be seen from the ground, guess what  
10 will be done? Pictures will be taken. Guess what will be  
11 done with those pictures? If the collision of the bird  
12 breaks its wing, it probably is just going to flutter down  
13 under the turbine or somewhere nearby and it'll -- it'll  
14 flutter and so on until it finally dies. Well, just suppose  
15 somebody comes along with even a reasonable cell phone that  
16 has video capability and makes a picture of that goose or  
17 that swan fluttering under that turbine. Guess where those  
18 pictures are going to go? In 24 hours, guess what image is  
19 going to have of wind power in North Carolina? I say it  
20 could set us back a couple of years.

21           This is too big a risk issue to be casual  
22 about dealing with the -- with the potential for this  
23 strike. I ask you to not move forward with any licensing or  
24 permitting until there's an independent scientific study

1 done with good peer review. I assume the Applicant is  
2 willing to pay for it, but it needs to be independently  
3 conducted and -- and under your oversight.

4 My guess is you've said to each other, my  
5 golly, we have a hard enough time dealing with all these  
6 utilities issues and now you want us to be experts on  
7 migratory birds, populations and flights. I'll share with  
8 you a little secret. The last few weeks my wife has said  
9 something similar to me: Jack, why in the world are you  
10 spending so much time on this issue? That's why we have all  
11 these government people to do it. Well, my answer to her is  
12 similar to my answer to you: It's everybody's job.

13 The legal and regulatory environment for wind  
14 power in North Carolina is far from mature. But it's hugely  
15 important to do it right. This will be the first or second  
16 wind farm in North Carolina and the images of bird strikes  
17 and -- and some of the horrible things I've described for  
18 you would be a disastrous setback for what I hope would  
19 otherwise be a successful wind power commitment in our  
20 state. Thank you very much.

21 COMMISSIONER CULPEPPER: All right. I take  
22 it that concludes what you've got to say at this point?

23 THE WITNESS: Yes, sir.

24 COMMISSIONER CULPEPPER: All right. Let's



1 see if we have any questions by the lawyers or the  
2 Commission. Mr. Dodge?

3 MR. DODGE: No questions. But we -- the  
4 Public Staff would ask that Mr. Spruill's document be marked  
5 as Spruill Exhibit No. 1 and entered into the record.

6 COMMISSIONER CULPEPPER: All right. Let the  
7 document which is a letter dated December 5, 2011, be  
8 identified for purpose of this proceeding as Spruill Exhibit  
9 No. 1.

10 (Whereupon, Spruill Exhibit No. 1  
11 was marked for identification.)

12 COMMISSIONER CULPEPPER: Did you want to see  
13 this?

14 MR. CAMPEN: We have it.

15 COMMISSIONER CULPEPPER: You have a copy of  
16 that. Let it be received into evidence.

17 (Whereupon, Spruill Exhibit No. 1  
18 was admitted into evidence.)

19 COMMISSIONER CULPEPPER: Anything else, Mr.  
20 Dodge?

21 MR. DODGE: No further questions.

22 COMMISSIONER CULPEPPER: Mr. Olson?

23 MR. OLSON: I have no questions.

24 COMMISSIONER CULPEPPER: Okay. Mr. Griffin?

1 MR. GRIFFIN: No, sir.

2 COMMISSIONER CULPEPPER: Questions,  
3 Commissioners?

4 (No response.)

5 COMMISSIONER CULPEPPER: Okay. Thank you  
6 very much, Mr. Spruill. You may stand down.

7 MR. DODGE: Derb Carter.

8 DERB CARTER; Being first duly sworn,  
9 testified as follows:

10 DIRECT EXAMINATION BY MR. DODGE:

11 Q Morning, Mr. Carter. Could you please state your  
12 full name and address for the record?

13 A Derb Carter, Southern Environmental Law Center,  
14 200 West Franklin Street, Chapel Hill, North Carolina.

15 Q Please proceed with your statement.

16 A Commissioner Culpepper, Commissioner Allen,  
17 Commissioner Rabon, I spoke briefly at the Washington  
18 hearing and there are a few things I want to add today to --  
19 to that previous testimony.

20 COMMISSIONER CULPEPPER: Okay. Mr. Carter,  
21 before you do that, I want the record to reflect that the  
22 Commission has substantially deviated from a rule that's  
23 standing that public witnesses are only supposed to testify  
24 one time. But we're not -- we're not going to enforce that

1 rule today and we've had a number of witnesses that  
2 testified in Washington that have testified again here today  
3 and we're happy to have you.

4 And we're happy to have you, Mr. Carter. And  
5 you can go ahead with your testimony, but a couple of  
6 things. Number one, I hope you're not going to -- plan on  
7 reading this thing verbatim.

8 THE WITNESS: I'm going to summarize it.

9 COMMISSIONER CULPEPPER: Okay. Thanks very  
10 much. And we will -- we will -- this is a document that's  
11 been handed out that is labeled "Public Witness Testimony of  
12 Derb S. Carter, Jr. on behalf of Audubon North Carolina and  
13 the Southern Environmental Law Center." For purpose of this  
14 proceeding, this document is identified as Carter Exhibit  
15 No. 1.

16 (Whereupon, Carter Exhibit No. 1 was  
17 marked for identification.)

18 COMMISSIONER CULPEPPER: All right. Now, Mr.  
19 Carter, you may proceed with your summary.

20 THE WITNESS: Let me begin by saying we, like  
21 many of the individuals and groups you've heard from,  
22 support the responsible development of wind energy resources  
23 as a renewable energy alternative to fossil fuels. We  
24 support the 300-megawatt Iberdrola project approved by this

1 Commission in northeastern North Carolina and hope that that  
2 project can move quickly to secure a purchase agreement and  
3 go forward. Expanded wind energy must become an increasing  
4 part of our nation's energy production.

5           You will hear from many groups who begin by  
6 saying they support or even strongly support wind energy. I  
7 think the fact that you're hearing concerns from those same  
8 groups speaks to the seriousness of the conflicts that exist  
9 at this particular site.

10           We see the decision before the Commission now  
11 as whether to issue a certificate to Pantego to construct  
12 and operate this wind turbine facility in an area that's  
13 rated poor for wind, but considered internationally  
14 outstanding for its wildlife resources, particularly the  
15 waterfowl resources that thrive on the adjacent Pocosin  
16 Lakes National Wildlife Refuge that was established by  
17 Congress in 1963 as a waterfowl sanctuary with the expressed  
18 purpose of attracting and sustaining as many waterfowl as  
19 possible in that part of the State.

20           The U.S. Fish and Wildlife Service has  
21 described the conflict between wind energy development and  
22 the environment, particularly wildlife, as follows: As the  
23 United States moves forward to expand wind -- wind energy  
24 production, it also must maintain and protect the nation's

1 fish, wildlife and their habitats, which wind energy  
2 production can negatively affect. As with all responsible  
3 energy development, wind energy projects should adhere to  
4 high standards of environmental protection. With proper  
5 diligence paid to siting, operations and management of  
6 projects, it's possible to mitigate for adverse effects to  
7 fish, wildlife and their habitats.

8 Because the Company here has failed to  
9 conduct the studies to assess the impacts to waterfowl and  
10 other birds and develop a plan to avoid or otherwise  
11 mitigate the impacts, the Commission, in our view, must  
12 either return the application to the Company as incomplete  
13 or defer action on the application until the Company submits  
14 an assessment of the bird use of the area and a plan to  
15 address bird mortality and impacts.

16 The Public Staff, in its submitted testimony,  
17 has stated that it agrees that this project should not be  
18 constructed and operated at this location until those  
19 assessments are complete. However, the Commission further  
20 notes that traditionally, as I think has been the practice,  
21 the Commission defers to other expert agencies -- natural  
22 resource agencies, environmental agencies -- that have  
23 expertise on these particular matters.

24 This has come up before and I think it's

1 probably the one point I want to focus on is that in this  
2 particular circumstance, that opportunity may not exist.  
3 That's because from everything we understand, the Company  
4 intends to proceed through the permitting process for this  
5 facility in a manner that would navigate around laws that  
6 could come into play that would ensure that the conflict is  
7 addressed through environmental assessments under the  
8 National Environmental Policy Act or through the Fish and  
9 Wildlife Coordination Act or through the Federal Endangered  
10 Species Act.

11                   Those acts depend on there being an  
12 independent individual permit at the federal level to  
13 trigger their application. The Company is proceeding, from  
14 everything we understand and what we've been told by Company  
15 representatives, in a manner that will achieve all of their  
16 permitting obligations through what are called nationwide or  
17 general permits. These are -- are blanket permits that if  
18 you come in below a certain threshold, the requirement for  
19 the individual permit is not triggered. If that requirement  
20 for the individual permit is not triggered, then all of that  
21 additional environmental assessment, coordination with the  
22 Fish and Wildlife Service, consideration of endangered  
23 species does not come into play.

24                   So I think that's one thing that's important

1 for this Commission to recognize is that this is a situation  
2 in which your traditional approach to deferring to those  
3 other agencies may not yield the result. We know those  
4 agencies have expressed concerns through the State  
5 Clearinghouse process about the potential impacts at this  
6 site and the lack of any environmental analysis, so we hope  
7 you take that into consideration as you render this  
8 important decision.

9           The bulk of my testimony -- I won't get into  
10 it. Your legal staff can read it -- is some legal analysis  
11 of this situation that we've prepared which discusses your  
12 authorities, very direct authorities, to address this should  
13 you choose to do so and how those interact with actual  
14 federal obligations that exist for both you as a Commission  
15 and for the Applicant under the Federal Migratory Bird  
16 Treaty Act. So I won't get into that detail and just  
17 conclude my testimony at that point.

18           COMMISSIONER CULPEPPER: All right. Let's  
19 see if we have any questions. Mr. Dodge?

20           MR. DODGE: I do have one follow-up.

21 BY MR. DODGE:

22           Q     Thank you, Mr. Carter. In your Carter Exhibit No.  
23 1 that was just handed out to the Commission and in your  
24 comments, looking at the exhibit on Page 3, lines 4 through

1 6, you characterize Mr. Ellis' testimony and the Public  
2 Staff's position that these environmental impacts needed to  
3 be studied prior to construction and operation of the  
4 facility.

5 The -- if you don't mind, on -- and also in  
6 Mr. Ellis' testimony -- do you happen to have that with you  
7 at this time?

8 A No, I don't.

9 Q If I could just point out --, and do you -- have  
10 you read Mr. Ellis' testimony?

11 A Yes. I read it in full.

12 Q Okay. Mr. Ellis also continues to point out that  
13 the Public Staff is satisfied with the dialogue underway  
14 with State environmental agencies and the Applicant will  
15 help to assure that these environmental standards are  
16 complied with?

17 A Yes. I understand that's his testimony.

18 Q And then -- and Mr. Ellis also recommends  
19 conditions be applied to the -- the certificate?

20 A Yes. As I understand it, the condition -- the  
21 principal condition that would address these issues that is  
22 recommended is that there be a plan submitted eventually to  
23 the Commission that may come after or likely would come  
24 after the Commission would make its decision to issue the



1 certificate.

2 Q Thank you, Mr. Carter.

3 COMMISSIONER CULPEPPER: Mr. Olson, you have  
4 any questions of the witness?

5 MR. OLSON: Yeah. I have a couple just to  
6 clarify a few issues.

7 CROSS-EXAMINATION BY MR. OLSON:

8 Q You mentioned nationwide permits and general  
9 permits. You're aware there are certain presumptions that  
10 underlie those concepts or those ideas, aren't you?

11 A I -- could you be more specific? I mean --

12 Q Well, in the case --

13 A -- I'm very familiar with --

14 Q -- in the case of a nationwide permit, the  
15 presumption is that you can issue a nationwide permit -- and  
16 -- and agree with me or disagree with me -- that the  
17 presumption is that you can issue a nationwide permit  
18 because the impacts of those activities that fall within  
19 that category are considered to be low or acceptable?

20 A Yes. Section 404 of the Federal Clean Water Act  
21 authorizes the Corps to issue general permits -- if they  
22 apply nationally, they're called nationwide permits -- to  
23 authorize substantially similar activities that have minimal  
24 individual and cumulative impact.

1           Q     So the presumption is that if you fall into that  
2 category, you will have minimal cumulative impact, is that  
3 correct, or minimal direct and cumulative impact?

4           A     Yes. That's always the tension in issuing those  
5 general permits is whether, particularly cumulatively, those  
6 activities do have minimal impact. But that's absolutely  
7 correct.

8           Q     Okay. So then just to clarify that.

9                     And then isn't it also true that if the agency  
10 that issues a general permit or a nationwide permit decides  
11 that this activity warrants further assessment, they -- they  
12 can refuse to issue that permit in that case?

13          A     The Corps of Engineers has the discretion under  
14 any general permit to require an individual permit if it  
15 determines that it is appropriate.

16          Q     Okay. And when you're talking about this -- this  
17 plan to circumvey (sic) permitting, and you mentioned  
18 general permits and nationwide permits, are you referring  
19 only to the 404 permit that's issued by the Corps?

20          A     I'm -- that's the principal permit that makes a  
21 difference because it's the federal permit that would  
22 trigger the other federal laws that could come into play to  
23 directly address many of the issues that have been raised.

24          Q     Okay.

1 MR. OLSON: Thank you. That's all I have.

2 COMMISSIONER CULPEPPER: Mr. Griffin?

3 MR. GRIFFIN: I do have a couple of

4 questions.

5 COMMISSIONER CULPEPPER: Go right ahead, sir.

6 CROSS-EXAMINATION BY MR. GRIFFIN:

7 Q Mr. Carter, you're a lawyer, correct?

8 A That's correct.

9 Q Would counsel agree with the -- the proposition  
10 that under the regulations, the Corps' regulations and the  
11 book of the law, that the applicant for a full permit has  
12 the duty under the law to avoid and minimize impacts to  
13 waters of the United States?

14 A Yes. Let me just say, give the nature of this  
15 questioning, we're not questioning the -- even the  
16 appropriateness of pursuing this as a nationwide permit. As  
17 an organization that's interested in protecting wetlands, we  
18 want to see the least amount of wetlands or waters impacted.

19 So we're not questioning the pursuit of a  
20 nationwide or general permit to authorize the construction  
21 activities associated with the project. It's just the  
22 effect that that has on having the agencies that might  
23 normally be involved in their traditional ways in looking at  
24 a project may not become involved. That's the point of

1 this, not -- not the fact that the Company is intending to  
2 pursue this by minimizing impact through a nationwide  
3 permit.

4 Q Just to tease that out, you would agree with the  
5 proposition that the Company is not intending to avoid its  
6 permitting -- permit responsibilities?

7 A I can't speak to the Company's intent in terms of  
8 whether they consider it a benefit to approach the project  
9 in a way that might not trigger the analysis and time that  
10 might be associated with an environmental analysis. So I  
11 don't know if that's a factor in the Company's decision or  
12 not.

13 Q Well, that's fair. But we do -- the Company does  
14 have a legal obligation to attempt to avoid and minimize; is  
15 that correct?

16 A That's correct.

17 Q Are you familiar with the provisions in the  
18 nationwide permit program, sir, that -- that deal with the  
19 endangered species considerations?

20 A If there is -- there's an overarching condition  
21 that if there are impacts to endangered species, that would  
22 be a basis for pulling it out of the nationwide permit and  
23 requiring an individual permit.

24 Q So seeking a nationwide permit, then, under the

1 law doesn't necessarily mean that endangered species  
2 considerations would not be considered?

3 A It -- it lessens the chance that they would,  
4 depending on the agency interaction, but it doesn't preclude  
5 it. And, of course, a primary focus or most of the concern  
6 here is migratory waterfowl, none of which, to my knowledge,  
7 are listed under the Endangered Species Act.

8 MR. GRIFFIN: That's all I have. Thank you.

9 COMMISSIONER CULPEPPER: Commissioners?

10 (No response.)

11 COMMISSIONER CULPEPPER: Redirect  
12 examination, Mr. Dodge?

13 MR. DODGE: No questions.

14 COMMISSIONER CULPEPPER: All right. That  
15 will conclude your testimony.

16 Mr. Griffin, do you have a copy of the  
17 witness' exhibit?

18 MR. GRIFFIN: Yes.

19 COMMISSIONER CULPEPPER: You do have that?

20 All right. The witness' exhibit, Carter  
21 Exhibit No. 1, is received into evidence.

22 (Whereupon, Carter Exhibit No. 1 was  
23 admitted into evidence.)

24 MR. DODGE: Heather Starck.

1 HEATHER STARCK;                    Being first duly sworn,  
2    testified as follows:

3 DIRECT EXAMINATION BY MR. DODGE:

4            Q     Good morning. Could you please provide your full  
5 name and address for the record? And if you don't mind  
6 spelling your last name for us.

7            A     Sure. It's Heather Starck, S-t-a-r-c-k. And my  
8 address is 532 Copperline Drive, Chapel Hill, North  
9 Carolina, 27516.

10           Q     Thank you. Please proceed with your statement.

11           A     Well, thanks for giving us the opportunity to  
12 speak today. I'm the Executive Director of Audubon North  
13 Carolina. We have filed our comments to you all, so I'm not  
14 going to go and read all of those. But I did want to just  
15 take a minute and still highlight what some of our concerns  
16 about this project are. And also to let you know, the  
17 Utilities Commission, that we are in support of renewable  
18 energy. We're in support of wind and we'd like to partner  
19 with you to make this happen appropriately here in North  
20 Carolina. We understand that this is one of the first  
21 projects of this scale in North Carolina and the complexity  
22 that that brings to this process.

23                    While we support wind here, we also see that there  
24 are very clear conflicts with this project. It has

1 conflicts with our global IBA in the area. And you've heard  
2 some testimony from folks about these important bird areas,  
3 but I think it's important just to take a minute to  
4 understand why Audubon is a part of this program and why we  
5 designate these areas for these exact purposes.

6           So we look at bird populations across the world,  
7 but here in North Carolina. And there are very rigorous  
8 scientific criteria that go into describing which areas are  
9 the most important for birds in North Carolina. And when an  
10 IBA is considered a global -- globally significant, that is  
11 one where we will do everything we can to make sure that the  
12 threats and the impacts to that area are minimized because  
13 it's so important to birds.

14           So when this project came about and we started  
15 working with the Company and asking questions, we -- we had  
16 many questions that were left unanswered and are still left  
17 unanswered. I'm not going to read them all, but they are in  
18 our filed comments.

19           And all we're asking here today is that before  
20 this project is constructed and before the Utilities  
21 Commission makes a decision on their official ruling, that  
22 we are able to work with the Company and allow them to  
23 complete their study and assess the impacts of the bird at  
24 the project sites to really fully understand if birds are

1 impacted; from a mortality standpoint, what the mitigation  
2 for that might look like. If they avoid the site, where  
3 will they go? Are there available areas of the current  
4 carrying capacities of the refuges and other places going to  
5 enable this many birds to avoid and -- and have a place to  
6 go? There are a full number of questions here that we feel  
7 like we could work with the Company and -- and better  
8 understand before you make this decision.

9           Again, being one of the first projects of this  
10 scale in North Carolina and being a organization that  
11 supports wind here, we want to make sure that this -- these  
12 types of projects are done in a way that we could be  
13 supportive. Right now we're asking that you delay this  
14 official ruling because we have too many questions and there  
15 are too many conflicts that will happen potentially here at  
16 this site and we would like to work with the Company to  
17 understand how those might be mitigated or if this project  
18 could be located in a more appropriate area.

19           COMMISSIONER CULPEPPER: Does that conclude  
20 your statement?

21           THE WITNESS: (Witness nods head.)

22           COMMISSIONER CULPEPPER: Let's see if we have  
23 any questions. Mr. Dodge?

24           MR. DODGE: Just one clarifying question.



1 BY MR. DODGE:

2 Q Thank you, Ms. Starck. The comments that were  
3 filed with the Commission you referred to, those were the  
4 comments of Mr. Curtis Smalling of Audubon North Carolina?

5 A Um-hum.

6 Q And his comments will also reflect the official  
7 position of Audubon North Carolina?

8 A That's correct.

9 Q And those were filed with the Commission -- the  
10 letter is dated November 15th, but they're in the Commission  
11 -- filed on November 30th?

12 A That's correct.

13 Q Thank you.

14 COMMISSIONER CULPEPPER: Mr. Olson, questions  
15 of the witness?

16 MR. OLSON: No. I have no questions. Thank  
17 you.

18 COMMISSIONER CULPEPPER: Mr. Griffin?

19 MR. GRIFFIN: I have no questions.

20 COMMISSIONER CULPEPPER: Commissioners?

21 (No response.)

22 COMMISSIONER CULPEPPER: All right. Thank  
23 you very much, Ms. Starck.

24 MR. DODGE: Tom Thompson.

1 TOM THOMPSON; Being first duly sworn,  
2 testified as follows:

3 DIRECT EXAMINATION BY MR. DODGE:

4 THE WITNESS: Can I have a seat?

5 COMMISSIONER CULPEPPER: Yes, sir, you may.  
6 And did you not testify in Washington?

7 THE WITNESS: Yes, sir, I did.

8 COMMISSIONER CULPEPPER: Okay. We -- we have  
9 all of that on record now, so hopefully you'll -- you'll  
10 tell us something new and not repeat --

11 THE WITNESS: Yes, sir.

12 COMMISSIONER CULPEPPER: -- what you said.

13 THE WITNESS: I have no intention of -- of  
14 repeating what I said.

15 COMMISSIONER CULPEPPER: All right.

16 THE WITNESS: Thanks, Mr. Chairman, and thank  
17 you for your presence here today. My name is Tom Thompson.  
18 I'm the Executive Director of the Beaufort County Economic  
19 Development Commission and Chairman of the Committee of 100,  
20 which is a non-profit economic development group. I'm here  
21 to make some statements that I did not make in Washington or  
22 to amplify some of those statements.

23 One, I would point out to the Utilities  
24 Commission that the total amount of acreage here is about

1 11,000 acres out of 400,000 acres in the surrounding four  
2 counties. And that's cropland acreage, roughly. I'm not  
3 trying to claim scientific precision. So I would like to  
4 point out that this is a fairly small amount of the feeding  
5 area of the birds that we're talking about or the wintering  
6 area.

7 In addition, I am a hunter and I hunt in this  
8 area frequently and I will say that the area that these  
9 towers are in is probably the least productive area because  
10 it's quite a bit farther from where the birds normally roost  
11 or feed.

12 Secondly, I was engaged in the battle to  
13 prevent the Navy from putting an outlying landing field in  
14 this area, but that was primarily because it was a  
15 365-day-a-year operation which brought noise to a  
16 substantial area of the State. That's considerably  
17 different from this and any implication that I've heard from  
18 other testimonies that there's some sort of a prid -- quid  
19 pro quo here I would consider most inappropriate. I don't  
20 see any connection between the two.

21 These are seasonal populations. They're not  
22 there 12 months out of the year. If they were 12 months out  
23 of the year, we might expect a higher mortality rate than we  
24 may see just in the few months that they're down there.

1                   Secondly -- or thirdly, rather, as a hunter,  
2 I can tell you that I have killed my share of swans and  
3 geese in the tradition of American hunting for many, many  
4 years in that area. And I have not researched the numbers,  
5 but I strongly suspect, and I would hope that somebody could  
6 research this, that hunters kill in the vicinity of hundreds  
7 of thousands of these birds, whereas these cell towers, if  
8 there is any bird mortality, would be significantly less  
9 than that. So the suggestion that killing birds or bird  
10 mortality is the only parameter by which we should use to  
11 judge this I think is right of the mark. If we want to quit  
12 killing birds, let's quit killing -- let's stop hunting down  
13 there.

14                   Finally, I am aware that cell towers, power  
15 lines and numerous other niceties of civilization kill  
16 millions of birds every year. And I would suggest to all of  
17 us here that the proportion of birds killed here, if any,  
18 again, would be substantially less than those -- these other  
19 instruments of civilization that all of us use. And I  
20 suspect everybody in here probably has a cell phone right  
21 now. And if you don't want birds to die, get rid of your  
22 cell phone because, really, cell phone towers have a  
23 terribly high mortality rate. And my understanding is it's  
24 well over a million, or millions in the nationwide.

1                   Finally, I would suggest to you that wind  
2 energy -- I'm not immune to the suggestion that wind energy  
3 is very expensive. It is very expensive in one regard and  
4 that is it's far more expensive than coal. But this nation  
5 spent billions of dollars -- and we're just now -- we're  
6 just now winding down the expenditure -- billions of dollars  
7 in the Middle East. Why did we do that? Was it because we  
8 loved the Arabs, we loved the Kuwaitis, we loved those  
9 people in Iraq and Afghanistan? I don't think so. I think  
10 we did it because it was a national priority to protect  
11 energy sources. And every time we drive up to the gas pump  
12 you may think that gas is costing you \$3 and a half or  
13 whatever, but add the billions of dollars that it took to  
14 secure that energy, from that standpoint, wind energy is  
15 extremely cheap and I would suggest to the Commission that  
16 this particular project deserves your acclamation and  
17 approval. And that's all my comments here.

18                   COMMISSIONER CULPEPPER: All right, sir.  
19 Thank you very much. Let's see if we have any questions of  
20 you, okay. Mr. Dodge?

21                   MR. DODGE: No questions.

22                   COMMISSIONER CULPEPPER: Mr. Olson?

23                   MR. OLSON: I don't have any questions.

24                   COMMISSIONER CULPEPPER: Okay. Mr. Griffin?

1 MR. GRIFFIN: No questions.

2 COMMISSIONER CULPEPPER: Commissioners?

3 (No response.)

4 THE WITNESS: Thanks.

5 COMMISSIONER CULPEPPER: All right. Thank  
6 you, Mr. Thompson. Appreciate you coming again today.

7 MR. DODGE: Frank Bell.

8 MR. BELL: I'm an old Army officer. Make  
9 sure my left hand goes in the right place.

10 FRANK BELL; Being first duly sworn,  
11 testified as follows:

12 DIRECT EXAMINATION BY MR. DODGE:

13 Q Good morning, Mr. Bell. Could you please state  
14 your full name and address?

15 A Yes. My name is Frank Bell, Franklin E. Bell,  
16 4809 Sleepy Hollow Drive, Raleigh, North Carolina. I do not  
17 have anything in writing. I was having coffee this morning  
18 and thought it was important to come down here and mention a  
19 few folk -- things to you folks for North Carolina.

20 My loyalty, of course, is to God, my family, my  
21 country, North Carolina and to a little country called  
22 Norway. And the reason why I wanted to come here was that I  
23 am involved -- and I use the word "involved" as no pay or  
24 anything else -- with offshore wind energy in North Carolina

1 and other states for a company called Seatower AES out of  
2 Oslo, Norway. It is a start-up, so the last two years I've  
3 been attending, without being asked at first, the Governor  
4 Perdue's offshore energy conferences. And it's -- has to do  
5 with offshore, not onshore. Okay.

6           The interesting thing is that there have been  
7 numerous studies that North Carolina is probably the most  
8 competitive state in the United States for wind energy. And  
9 that was one of the reasons why -- that the conference came  
10 about. Now, I don't know if you folks have seen the studies  
11 of that conference. And they've just been published and  
12 there's a lot of scientific stuff there, okay. But we have  
13 a competitive advantage in that area of -- where we're  
14 talking about for wind energy.

15           And this has to do somewhat with image. I don't  
16 know if I'm doing anything with Seatower anymore because the  
17 principals at Seatower have told me that basically their  
18 partners in Europe who do build offshore -- offshore towers  
19 and onshore -- don't want to have anything to do with the  
20 United States because of the regulatory slowness and  
21 confusion that we have here. So I'm going to come back to  
22 something called image.

23           I think North Carolina has an opportunity to show  
24 the rest of the country and the rest of the world that we

1 are progressive in looking after not only our environment,  
2 but jobs and clean energy. I am an entrepreneur -- not  
3 "preneur," manure -- so I'm involved in several projects  
4 picking up pig feces and stuff like that and we have  
5 actually converted it into fuels. So I'm -- this is an  
6 interest of mine.

7 But as a retired Army officer many years ago, it's  
8 important for our country to remain strong. It is important  
9 for our country to remain so we are not bribed in our  
10 energy, which we have been in the past from the Mideast.  
11 And I think this is an opportunity for us as citizens to  
12 help our country and help our state, not only with jobs, but  
13 with the environment.

14 Now, I -- I realize that we have birds. You're --  
15 you're going to get a few of them not wacked off someplace.  
16 But may I make a suggestion. May I suggest that this  
17 Commission spend a few thousand dollars or somebody get on  
18 an airplane, fly to Norway because many of the things that  
19 you're talking about -- by the way, I'm not paid by them --  
20 to see what they have done with the offshore wind turbines,  
21 with the environmental things with the birds and everything  
22 else. And -- and instead of saying avoid the problem, like  
23 somebody did here, rather than mitigate it, start the  
24 process, get this thing going because if we don't, the folks



1 up in Virginia and Delaware are going -- they're going to be  
2 first and we're going to look like we're backwards.

3 So, again, as a citizen, I would love to see the  
4 process starting. Now, the feds are the ones who are going  
5 to finally determine what happens here anyway, eventually, I  
6 think. But unless we are competitive, aggressive, I don't  
7 -- I don't believe that -- I think we'll be left out. And  
8 with that, that's the end of my statement.

9 COMMISSIONER CULPEPPER: All right. Thank  
10 you. Let's see if we have any questions. Mr. Dodge?

11 MR. DODGE: No questions.

12 COMMISSIONER CULPEPPER: Mr. Olson?

13 MR. OLSON: No. No questions. Thank you.

14 COMMISSIONER CULPEPPER: Mr. Griffin?

15 MR. GRIFFIN: No questions.

16 COMMISSIONER CULPEPPER: Commissioners?

17 (No response.)

18 COMMISSIONER CULPEPPER: Okay. Thank you  
19 very much, Mr. Bell.

20 THE WITNESS: Thank you.

21 COMMISSIONER CULPEPPER: Appreciate you  
22 coming this morning.

23 MR. DODGE: Randell Woodruff.

24 RANDELL WOODRUFF; Being first duly sworn,

testified as follows:

DIRECT EXAMINATION BY MR. DODGE:

Q Good morning, Mr. Woodruff. Could you please provide your full name and address for the Commission?

A Randell Woodruff, 103 Forecastle Drive, Washington, North Carolina.

Q Please proceed with your statement.

A Good morning, Mr. Chairman and members of the board. My name is Randell Woodruff. I'm the county manager of Beaufort County, North Carolina.

Over the past couple of years, I've had the opportunity to travel to two other states to visit sites, one in Pennsylvania and one Invenergy site in the State of Illinois, where we were able to tour the site, meet the neighbors. We spent several days there meeting with local government officials, the city officials, the county officials. The -- what we've heard, the feedback that we received from all the -- the people we interacted with was very impressive.

These -- this company has -- has been a tremendous citizen in that -- in those communities, as well as interacted with -- any minor complaints that arose from the neighbors, they worked expeditiously to address them. Everything was positive that we heard and we were extremely

1 impressed. A number of our commissioners went as well.

2           So I think that this is a project that's going to  
3 be great for Beaufort County. Beaufort County, as you may  
4 be aware, is -- was -- has been greatly impacted by the  
5 recession we're currently in. We have extremely high  
6 unemployment. We have high poverty in our county. We need  
7 this investment, of which I believe is in excess of  
8 \$150 million capital investment. That will be a long-term  
9 investment and benefit to our county and I encourage you to  
10 let this project move forward. Thank you.

11           COMMISSIONER CULPEPPER: All right. Let's  
12 see if we have any questions to clarify your testimony. Mr.  
13 Dodge?

14 BY MR. DODGE:

15           Q     Thank you, Mr. Woodruff. Has the county  
16 commission adopted any resolution or endorsement of this  
17 project?

18           A     No, they have not.

19           Q     Okay. Thank you.

20           COMMISSIONER CULPEPPER: Mr. Olson?

21           MR. OLSON: I have no questions. Thank you.

22           COMMISSIONER CULPEPPER: Mr. Griffin?

23           MR. GRIFFIN: No. No questions.

24           COMMISSIONER CULPEPPER: Commissioners?

1 (No response.)

2 COMMISSIONER CULPEPPER: All right. Thank  
3 you very much, Mr. Woodruff. Appreciate you coming today.

4 THE WITNESS: Thank you.

5 MR. DODGE: Dan Richter.

6 DAN RICHTER; Being first duly sworn,

7 testified as follows:

8 DIRECT EXAMINATION BY MR. DODGE:

9 Q Good morning, Mr. Richter. Could you please  
10 provide your full name? And if you don't mind spelling your  
11 last name for us.

12 A My name is Dan Richter, R-i-c-h-t-e-r.

13 Q And your address?

14 A 3206 Lochinvar Drive in Durham, North Carolina.

15 Q Please proceed with your statement.

16 A Thank you, Mr. Chairman. It's a great opportunity  
17 to be able to do this as a member of the public.

18 I teach at Duke University since 1987. I -- I'm  
19 teaching in the Nicholas School of Environment. I'm in the  
20 Environmental Science and Policy Division. Before that I  
21 taught at the University of Michigan for several years. I  
22 teach ecological and forestry classes. I have currently --  
23 I am currently involved in a "environment in the public  
24 interest" seminar with an economist.

1           I have studied global change, published quite --  
2 quite -- quite a few articles on the global carbon cycle.  
3 I'm very concerned about the greenhouse gas emissions and  
4 the risks -- risks -- that they involve in terms of our  
5 climate. In general, I'm fully fascinated and in support of  
6 renewable energies, including biomass, I might add, in  
7 addition to solar and wind.

8           I've -- I've long visited with classes in this  
9 part of the State and characterized it in -- in the press as  
10 North Carolina's Serengeti. And I'd -- I'd just like to  
11 read a -- some short comments I wrote for the "News &  
12 Observer" a few weeks ago and -- and add a few comments  
13 along the way. So -- short notes.

14           Some of the largest expanses of rural wetlands  
15 south of Maine are found in eastern North Carolina. And as  
16 we've heard many times today, millions of snow geese, tundra  
17 swans, many ducks, other migratory birds are attracted each  
18 fall to these wetlands. It hasn't always been such -- so.  
19 They -- this -- this region has -- has ebbed and flowed in  
20 terms of being a winter home in the last few decades because  
21 of the National Wildlife Refuges. Pocosin Lakes, Alligator  
22 River, Lake Mattamuskeet have greatly benefited these --  
23 these flocks.

24           Like I said a second ago, these -- these wintering

1 grounds are -- are called by some, and I hope more widely so  
2 in years to come, North Carolina's Serengeti. It's not a  
3 exaggeration. I heard Mr. Spruill describe the amazing --  
4 with amazement what -- what -- what it's like to be next to  
5 a lake with -- with birds taking off next to you. I've done  
6 that with classes. I did so last week startingly a black  
7 bear on the way to the lake as well.

8 But an important story about national wildlife  
9 refuges is not just their creation, but it's about their  
10 recurrent -- the recurring efforts that are necessary to  
11 protect them from land use disturbances. Most recently, and  
12 I think very directly related, is the case of the OLF where  
13 the Navy tried to build a practice landing field for fighter  
14 jets in Washington County. The same landscape that we're  
15 talking about here, it might be to the side of someone  
16 recently just -- it's just part of the feeding grounds of  
17 these wintering birds and directly adjacent -- adjacent to  
18 Pocosin Lakes.

19 The story of local and statewide opposition to the  
20 Navy's OLF is -- is -- is impressive. All of the State's  
21 major politicians eventually opposed the OLF, Republicans  
22 and Democrats alike. I think the way -- the Navy wisely  
23 retreated. Today this wind energy project is tragically  
24 proposed in the same part of the State. Tragically because

1 I support wind energy.

2 I'll skip a little bit of this. I'm going to  
3 maintain that the OLF environmental impact studies have a  
4 lot to say about this particular project. It didn't  
5 envision wind turbines, but they did -- did envision the  
6 same air shed, whether by jets or by wind turbines, would be  
7 shared by these thousands and thousands of birds. Bird  
8 behavior studies that are found in these multimillion dollar  
9 environmental impact studies suggest the birds'  
10 vulnerability. Many swans and geese, ducks regularly fly  
11 from nighttime roosts in the winter to feed in agricultural  
12 fields. And for three to four months each winter, these  
13 flocks may number in the hundreds, thousands much the same  
14 airspace as that shared by the Pantego wind turbines.

15 It seems to me that although administrative  
16 hurtles are made and there's nothing really certain about  
17 this project, it's moving quite fast. Generous tax credits  
18 may soon expire. There's requirements about construction  
19 that be -- the construction deadlines that must be met. The  
20 Governor is actively promoting wind energy, as the Governor  
21 should, I believe. But apparently the Governor has not yet  
22 definitively commented on this particular project. So how  
23 is it possible that 80 years of conservation to create these  
24 IBAs, these Pocosin Lake, Alligator River, Lake Mattamuskeet

1 National Wildlife Refuges, 80 years of work, could be so  
2 quickly compromised? And consider that next winter this --  
3 this project could -- could -- could really begin, the next  
4 cycle of -- of the flocks to -- returning south.

5           So to conclude, while all energy projects do have  
6 costs, not just financial, but environmental, a chief  
7 consideration for the sustainability of any energy project  
8 involves its siting, where the project is sited. A great  
9 project in the wrong place will be a bad project, perhaps  
10 disastrous. And in my opinion, the Pantego Wind Energy  
11 project is remarkably ill-sited and tragically so, given  
12 it's our second big project that we're going to move forward  
13 in the State; proposed, in any event.

14           Surely plans can be made for a rapid, formal,  
15 independent analysis of the risks involved, risks not only  
16 harmful to the birds, but that may jeopardize millions of  
17 dollars of public and private investment in the wind energy  
18 facility itself, much less the investments that have been  
19 made by several generations of conservationists, investments  
20 in the State's national wildlife refuges.

21           So after a full consideration of the migratory  
22 bird risks, to pilots and jet airplanes, the Navy was big  
23 enough to turn away from the proposed OLF. One wonders how  
24 big and who it will be among the corporate and governmental



1 decision-makers who control the fate of the Pantego Wind  
2 Energy project. Thanks for this opportunity.

3 COMMISSIONER CULPEPPER: All right. Let's  
4 see if we have any questions of you, Mr. -- or is it  
5 Dr. Richter?

6 THE WITNESS: Richter, yes.

7 COMMISSIONER CULPEPPER: Yes, sir. Dr.  
8 Richter. Thank you for coming today. Let's see if we have  
9 any questions. Mr. Dodge?

10 BY MR. DODGE:

11 Q Thank you, Dr. Richter. You filed a letter with  
12 the Commission and the Public Staff on November 9th of this  
13 year, correct?

14 A Yes. Yes, I did.

15 Q And the statements you have given today and the  
16 letter you filed are those of your -- your -- your personal  
17 views --

18 A Absolutely.

19 Q -- and not any position of Duke University --

20 A Indeed.

21 Q -- and the Nicholas School? Okay. Thank you.

22 COMMISSIONER CULPEPPER: Mr. Olson, do you  
23 have any questions of the witness?

24 MR. OLSON: Yeah, I do.

1 COMMISSIONER CULPEPPER: Go ahead.

2 CROSS-EXAMINATION BY MR. OLSON:

3 Q Good morning, Dr. Richter.

4 A Good morning.

5 Q I'm Kurt Olson with the national -- North Carolina  
6 Sustainable Energy Association. I'm just trying to  
7 understand your -- your -- your ultimate position. Is it --  
8 it is that the project should go forward, not go forward or  
9 is that these studies should be done first and then an  
10 evaluation should be made?

11 A As a -- as a person, as a personal perspective, I  
12 think that common sense should have -- have intervened in  
13 the process to where we've gotten here. But since we are  
14 here, I think that for certain there should be a risk  
15 analysis done and not something that costs the same amount  
16 as the Navy invested. There's a lot in the Navy  
17 environmental impact statements that are directly relevant  
18 to this particular part of the State.

19 Q So -- so it's your -- your position that these  
20 studies should be undertaken; is that correct? Am I --

21 A Yes.

22 Q -- characterizing that --

23 A Yes. With the caveat that maybe we could do  
24 better the next time we're -- we're developing our wind

1 energy or other renewable energy programs. Maybe we should  
2 take a better site that is -- has less risks involved just  
3 from a commonsense basis.

4 Q Okay. Thank you.

5 A Thank you. Okay.

6 COMMISSIONER CULPEPPER: Mr. Griffin, you  
7 have any questions of the witness?

8 MR. GRIFFIN: I have no questions, sir.

9 COMMISSIONER CULPEPPER: Commissioners? Yes.  
10 Commissioner Allen has a question.

11 COMMISSIONER ALLEN: Thank you.

12 EXAMINATION BY COMMISSIONER ALLEN:

13 Q And thanks for being with us, Doctor. A number of  
14 folks, as we've had public witnesses, have mentioned the  
15 Navy study. Could you clarify for me the -- whether or not  
16 this entire area was in that study? Was the study for the  
17 OLF close by? What -- what was the impact of that study on  
18 this particular area?

19 A Based on my understanding of the maps, the  
20 footprint of the landing field and the immediate surrounding  
21 area of the OLF landing field overlaps with the Washington  
22 County line to the south and it definitely includes a lot of  
23 the current study.

24 Q Thank you.

1 COMMISSIONER CULPEPPER: All right. Let's  
2 see if we have any questions. Questions on Commissioner  
3 Allen's questions, Mr. Dodge?

4 MR. DODGE: No questions.

5 COMMISSIONER CULPEPPER: Mr. Olson? Mr.  
6 Griffin? Mr. Olson?

7 MR. OLSON: No.

8 COMMISSIONER CULPEPPER: Okay. Mr. Griffin?

9 MR. GRIFFIN: No, sir.

10 COMMISSIONER CULPEPPER: All right. Thank  
11 you very much, Dr. Richter. You may step down.

12 Mr. Dodge, how many more witnesses do you  
13 have signed up?

14 MR. DODGE: I have -- I have one on the list.

15 COMMISSIONER CULPEPPER: Can you -- you okay,  
16 Candace?

17 COURT REPORTER: Yes.

18 COMMISSIONER CULPEPPER: Okay.. Call -- call  
19 your last witness.

20 MR. DODGE: Joe Albea.

21 JOE ALBEA; Being first duly sworn,  
22 testified as follows:

23 DIRECT EXAMINATION BY MR. DODGE:

24 COMMISSIONER CULPEPPER: Have a seat. Now,

1 you testified in -- in Washington on November 17th, did you  
2 not?

3 THE WITNESS: No, I didn't. I was --

4 COMMISSIONER CULPEPPER: You didn't?

5 THE WITNESS: -- I was in attendance, but did  
6 not.

7 COMMISSIONER CULPEPPER: Okay. Thank you  
8 very much. I knew we had seen you there. Okay. Fine,  
9 then. Go ahead, Mr. Dodge.

10 MR. DODGE: All right.

11 Q Could you please provide your full name? And if  
12 you don't mind spelling your last name.

13 A Sure. It's Joe Albea, A-l-b-e-a; 1739 Haddock  
14 Road. And that's in Winterville, North Carolina, 28590.

15 Q Please proceed with your statement.

16 A Okay. Thank you. I want to start by just going  
17 through the topography to give you, if you've never been to  
18 this location, an idea of what we're talking about. The  
19 first photograph is of Pungo Lake. It's where the birds  
20 roost typically nightly and then fly out into the -- into  
21 the fields. What you're seeing primarily on the lake is  
22 tundra swan.

23 The next photograph are -- are snow geese and then  
24 the tundra swans themselves, and then a map of the OLF

1 location in relation to that situation. And the area that  
2 we're talking about would be due south in this area down  
3 here.

4 Now, as stated before, I -- I was the one that  
5 raised the issue with the U.S. Navy in -- in 2000 and  
6 conducted two meetings with their environmental Tiger Team,  
7 that was what they were called, in regards to that. We had  
8 a meeting in the fall of 2000 and the winter of 2001 where  
9 we actually took the team out, showed them the birds,  
10 explained to them how the birds interact with the area.

11 And we're talking about a total ecosystem here.  
12 We're not talking about, you know, a refuge and the birds  
13 stay on the refuge the whole time. It's quite the contrary.  
14 The lake itself has no food. The refuge itself does plant  
15 corn, primarily corn every year, which is supplemental to  
16 the birds. And they use it primarily at the end of the  
17 season before they start migrating back north. But during  
18 most of the time they're here, they rely on the agricultural  
19 fields that surround both Pungo Lake and Lake Mattamuskeet.

20 In meeting with the Tiger Team, they already made  
21 up their mind where they wanted to go, even before looking  
22 at the environmental consequences. And from what I've read  
23 so far, I think we're looking at the same situation here.

24 This is a pretty unique system on this whole

1 continent. And to say that you could compare it with any  
2 other place in the world, you can't do it. Currently, as of  
3 last year, there are about 85,000 snow geese and about  
4 35,000 tundra swan that -- that reside on that lake every  
5 winter.

6 I've been going down there for 41 years primarily  
7 in the capacity of filming and photograph, still  
8 photographs, and most recently video over the last 12 years.  
9 I've hunted the area extensively through those 40 years and  
10 feel like I've got pretty much a pretty good knowledge of --  
11 of the whole system.

12 And while the environmental team for the Navy  
13 listened, they were not the decision-makers in this. And  
14 they had already gained the support of North Carolina  
15 politically and -- and North Carolina massively at the time  
16 they had announced their location, where they wanted to go.  
17 So the reason it took us seven years to stop it was because  
18 they already had their chickens in a row, except they --  
19 they didn't -- they didn't really count on the birds as  
20 being an issue.

21 And I think with this situation -- the Terra Ceia  
22 area is a really popular place, foraging area, for the  
23 tundra swan. The snow geese are -- one day they're on the  
24 north side of the refuge, the next day they're on the south

1 side of the refuge, depending on wind direction, air  
2 temperature, moon phase. So it's really an area that you  
3 really cannot say you can manage. You can't study it. I  
4 mean, I welcome the Company to -- to do the studies. But  
5 the Navy -- the Navy did it and came up with the same  
6 scenario: We're going to have issues. And that's what I'm  
7 hearing.

8           The video that you've got is on this -- there's a  
9 -- three DVDs in that package. The middle DVD has got a  
10 show called "Birds of Winter." It was produced in 2001 and  
11 it basically illustrates the importance of the entire  
12 Albemarle Peninsula. And my opinion right now is that this  
13 State doesn't understand -- I'm talking about North Carolina  
14 -- they understand the importance naturally of this area if  
15 we continue to allow things to go in there.

16           Several years ago we allowed Rose Acre Farms to  
17 set up shop just east of the refuge and four years later  
18 we're already experiencing nitrogen build-ups on the -- on  
19 the refuge that are going to cause issues. And I'm just  
20 waiting for it to happen in our waterways up there. And,  
21 you know, it's -- it's inevitable. It's -- you know, you  
22 can't have 4 million chickens next to a wildlife refuge or  
23 the headwaters of one of your main tributaries into the  
24 Pamlico Sound without expecting problems.



1 I'm not against wind energy. Like the previous  
2 speaker said, sited in the right position -- or right  
3 location, excuse me, I think it's fine. But this location  
4 is going to be problematic, not only from bird strikes,  
5 which I think are inevitable, but when you put a 500-foot  
6 windmill in the middle of a what -- a wheat field that birds  
7 rely on, you're going to have issues.

8 Now, I -- I -- I don't think -- I mean, I don't  
9 know what a tundra swan -- how they're going to react.  
10 These birds fly in from Alaska and western Canada every  
11 year, spend five to six months a year with us. And the  
12 Navy, you know, they -- they looked at all different ways of  
13 working their -- their situation with this. But in the end,  
14 they needed that site for 24/7. Now, I'm sure with the  
15 windmills they're going to need -- need the same thing.  
16 They're going to need this operation going 24/7, 365 days of  
17 the year. And unfortunately for this site, they've got a  
18 bird issue right out of the gate. And it's something you're  
19 not going to be able to control because every day is  
20 different.

21 And so, you know, that's basically what I wanted  
22 to say was it's -- you know, North Carolina needs to look at  
23 the whole Albemarle Peninsula and make a decision once and  
24 for all are we going to -- are we going to protect it and

1 promote it for its natural beauty and -- and importance to  
2 not only North Carolina, but the whole continent. These  
3 birds -- this -- this is a global -- globally significant  
4 area, not just where we're talking about in Terra Ceia, not  
5 Pungo Lake, the whole peninsula is -- is that important to  
6 us. And if we want to incrementally let things come in  
7 around it, before you know, one day we're going to wake up  
8 and it's going to be gone. So that's it. Thank you.

9 COMMISSIONER CULPEPPER: All right. Let's  
10 get a few things clarified here. Thank you very much,  
11 Mr. Albea.

12 First off, you have handed out an exhibit, I  
13 suppose. And it's entitled "Exploring North Carolina and  
14 Schools 1.0," and it appears to consist of three compact  
15 disks. Am I correct in that?

16 THE WITNESS: That's correct.

17 COMMISSIONER CULPEPPER: Okay. In your  
18 testimony, you particularly mentioned disk two and one of  
19 the segments there, "Birds of Winter."

20 THE WITNESS: Correct.

21 COMMISSIONER CULPEPPER: Okay. Do any of the  
22 other segments on these disks apply to this particular case  
23 or is what you -- what you want the Commission to -- to  
24 receive into evidence is the segment called "Birds of

1 Winter" on your disk two?

2 THE WITNESS: Correct. "Birds of Winter,"  
3 right. That's -- that -- that's a show that we produced  
4 that talks about the peninsula. And footage from that -- on  
5 that disk came from -- extensively came from the Pungo area,  
6 also Mattamuskeet, primarily between the two refuges, so...

7 I don't know if you have time to go down and  
8 look at this area, but if you don't and don't have time  
9 between now and maybe, say, March, then take 30 minutes of  
10 your time and -- and -- and look at the video because it  
11 will give you a good history of it and -- and its importance  
12 overall to the whole system.

13 COMMISSIONER CULPEPPER: All right. Well,  
14 for purpose of this proceeding, we're going to identify as  
15 Albea Exhibit No. 1 the segment entitled "Birds of Winter,"  
16 which is located on compact disk No. 2 within the three disk  
17 grouping "Exploring North Carolina in Schools 1.0." The  
18 other segments will not be included as part of the exhibit.

19 (Whereupon, Albea Exhibit No. 1 was  
20 marked for identification.)

21 COMMISSIONER CULPEPPER: All right,  
22 Mr. Dodge, you have any questions you want to ask of your  
23 witness?

24 MR. DODGE: No further questions.

1 COMMISSIONER CULPEPPER: Mr. Olson?

2 MR. OLSON: No. Thank you.

3 THE WITNESS: Thank you.

4 COMMISSIONER CULPEPPER: Mr. Griffin?

5 MR. GRIFFIN: I have no questions, sir. But  
6 I do have one observation on the disk, which is we have not  
7 had an opportunity to view this disk and so it's very  
8 difficult for us to say anything about its relevance or  
9 competence as evidence, and so we just would like that to be  
10 noted in the record as you introduce it into evidence.

11 COMMISSIONER CULPEPPER: All right. Well,  
12 that point is well taken. And I will withhold ruling on the  
13 admissibility of this exhibit. And I will ask -- that's it,  
14 Mr. Albea. No -- no questions now. We've got some  
15 questions we want to ask of you though, okay?

16 THE WITNESS: Sure.

17 COMMISSIONER CULPEPPER: And I'll -- I'll ask  
18 that -- that you take a look at this exhibit within the next  
19 ten days and make a filing with the Commission as to whether  
20 you have any objections or not. And after you file that and  
21 you serve it on the other parties, they'll have an  
22 opportunity to respond to whatever you file and then I will  
23 make a ruling thereafter.

24 MR. GRIFFIN: Thank you, sir.

1 COMMISSIONER CULPEPPER: All right.

2 Questions by the Commission? I have something I want to ask  
3 of you, Mr. Albea.

4 EXAMINATION BY COMMISSIONER CULPEPPER:

5 Q Your map over there, there's an area there that's  
6 colored in pink.

7 A Sure.

8 Q Yeah. What -- what is that area?

9 A That's the area that would have encompassed the  
10 OLF site, the runway and the -- and the area that they were  
11 going to control I guess with a wire fence.

12 The problem they had is these birds, typically  
13 when they get up in the morning, they may -- they may fly  
14 onto the refuge and feed or they may fly 20 miles in a day.  
15 And my argument with them the whole time was you can -- you  
16 can take the food source away, which was part of their  
17 management; you can put dogs in the fields around the  
18 runway, but you can't control these birds flying over your  
19 runway to Terra Ceia and points south. They may even go to  
20 the Pamlico River to feed. There -- there's no rhyme or  
21 reason to it.

22 And that was what -- you know, my argument with  
23 them. You can't control these birds. If you want to take  
24 the whole peninsula and rope it off and take the food away,

1    yeah, they'll go somewhere else. My question is, do -- do  
2    the citizens of North Carolina want to do this? Do we want  
3    to compromise one of the last great natural areas on the  
4    east coast of this country to industrialize it and to  
5    militarize it?

6                    If the military had their way in -- in -- on this  
7    OLF situation -- at the same time they were trying to get  
8    air restrictions over the entire peninsula where they could  
9    try to -- they could practice dog fighting with -- with  
10   their jets. I'm not going to take your time, but it was --  
11   it was -- at the end of the day, if they had had their way,  
12   most of eastern North Carolina would have been off limits in  
13   the air and a lot of the waterways, which are already -- we  
14   have a lot of waterways in the Pamlico Sound right now that  
15   are restricted.

16                   We've got to decide what we want. Are we going to  
17   keep these areas natural or are we going to industrialize or  
18   militarize it? If we are, then I'll give up. That's how  
19   sensitive these areas are.

20                   Q    All right. I understand that. I'm just trying to  
21   find out what the pink area represents.

22                   A    That was the -- that was the OLF from the Navy.  
23   That was their area they were going to control. They --  
24   they --

1           Q     All right. I understand. I understand,  
2 Mr. Albea.

3                     Now, let me -- let me ask you another question.  
4 There was a study done by the Navy regarding the -- the --  
5 there was a bird study done; is that correct? Yes or no?

6           A     Yes.

7           Q     Okay. Now, what I want to know is this: Did the  
8 study area encompass just the pink area or was it -- did it  
9 encompass an area larger than the pink area or do you know?

10          A     Okay. Initially, what they called a bird study  
11 happened during the summer months. Do you hear what I'm  
12 saying?

13          Q     I heard what you said.

14          A     Okay. Now, once they started hearing from us, the  
15 people that know the area better than anybody in the world,  
16 they took the time to do the studies. And it was the whole  
17 region. I mean, after I met with them in the -- in the fall  
18 of 2000 and the winter of 2001, it -- that Tiger Team went  
19 away -- they knew that they had issues that they were going  
20 to have to deal with.

21                     And because they had the political clout, because  
22 they had all their -- what they thought their ducks in a  
23 row, they weren't -- they -- you know, they weren't ready to  
24 go through all the scrutiny, so they finally did some

1 studies, but it showed exactly what we said, day and night  
2 these birds traverse this air -- these airways --

3 Q Okay. You've already -- you've already pretty  
4 much explained all that --

5 A Right.

6 Q -- and I appreciate that. What I'm trying to get  
7 to is the area that was encompassed in the study that was  
8 done by the Navy, which was the subject of a question that  
9 -- that Commissioner Allen asked another witness, I want to  
10 know is it the study -- was the study area the pink area on  
11 your map or was it bigger than that?

12 A Bigger than that. It was -- it was -- it turned  
13 out to be at the end of the day the total region.

14 Q Okay.

15 A They had -- they had radar set up. You can -- the  
16 Company can go back and pull all those records. It's there  
17 for them to do, unless they want to spend \$25 million like  
18 the Navy did of our money.

19 Q Okay. We understand you now.

20 A Okay.

21 COMMISSIONER CULPEPPER: All right.

22 Questions based on my questions, Mr. Dodge?

23 MR. DODGE: No questions.

24 COMMISSIONER CULPEPPER: Mr. Olson?



1 MR. OLSON: I have one question.

2 CROSS-EXAMINATION BY MR. OLSON:

3 Q Am I correct in assuming that the central part of  
4 the Navy study was the possibility of bird strikes from  
5 aircraft?

6 A Right. That's correct.

7 Q Okay. Is there a difference, do you know, when  
8 you're talking about stationary objects as opposed to flying  
9 objects and mobile objects?

10 A I don't know that. The central problem I've got  
11 is -- is -- is positioning these windmills in traditional  
12 feeding areas of these birds.

13 I don't know, nobody in here knows and nobody in  
14 the world knows how a tundra swan is going to react to it.  
15 Are they going to -- are they going to come down next winter  
16 and -- and see these 50 windmills spinning and object to it  
17 and leave? Who knows.

18 My -- my question on the table to this Commission  
19 is: Are we willing to take the chance? We've got a  
20 world-class natural system out there working. We've got the  
21 largest population of black bears on the whole continent  
22 right down there at Pocosin Lakes and Mattamuskeet. People  
23 travel around the country to see the bears. We don't do  
24 anything to promote it.

1 I mean, I'm in the business -- what I do for a  
2 living is promoting North Carolina, but this State's record  
3 -- and we don't need to be talking -- but, you know, this is  
4 -- this is a part of it. It's abysmal. We don't -- we  
5 don't promote the area.

6 COMMISSIONER CULPEPPER: Okay.

7 A And --

8 COMMISSIONER CULPEPPER: Mr. Albea, you're  
9 getting a little bit beyond --

10 THE WITNESS: Well, it's -- it's --

11 COMMISSIONER CULPEPPER: -- what -- what  
12 we're here to --

13 THE WITNESS: No, it's not. It's all -- it's  
14 a part of it.

15 COMMISSIONER CULPEPPER: Well, I've heard  
16 enough from you now, sir.

17 Mr. Griffin, do you have any questions of the  
18 witness?

19 MR. GRIFFIN: I do not, sir.

20 COMMISSIONER CULPEPPER: All right. Do you  
21 have any redirect questions?

22 MR. DODGE: No questions.

23 COMMISSIONER CULPEPPER: You may step down.  
24 Thank you very much.

1 All right. We're going to take about a  
2 15-minute break and we're going to tune back up ten minutes  
3 to 12:00 by that clock right there. Stand at ease.

4 (RECESS - 11:35 A.M. TO 11:50 A.M.)

5 COMMISSIONER CULPEPPER: Let's go back on the  
6 record and come back to order.

7 Mr. Dodge, have you -- you've identified  
8 another public witness; is that correct?

9 MR. DODGE: Yes, Commissioner Culpepper.  
10 Dianne Bowen has requested to speak.

11 COMMISSIONER CULPEPPER: All right.  
12 Ms. Bowen.

13 DIANNE BOWEN; Being first duly sworn,  
14 testified as follows:

15 DIRECT EXAMINATION BY MR. DODGE:

16 THE WITNESS: My name -- excuse me.

17 Q Or good after -- or good morning, Ms. Bowen.  
18 Could you please provide your full name and address for the  
19 record?

20 A Yes. It's Dianne Laughinghouse Bowen, 2584  
21 Swindell Road, Pantego, North Carolina.

22 Q Please proceed.

23 A Thank you for listening to me again. I did speak  
24 in Washington. I promise to be brief. I am not going to

1 rehash what I said.

2 But much has been made today about bird strikes  
3 and what birds will do. And the -- there is nothing said  
4 about how birds adapt. They're creatures. They've been  
5 living for millions of years and they haven't lived this  
6 long without being smart.

7 My husband and I started a catfish farm in 1989.  
8 And we built two ponds side by side and they were bordered  
9 on two sides with electric poles and electric lines, and on  
10 a third side by a tree line. We were not bothered by birds  
11 that first year. The second year we built two more ponds  
12 farther away. And that winter, the birds found us. The  
13 swans, the geese, the cormorants, the egrets, the wrens, you  
14 name it, they were there.

15 So -- but the swans and the -- and the geese  
16 weren't such -- so much of a problem as the cormorants,  
17 which are little bulimic buggers who just will decimate a  
18 pond and all ponds. They didn't land on the first two ponds  
19 we -- we figured out because of the power poles and the  
20 power lines, which are far less invasive than a big old  
21 white pole with three props. What they did was they tended  
22 to land on the far side and in those next two ponds.

23 In the process of trying to deal with the  
24 cormorants, the wildlife people lent us some cannons, which

1 was for noisemakers. They went off every 15 minutes and  
2 they're supposed to scare the birds away. Well, that works  
3 in theory just fine. It worked pretty well for almost a  
4 week and then the birds became accustomed to them. And my  
5 husband was -- came back to the office one day, said, You  
6 won't believe it. This bird was sitting on the cannon and  
7 every time it went off all he did was just jump, he  
8 flinched, because he was accustomed to it. They adapted.

9           And all the time we had those catfish -- we still  
10 have the ponds, we're just not in the business anymore. And  
11 there was no killing field underneath those power poles,  
12 those power lines or along that tree line. They learned how  
13 to avoid them. We never saw any birds, any big birds  
14 wrapped up in a power line. Never saw any big birds wrapped  
15 up in a tree. But they were on the ponds, they were in the  
16 water.

17           And not all the swan and geese go back to Pocosin.  
18 They kind of check in at night on our ponds. That's not a  
19 problem. It's the cormorants that were the problem. We  
20 even used flashers or shotgun shells, shoot them off, big  
21 flash, kind of like a starburst, and noise and -- and -- and  
22 that's supposed to scare the birds away as well. That did  
23 fine for a little while. They adapted to that. Then it was  
24 just part and parcel of -- of the ecosystem so far as they

1 were concerned and it didn't -- it did not disperse a single  
2 one of them. At that point we were able to get a limited  
3 kill permit. Even killing birds, even killing the  
4 cormorants, yeah, they flew away for a little while, but  
5 they still kept coming back.

6           The point is that the -- the birds adapt. And  
7 they adapt to trees; they adapt to power lines; they adapt  
8 to guylines; they adapt to big buildings; they adapt to  
9 university systems; they adapt to just about everything.  
10 Yes, there are going to be some bird strikes. But that's  
11 true. Not every bird is as bright as the -- as the next  
12 one. But we never in all the -- and -- and with all the  
13 woods, it's not an open -- totally open field out there.  
14 There's woods out there. And we don't see vast amounts of  
15 blood splattered all over down in the tree -- bottom of the  
16 trees because the birds were too stupid to -- to avoid them.

17           The point is that the windmills go up, the  
18 turbines go up, the birds will adapt. They have sonar. We  
19 don't have a bat habitat because we don't have that much  
20 woodland. They've got to have someplace to -- to roost. We  
21 don't have that where we are.

22           Now, it's -- it's -- it seems to me that a great  
23 many people who come up here and testify and say, yes, I'm  
24 for wind energy, I'm for alternative energy, but just not

1 there. Well, it's kind of like the not in my backyard  
2 thing. Well, if not there, where? And that is my backyard.  
3 A great deal of it is my backyard and there will, if -- with  
4 your approval of this, there will be windmills in my  
5 backyard.

6 And I don't see where -- where are we going to  
7 locate them? Well, how about the coast, Corolla, Duck?  
8 That would be a novel idea. Or right next to some hill  
9 that's not been developed outside of Raleigh, Durham or  
10 Chapel Hill, and nice little hill, put windmills out there.  
11 I don't think that the urbanites would appreciate that very  
12 much.

13 The point is that this is a great place for them.  
14 And what better way to keep the Navy out. The Navy was  
15 there before this OLF. They've been trying to get control  
16 of all that airspace for decades. This was not their first  
17 attempt. And what better way to keep them out than -- than  
18 to have 49 -- in the first part -- 49 windmills. It would  
19 be a little difficult for the military to tear up green  
20 energy to -- to build a base. And that's what it would have  
21 been eventually; it would have been a base. Not just one  
22 little landing field, it would have been a base.

23 And so -- so the -- and as much as I didn't want  
24 the OLF, anybody who doesn't want the OLF should welcome

1 these windmills because it will keep the Navy out. And the  
2 Navy and \$100 million boom boxes taking off 24/7 are a lot  
3 more dangerous to birds and the pilots than -- than the  
4 turbines. And the turbines don't turn so fast. I can't  
5 imagine that the birds would be -- have adapted themselves  
6 for millions of years couldn't figure out how to get around  
7 a bunch of white sticks with three props. That's it.

8 COMMISSIONER CULPEPPER: All right. Any  
9 additional thoughts you want to share with us today?

10 THE WITNESS: One thing. There is a windmill  
11 on -- on -- in that area. A fellow by the name of Ralph  
12 Dayton came down here from New York, bought a thousand  
13 acres. He was a good mile from the closest power line.

14 The power company used to run those power  
15 lines and power poles for free and they do that anymore and  
16 so he is -- was totally off the grid. He built a shop, an  
17 apartment upstairs, a windmill out the back and -- and --  
18 and batteries. And he sustained -- he never knew when the  
19 electricity went off because of a hurricane or some drunk  
20 running into a power pole. He always had power.

21 And he never complained. He never said a  
22 word about bird strikes. And Ralph was a very intelligent  
23 fellow and knew when to complain and he would have said  
24 something about bird strikes. He was also a nature lover.



1 And he never had a problem with bird strikes. Granted, his  
2 -- his windmill wasn't as big as what Invenergy proposes to  
3 build, but it moved a lot faster.

4 COMMISSIONER CULPEPPER: All right. Anything  
5 else, Ms. Bowen?

6 THE WITNESS: No, sir.

7 COMMISSIONER CULPEPPER: All right. Let's  
8 see if we have any questions of you, okay.

9 Mr. Dodge, do you have any questions of your  
10 witness?

11 MR. DODGE: No questions.

12 COMMISSIONER CULPEPPER: Mr. Olson?

13 CROSS-EXAMINATION BY MR. OLSON:

14 Q Well, I'm just curious. Which bird was it that is  
15 a bulimic bugger, did you say?

16 A Cormorants.

17 Q Okay.

18 A The nasty little thing used to be an endangered  
19 species and now it's off that list, thank goodness.

20 Q Thank you. That's all I have.

21 A You're welcome.

22 COMMISSIONER CULPEPPER: Mr. Griffin?

23 MR. GRIFFIN: No, sir. I don't have any  
24 questions.

1 COMMISSIONER CULPEPPER: Mr. Dodge, any  
2 redirect on the cormorant?

3 MR. DODGE: No, sir.

4 COMMISSIONER CULPEPPER: Questions by the  
5 Commission?

6 (No response.)

7 COMMISSIONER CULPEPPER: Thank you very much,  
8 Ms. Bowen.

9 THE WITNESS: Thank you. Thank you very  
10 much.

11 COMMISSIONER CULPEPPER: You may stand down  
12 with our appreciation for having taken the time out of your  
13 schedule to come here today and offer testimony in these  
14 proceedings.

15 Mr. Dodge, you have another witness?

16 MR. DODGE: That concludes the folks that  
17 have signed up on the list.

18 COMMISSIONER CULPEPPER: All right. Well,  
19 let's see. Is there anyone else that is present this  
20 afternoon here in the Commission room that has not  
21 previously testified in this proceeding that would like to  
22 come forward now and testify in this proceeding as a public  
23 witness? If so, please identify yourself.

24 All right, sir. Come forward.

1       MICHAEL DUNN;                   Being first duly sworn,  
2                                       testified as follows:

3       DIRECT EXAMINATION BY MR. DODGE:

4           Q     Could you provide your full name and address for  
5       the record?

6           A     It's Michael L. Dunn, 936 Roads End, Pittsboro,  
7       North Carolina, 27312.

8           Q     Please proceed with your statement.

9           A     I'll keep it brief since the lunch hour  
10      approaches.

11                   I have been leading programs to the Pocosin Lakes  
12      area for over 30 years and have taken thousands of educators  
13      and members of the general public down there to witness the  
14      spectacle. I tend to call it the Yellowstone of the east  
15      instead of North America's Serengeti, but there is no other  
16      place on the east coast, and actually anywhere I've been,  
17      like Pocosin Lakes National Wildlife Refuge.

18                   And I, too, as many of the people that have spoken  
19      here, think that the alternative energy, the wind energy, is  
20      a wonderful idea and I fully support it. Unfortunately, I  
21      just think this is a bad location.

22                   And my main point is that I really think we do  
23      need to study and make sure there's not an adverse impact  
24      because this area is so unique and I think could actually be

1 an economic engine for this area. I know that's one of the  
2 concerns is providing some economic benefit to this county  
3 where, you know, there is a lot of unemployment, et cetera.  
4 So I really hope that you'll take the time and delay the  
5 approval until we have more data. Thank you.

6 COMMISSIONER CULPEPPER: All right. Does  
7 that conclude your statement?

8 THE WITNESS: Yes.

9 COMMISSIONER CULPEPPER: See if we have any  
10 questions of you.

11 Mr. Dunn -- or Mr. --

12 MR. DODGE: No questions --

13 COMMISSIONER CULPEPPER: -- Dodge?

14 MR. DODGE: -- Commissioner.

15 COMMISSIONER CULPEPPER: Mr. Olson?

16 MR. OLSON: I have no questions. Thank you.

17 COMMISSIONER CULPEPPER: Mr. Griffin?

18 MR. GRIFFIN: I have no questions.

19 COMMISSIONER CULPEPPER: Commissioners?

20 (No response.)

21 COMMISSIONER CULPEPPER: All right. Thank  
22 you very much. You may stand down --

23 THE WITNESS: Thank you.

24 COMMISSIONER CULPEPPER: -- with our

1 appreciation.

2 All right. Is there anyone else that is  
3 present in the hearing room at this time that has not  
4 previously testified in this docket that would like to come  
5 forward now and offer public witness testimony? If so,  
6 please identify yourself.

7 (No response.)

8 COMMISSIONER CULPEPPER: Let the record  
9 reflect that we have exhausted the public witnesses that  
10 wish to testify in this proceeding today.

11 That moves us to the evidentiary hearing, the  
12 expert witness portion of the hearing. The case is with the  
13 Applicant.

14 MR. GRIFFIN: Thank you, Commissioner  
15 Culpepper. As you have -- as you indicated, one of our  
16 witnesses has been excused from testifying and we would like  
17 to call the remaining two witnesses as a panel with your  
18 permission.

19 COMMISSIONER CULPEPPER: That's fine. Take  
20 that microphone and get it up there a little bit closer to  
21 you so we can make sure the court reporter hear -- hears  
22 what you're having to say. Thank you.

23 Yes, sir. You may -- you may call your  
24 witnesses as a panel.

1 MR. GRIFFIN: Okay. We'll call both Mr. Dave  
2 Groberg and Ms. Karyn Coppinger to the stand, please.

3 DAVID GROBERG AND

4 KARYN COPPINGER; Being first duly sworn,  
5 testified as follows:

6 COMMISSIONER CULPEPPER: Mr. Griffin, before  
7 -- before you get to examining your witnesses, would you  
8 like to have the application that was filed in this docket  
9 on September 2, 2011, together with the eight exhibits  
10 attached thereto, would you like to have that introduced as  
11 -- as part of the evidence in this case?

12 MR. GRIFFIN: Yes, we would.

13 COMMISSIONER CULPEPPER: All right. Let the  
14 application for a certificate of public convenience and  
15 necessity for a merchant plant and registration as a new  
16 renewable energy facility that was filed by the Applicant in  
17 this docket on September 2, 2011, including the eight  
18 exhibits attached thereto, be identified for purposes of  
19 this proceeding as Pantego Wind Energy Exhibit No. 1. And  
20 that exhibit is admitted into evidence.

21 (Whereupon, Pantego Wind Energy  
22 Exhibit No. 1 was marked for  
23 identification and admitted into  
24 evidence.)

1 COMMISSIONER CULPEPPER: You may proceed.

2 MR. GRIFFIN: Thank you.

3 DIRECT EXAMINATION BY MR. GRIFFIN:

4 Q Mr. Groberg, I'm going to start with you first and  
5 ask you a few questions. Can you state your name and  
6 business address for the record, please?

7 A Yes. My name is David Groberg. My business  
8 address is Suite 10 -- 1604, 51 Monroe Street, Rockville,  
9 Maryland.

10 Q And by whom are you employed and in what capacity?

11 A I am vice president of business development for  
12 Invenergy, LLC.

13 Q And did you cause to be filed in this docket I  
14 think it's 12 pages of direct testimony and 7 pages of  
15 supplemental testimony with an exhibit?

16 A I did.

17 Q And do you have any corrections to that testimony  
18 that you filed?

19 A I have one correction.

20 Q Okay. Can you point that out to us, please?

21 A It is in my initial testimony. On Page 5, line 92  
22 and 93, the sentence currently reads that Invenergy  
23 anticipates entering into an interconnection agreement  
24 during the fourth quarter of 2011. I think that's been

1 delayed. A more accurate answer right now would be that  
2 Invenergy anticipates entering into an interconnection  
3 agreement during the first quarter of 2012.

4 Q Are there any other corrections to your testimony?

5 A No.

6 Q If I were to ask you the -- these -- the same  
7 questions that appear in your testimony, if I were to ask  
8 you those questions today on the record, would you give the  
9 same answers that you've given in your prefiled testimony?

10 A I would.

11 Q And are those questions true and correct to the  
12 best of your knowledge?

13 A Yes, they are.

14 Q Ms. Coppinger, I'm going to ask you the same  
15 series of questions. Could you state your --

16 COMMISSIONER CULPEPPER: Well, wait just a  
17 minute. Before you -- before you get to her, let's -- let's  
18 deal with his -- his testimony.

19 First off, I'd like for you to go over your  
20 amendment to your testimony again. Was it in your direct  
21 testimony or your supplemental testimony?

22 THE WITNESS: It was in my direct testimony.

23 COMMISSIONER CULPEPPER: All right. Well,  
24 let's -- let's -- let's get that straight. What page on



1 your direct testimony are we talking about?

2 THE WITNESS: Page 5.

3 COMMISSIONER CULPEPPER: All right, sir. And  
4 what lines?

5 THE WITNESS: 92 and 93.

6 COMMISSIONER CULPEPPER: Okay. And would you  
7 state again what the correction is?

8 THE WITNESS: I would change the -- where --  
9 how it now reads the fourth quarter of 2011, I would change  
10 that to the first quarter of 2012.

11 COMMISSIONER CULPEPPER: Thank you very much.

12 All right. I'm assuming you want to move his  
13 testimony?

14 MR. GRIFFIN: Yes, sir. I was going to do  
15 them together, but I'll be happy to ask that you admit into  
16 evidence his prefiled and supplemental testimony as if given  
17 today orally.

18 COMMISSIONER CULPEPPER: Absolutely. That  
19 motion is allowed, and the prefiled direct testimony of the  
20 witness, which was filed September 2, 2011, is copied into  
21 the record as -- as if it had been given orally from the  
22 stand. Likewise, the witness' prefiled supplemental  
23 testimony filed in the docket on November 21, 2011, that  
24 testimony is received into evidence and copied into the

1 record as if it had been given orally from the stand.

2 The exhibit that is attached to the witness'  
3 supplemental testimony is identified as it was marked when  
4 filed as Groberg -- Groberg Supplemental Exhibit A.

5 MR. GRIFFIN: Thank you, Commissioner  
6 Culpepper.

7 (Whereupon, the prefiled direct and  
8 supplemental testimony of David  
9 Groberg will be reproduced in the  
10 record at this point the same as if  
11 the questions had been orally asked  
12 and the answers orally given from  
13 the witness stand.)

14  
15 (Whereupon, Groberg Supplemental  
16 Exhibit A was marked for  
17 identification.)

18  
19  
20  
21  
22  
23  
24

123

PREFILED DIRECT TESTIMONY OF  
DAVID GROBERG  
ON BEHALF OF PANTEGO WIND ENERGY LLC

NCUC DOCKET NO. EMP - 61, SUB 0

**FILED**

**SEP 02 2011**

Clark's Office  
N.C. Utilities Commission

**INTRODUCTION**

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

**A. My name is David Groberg. I am Vice President of Development for the Eastern Region of the United States for Invenergy LLC. My business address is 51 Monroe Street, Suite 1604, Rockville, Maryland 20850.**

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.**

**A. I have over 10 years of experience in the renewable energy and sustainable development fields. I joined Invenergy in 2004. I have a BA in English, cum laude, from Cornell University and an MBA from the University of Texas - Austin.**

**Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT RESPONSIBILITIES.**

**A. My current responsibilities include managing all new project identification, project development and acquisition activities for Invenergy's wind energy business in the Eastern Region of the United States and Canada. This includes directing all development activity for the Pantego Wind Energy LLC ("Pantego Wind") project in Beaufort County, N.C. (the "Project" or "Facility").**

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

**A. No.**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

21 A. The purpose of my testimony is to provide the Commission with  
22 background information about Pantego Wind Energy LLC, Invenergy and the Project,  
23 and to expand on topics in Pantego Wind's application, including the regulatory and  
24 permitting process for the Project, the need for and impact of the Project, and  
25 Invenergy's technical and managerial capabilities.

26  
27 **THE APPLICANT**

28 **Q. PLEASE PROVIDE INFORMATION ABOUT PANTEGO WIND ENERGY**  
29 **LLC AND INVENERGY LLC.**

30 A. Pantego Wind Energy LLC is a limited liability company registered to do  
31 business in North Carolina. Pantego Wind was organized for the development of the  
32 Project in Beaufort County, North Carolina, which is the subject of Pantego Wind's  
33 application to the Commission for a Certificate of Public Convenience and Necessity  
34 ("CPCN") to construct a merchant plant. The parent company of Pantego Wind is  
35 Invenergy Wind North America LLC ("INWA"), which is an affiliate of Invenergy LLC  
36 ("Invenergy"). Invenergy is headquartered in Chicago, Illinois.

37 **Q. PLEASE DESCRIBE INVENERGY'S EXPERIENCE DEVELOPING**  
38 **WIND ENERGY FACILITIES.**

39 A. Invenergy has placed in service twenty-six (26) wind facilities with a total  
40 operating capacity of 2,435 megawatts ("MW"). The company currently has wind  
41 projects totaling more than 15,000 MW in construction, under long-term contract to sell  
42 power and/or renewable credits or in development. By the end of 2012, Invenergy will  
43 have an operating wind power generation portfolio that exceeds 3,500 MW.

**SITE AND FACILITY DESCRIPTION**

**Q. DESCRIBE THE PROPOSED LOCATION FOR THE FACILITY.**

A. The Pantego Wind Project includes approximately 11,000 acres of privately-owned land in Beaufort County, North Carolina (the "Project Area"). The proposed Project is located near the communities of Terra Celia and Pantego, and approximately 20 miles east of the City of Washington. The maps at Application Exhibits 4 and 5 accurately reflect the location of the proposed Project. The proposed Project Area is a large undeveloped area used primarily for agricultural and forestry purposes.

Invenergy and its affiliates have leased private land in the Project Area. These leases afford Invenergy and its affiliates the right to develop and use the property for wind energy purposes, including conversion of the wind resource, ingress and egress, the installation of wind measuring equipment and wind turbine generators, and other such activities required to develop, construct and operate the Facility.

**Q. PLEASE DESCRIBE THE BASIC COMPONENTS OF THE FACILITY.**

A. The proposed Project is a wind energy facility that will generate up to 80 MW of electrical power. The Facility will consist of wind turbine generators, an underground Electrical Collection System, a Collector Substation, an Operations and Maintenance ("O&M") Facility, access roads and a permanent Meteorological Tower. The proposed Site Layout, found at Application Exhibit 6, reflects a preliminary layout of all major components of the Project. The turbine vendor and actual generation capacity of the turbines that will be used for this Project have not been finalized at this time. The proposed Site Layout is based on forty-nine (49) 1.6 MW turbines. However, the number of turbines may vary based on turbine size. The proposed Site Layout includes

69 two potential locations for the O&M Facility and the Collection Substation. Invenergy  
70 has been in continuous conversation with Dominion regarding the Project. Final  
71 location of the Collection Substation will be made in consultation with Dominion as part  
72 of the PJM Interconnection process. The proposed Site Layout shown is subject to  
73 change based on final turbine selection, environmental studies and further  
74 conversations with the Department of Environment and Natural Resources ("DENR"),  
75 additional meteorological data, communications with other state and federal agencies  
76 and further negotiations with landowners in the Project Area. Regardless of changes to  
77 the proposed layout, the basic components of the Project will not change, and all  
78 permitting requirements will be satisfied.

79 Q. HOW WILL THE PROJECT BE INTERCONNECTED TO THE GRID?

80 A. The Facility will be interconnected with Dominion's 115 kV Pantego  
81 Substation. The electric energy produced by the wind turbines will be conducted  
82 through an underground cable system, known as the Electrical Collection System (the  
83 "ECS"). The ECS is routed to a new 34.5 kV Collection Substation, which will be  
84 constructed and owned by Pantego Wind. A transformer in the Collection Substation  
85 will step up the 34.5 kV from the ECS to 115 kV. Invenergy is in discussion with  
86 Dominion on the location and design of the Collection Substation. Regardless of the  
87 final location of the Collection Substation, a short 115 kV generator lead line will  
88 connect the proposed Collection Substation to Dominion's Pantego Substation.

89 Invenergy has been and continues to be in discussions with PJM  
90 Interconnection, LLC ("PJM") and Dominion on the design of the Project. PJM has  
91 completed the System Impact Study for the Project and the Facility Study is underway.

Invenergy anticipates entering an Interconnection Agreement during the 4<sup>th</sup> quarter of 2011.

**Q. WHAT IS THE PROJECT'S ANTICIPATED ELECTRICITY PRODUCTION CAPABILITY?**

A. The maximum output of the Facility will be 74 MW when taking into account losses in the collection system and the Project's SCADA System. Based on wind data collected from the Project Area, it is anticipated that the net capacity factor will be in the 25% - 36% range. The Project's estimated electrical production is 174,000 – 250,000 MWh per year.

**Q. WHAT ARE INVENERGY'S PLANS FOR THE SALE OF THE POWER AND RENEWABLE ENERGY CERTIFICATES ("RECS") GENERATED BY THE PROJECT.**

A. Invenergy is in discussions with North Carolina investor owned utilities, electric cooperatives and municipal electric suppliers about the sale of the power and RECs generated by the Facility.

**OUTREACH AND BENEFITS TO THE COMMUNITY**

**Q. WHAT OUTREACH EFFORTS HAS INVENERGY UNDERTAKEN IN BEAUFORT COUNTY?**

A. Invenergy has met with Project Area landowners and community members over the past year to discuss the Project and their interest in entering agreements regarding wind turbines and related facilities. In July 2010, Invenergy held an informational meeting at the Coastal Carolina Cotton Gin in Pantego. Local landowners, farmers and members of the agricultural business community were in

attendance. This meeting introduced Invenergy as a company, provided general information on wind energy and how Invenergy develops, builds and operates a project. Conversations with landowners have continued and Invenergy has entered into leases for land in the Project Area. Invenergy has also held multiple meetings with Beaufort County officials and staff to present the Project and discuss opportunities for the community to benefit from the Project. County officials and landowners have favorably received the Project.

Invenergy has met several times with representatives of the Northeast Economic Development Commission ("Northeast EDC"). In June, 2011 Vann Rogerson of the Northeast EDC and Randell Woodruff, incoming Beaufort County Manager, along with others from North Carolina, visited Invenergy's Grand Ridge project in Marseilles, Illinois. The group toured the wind facility and had the opportunity to ask questions of Invenergy personnel. The group also toured Invenergy's Corporate Headquarters in downtown Chicago, and had the opportunity to meet with Invenergy's development, engineering, finance and construction personnel.

**Q. PLEASE DESCRIBE THE ANTICIPATED BENEFITS TO THE BEAUFORT COUNTY COMMUNITY.**

**A.** The county will realize an increase in tax revenues as a result of the Facility being located in their jurisdiction. The Project is expected to be one of the largest taxpayers in Beaufort County, providing long-term, stable revenue to local government. In return, the Project will require minimal public services, thereby resulting in a substantial net tax benefit to Beaufort County. Landowners will receive lease payments for participation in the Project. In addition, the placement of the wind turbines will allow for the continued agricultural and forestry use of the land. Therefore, the



landowners participating in the Project will see additional income to support their current agricultural and farming activities. During operations, Invenergy estimates combined spending on local property taxes, landowner lease payments, salaries for full-time staff and local procurement of goods and services to exceed \$1,000,000 per year.

Construction of the Project will provide additional employment opportunities in the Beaufort County area and will result in an overall increase in demand for meals, lodging and other local services. When wages to construction employees from the region are added to the expected increase in revenues to businesses, Invenergy estimates the total direct construction revenues from the Project to the local and regional economy during construction will be approximately \$10,000,000. This figure only includes direct spending and does not consider indirect and induced economic impacts that can be expected to further amplify the positive economic impacts of the Project.

After construction, a team of employees, based out of a local operations center, will be responsible for the operation and management of the Facility. Invenergy estimates the Project will have 5 or more full-time employees, who will receive competitive salaries and benefits, as well as training in the operation and maintenance of utility-scale wind energy projects.

**ANTICIPATED LOCAL, STATE AND FEDERAL PERMITS AND APPROVALS**

**Q. DESCRIBE THE PERMITS AND APPROVALS YOU ANTICIPATE WILL BE NECESSARY TO COMMENCE CONSTRUCTION OF THE FACILITY.**

162 A. Invenergy has identified a number of local, state and federal permits and  
163 approvals that may be necessary for the Facility. Application Exhibit 6 identifies all  
164 known and likely permits and approvals required for the Facility.

165 Q. WHAT STEPS HAS INVENERGY TAKEN TO DETERMINE THE  
166 PERMITS AND APPROVALS THAT WILL BE REQUIRED?

167 A. To determine what permits and approvals may be required specific to the  
168 Pantego Wind Project, Invenergy has had numerous phone conversations and in-  
169 person meetings with various state and federal agencies over the past 18 months. On  
170 April 28, 2010, Invenergy representatives, including me and Invenergy's North Carolina  
171 based consultants from Kimley Horn and Associates, Inc. and Circa, Inc., held an  
172 interagency and scoping meeting with interested governmental entities, including  
173 representatives of multiple Divisions of the North Carolina Department of Environment  
174 and Natural Resources, several representatives from the U.S. Army Corp of Engineers,  
175 the U.S. Fish and Wildlife Service, the N.C. Wildlife Resources Commission, and the  
176 Marine Corps, including representatives from the Cherry Point Air Station.  
177 Conversations with these agencies, and others, have continued since this meeting.  
178 Invenergy has also engaged the Air Force, the Navy and North Carolina's State Historic  
179 Preservation Office in discussions about the Project

180 In July, 2011, Invenergy held a group meeting with representatives of the N.C.  
181 Wildlife Resources Commission, the U.S. Army Corp of Engineers, the Marine Corps,  
182 the Navy, and the North Carolina Department of Environment and Natural Resources,  
183 including representatives from the Division of Costal Management and the Division of  
184 Water Quality, to discuss the Project and to continue dialogue regarding what permits  
185 and approvals will be necessary.

186           Invenergy has had extensive conversations with Beaufort County elected officials  
187 and staff regarding the Project and local permits and approvals that may be required.  
188           Invenergy will continue to work with federal and state agencies and Beaufort County,  
189 and will comply with all federal, state and local laws and regulations.

190           **Q.     DOES BEAUFORT COUNTY HAVE A WIND ENERGY ORDINANCE?**

191           **A.     No, Beaufort County has no County zoning. However, Invenergy has had**  
192 **numerous discussions with the County, including representatives from the County**  
193 **Planner's Department, about the Project. As indicated earlier in my testimony, Beaufort**  
194 **County has responded favorably to the Project. Invenergy will continue to work closely**  
195 **with the County as the Project is permitted and developed.**

196           **Q.     DESCRIBE INVENERGY'S COMMUNICATION WITH MILITARY**  
197 **BRANCHES ABOUT THE PROJECT.**

198           **A.     Invenergy has been in contact with multiple branches of the military about the**  
199 **Project. As discussed above, representatives from multiple branches of the military**  
200 **have attended group meetings to discuss the Project. Invenergy representatives have**  
201 **had direct communications with the Air Force, Navy and Marine Corps about the**  
202 **Project. The Federal Aviation Administration ("FAA") has final jurisdiction over airspace**  
203 **and aeronautical impact. Invenergy will file an FAA Form 7460 (Notice of Proposed**  
204 **Construction) with the FAA for each wind turbine and for the permanent meteorological**  
205 **tower by the end of 2011. The FAA will conduct an Obstruction Evaluation Analysis to**  
206 **determine whether any of the turbines in the Project Area will interfere with military or**  
207 **civilian airspace use or navigation. Construction cannot begin on the Facility until the**  
208 **FAA has issued a Determination of No Hazard. Invenergy will obtain all necessary FAA**  
209 **approvals before commencement of construction.**

**NEED FOR THE FACILITY**

**Q. PLEASE EXPLAIN THE NEED FOR THE FACILITY.**

**A. Through the passage of Senate Bill 3, North Carolina adopted a Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") under which investor-owned utilities in North Carolina are required to meet up to 12.5% of their energy needs through renewable energy resources or energy efficiency measures by 2021. Rural electric cooperatives and municipal electric suppliers must meet a 10% REPS requirement by 2018. Under the REPS statute, wind qualifies as a renewable energy resource. Investor-owned utilities, electric cooperatives and municipal electric suppliers demonstrate compliance through the purchase of renewable energy certificates ("RECs"). The Facility will provide approximately 174,000 – 250,000 RECs, dependent on final turbine selection, for use by those entities that must comply with the REPS requirements.**

**In addition, Senate Bill 3 established that the development of the REPS was intended to diversify the resources used to reliably meet the energy needs of consumers in the State, provide greater energy security through the use of indigenous energy resources available within the State, encourage private investment in renewable energy and energy efficiency and provide improved air quality and other benefits to energy consumers and citizens of the State. The Project will help achieve all four of these goals. Allowing this Project to go forward will enable a new, clean, renewable energy resource with low environmental, health and safety impacts, and significant economic development benefits to meet the growing demand for electricity in the State and in the region.**

**MANAGERIAL AND TECHNICAL CAPABILITY**

**Q. PLEASE DESCRIBE INVENERGY'S TECHNICAL AND MANAGERIAL  
CAPABILITY TO CONSTRUCT AND OPERATE A WIND POWER PROJECT.**

**A. As an Invenergy subsidiary, Pantego Wind will have full access to the  
managerial and technical capabilities of Invenergy to construct and operate the Project.  
Invenergy brings the experience of developing 26 wind facilities. Invenergy originates  
and develops the vast majority of its own wind projects from conception through  
completion and long-term operation. On occasion, Invenergy acquires an early- or mid-  
stage project from another developer. With this long-term perspective, Invenergy Wind  
takes a proactive approach to building strong relationships with various project  
stakeholders including landowners, host communities and power purchase customers.**

**Invenergy's success at building and operating wind projects starts with an  
experienced and capable development team. Invenergy's developers understand that  
relationships with local communities are the first step in building successful long term  
projects, and they are the first to demonstrate Invenergy's commitment to local host  
communities.**

**Invenergy's business model is to operate the wind farms it builds, and therefore,  
it employs responsible and experienced onsite construction managers to ensure that  
projects are built in a way that respects community and landowner concerns and results  
in a high quality project that will operate smoothly for years to come. Invenergy  
currently manages over 1,200 operating wind turbines. Day-to-day operation and  
maintenance is the responsibility of on-site O&M teams that work out of Invenergy O&M  
buildings located at the Project site. These teams are trained by Invenergy to perform**

Prefiled Direct Testimony of David Groberg  
Pantego Wind Energy LLC

257 routine maintenance and other tasks needed to maximize the hours that the turbines  
258 are available to generate electricity.

259 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

260 A. Yes.

135

SUPPLEMENTAL TESTIMONY OF  
DAVID GROBERG  
ON BEHALF OF PANTEGO WIND ENERGY LLC

NCUC DOCKET NO. EMP - 61, SUB 0

**FILED**  
NOV 21 2011  
Clerk's Office  
N.C. Utilities Commission

1    **Q.    PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

2    A.    My name is David Groberg. I am Vice President of Development for the Eastern  
3    Region of the United States for Invenergy LLC. My business address is 51 Monroe  
4    Street, Suite 1604, Rockville, Maryland 20850.

5    **Q.    HAVE YOU PROVIDED TESTIMONY IN THE PANTEGO WIND ENERGY**  
6    **DOCKET PREVIOUSLY?**

7    A.    Yes.

8    **Q.    WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

9    A.    The purpose of my testimony is to provide information on the process Invenergy  
10    used to select the Pantego Wind Energy Project Area (the "Project Area") for potential  
11    development, to describe Invenergy's outreach to agencies that commented in the State  
12    Clearinghouse process and to provide updated information on the permit process for the  
13    Project.

14   **Q.    PLEASE DESCRIBE THE PROCESS INVENERGY USED TO SELECT THE**  
15   **PANTEGO SITE.**

16   A.    Invenergy uses a tiered approach in site selection. This involves gathering  
17   increasingly detailed information about potential sites and using that information to  
18   decide whether to go to the next step in the development process. The primary factors  
19   in the initial identification of a potential wind energy site are wind resource,  
20   transmission, environmental resources, land use, land owner interest and aviation

Supplemental Testimony of David Groberg  
Pantego Wind Energy LLC

21 constraints. Invenergy identifies potential environmental constraints early in its analysis  
22 of any area of interest within a state or region.

23 In 2009, Invenergy hired an experienced environmental consulting firm to  
24 identify environmental resources within broad areas of interest, including wildlife,  
25 threatened and endangered species, wetlands, and other natural resources. Invenergy  
26 studied existing land use information to identify compatible land uses, such as  
27 previously disturbed agricultural land. Cultural resources and potential civilian and  
28 military aviation constraints were also screened. This led Invenergy to a number of  
29 potential sites in North Carolina.

30 Next, Invenergy scheduled an interagency scoping meeting to get input and  
31 guidance from state and federal regulatory agencies about potential sites. This meeting  
32 was held in April 2010. As noted in my Direct Testimony, numerous agencies  
33 participated in the meeting, including the United States Fish and Wildlife Service  
34 ("USFWS"), the North Carolina Wildlife Resources Commission ("NCWRC"), the United  
35 States Army Corps of Engineers (the "Corps"), and multiple branches of the North  
36 Carolina Department of Environment and Natural Resources. These agencies provided  
37 valuable information on environmental and natural resources within target areas which  
38 Invenergy factored into its consideration of potential wind development sites.

39 **Q. WHAT DID INVENERGY DO NEXT?**

40 **A.** Invenergy started the process of leasing private land for the Project. To confirm  
41 its assessment of the wind resource, Invenergy installed a meteorological tower on  
42 leased land in the Project Area to gather site-specific wind data. Having land under



43 lease also permitted the company to proceed with site specific study of environmental  
44 resources, such as wildlife and wetlands.

45 **Q. HAS INVENERGY MAINTAINED CONTACT WITH THE AGENCIES YOU**  
46 **MENTIONED ABOVE THROUGHOUT THE DEVELOPMENT PROCESS.**

47 A. Yes. As mentioned in my Direct Testimony, Invenergy held another inter-agency  
48 meeting in July of 2011. This meeting was attended by the Corps, numerous branches  
49 from the North Carolina Department of Environment and Natural Resources, including  
50 the Division of Coastal Management ("DCM"), the Division of Water Quality ("DWQ")  
51 and the Division of Marine Fisheries ("DMF"), as well as the NCWRC and  
52 representatives of the Marines and Navy. Invenergy updated the agencies on the  
53 Project and solicited feedback on an initial layout of the Project. Since the July 2011  
54 meeting, Invenergy and its consultants have remained in contact with many of these  
55 agencies.

56 As the development process continues, surveys and studies are completed and  
57 dialogue continues with regulatory agencies. My colleague, Karyn Coppinger, will  
58 testify to many of the studies and reviews related to wildlife that Invenergy has  
59 undertaken for the Project.

60 **Q. HAVE YOU REVIEWED THE CLEARINGHOUSE COMMENTS SUBMITTED IN**  
61 **THIS DOCKET ON OCTOBER 21, 2011?**

62 A. Yes. Invenergy has reviewed them carefully and followed up with each agency  
63 as described below.

64 **Q. HAS INVENERGY TALKED WITH THE DIVISION OF MARINE FISHERIES**  
65 **("DMF") SINCE ITS CLEARINGHOUSE COMMENTS?**

66 A. Yes. Invenergy representatives spoke with Kevin Hart of DMF on November 14,  
67 2011. Mr. Hart stated that the information cited in his Clearinghouse comments should  
68 be included with Invenergy's Corps permit application, which he will review as part of  
69 the Corps' permitting process. He did not request any additional information from  
70 Invenergy.

71 **Q. PLEASE DESCRIBE YOUR CONTACT WITH THE DIVISION OF COASTAL**  
72 **MANAGEMENT ("DCM").**

73 A. Invenergy representatives spoke with Stephen Rynas on November 14, 2011 to  
74 ensure he was aware of Invenergy's collaboration with DCM. Mr Rynas was the author  
75 of DCM's Clearinghouse comments. Previously, Invenergy met with Doug Huggett of  
76 DCM in 2010 and we have had continuing communications with the agency since that  
77 time. Invenergy submitted a request for a jurisdictional determination of Costal Area  
78 Management Act ("CAMA") resources to DCM in August 2011. Invenergy received a  
79 letter from DCM, dated August 29, 2011, verifying the location of CAMA resource  
80 boundaries and indicating there was one crossing that would require a CAMA General  
81 Use permit. See Groberg Supplemental Exhibit A. Invenergy will continue to  
82 coordinate and cooperate with DCM as development and permitting of the Project  
83 continues.

84 **Q. WHAT CONTACT HAS INVENERGY HAD WITH THE STATE HISTORIC**  
85 **PRESERVATION OFFICE ("SHPO")?**

86 A. Invenergy followed up with Ms. Gledhill-Earley, after receiving the Clearinghouse  
87 comments, to confirm the agency was comfortable with the company's approach to the  
88 identification of cultural resources within the Project Area of Potential Effect. Previously,

89 Invenergy talked with staff of the SHPO in early October 2010 to discuss Invenergy's  
90 general approach to review of cultural resources for wind energy projects. On July 14,  
91 2011, Invenergy met with Ms. Gledhill-Earley and Justin Kockritz of SHPO and Lee  
92 Abbott of the Office of State Archeology to discuss the scope of work specific to the  
93 Project. Invenergy subsequently engaged consultants to begin this work, which is  
94 ongoing.

95 **Q. HAS INVENERGY MET WITH THE NORTH CAROLINA WILDLIFE**  
96 **RESOURCES COMMISSION ("NCWRC") ABOUT ITS CLEARINGHOUSE**  
97 **COMMENTS?**

98 A. Yes. Invenergy arranged a joint meeting with NCWRC and the USFWS earlier  
99 this month. My colleague, Karyn Coppinger, Invenergy's Environmental Manager,  
100 participated in that meeting. She is also filing supplemental testimony and will describe  
101 the discussions with NCWRC and USFWS in that meeting.

102 **Q. CAN YOU UPDATE THE COMMISSION ON INVENERGY'S COORDINATION**  
103 **WITH THE CORPS ON WETLANDS?**

104 A. Yes. In June 2011, Invenergy had a pre-application meeting with the Corps. In  
105 November, Invenergy completed wetland delineations for impacts anticipated within  
106 Project land we have under lease or easement. The Corps is currently in the field  
107 confirming Invenergy's wetlands delineations.

108 **Q. DO YOU HAVE AN UPDATE FOR THE COMMISSION ON INVENERGY'S**  
109 **COORDINATION WITH THE DIVISION OF WATER QUALITY ("DWQ")?**

110 A. Yes. Invenergy has been in communication with DWQ since the scoping  
111 meeting in April 2010. Most recently, Invenergy has been engaged in ongoing

discussions with DWQ regarding its review of the Project under its Tar-Pamlico Nutrient Sensitive Waters Buffer Protection Rules. DWQ will be in the field in November 2011 to review jurisdictional questions, including the Tar-Pamlico Buffer.

**Q. DESCRIBE INVENERGY'S CONTACT WITH PRIVATE ENVIRONMENTAL AND ADVOCACY GROUPS.**

A. Invenergy is a member of the North Carolina Sustainable Energy Association ("NCSEA"). For several years, Invenergy has had many conversations with NCSEA generally about renewable energy, and specifically about development of North Carolina's wind resource.

Invenergy provided courtesy copies of the Application to the North Carolina Chapter of the Sierra Club, North Carolina Office of the Environmental Defense Fund, North Carolina Conservation Network, North Carolina Solar Center and NCSEA. Most recently, Invenergy has met with Paul Quinlan of NCSEA, Curtis Smalling of the Audubon Society of North Carolina and Molly Diggins of the state chapter of the Sierra Club. Invenergy has also reached out to the North Carolina Wildlife Federation and the North Carolina Conservation Network. Invenergy will continue to reach out to environmental organizations and looks forward to working with organizations to responsibly grow the green industry in North Carolina.

**Q. WILL PANTEGO WIND ENERGY COMPLY WITH ALL FEDERAL STATE AND LOCAL LAWS AND REGULATIONS.**

A. Yes. Invenergy is committed to the responsible development of wind energy projects. Invenergy takes a proactive approach to compliance with all applicable

134 federal, state and local laws, including environmental laws and regulations – an  
135 approach that includes studies such as those currently being done for the Project

136 **Q. UPON THE COMMISSION GRANTING INVENERGY'S APPLICATION IN THIS**  
137 **DOCKET, WILL INVENERGY'S COLLABORATION WITH STATE AND FEDERAL**  
138 **AGENCIES CONTINUE?**

139 **A. Yes.** It is Invenergy's practice to collaborate with agencies throughout the  
140 development of a wind energy facility. As described in my testimony, and in the  
141 testimony of my colleague Karyn Coppinger, Invenergy is conducting multiple studies of  
142 the Project Area. When these studies are completed, Invenergy will work with agencies  
143 to develop avoidance and minimization plans, as needed. Obtaining the CPCN is not  
144 the end of the permitting process for the Project.

145 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

146 **A. Yes.**

1 BY MR. GRIFFIN:

2 Q Ms. Coppinger, could you state your name and  
3 business address for the record?

4 A Yes. My name is Karyn Coppinger. My business  
5 address is 50 Antelope Avenue, Laramie, Wyoming, 82072.

6 Q Okay. And by whom are you employed and in what  
7 capacity?

8 A I'm the environmental manager for Invenergy.

9 Q And did you cause to be filed in this docket about  
10 -- approximately six pages of supplemental testimony?

11 A Yes.

12 Q Are there any corrections or additions to your  
13 testimony?

14 A No.

15 Q And if I were to ask you the same questions today  
16 that appear in that testimony, would you give the same  
17 answers as appear in the testimony that was filed?

18 A Yes.

19 Q And are those answers true and correct to the best  
20 of your knowledge?

21 A Yes.

22 MR. GRIFFIN: Commissioner Culpepper, I would  
23 ask that you would copy into the record Ms. Coppinger's  
24 prefiled testimony as if given today orally from the stand.

1 COMMISSIONER CULPEPPER: That motion is  
2 allowed and the witness' prefiled supplemental testimony  
3 filed in the docket on November 21, 2011, is copied into the  
4 record as given orally from the stand.

5 (Whereupon, the prefiled  
6 supplemental testimony of Karyn  
7 Coppinger will be reproduced in the  
8 record at this point the same as if  
9 the questions had been orally asked  
10 and the answers orally given from  
11 the witness stand.)  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

SUPPLEMENTAL TESTIMONY OF  
KARYN COPPINGER  
ON BEHALF OF PANTEGO WIND ENERGY LLC  
NCUC DOCKET NO. EMP - 61, SUB 0

**FILED**  
NOV 21 2011  
Clerk's Office  
N.C. Utilities Commission

1    **Q.    PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

2    A.    My name is Karyn Coppinger. I am the Environmental Manager for Invenergy  
3    LLC. My business address is 50 Antelope Avenue, Laramie, Wyoming.

4    **Q.    PLEASE    DESCRIBE    YOUR    EDUCATION    AND    PROFESSIONAL**  
5    **EXPERIENCE.**

6    A.    I have a Bachelor of Arts from Hampshire College, a Master of Science from  
7    Colorado State University and a Master of Science from University of Wyoming. I have  
8    over 20 years environmental analysis and compliance experience for wind and fossil  
9    fuel industries. I have designed and managed wildlife studies for wind farms and other  
10    developments throughout the United States, beginning in 1990. My expertise includes  
11    regulations such as the Endangered Species Act, Bald and Golden Eagle Protection  
12    Act, Migratory Bird Treaty Act, and National Environmental Policy Act. I have prepared  
13    environmental assessments, environmental impact statements, and conservation plans  
14    for a wide variety of energy development projects.

15   **Q.    PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT RESPONSIBILITIES.**

16   A.    I oversee environmental/wildlife compliance for Invenergy's wind energy projects  
17   nationwide. My responsibilities include developing regulatory compliance documents  
18   such as environmental assessments, biological assessments, habitat conservation  
19   plans and avian and bat protection plans, overseeing wildlife studies and research,  
20   reviewing/approving study reports, and coordinating with wildlife agencies.



21 **Q. HAVE YOU PROVIDED TESTIMONY IN THE PANTEGO WIND ENERGY**  
22 **DOCKET PREVIOUSLY?**

23 **A. No.**

24 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

25 **A. The purpose of my testimony is to provide additional information on the Pantego**  
26 **Wind Energy Facility (the "Project") for which an Application for Public Convenience and**  
27 **Necessity (the "Application") was filed on September 1, 2011 and to address comments**  
28 **from the North Carolina Wildlife Resources Commission ("NCWRC") received during the**  
29 **State Clearinghouse process.**

30 **Q. HOW DOES INVENERGY APPROACH POTENTIAL IMPACTS TO BIRDS AT**  
31 **ITS WIND FACILITIES?**

32 **A. Invenergy uses a tiered approach that is designed to develop a body of**  
33 **information about a site by gathering existing information, consulting with wildlife**  
34 **agencies and possibly other experts to identify any concerns regarding a specific site,**  
35 **and conducting field studies to assess bird use at the site. The combined use of**  
36 **multiple data sources creates a scientifically valid baseline from which to evaluate risk,**  
37 **determine if additional studies are needed, develop avoidance and minimization**  
38 **measures and, if warranted, identify off-site mitigation to compensate for unavoidable**  
39 **impacts.**

40 **Q. HAVE YOU REVIEWED THE CLEARINGHOUSE COMMENTS SUBMITTED IN**  
41 **THIS DOCKET ON OCTOBER 21, 2011?**

42 **A. Yes. Invenergy has reviewed them carefully and followed up with each agency.**

43 My colleague David Groberg, Invenergy's Vice President for Development for the  
44 Eastern Region, will testify about Invenergy's contact with some of the agencies, and I  
45 will address others.

46 **Q. PLEASE DESCRIBE YOUR COLLABORATION WITH THE NC WILDLIFE**  
47 **RESOURCES COMMISSION ("NCWRC").**

48 **A.** Invenergy has worked with the NCWRC over the past 18 months. Maria Dunn,  
49 the Northeast Costal Region Coordinator for the agency's Habitat Conservation  
50 Program, was present at the April 2010 scoping and interagency meeting and the July  
51 2011 meeting, which were described in the Application. NCWRC was also invited to  
52 participate in many of Invenergy's meetings with the United States Fish and Wildlife  
53 Service ("USFWS"), which are described later in my testimony.

54 **Q. PLEASE DESCRIBE YOUR COLLABORATION WITH USFWS.**

55 **A.** As Mr. Groberg has testified, it is Invenergy's practice to engage the USFWS  
56 early in the development process to discuss wildlife resources under their jurisdiction,  
57 including threatened and endangered species, eagles and other migratory birds.  
58 Therefore, Invenergy included USFWS in the scoping meeting held in April 2010. Since  
59 then, Invenergy has met with and had phone conversations with USFWS  
60 representatives numerous times. Most recently, meetings were held on March 2, 2011,  
61 March 30, 2011, August 16, 2011 and November 8, 2011. The latest meeting with the  
62 USFWS and NCWRC included a discussion of bird survey protocols that will be  
63 implemented for additional studies Invenergy has planned for the Project. The protocols  
64 were modified to include the agencies' recommendations.

Using a tiered approach recommended by the USFWS, with increasingly detailed on-site studies, evaluation of previous studies conducted in the area and consultation with agencies, Invenergy continues to evaluate potential impacts to birds. The outcome of this process will include a set of avoidance and minimization measures that Invenergy will take to reduce impacts to birds. The scope of these measures will be based on the level of impact determined from the completion of data collection and analysis described above and consultation with the wildlife agencies. These avoidance and minimization measures are one tool Invenergy uses to ensure compliance with federal and state laws and regulations related to wildlife.

**Q. PLEASE DESCRIBE THE STUDIES INVENERGY WILL UNDERTAKE RELATED TO BIRDS.**

A. In February 2011, Invenergy completed a desktop evaluation of avian resources of the Project vicinity. From February through November 2011 Invenergy has conducted a multi-season bird survey to develop a species list and to collect bird abundance data for the Project Area. Based on initial research, and from information obtained in meetings with the USFWS and NCWRC, the species/groups of most concern for this Project are bald eagles and over-wintering waterfowl, including tundra swan and snow geese.

Invenergy has initiated additional bird studies, beginning in November 2011 and continuing through the end of March 2012, to study bird use of the Project Area and the immediate vicinity. These studies are designed to:

- Describe the temporal and spatial use of the study area by birds, especially bald eagles and tundra swan.

- Determine locations in and around the project area of tundra swan roosts, foraging habitat, and daily flight routes used between the roosts and foraging grounds.
- Verify the presence and status of previously identified bald eagle nests.
- Locate new bald eagle nests or nest building activities.
- Identify the species of raptors nesting and the nest density occurring within the Project Area.
- Identify locations and estimate sizes of tundra swan and other waterfowl flocks.
- Document other wildlife observed in the project area through incidental observations.

The studies include an avian point count study to document bird use of the Project Area, a tundra swan use study to track daily movements to and from the Project Area, aerial surveys to map and count flocks of over-wintering waterfowl and to map and determine the status of any raptor nests and a red-cockaded woodpecker habitat assessment.

Based on these studies and analysis that discloses the anticipated levels of impacts to birds, and in consultation with the wildlife agencies, Invenergy will develop an avoidance and minimization plan for reducing impacts to birds and will determine if additional studies or mitigation to compensate for unavoidable impacts will be needed.

**Q. PLEASE DESCRIBE THE TYPES OF STUDIES INVENERGY HAS UNDERTAKEN RELATED TO BATS.**

A. In February 2011, Invenergy completed a desktop evaluation of the Project Area, which included an evaluation of the presence/absence of threatened or endangered bat species and other bat species expected to occur in the Project Area. No threatened or endangered bats are known to occur in the Project Area. Between March and

119 November 2011, Invenergy completed an acoustic survey to determine bat activity and  
120 species presence in the Project Area. The study was conducted by placing acoustic  
121 measurement devices on Invenergy's meteorological tower in the Project Area. The  
122 data have not yet been analyzed, but preliminary results suggest that six common bat  
123 species occur in the project area in relatively low numbers. Data analysis will include an  
124 evaluation of risks to bats.

125 **Q. WILL INVENERGY CONDUCT POST-CONSTRUCTION STUDIES?**

126 A. Invenergy plans to conduct post-construction monitoring for birds and bats using  
127 industry standard, scientifically viable methods. The monitoring plan will be developed  
128 in consultation with the USFWS and NCWRC prior to project construction.

129 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

130 A. Yes.

1 MR. GRIFFIN: Mr. Commissioner -- Mr.  
2 Culpepper, that concludes my initial examination and the  
3 witnesses are available for cross-examination.

4 COMMISSIONER CULPEPPER: All right. You  
5 moved the admission of Witness Groberg's supplemental  
6 exhibit?

7 MR. GRIFFIN: Yes, sir. I believe you --  
8 that's already been admitted.

9 COMMISSIONER CULPEPPER: Well, it's been  
10 identified and now it has been received into evidence.

11 MR. GRIFFIN: Okay. Thank you.

12 (Whereupon, Groberg Supplemental  
13 Exhibit A was admitted into  
14 evidence.)

15 COMMISSIONER CULPEPPER: All right. You're  
16 tendering your witnesses for cross-examination --

17 MR. GRIFFIN: I am, yes, sir.

18 COMMISSIONER CULPEPPER: -- at this point?

19 Mr. Olson, cross-examination?

20 MR. OLSON: Sure. I have just a couple of  
21 questions. I -- I guess I would -- I thought there would be  
22 a summary, but apparently they decided not to do that.

23 CROSS-EXAMINATION BY MR. OLSON:

24 Q We've heard a lot of testimony about the Navy

1 studies for the OLF. Did you -- you were here this morning  
2 to hear that, didn't you?

3 A (By Mr. Groberg) Yes.

4 Q Have either of you -- or I guess maybe, Ms.  
5 Coppinger, that could be your responsibility. Have you  
6 reviewed those studies?

7 A (By Ms. Coppinger) Yes, I reviewed the Navy  
8 studies.

9 Q Okay. And -- and what was your conclusion with  
10 regard to those studies?

11 A (By Ms. Coppinger) The Navy studies are part of  
12 the analysis that we'll be completing. This is difficult  
13 because I would like to look at you while I'm answering your  
14 question.

15 Q Most people don't, but that's all right.

16 A The Navy studies, we will use and evaluate the  
17 Navy studies and the studies that we are now conducting in  
18 collaboration with the U.S. Fish and Wildlife Service to  
19 evaluate bird use and potential impacts to birds at this  
20 site. So they are part of a larger evaluation that we're  
21 conducting.

22 Q And when do you anticipate completing that larger  
23 evaluation?

24 A We have started actual fieldwork last February in

1 2011 and we are conducting an intensive winter survey this  
2 -- starting in November through the end of March. That --

3 Q So then to answer the question, you would expect  
4 to have the results of your study sometime in April, is that  
5 fair to say?

6 A Right. The fieldwork we'll complete in March and  
7 then there's a period of data analysis and report writing  
8 and continued collaboration with the U.S. Fish and Wildlife  
9 Service. So the study may take several months after the  
10 actual conclusion of the fieldwork, but we would anticipate  
11 mid -- mid next year.

12 Q Okay.

13 MR. OLSON: All right. Thank you. That's  
14 all the questions I have.

15 COMMISSIONER CULPEPPER: Mr. Dodge, questions  
16 of the witnesses?

17 MR. DODGE: Yes, I have a couple of  
18 questions. Thank you, Commissioner Culpepper.

19 CROSS-EXAMINATION BY MR. DODGE:

20 Q First, Mr. Groberg, have you had an opportunity to  
21 review the testimony filed by Kennie Ellis of the Public  
22 Staff that was filed with the Commission on November 23rd,  
23 2011, in this proceeding?

24 A Yes.



1 Q Okay. And in -- in that testimony, Mr. Ellis  
2 recommended the issuance of the certificate for this project  
3 subject to a number of conditions. Are you familiar with  
4 those conditions?

5 A Yes.

6 Q Is Invenergy generally in agreement with the  
7 conditions proposed by Mr. Ellis in that -- in his  
8 testimony?

9 A I -- I would like -- I think so. I would like to  
10 just take one quick look at it, if you can point me to --

11 Q Yeah. The conditions -- if you have his testimony  
12 with you, the conditions are listed on Page 8 and 9 of  
13 Kennie Ellis' November 23rd testimony.

14 And, again, my question is are you generally in  
15 agreement with those conditions?

16 A Yes, I -- yes, I am.

17 Q Several of the public witnesses here today have  
18 introduced maps or presented information regarding the  
19 proximity of the project site to the Navy's proposed OLF  
20 landing area. Could you -- are you familiar with the  
21 proximity of the Navy site in -- in relation to this  
22 project?

23 A Yes. It's my understanding that the closest  
24 turbine to the OLF site is about four miles away.

1 Q Okay.

2 MR. DODGE: No -- no more questions for Mr.  
3 Groberg. I do have several questions for Ms. Coppinger.

4 COMMISSIONER CULPEPPER: Proceed.

5 Q Ms. Coppinger, do you have a copy of your  
6 supplemental testimony --

7 A Yes.

8 Q -- filed with the Commission on November 21st in  
9 front of you?

10 A Yes.

11 Q Could you turn to Page 5 of your testimony?

12 A Okay.

13 Q And if you don't mind, please read lines 109  
14 through 112 of your testimony.

15 A "Based on these studies and analysis that  
16 discloses the anticipated level -- levels of impacts to  
17 birds and in consultation with the wildlife agencies,  
18 Invenergy will develop an avoidance and minimization plan  
19 for reducing impacts to birds and will determine if  
20 additional studies or mitigation to compensate for  
21 unavoidable impacts will be needed."

22 Q Thank you. The key phrase in there that I wanted  
23 to -- to ask you to describe is the phrase "in consultation  
24 with the wildlife agencies." What -- what exactly do you

1 mean by that, the "in consultation with"?

2 A We started engaging the Fish and Wildlife Service  
3 and the WRC early this year. The consultation is basically  
4 meeting with them and talking with them to determine what  
5 the issues regarding the site are. And we have -- several  
6 issues have bubbled to the surface and we've heard a lot  
7 about them this morning, including the winter -- wintering  
8 waterfowl.

9 We have -- we will continue consultation with them  
10 throughout the development of this project. We've submitted  
11 our -- our study protocols, so our field protocols have gone  
12 to the Service. They are evaluating them now as we speak so  
13 that we ensure that we collect the data that will be  
14 scientifically defensible in a way that we can use to  
15 evaluate the impacts at the site.

16 We have been inviting the WRC's input in all of  
17 these conversations with the federal wildlife agencies so  
18 that we can ensure that we are adequately assessing the  
19 site, determining how birds are using the site and working  
20 with them to develop avoidance and minimization measures so  
21 that we can reduce our impacts.

22 Q Does -- does that mean they will just be providing  
23 comment through the process or will they have an opportunity  
24 to review and concur or, you know --

1           A     They will have the opportunity to review and  
2     concur.

3           Q     Thank you. On Page 5 of your testimony, you also  
4     begin discussing the types of studies that Invenergy has  
5     taken related to bats for this project and stated that that  
6     data is still being analyzed.

7                     Will that information from the bat studies also be  
8     used in development of these avoidance and mitigation plans  
9     -- or minimization plans in consultation with the wildlife  
10    agencies?

11          A     Yes.

12          Q     And then turning to Page 6 of your testimony, you  
13    -- looking at lines 126 through 128, you describe the  
14    post-construction monitoring for birds and bats that will be  
15    conducted on the site.

16                    And similar to my -- my other questions, does the  
17    phrase in this statement "in consultation with U.S. Fish and  
18    Wildlife Service and North Carolina Wildlife Resources  
19    Commission" in the development of the monitoring plan also  
20    indicate that they will have an opportunity to vet  
21    post-construction monitoring and -- and concur or agree or  
22    will it just be filing comments in that -- on that  
23    monitoring plan?

24          A     Yeah. They will be able to -- we will vet it with

1 them. We will -- we will coordinate with them. So it's  
2 more than just reviewing and providing comments. It's  
3 actually seeking their input and -- and concurrence.

4 Q Thank you. Are you -- yesterday an additional  
5 comment was filed in response to the State Clearinghouse  
6 review by the Natural Heritage Program of DENR. Are you  
7 familiar with that comment that was filed on December 5th?

8 A I'm not sure. Could you -- could you read it to  
9 me, please?

10 Q Sure. Yes. Find it here.

11 A Okay. The comment -- should -- should I read it?

12 Q Sure.

13 A Okay. So the comment says, We recommend, one,  
14 field studies from November into February to determine the  
15 presidents (sic) of wintering waterfowl in the project area.  
16 We've commenced those studies in November and we are  
17 planning to continue them into March, actually. So -- and  
18 the studies are designed to evaluate and -- the presence of  
19 wintering waterfowl.

20 And number two, a determination if the presence of  
21 the wind turbines harms birds through direct or indirect  
22 impacts. The analysis and consultation that we're  
23 undergoing with the Fish and Wildlife Service is intended to  
24 address direct and indirect impacts.

1 Q And my -- my question was just your response to  
2 those comments, which are -- you've provided. Thank you.

3 MR. DODGE: No further questions for Ms.  
4 Groberg --

5 COMMISSIONER CULPEPPER: Redirect  
6 examination --

7 MR. DODGE: -- or Ms. Coppinger.

8 COMMISSIONER CULPEPPER: Do -- do you have  
9 any redirect examination?

10 MR. GRIFFIN: I do. Just a -- just a couple  
11 of questions.

12 COMMISSIONER CULPEPPER: Okay. Go ahead.

13 REDIRECT EXAMINATION BY MR. GRIFFIN:

14 Q Ms. Coppinger, just to clarify something that you  
15 were just discussing with Mr. Dodge, and it may just be  
16 because I -- because I did not hear his question very well,  
17 but when talking about the concurrence with wildlife  
18 agencies, I want to tease that out just a bit.

19 But there are three processes, as I understand it,  
20 maybe two of them are part of one, which is you have the  
21 study protocols, correct, and you've got the  
22 post-construction studies and Adaptive Management Plan,  
23 correct, and then a part of that is the Avian and Bat  
24 Protection Plan; is that accurate?

1           A     Yes. During the development of the scientific  
2 basis for evaluating impacts, a lot of information is -- is  
3 -- is developed and a lot of people review the science.

4           The Avian and Bat Protection Plan is a document  
5 that basically summarizes all of the interaction that we've  
6 had with the agency, all of the science that we've collected  
7 and the avoidance and minimization measures that we've had  
8 built into the project to reduce our impacts to birds and  
9 bats. And the Avian and Bat Protection Plan would be an  
10 outcome of the process that I've described that we're  
11 undertaking with the Service and the WRC at this time.

12          Q     And I believe you testified that with respect to  
13 the Fish and Wildlife Service, that we will seek their  
14 comment, input and concurrence; is that correct?

15          A     Yes. The -- yes.

16          Q     And then with respect to the Wildlife Resources  
17 Commission, we'll be seeking their comment and input; is  
18 that correct?

19          A     Yes.

20          Q     And Mr. Groberg, I have a question for you. I may  
21 come back to you, Ms. Coppinger, but Mr. Groberg, you were  
22 asked a question about the con -- I mean the conditions to  
23 the proposed certificate at some point?

24          A     Yes.

1           Q     Is it your understanding that those conditions  
2 will be discussed between counsel and counsel for the Public  
3 Staff?

4           A     Definitely.

5                     MR. GRIFFIN: One moment.

6                     (Brief pause.)

7                     MR. GRIFFIN: Commissioner Culpepper, may I  
8 approach and hand out some exhibits?

9                     COMMISSIONER CULPEPPER: Yes, sir, you may.  
10 Are you wishing to have this marked as an exhibit?

11                    MR. GRIFFIN: Yes. Yes, sir, I eventually  
12 will. If I could ask that now, Commissioner Culpepper, if  
13 we could have this marked as, I guess, Groberg Hearing  
14 Exhibit No. 1.

15                    COMMISSIONER CULPEPPER: All right. Well,  
16 for purposes of this proceeding, we're going to identify  
17 this exhibit as Pantego Wind Energy Groberg Redirect  
18 Examination Exhibit No. 1.

19                    MR. GRIFFIN: Thank you.

20                             (Whereupon, Pantego Wind Energy  
21 Groberg Redirect Examination  
22 Exhibit No. 1 was marked for  
23 identification.)

24           Q     Mr. Groberg, are you -- are you familiar with the



1 exhibit that's now been marked as Commissioner Culpepper  
2 indicated?

3 A Yes.

4 Q And can you tell the Commission what this exhibit  
5 represents?

6 A The exhibit shows the current layout of the -- of  
7 the wind turbines, the -- sort of our current engineering  
8 design for the project, an outline of the -- the land that's  
9 under control for the project. And it also shows the  
10 location of the actual OLF site and the boundaries of the  
11 wildlife refuges in the area.

12 Q And is it -- and does this map now show the most  
13 current accurate depiction of the turbines in relation to  
14 the project area?

15 A I believe it does, but I -- you know, I -- I  
16 didn't prepare the map. But yes, that's my understanding.

17 Q It was prepared on behalf of Pantego, Invenergy?

18 A Yes.

19 MR. GRIFFIN: Mr. Commissioner, I would move  
20 the admission of this exhibit into evidence.

21 COMMISSIONER CULPEPPER: All right. Is there  
22 any objection? Anybody want to be heard on that?

23 (No response.)

24 COMMISSIONER CULPEPPER: All right. Let the

1 exhibit be received into evidence.

2 (Whereupon, Pantego Wind Energy  
3 Groberg Redirect Examination  
4 Exhibit No. 1 was admitted into  
5 evidence.)

6 Q Mr. -- Mr. Groberg, one -- one final series of  
7 questions. You've been involved in this project for quite  
8 some time; is that correct?

9 A Since the beginning of it, yes.

10 Q Has this project been designed to avoid  
11 environmental review?

12 A No.

13 Q And has Pantego, to your knowledge, sought a  
14 fast-track permit process so that we could avoid public  
15 comment?

16 A No.

17 MR. GRIFFIN: Those are all the questions I  
18 have, Commissioner.

19 COMMISSIONER CULPEPPER: All right.  
20 Questions by the Commission? Commissioner Allen.

21 COMMISSIONER ALLEN: Thank you.

22 EXAMINATION BY COMMISSIONER ALLEN:

23 Q Ms. Coppinger, on Page 1 of your supplemental  
24 testimony, under the section describing your educational and

1 professional experience, lines seven through ten, you say  
2 you have 20 years environmental analysis and compliance  
3 experience for wind and fossil fuel industries, and you have  
4 designed and managed wildlife studies for wind farms and  
5 other developments throughout the United States.

6 Who will be doing the bird studies and the other  
7 studies you've mentioned for Invenergy?

8 A Yes, Commissioner. We have hired a consulting  
9 firm called Blanton & Associates to conduct our bird  
10 studies.

11 Q Can you spell that, please?

12 A B-l-a-n-t-o-n.

13 Q One final question. Is this a -- a group which  
14 has done studies for Invenergy before?

15 A Yes, they have.

16 Q How often?

17 A Often.

18 Q Thank you.

19 COMMISSIONER CULPEPPER: Commissioner Rabon.

20 EXAMINATION BY COMMISSIONER RABON:

21 Q Good morning -- well, good afternoon. Just a  
22 couple of questions. It looks like, Ms. Coppinger, you've  
23 had some experience in this area. And just wondering if you  
24 could share anything about -- you said they've done studies

1 for Invenergy in the past. And I'm assuming there have been  
2 some other protection plans put in place in other areas or  
3 can you give us any examples of how these programs have  
4 worked in other areas and what the results have been?

5 A Sure. So what I think -- what I think your  
6 question was is have we approached other projects kind of  
7 similar to the approach that I've described to you today and  
8 how they worked.

9 Yes. This is an approach that we use all the time  
10 on our projects. It's basically evaluating -- you know,  
11 evaluating the issues, implementing the studies, collecting  
12 the right scientific data and then working closely with the  
13 agencies to ensure compliance where the wildlife was.

14 Recently they are culminating in the avian and bat  
15 protection plans, which, as I described, summarize all of  
16 that and -- and synthesize it. And it actually works very  
17 well because it's a collaborative process. We bring in the  
18 wildlife experts. And -- yeah, it works well.

19 Q Now, I want to take it just a little further.  
20 After it -- after these programs have come about, out in the  
21 field, how are they working?

22 A Right. So the -- so the Avian and Bat Protection  
23 Plan has a commitment to implement the plan that we've  
24 described. And the implementation is typically a monitoring

1 plan, which is described in my -- in my testimony. And that  
2 becomes the commitment between us and the Fish and Wildlife  
3 Service to do the monitoring that we -- we -- that we said  
4 we were going to do.

5 Q Okay. All right. Thank you.

6 COMMISSIONER CULPEPPER: Commissioner Allen.

7 COMMISSIONER ALLEN: Thank you.

8 FURTHER EXAMINATION BY COMMISSIONER ALLEN:

9 Q And -- and based -- following up on Commissioner  
10 Rabon's questions, have you had -- well, maybe Mr. Groberg  
11 can help with this, too. Have you developed a wind farms --  
12 has Invenergy developed a wind farm in an area similar to  
13 the wildlife refuge that we are dealing with today?

14 A (By Mr. Groberg) We haven't developed an area --  
15 a wind project in a coastal area yet, so there's -- there's  
16 some differences. But we have developed wind projects in  
17 similar proximity to wildlife refuges whose focus is on  
18 birds. We have a project in Wisconsin called the Forward  
19 Project. It's a couple of miles from the Oregon Marsh  
20 Federal Wildlife Refuge.

21 Q Thank you. And -- and I think my last questions.  
22 Would the post-construction monitoring and the avoidance and  
23 -- what was the other one, the avoidance and protection, I  
24 guess, plans that you had or mitigation, what kind of plans

1 are they, just other than monitoring? Or is there anything?  
2 I mean, if you monitor and you find out a lots going on,  
3 what do you do?

4 A (By Ms. Coppinger) Go ahead.

5 A (By Mr. Groberg) Okay. You know, the monitoring  
6 will begin in construction and then the plan will identify,  
7 first of all, the minimization and avoidance measures we  
8 take. So if there are things that we can do to, for  
9 example, avoid a certain habitat, it will specify that. If  
10 there are things that we can do in the way we design the  
11 project to avoid bringing -- bringing species of concern to  
12 the area as a way to reduce -- reduce impacts, it will  
13 include that.

14 And then as we build the project, it will include  
15 monitoring, as you said, both people watching during  
16 construction to make sure that our guys are doing what  
17 they're supposed to do; and then during operation, usually a  
18 few years of intensive collection of carcasses looking for  
19 -- to see what level of mortality we're having, using  
20 statistical measures to extrapolate from that what the  
21 levels are across the site. And then also continuing to --  
22 to explore activity.

23 And then it typically has various sort of  
24 off-roads where if you have a significant impact, you know,

1 what do you do, making sure that you -- first of all, if  
2 you're impacting any endangered species or threatened  
3 species, that you identify the -- the species and notify the  
4 wildlife agencies involved. Typically, if you have any type  
5 of take of an endangered species, you have an obligation to  
6 provide even the carcass to the wildlife agency so they can  
7 identify and document it.

8 And then we also have procedures for -- if we're  
9 having impacts let's say of non-endangered species that are  
10 beyond what we expected, trying to do additional studies  
11 that identify the cause of that. And then if necessary,  
12 identifying what we can do to make sure it doesn't happen  
13 again.

14 I can give you an example of -- of -- not one of  
15 our projects, but where -- where something like this  
16 happened. We recently -- you may have seen it in the news.  
17 There's a couple of projects in West Virginia where we've  
18 had large numbers -- we, sorry -- companies have had large  
19 numbers of bird mortality events where migrating birds flew  
20 into, in one case, a substation and another case a turbine.  
21 And we had -- you know, I think they -- they had hundreds of  
22 birds that were killed in those events.

23 The studies were done to identify the cause of it  
24 was traced to lighting. Essentially, you have nights where

1 large numbers of birds are migrating, you have low cloud  
2 cover, you have lights that attract the birds, they become  
3 disoriented and fly into buildings.

4 So now I think across the industry we've all  
5 learned from that and are doing whatever we can to minimize  
6 lighting to avoid similar incidents. And now every time you  
7 talk to the Fish and Wildlife Service about bird issues, you  
8 have a -- a requirement or request from them to make sure  
9 that you include that. So that's just an example of how  
10 these plans work in practice.

11 COMMISSIONER ALLEN: Thank you.

12 EXAMINATION BY COMMISSIONER CULPEPPER:

13 Q The application lists potentially applicable  
14 federal, state and local approvals that you -- you have to  
15 -- to receive in connection with the -- with this  
16 application. And there's even an exhibit that details what  
17 the status of -- of those contacts are right now.

18 Do you have to -- do you have to get a permit from  
19 the federal wildlife people before you can -- you can  
20 construct this -- this proposed project?

21 A (By Mr. Groberg) It -- it depends. And the  
22 decision whether or not to get a permit from the Fish and  
23 Wildlife Service is -- is usually voluntary. It usually  
24 falls to you, to -- to the applicant.



1 But if it looks like your project is going to have  
2 take of an endangered species or of bald or golden eagles,  
3 you pretty much have to get a permit from the Fish and  
4 Wildlife Service in order to construct your project in  
5 compliance with federal law. Because if you did have a  
6 take, you would be -- and you didn't have those permits, you  
7 would be out of compliance.

8 For migratory -- migratory birds, which is a lot  
9 of what we've been talking about today, there is no permit  
10 available from the Fish and Wildlife Service.

11 Q All right. Well, again, just trying to understand  
12 the permitting process and what permits may or may not be  
13 required. You all are working with the Federal Wildlife  
14 commission, agency that is, and as a result of that work, do  
15 they make a determination of whether or not you need a  
16 permit or you don't need a permit and then can they -- well,  
17 first, just answer that, if you can.

18 A (By Mr. Groberg) They'll make a -- they'll make a  
19 recommendation. They'll send us a letter that will say,  
20 We've reviewed, you know, the reports that you've prepared  
21 and the -- the results of our discussions with you, and  
22 based on that, you know, we identify these issues. And then  
23 they'll recommend.

24 And unfortunately, it's not a bright line. It's

1 not a yes, you have to. It's very leveled. We strongly  
2 recommend, we recommend. Or, you know, they can say, No, we  
3 -- we appreciate what you've done at this time to implement  
4 your Avian and Bat Protection Plan.

5 It's always our option to get a permit. And then  
6 sometimes they legally have an obligation to tell you if you  
7 want to get a permit, you can. But so -- so the result of  
8 it is what we call a concurrence letter or a technical  
9 assistance letter. But it's not -- it frequently doesn't  
10 say clearly, yes, you -- you -- you need one or don't. So  
11 it's a recommendation.

12 Q Okay. Well, what I'm -- I'm getting out of this  
13 is you seem to be telling me that you don't actually have to  
14 get a permit from these people, that you could go -- that  
15 they'll issue you some kind of a letter and tell you what  
16 they think you ought to do. But I'm -- I'm hearing from you  
17 that -- that you -- you don't have to do what they say in  
18 that letter and that you can go ahead and construct your  
19 project. Am I missing something?

20 A (By Mr. Groberg) I think what -- what's missing  
21 is the fact that, you know, we as -- as a company and -- and  
22 as a general industry, you're not going to be able to raise  
23 the funding, you're not going to be able to build a project  
24 that can't comply with federal law.

1           And if the Fish and Wildlife Service tells us that  
2 we need a permit, that they strongly recommend we get a  
3 permit in order to comply with federal law, yes, legally in  
4 some cases we can go ahead and build the project. But  
5 you're setting yourself up to violate federal law. We're  
6 going to be sharing the results of our studies with them and  
7 it's -- it would be, you know, irresponsible and it's -- but  
8 it's -- you'd have difficulty -- we would certainly have  
9 difficulty raising the funding. I can't think of a bank or  
10 an investor who would bargain with us on this if we had a  
11 letter from the Service that said you need to get a permit  
12 or else you're going to be in violation of federal law.

13           Q     Well, if -- if -- if you -- what I'm gathering  
14 from what you're saying is is that it's -- it's a voluntary  
15 act on the company's part to seek a permit. Is that what  
16 you're saying?

17           A     Under -- under federal law, the Fish and Wildlife  
18 Service cannot legally force you to get an incidental take  
19 permit for -- for endangered species, which is one of the  
20 permits they offer, or a take permit for bald or golden  
21 eagles unless you've actually -- until you violate the law,  
22 until they do that as part of their enforcement discretion.  
23 So that's correct.

24                     But as I said, you know, we consult with them and

1 take their -- take their input and use that to decide  
2 whether or not to apply.

3 Q Okay. And -- and if you apply for a permit, if  
4 you get that -- to that stage where you -- you apply for a  
5 permit, can they -- can they send you a letter denying you  
6 this permit? Can they --

7 A Oh, yeah.

8 Q -- and tell you we're not going to give you a  
9 permit?

10 A Yeah. Any federal action -- yes. They -- they  
11 can -- you can apply for an incidental take permit or a bald  
12 and golden eagle take permit and they can reject it. And  
13 they have to go through full NEPA compliance. They don't  
14 just look at the -- the issue of your impact on the species  
15 that's the subject of the permit. The federal law requires  
16 a full review of all the -- all the impacts.

17 Q Do you know of any other permits, any permits,  
18 that you would be required to get in order to construct this  
19 facility, other than a CPCN from this Commission? Are there  
20 any other permits that you would be required to get before  
21 you could start construction, other than -- other than the  
22 permit that this Commission may or may not grant you?

23 A Yes. We have to get -- we'll have to get a  
24 wetlands permit. We may need to get a camera permit. We'll

1 have to get permission from the Federal Aviation  
2 Administration. We'll have to get state storm water  
3 permits.

4 I -- I -- off the top of my head -- I could get a  
5 copy of the permit table and the -- that we provided, but  
6 there's a number of additional subsequent approvals that we  
7 still must maintain before we can commence construction of  
8 the project.

9 Q Okay. How about the North Carolina Wildlife  
10 Resources Commission, are you required to get anything from  
11 them, to your knowledge?

12 A I'm not aware of a permit that we're required to  
13 get that's available from the -- from the Wildlife Resources  
14 Commission.

15 Q Same sort of situation as the federal Fish and  
16 Wildlife?

17 A I'm not aware of a take permit for wildlife that  
18 would be available from WRC. So it's -- it's similar in  
19 that we will consult with them, but I don't think that --  
20 I'm not aware of -- of that being -- that actual endangered  
21 species or, say, bald or gold eagle take permit we could get  
22 from WRC.

23 Q Okay. All right. That's helpful.

24 COMMISSIONER CULPEPPER: Anything else?

1 (No response.)

2 COMMISSIONER CULPEPPER: Questions based on  
3 the Commission's questions, Mr. Griffin?

4 MR. GRIFFIN: Thank you, Mr. Commissioner. I  
5 do have a few questions. And they'll be --

6 COMMISSIONER CULPEPPER: Certainly.

7 MR. GRIFFIN: -- directed to probably Mr.  
8 Groberg since he just had the conversation with Commissioner  
9 Culpepper, but I invite either of you to -- to respond.

10 FURTHER REDIRECT EXAMINATION BY MR. GRIFFIN:

11 Q I want to tease apart for the Commission's sake  
12 more about the permitting authority of the Fish and Wildlife  
13 Service and those kind of things.

14 Now, is it a fair statement that the Company must  
15 comply with the federal wildlife laws, that is the  
16 Endangered Species Act, the Bald and Golden Eagle Protection  
17 Act and the Migratory Bird Treaty Act; is that correct?

18 A (By Mr. Groberg) Absolutely.

19 Q And so if -- if you were to get a permit, for  
20 example, from this Commission or a permit from the Corps of  
21 Engineers, that does not allow you to construct this project  
22 and continue to operate it in violation of those laws; is  
23 that correct?

24 A Correct.

1 Q So -- so for the life of this project, is it a  
2 fair statement that the Company will need to continue to  
3 comply with these wildlife laws; is that correct?

4 A That's correct.

5 Q And that's whether or not we seek a permit?

6 A Correct.

7 Q And, in fact, the permit is -- is just a way that  
8 -- that we can be assured that -- that we would remain in  
9 compliance with the laws, correct?

10 A Yes.

11 Q But the -- but the requirements of the law, the  
12 wildlife protection laws, will apply to this project whether  
13 or not we seek a permit, correct?

14 A That's -- that's correct.

15 Q Now, do I understand it correctly from the  
16 testimony today and from the prefiled testimony that in  
17 order to ensure that the Company will continue to comply  
18 with wildlife laws, that the Company undertakes an -- an  
19 extensive study of wildlife issues in the project area?

20 A Correct.

21 Q And then we undertake an -- an extensive  
22 evaluation of steps to avoid and minimize impacts to  
23 wildlife in the project area and in the surrounding areas;  
24 is that correct?

1 A And mitigate if necessary.

2 Q Right. And then -- yes. And at the end of the --  
3 at the end of that process, if it appears there may be  
4 impacts to wildlife, then the Company evaluates mitigation  
5 steps; is that correct?

6 A Correct.

7 Q And this is all designed to ensure that going  
8 forward for the license -- for the life of the project the  
9 Company remains in compliance with -- with the state and  
10 federal wildlife laws; is that correct?

11 A Yes. That's how we get ourselves comfortable and  
12 we demonstrate to our lenders and investors that we can  
13 comply with federal law and operate this project the way  
14 we're saying -- the way we intend to.

15 Q And these are ongoing obligations for the life of  
16 the project, correct?

17 A Yes.

18 Q Now -- sorry. I was going to ask -- reask the  
19 same question.

20 Now, at the end of the day, why we may not seek --  
21 and you called it an incidental take permit. Just for  
22 purposes of the Commission, could you explain to the  
23 Commission what an incidental take permit is?

24 A For -- for federally endangered species, species



1 on the endangered species list, it's against the law to --  
2 Karyn may have better detail on the legal side -- to take,  
3 which includes harm and harassing, killing, species listed  
4 on there unless you have a permit to do so.

5 And there's a similar law for -- relatively  
6 recent, which is the rules are still in development -- for  
7 bald and golden eagles, which says essentially the -- the  
8 same thing.

9 Q And -- and there's not -- is it a true statement  
10 that there's actually not a permit available for incidental  
11 take in our context under the Migratory Bird Treaty Act?

12 A No, there is -- there is not. What the Service  
13 does is they exercise enforcement discretion. And that's  
14 the same for anyone who kills any migratory bird, whether  
15 you're driving a car or running a wind project.

16 Q And so it's incumbent upon us to -- in  
17 consultation with the federal authorities, to operate our  
18 project in compliance with the Migratory Bird Treaty Act,  
19 especially since there's not a permit available; is that  
20 correct?

21 A Correct.

22 Q Now, we talked a little bit about the -- well,  
23 you, in your discussions with Commissioner Culpepper talking  
24 about a permit or not, but at the end of the day, the

1 Company will seek agreement with the U.S. Fish and Wildlife  
2 Service with its plans on how it intends to operate the  
3 project from a wildlife perspective, post-construction plan  
4 and adaptive management plan; is that correct?

5 A Yes. We'll consult with the Service. We started  
6 actually before -- Karyn said -- back in, you know, April of  
7 2010 when we were looking at sites and we will continue to  
8 consult them throughout the design and construction and  
9 operation of -- of the project.

10 Q And -- and the -- these statutes that I've been  
11 talking about, are they enforced by the United States Fish  
12 and Wildlife Service?

13 A Yes. The -- the -- the Service and Department of  
14 Interior. I don't know which arm of it has the enforcement  
15 authority for this.

16 Q And there are penalties for noncompliance with  
17 these statutes, are you aware of that?

18 A Yes.

19 Q Now, there was a question put to you about whether  
20 or not the Wildlife Resources Commission would have a permit  
21 process. Is it fair to say that the Company will be sharing  
22 its materials, its -- its -- the protocols that I discussed  
23 with Ms. Coppinger, the adaptive management -- the  
24 post-construction and adaptative management plans and avian

1 and bat protection plans, they'll be sharing those with WRC  
2 and seeking their input?

3 A Yes, we -- we have been. WRC, as I said, since  
4 before we even selected this site and we will continue to.

5 MR. GRIFFIN: Just one moment, Commissioner.

6 COMMISSIONER CULPEPPER: Sure. Take your  
7 time.

8 MR. GRIFFIN: I want to make sure I -- I'm  
9 not missing anything on my notes here.

10 COMMISSIONER CULPEPPER: Take your time.

11 MR. GRIFFIN: I've learned with age I need to  
12 be careful.

13 Q And I guess is it fair to say, Mr. Groberg, that  
14 it's the Company's intention to operate its project in  
15 compliance with all applicable laws and in consultation with  
16 the federal authorities, where necessary, to ensure that  
17 compliance?

18 A Yes.

19 Q I -- I asked you about penalties. Do -- do you  
20 know whether those penalties under these wildlife acts, do  
21 you know whether those penalties are both civil and  
22 criminal?

23 A Yes. I believe there are -- there are both civil  
24 and criminal penalties under the -- I know under ESA and

1 under the Bald and Golden Eagle Protection Act. I'm not  
2 sure about the Migratory Bird Treaty.

3 Q And there was -- you've heard some discussion  
4 today about the timing of the Commission's action with  
5 respect to the certificate that we're seeking -- that the  
6 Company is seeking. Can you explain why it is that the  
7 Company is seeking the certificate at this point in time?

8 A Sure. I think that the wind development is --  
9 there's not a -- it's a -- it takes a while and it's fairly  
10 expensive, so we try to get the approvals that we need in  
11 sort of a reasonable approach.

12 Once we can meet the requirements of an  
13 application, and my counsel advised me that -- that we  
14 could, for the CPCN and we're in position to do that, to the  
15 extent that we can check that box and -- and obtain that  
16 approval, you know, prior to other activities that take  
17 additional resources, both ours and the agencies that are  
18 involved, other people's time, if we can do that, you know,  
19 we like to -- we like to get that done.

20 And also just in -- in general within the  
21 renewable energy industry and the wind industry, there's a  
22 -- there's some urgency. There's some -- some deadlines for  
23 the standards in the -- in the state REPS, and with the  
24 federal incentives, typically we have deadlines to run out.

1 So there is a policy effort to try to get folks to  
2 development renewable energy, create these projects and the  
3 economic activity now rather than wait. So when we can --  
4 we can get started, we do.

5 Q And so it's fair to say that it's important to  
6 understand whether this Commission views this project as  
7 being in the -- in the public interest from its own  
8 perspective before we spend the resources on other studies  
9 and coordinate with other agencies?

10 A Yes.

11 Q Ms. Coppinger, Mr. Olson asked you some questions  
12 about the EIS for the -- for the OLF project.

13 A (By Ms. Coppinger) Yes.

14 Q Will -- will those data be helpful to the Company  
15 in its evaluation of wildlife impacts to this project?

16 A (By Ms. Coppinger) Yes, they will.

17 Q And how so?

18 A We -- we will be amassing a body of evidence from  
19 previous studies that have been conducted on the peninsula,  
20 as well as our own field studies, to make an informed  
21 decision about what the impacts to birds will be. So all of  
22 this stuff that's available from the Navy's work will be --  
23 will be included in our -- in our assessment.

24 Q Do -- do those data help you with some

1 understanding of bird use of the project over time?

2 A Yes. Absolutely.

3 Q Now, you had mentioned in response -- and I forget  
4 to whom you were responding at the time -- the approach that  
5 we take to evaluating wildlife impacts. And is that known  
6 commonly in the industry as a tiered approach?

7 A Yes, it is.

8 Q And is this the same approach that is encouraged  
9 by the United States Fish and Wildlife Service and its draft  
10 land-based energy guidelines?

11 A Yes, it is.

12 Q Do you believe that to be a fundamentally  
13 scientifically sound approach?

14 A Yes, it is.

15 MR. GRIFFIN: Those are all the questions I  
16 have, Commissioner Culpepper.

17 COMMISSIONER CULPEPPER: All right.  
18 Questions based on the Commission's questions, Mr. Olson?

19 MR. OLSON: I have no questions.

20 COMMISSIONER CULPEPPER: Mr. Dodge?

21 MR. DODGE: No questions.

22 COMMISSIONER CULPEPPER: All right. Thank  
23 you very much, folks. That will conclude your testimony.  
24 You may stand down from the witness chair.

1 (Whereupon, the witnesses were  
2 excused.)

3 MR. GRIFFIN: That concludes our case.

4 COMMISSIONER CULPEPPER: Okay. Well, we need  
5 to deal with -- with Steven Ryder's testimony. And pursuant  
6 to the Commission's Order, I'm assuming you want that  
7 admitted pursuant to that Order. The prefiled direct  
8 testimony of witness Steven Ryder that was filed, I believe,  
9 on September 4, 2011 -- I may be -- that date might not be  
10 right, but anyhow, it's filed in the docket and consists of  
11 four pages, that prefiled direct testimony is copied into  
12 the record as if it had been given orally from the witness  
13 chair.

14 MR. GRIFFIN: Thank you, Commissioner  
15 Culpepper.

16 (Whereupon, the prefiled direct  
17 testimony of Steven Ryder will be  
18 reproduced in the record at this  
19 point the same as if the questions  
20 had been orally asked and the  
21 answers orally given from the  
22 witness stand.)  
23  
24

PREFILED DIRECT TESTIMONY OF  
STEVEN RYDER  
ON BEHALF OF PANTEGO WIND ENERGY LLC

**FILED**  
**SEP 02 2011**

NCUC DOCKET NO. EMP - 61, SUB 0

Clerk's Office  
N.C. Utilities Commission

**INTRODUCTION**

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

**A. My name is Steven Ryder. I am Vice President of Finance for the Eastern Region of the United States for Invenergy LLC ("Invenergy"). My business address is 1 South Wacker Drive, Suite 1900, Chicago, IL 60606.**

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.**

**A. I have approximately 20 years of experience working in a technical and financial capacity in the field of large scale infrastructure, including energy, transportation and telecommunications. I have over 12 years of experience in the field of finance. I joined Invenergy in 2006. I have a Bachelor's Degree in Electrical Engineering from Tufts University and a Master's Degree in Public Affairs from Princeton University. I also hold the designation of a Chartered Financial Analyst.**

**Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT RESPONSIBILITIES.**

**A. My current responsibilities include managing international and domestic project financings and corporate financings for Invenergy. This includes directing all financing activity for the Pantego Wind Energy LLC ("Pantego Wind") project in Beaufort County, NC (the "Project" or "Facility"). I also oversee Invenergy's existing financings for our portfolio of energy projects. In this capacity, I manage a team of 12 finance professionals.**



22 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

23 A. No.

24 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

25 A. The purpose of my testimony is to provide the Commission with  
26 background information about Invenergy's financial capabilities, and in particular the  
27 financing of the Pantego Wind Project.

28  
29 FINANCIAL CAPABILITY

30 Q. PLEASE DESCRIBE THE APPLICANT'S FINANCIAL CAPABILITY TO  
31 OWN AND OPERATE THE PROJECT.

32 A. As discussed in the application, Pantego Wind is a limited liability  
33 company organized for the development and ownership of this Project. Pantego Wind's  
34 parent company is Invenergy Wind North America LLC ("IWNA"). IWNA is an affiliate  
35 of Invenergy LLC. IWNA has the financial capability and experience to build, own, and  
36 operate wind farms, including the Project in Beaufort County, North Carolina. The most  
37 recent audited balance sheet and income statement for IWNA, which is for the year  
38 ending December 31, 2010, has been provided, under seal, as Application Exhibit 2. As  
39 an affiliate of Invenergy, IWNA has the capability to arrange adequate assurances,  
40 guarantees, financing and insurance for the Project's development, construction and  
41 operation. Invenergy structures and arranges project financings through a dedicated,  
42 in-house staff of 12 finance professionals located in Chicago, IL.

43 Q. HOW WILL THE PROJECT BE FINANCED?

44 A. Consistent with its prior experience, Invenergy plans to use a combination  
45 of third-party debt and equity to finance the Project. Specifically, Invenergy will arrange

46 a group of lenders approximately six to nine months prior to commercial operations to  
47 provide a construction loan for the Project. The construction loan plus equity provided  
48 by Invenergy will be sufficient for the entire construction costs of the Project. The  
49 estimated construction costs have been provided, under seal, as Application Exhibit 7.  
50 Once a project achieves commercial operation, Invenergy often brings in an additional  
51 third-party to provide tax-equity financing which allows the Project to more efficiently  
52 utilize the federal tax benefits associated with renewable energy projects. Proceeds  
53 from the tax equity financing would offset a portion of the capital previously provided by  
54 Invenergy and its lenders.

55 Invenergy typically arranges its financing on a non-recourse basis, which is to  
56 mean that Invenergy as the parent company does not provide an explicit guarantee for  
57 repayment of the Project debt. As such, financing for the project is typically structured  
58 with several cash reserve accounts that can be used to mitigate certain risks of the  
59 Project.

60 **Q. DESCRIBE INVENERGY'S EXPERIENCE WITH RAISING PROJECT**  
61 **FINANCING.**

62 **A.** Invenergy is highly experienced in raising corporate and project level financing in  
63 support of developing, constructing and operating its energy projects. Since its  
64 inception in 2001, Invenergy has raised more than \$7 billion of financing and has  
65 worked with more than 60 financial institutions worldwide including the United States,  
66 Canada, Europe and Japan. Invenergy's financing relationships include such  
67 institutions as Wells Fargo, Union Bank of California, GE Capital, JP Morgan, Unicredit,  
68 Natixis, Dexia and Rabobank.

Prefiled Direct Testimony of Steven Ryder  
Pantego Wind Energy LLC

69           Invenergy's successful project financing efforts were recognizes when it was  
70   awarded the Structured Power Finance 2005 Deal of the Year for its financing of  
71   Invenergy Wind Finance Company – a portfolio of 260 MW of wind facilities, and the  
72   North America Public Power 2007 Deal of the year for its financing of St. Clair – a 584  
73   MW combined cycle natural-gas fired facility in Ontario, Canada.

74           **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

75           **A.    Yes.**

1 COMMISSIONER CULPEPPER: All right. I  
2 believe that concludes your case now.

3 MR. GRIFFIN: Yes, it does, sir.

4 COMMISSIONER CULPEPPER: Okay. Mr. Olson,  
5 the case is with you.

6 MR. OLSON: NCSEA calls Paul Quinlan.

7 COMMISSIONER CULPEPPER: Mr. Quinlan. Tell  
8 you what, why don't you just take all that stuff back up to  
9 the witness chair, with our thanks for doing that, and then  
10 let's let you testify from up there.

11 PAUL QUINLAN; Being first duly sworn,  
12 testified as follows:

13 DIRECT EXAMINATION BY MR. OLSON:

14 COMMISSIONER CULPEPPER: Have a seat.

15 Q Good afternoon, Mr. Quinlan. Would you please  
16 state your full name for the record.

17 A Paul Quinlan.

18 Q And are you currently employed?

19 A Yes.

20 Q And with whom are you employed and in what  
21 capacity?

22 A I'm the managing director of the North Carolina  
23 Sustainable Energy Association.

24 Q And prior to today, did you cause to be submitted

1 into the record of this docket seven pages of prefiled  
2 direct testimony?

3 A Yes.

4 Q And do you have any corrections or changes you  
5 would like to make to that testimony at this time?

6 A No, I do not.

7 Q If I asked you the same questions as are in your  
8 direct testimony, would your answers today be the same?

9 A Yes.

10 MR. OLSON: Commissioner Culpepper, I would  
11 like to move the admission into the record of Mr. Quinlan's  
12 prefiled direct testimony as if given orally from the stand  
13 today.

14 COMMISSIONER CULPEPPER: That motion is  
15 allowed and the prefiled direct testimony of Paul Quinlan on  
16 behalf of the North Carolina Sustainable Energy Association  
17 filed in the docket on November 23, 2011, is copied into the  
18 record as if it had been given orally from the witness  
19 chair.

20 MR. OLSON: Thank you very much.

21 (Whereupon, the prefiled direct  
22 testimony of Paul Quinlan will be  
23 reproduced in the record at this  
24 point the same as if the questions

1 had been orally asked and the  
2 answers orally given from the  
3 witness stand.)  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

1 **BEFORE THE STATE OF NORTH CAROLINA UTILITIES COMMISSION**  
2 **RALEIGH, NORTH CAROLINA**  
3 **DOCKET NO. EMP-61, SUB 0**  
4  
5

6 **In the Matter of:** )  
7 **Application of Pantego Wind Energy,** )  
8 **LLC For a Certificate of Public** )  
9 **Convenience and Necessity to Construct** )  
10 **a 80 MW Wind Turbine Generating** )  
11 **Facility in Beaufort County** )  
12  
13  
14  
15

**FILED**

NOV 23 2011

Clerk's Office  
N.C. Utilities Commission

16 **Direct Testimony of Paul Quinlan on Behalf of**  
17 **the North Carolina Sustainable Energy Association**  
18

19 **1. Q. PLEASE STATE YOUR NAME AND PRESENT OCCUPATION FOR THE**  
20 **RECORD.**  
21

22 **A. My name is Paul Quinlan. I am the Managing Director at the North Carolina Sustainable**  
23 **Energy Association better known as "NCSEA".**  
24

25 **2. Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS NCSEA'S**  
26 **MANAGING DIRECTOR.**  
27

28 **A. I am responsible for the day-to-day operation and management of the organization. I also**  
29 **have an area substantive expertise.**  
30

31 **3. Q. CAN YOU DESCRIBE FOR US YOUR AREA OF SUBSTANTIVE EXPERTISE?**  
32

33 **A. Yes. Since 2007 I have been NCSEA's main analyst in the area of wind energy. In this**  
34 **capacity, I have been the organization's representative on the North Carolina Wind Working**  
35 **Group and principal participant in the development of North Carolina's Model Local Wind**  
36 **Ordinance. To work effectively on these matters, I was required to develop a thorough**

1 understanding of wind energy on a macro and micro scale including an in-depth knowledge of  
2 the technology, economics, and environmental impact of a wind energy project. I also have  
3 worked directly with a number of county officials in the state providing advice and an  
4 understanding of the benefits and impacts of wind projects. In many cases, this work lead to me  
5 providing direct advice and assistance in the development of local ordinances based on a  
6 variation of the state-wide model tailored to fit the unique characteristics of the location. I also  
7 was appointed to the North Carolina Technical Advisory Group ("TAG") that provided wind  
8 energy policy recommendations to the Environmental Management Commission at North  
9 Carolina's Department of Environment and Natural Resources. In that role I provided analysis  
10 and advice on issues related to the use of wind as energy resource and permitting policies that  
11 would advance the use of wind technologies while protecting other resources of the state such as  
12 its scenic beauty and wildlife.

13  
14 **4. Q. CAN YOU DESCRIBE FOR US YOUR EDUCATIONAL BACKGROUND?**

15  
16 **A.** Yes. I have a Bachelor of Science from the University of Notre Dame and two masters  
17 degrees; a Masters of Public Policy and a Masters in Environmental Management both from  
18 Duke University.

19  
20 **5. Q. HAVE YOU EVER TESTIFIED BEFORE THE NORTH CAROLINA UTILITIES**  
21 **COMMISSION PRIOR TO TODAY?**

22  
23 **A.** Yes.

24  
25 **6. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY HERE TODAY?**

26  
27 **A.** The purpose of my testimony is to present NCSEA's position on the application for a  
28 certificate of public convenience and necessity filed by Pantego Wind Energy , LLC on  
29 September 2, 2011. I should note that the applicant is a subsidiary of Invenergy, which is a  
30 business member of NCSEA. I would like to stress that NCSEA's interest in this project reflects  
31 the diversity of the organization's membership. Members have opportunities to discuss and



1 inform NCSEA's public policy; however NCSEA's Board of Directors and staff develop policy  
2 direction and positions.

3  
4 **7. Q. CAN YOU DESCRIBE THE PROJECT**

5  
6 **A.** Yes. Pantego Wind Energy, LLC has proposed the construction of an 80 megawatt ("MW")  
7 wind generation facility in Beaufort County, North Carolina. The project is expected to consist  
8 of 49 turbines that are 1.6 MW in nameplate capacity. In addition, the project will include an  
9 underground electrical collection system, a collector substation, an operation and maintenance  
10 facility, access roads, and a permanent meteorological tower. The project will be constructed on  
11 approximately 11,000 acres of privately owned land that is leased by the applicant. The location  
12 is a largely undeveloped area used primarily for agricultural and forestry purposes. Once  
13 constructed, the capacity factor of the project is expected to be 25% to 36%, resulting in 174,000  
14 to 250,000 MWh per year.

15  
16 **8. Q. CAN YOU DESCRIBE FOR THE COMMISSION WHAT YOU SEE AS THE**  
17 **MERITS OF THIS PROJECT?**

18  
19 **A.** One important consideration is the North Carolina Renewable Energy and Energy Efficiency  
20 Portfolio Standard ("REPS") established by Session Law 2007-397. The objectives of the law  
21 are set forth in General Statute 62-2(a)(10) and include diversifying energy resources, providing  
22 energy security, developing and using local generation, fostering private investment, and  
23 promoting air quality and the environment. G.S. 62-133.8(b) requires investor-owned utilities in  
24 North Carolina to meet up to 12.5% of their energy needs from renewable and efficiency  
25 resources by the year 2021. G.S. 62-133.8(c) requires electric membership corporations and  
26 municipalities to meet 10% of their energy needs from renewable and efficiency resources by  
27 2018.

28 The development of this wind facility clearly meets many of the objectives established by the  
29 REPS. This project would diversify North Carolina's energy resources as the state currently  
30 lacks a completed utility-scale wind generation facility. The development of an indigenous  
31 renewable resource will increase energy security and foster extensive private investment. With

1 no air emissions, wind turbines contribute to improved air quality. Other potential  
2 environmental impacts of this project are being evaluated and are unknown at this time. Finally,  
3 this project would generate 174,000 to 250,000 renewable energy certificates each year that  
4 could be used for REPS compliance.

5 A second important consideration is the development experience of Invenergy. Invenergy has  
6 demonstrated experience at developing, owning and operating wind generation facilities. The  
7 company has placed into service 26 wind facilities totaling over 2,000 MW of capacity  
8 consisting of over 1,200 wind turbines. The company has another 15,000 MW under  
9 consideration or development, which will result in a wind generation portfolio of over 3,500 MW  
10 by the end of 2012. Invenergy has indicated an interest in financing the project through a  
11 combination of third-party debt and equity. Since 2001, the company reports it has raised more  
12 than \$7 billion in financing and worked with more than 60 financial institutions worldwide.  
13 Invenergy's managerial, technical, and financial expertise makes the company well suited to  
14 develop, own, and operate this wind energy facility.

15 A third and final important consideration of the project is the economic impact of the proposed  
16 facility. The project will result in an estimated \$160 million dollar investment in Beaufort  
17 County. The region will also benefit from increased tax revenues and land lease payments to  
18 participating landowners. In his public testimony, Vann Rogerson, Executive Director of North  
19 Carolina's Northeast Commission, stated the economic benefit to the region would be \$10  
20 million annually during construction and \$1 million annually during operation. In addition, the  
21 project will create approximately 100 jobs during construction and five or more full-time  
22 positions once the project becomes operational. These are positive economic impacts to the local  
23 community and stem directly from significant private investment.

24  
25 **9. Q. ARE TYOU AWARE OF ANY POTENTIAL ENVIRONMENTAL IMPACTS**  
26 **THAT MAY BE ASSOCIATED WITH THE PROJECT?**

27  
28 **A.** Yes. In supplemental testimony filed on November 21, 2011 Karyn Coppinger,  
29 Environmental Manager for Invenergy, described various environmental impact studies being  
30 performed by the company. These include (1) an acoustic survey conducted from March 2011  
31 to November 2011 to determine bat activity and species presence in proximity to the project; (2)

1 a multi-season bird survey conducted from February 2011 to November 2011 to develop a  
2 species list and to collect bird abundance data for the project area; and (3) additional bird studies  
3 being conducted from November 2011 to March 2012 to understand bird use of the project area  
4 and immediate vicinity. These studies include avian point count studies to document bird use in  
5 the project area, a tundra swan use study to track daily movements to and from the project area,  
6 aerial surveys to map and count flocks of over-wintering waterfowl and to map and determine  
7 the status of any raptor nests, and a red-cockaded woodpecker habitat assessment. Ms.  
8 Coppinger testifies that these studies and consultations with wildlife agencies will be used to  
9 develop avoidance and minimization plans and determine if additional studies or mitigation to  
10 compensate for unavoidable impacts will be needed.

11 These studies are appropriate and warranted considering the close proximity of the project to  
12 national wildlife refuges and the location of a portion of the proposed site near the globally  
13 significant Pungo-Pocosin Lakes Important Bird Area. Both of these areas have been identified  
14 as important by the Audubon North Carolina, the state office of the National Audubon Society.  
15 NCSEA has carefully reviewed the State Clearinghouse comments and communicated directly  
16 with the project developer, U.S. Fish and Wildlife, the North Carolina Audubon Society, and  
17 North Carolina Sierra Club. NCSEA concludes that absent appropriate mitigation measures the  
18 project could have impacts on wildlife. Species of concern include bald eagles and over-  
19 wintering waterfowl, including tundra swan and snow geese. Adverse impacts could include  
20 mortality from collision with operating turbines and preventing access to key foraging sites.  
21 NCSEA understands that Invenergy is conducting or concluding key environmental impact  
22 studies as noted earlier, and until those studies are completed, the full potential impact (if any)  
23 and the proper mitigation will not be fully understood.

24  
25 **10. Q. WHAT IS NCSEA'S POSITION ON THE APPLICATION FOR A**  
26 **CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY?**

27  
28 **A.** NCSEA supports the approval of a certificate of public convenience and necessity on  
29 the condition that facility is constructed and operated in accordance with local, state, and  
30 federal laws and regulations, and once potential environmental impacts have been  
31 identified (if any) proper mitigation measures are installed and maintained. Our support

1 is also conditioned on Invenenergy's continued collaboration and open communication with  
2 environmental regulatory agencies and concerned stakeholders in order to address and  
3 mitigate any adverse environmental impacts found during project planning, construction,  
4 and operations.  
5

6 **11. Q. DO YOU HAVE ANY OTHER POINTS YOU WOULD LIKE TO RAISE**  
7 **BEFORE THE COMMISSION?**  
8

9 A. Yes. NCSEA has a long record of supporting a permitting regime that attracts and  
10 promotes responsible wind energy development in North Carolina. NCSEA played an  
11 instrumental role in working with industry and environmental stakeholders to develop the  
12 North Carolina Model Local Wind Ordinance. NCSEA also served on Wind Energy  
13 TAG, a stakeholder collaborative appointed by the Environmental Management  
14 Commission to provide recommendation on environmental permitting of utility-scale  
15 wind development in North Carolina. In addition, NCSEA supported the introduction and  
16 adoption of legislation originating from the TAG recommendations; however, these  
17 recommendations were not taken up by the North Carolina General Assembly and no  
18 legislative action was taken.

19 NCSEA shares the sentiment of stakeholders who are interested in assuring that the  
20 project does not cause avoidable, environmental impacts resulting from its close  
21 proximity to national wildlife refuges. In addition, the facility - if constructed - would be  
22 the first utility-scale wind developments in the state of North Carolina and as such, has  
23 the potential to shape broad public sentiment concerning wind energy in North Carolina.  
24 Once environmental impact studies are complete, it would be beneficial to the reputation  
25 of the wind industry in North Carolina for the environmental findings to be reviewed in  
26 an open public process.

27 Therefore, while NCSEA recommends that the Commission issue a certificate of public  
28 convenience and necessity, we also strongly encourage federal and state environmental  
29 regulatory agencies to subject the Pantego Wind Energy Project to a very high level of  
30 environmental due diligence and exhibit abundant caution when determining  
31 environmental permit requirements. Further, if this project is approved, NCSEA

1 encourages federal and state regulatory agencies to require and/or encourage robust post-  
2 construction monitoring and adaptive management strategies to avoid or mitigate any  
3 unanticipated adverse environmental impacts. The unique nature of this project and long-  
4 term success of wind energy in the North Carolina and the United States could be deeply  
5 impacted by these decisions.

6  
7 **12. Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

8  
9 **A.** Yes, it does.

1 BY MR. OLSON:

2 Q Mr. Quinlan, did you prepare a summary of your  
3 direct testimony?

4 A Yes, I did.

5 Q Okay. Would you please read that summary for the  
6 Commission and others?

7 A Yes. My name is Paul Quinlan. I am managing  
8 director at the North Carolina Sustainable Energy  
9 Association, better known as NCSEA. I'm responsible for the  
10 day-to-day operation and management of the organization. In  
11 addition, I'm NCSEA's wind energy subject matter expert and  
12 I've participated in numerous wind energy activities and  
13 discussions at the State and local levels since 2007.

14 I'm here today to present NCSEA's position on the  
15 application for a certificate of public convenience and  
16 necessity filed by Pantego Wind Energy, LLC. The Applicant  
17 is a subsidiary of Invenergy, which is a business member of  
18 NCSEA. The position presented by NCSEA was developed by  
19 NCSEA staff and reflects the broad diversity of membership  
20 within the organization. While we support our members'  
21 efforts, NCSEA's position represents our staff's expert  
22 opinion of what is best for the future of energy in North  
23 Carolina.

24 Pantego Wind proposes to construct an 80-megawatt

1 wind generation facility in Beaufort County, North Carolina.  
2 The project is expected to consist of 49 turbines that have  
3 a 1.6 megawatt nameplate capacity. NCSEA finds three  
4 primary merits in the project: First, the development of  
5 this wind facility clearly meets many of the objectives  
6 established by the North Carolina Renewable Energy and  
7 Energy Efficiency Portfolio Standard or REPS. It is  
8 estimated that the project will generate 174,000 to 250,000  
9 renewable energy certificates each year that could be used  
10 for REPS compliance.

11           Second, Pantego Wind's parent company, Invenergy,  
12 has demonstrated experience at developing, owning and  
13 operating wind generation energy facilities. This expertise  
14 will support the efforts of Pantego Wind, assuring that the  
15 req -- requisite manager -- managerial, technical and  
16 financial expertise will be in place. The support of  
17 Invenergy provides -- makes Pantego Wind very well suited to  
18 develop, own and operate this wind energy facility.

19           And third, there is a positive economic impact  
20 from the project. The proposed facility will result in an  
21 estimated \$160 million in investment in Beaufort County and  
22 it is anticipated there will be a hundred new jobs during  
23 the construction phase of the project and at least five  
24 local full-time jobs during operation. Further, the land

1 where the turbines are located will be rented from local  
2 landowners and provide a very significant and stable new  
3 revenue stream into the area.

4 While noting these merits, NCSEA also notes the  
5 potential adverse environmental impacts that could arise  
6 from the facility's close proximity to the Pungo and Pocosin  
7 Lakes National Wildlife Refuge areas. Further, a portion of  
8 the proposed facility resides in the Pungo/Pocosin Lakes'  
9 important bird area, as identified by Audubon North  
10 Carolina. Potential adverse impacts could include mortality  
11 from collision with operating turbines and a facility  
12 resulting in wildlife avoidance of these foraging areas.

13 To understand these potential impacts -- impacts,  
14 Pantego Wind has just completed an acoustic study to  
15 determine bat activity in the area and a multi-season bird  
16 survey to collect and develop a species list and bird  
17 abundance data for the project area. Pantego Wind has begun  
18 additional bird studies that will conclude in March 2012.  
19 NCSEA believes the results of these studies will greatly  
20 enhance the understanding of the potential environmental  
21 impacts for this project.

22 At this time, NCSEA supports the approval of the  
23 certificate of public convenience and necessity for Pantego  
24 Wind Energy, LLC, with the condition that the Company



1 continues collaboration and open communication with the  
2 environmental regulatory agencies and concerned stakeholders  
3 in order to address and mitigate any adverse environmental  
4 impacts that could potentially arise from the project if not  
5 accounted for.

6           The project is one of the first utility-scale wind  
7 facilities in North Carolina and has attracted strong public  
8 interest. As a result, we also encourage federal and state  
9 environmental regulatory agencies to subject the proposed  
10 facility to a very high level of environmental due diligence  
11 and proceed with abundant caution. The unique nature of  
12 this project and the long-term success of wind energy in  
13 North Carolina could be deeply impacted by these decisions.  
14 This concludes my summary remarks.

15           MR. OLSON: Mr. Quinlan is now available for  
16 cross-examination.

17           COMMISSIONER CULPEPPER: Cross-examination,  
18 Mr. Dodge?

19           MR. DODGE: I have no questions for Mr.  
20 Quinlan.

21           COMMISSIONER CULPEPPER: Mr. Griffin,  
22 cross-examination?

23           MR. GRIFFIN: No questions.

24           COMMISSIONER CULPEPPER: Commission --

1 questions by the Commission?

2 (No response.)

3 COMMISSIONER CULPEPPER: All right. Thank  
4 you very much, Mr. Quinlan. You may step down from the  
5 chair.

6 THE WITNESS: Thank you.

7 (Whereupon, the witness was  
8 excused.)

9 COMMISSIONER CULPEPPER: I believe that  
10 concludes your case, does it not, Mr. --

11 MR. OLSON: Yes, it does.

12 COMMISSIONER CULPEPPER: -- Olson?

13 All right. Public Staff.

14 MR. DODGE: Excuse me. The Public Staff  
15 calls Mr. Kennie Ellis.

16 KENNIE D. ELLIS; Being first duly sworn,  
17 testified as follows:

18 DIRECT EXAMINATION BY MR. DODGE:

19 Q Could you please state your name and business  
20 address, Mr. Ellis?

21 A Yes. My name is Kennie Ellis and my business  
22 address is this building, 430 North Salisbury Street,  
23 Raleigh, North Carolina.

24 Q And what is your present position with the Public

1 Staff?

2 A I'm an engineer with the Public Staff, Electric  
3 Division.

4 Q Did you prepare and cause to be filed on  
5 November 23rd, 2011, testimony in this case consisting of  
6 nine pages and an Appendix A consisting of two pages?

7 A I did.

8 Q Do you have any corrections or changes to this --  
9 to that testimony at this time?

10 A I do not.

11 Q If the same questions were asked of you today,  
12 would your answers be the same?

13 A They would.

14 MR. DODGE: We would move that the direct  
15 testimony of Kennie Ellis and Appendix A to his testimony be  
16 copied into the record as if given orally from the stand and  
17 the exhibits be marked as filed.

18 COMMISSIONER CULPEPPER: Motion allowed. Is  
19 there an exhibit? I -- I just saw the Appendix A. Is there  
20 an exhibit?

21 MR. DODGE: In his direct testimony, not the  
22 -- there should be an Appendix A, yes.

23 COMMISSIONER CULPEPPER: Again, is there an  
24 exhibit? The Appendix A, I'm not going to consider that as

1 an exhibit.

2 MR. DODGE: Oh, I'm sorry. Then there are no  
3 exhibits.

4 COMMISSIONER CULPEPPER: Okay. Well, the  
5 witness' prefiled direct testimony is admitted into evidence  
6 as if given orally from the witness chair and his Appendix A  
7 is received.

8 (Whereupon, the prefiled direct  
9 testimony and Appendix A of Kennie  
10 D. Ellis will be reproduced in the  
11 record at this point the same as if  
12 the questions had been orally asked  
13 and the answers orally given from  
14 the witness stand.)

15

16

17

18

19

20

21

22

23

24

**OFFICIAL COPY****PANTEGO WIND, LLC****DOCKET NO. EMP-61, SUB 0****FILED****Testimony of Kennie D. Ellis****NOV 23 2011****On Behalf of the Public Staff****Clerk's Office  
N.C. Utilities Commission****North Carolina Utilities Commission****November 23, 2011**

1 Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE RECORD.

2 A. My name is Kennie D. Ellis. My business address is 430 North Salisbury Street,  
3 Raleigh, North Carolina.

4

5 Q. WHAT IS YOUR POSITION WITH THE PUBLIC STAFF?

6 A. I am an engineer in the Electric Division of the Public Staff.

7

8 Q. WOULD YOU BRIEFLY DISCUSS YOUR EDUCATION AND EXPERIENCE?

9 A. Yes. My education and experience are summarized in Appendix A of my  
10 testimony.

11

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

13 A. The purpose of my testimony is to present the Public Staff's position on the  
14 managerial and technical aspects of the application for a certificate of public  
15 convenience and necessity (CPCN) filed by Pantego Wind Energy LLC (Pantego  
6 Wind), on September 2, 2011.

1 Q. PLEASE DESCRIBE THE APPLICATION.

2 A. The application is for a CPCN to construct a wind turbine electric generating  
3 facility (Facility) of up to 80 megawatts (MW) in Beaufort County near Pantego,  
4 North Carolina. Pantego Wind filed the application pursuant to G.S. 62-110.1  
5 and Commission Rule R8-63.  
6

7 Q. PLEASE DESCRIBE THE FACILITY.

8 A. The Facility will be located on approximately 11,000 acres of land and will consist  
9 of meteorological towers, conductors, switches, substations, a maintenance  
10 building, and up to 49 wind turbines rated at approximately 1.6 MW each. It will  
11 generate between 174,000 and 250,000 megawatt hours of electricity per year  
12 and will interconnect with an existing 115 kilovolt transmission line owned by  
13 Virginia Electric and Power Company, d/b/a Dominion North Carolina Power that  
14 is located adjacent to the Facility property.  
15

16 Q. HAS ANY SIMILAR FACILITY EVER BEEN BUILT IN NORTH CAROLINA?

17 A. No. A few small wind turbines have been built in North Carolina, but all of them  
18 are single turbines of less than 1 MW. Three larger wind turbine facilities have  
19 been proposed in the State, but none have been constructed. In Docket No. SP-  
20 167, Sub 1, Northwest Wind Developers, LLC filed a CPCN application for a 50  
21 MW facility in Ashe County, but later withdrew the application. In Docket No. SP-  
22 231, Sub 0, Nelson Paul filed a CPCN application for a 4.5 MW facility in Carteret  
23 County. The Commission granted the CPCN, but the facility has not been built

1 because an ordinance adopted by Carteret County after the CPCN was granted  
2 precludes the development of the facility. In Docket No. EMP-49, Sub 0, Atlantic  
3 Wind, LLC (Atlantic Wind) was issued a CPCN for construction of a 300 MW  
4 Wind Farm in Pasquotank and Perquimans counties. Atlantic Wind is still in the  
5 process of negotiating a Purchase Power Agreement (PPA), and construction  
6 has not commenced on this project.

7  
8 **Q. HAS THE APPLICANT SHOWN A NEED FOR THE PROPOSED FACILITY?**

9 A. Yes. The Facility will provide renewable energy that will help electric power  
10 suppliers in North Carolina meet the requirements of G.S. 62-133.8(b) and (c) as  
11 enacted by the General Assembly in Session Law 2007-397 (Act). This Act  
12 requires the State's electric utilities to secure up to 12.5% of electric energy from  
13 renewable resources such as wind by the year 2021. The Act also establishes  
14 requirements for development of in-State renewable resources, and includes  
15 goals to diversify the State's energy resources, encourage private investment in  
16 renewable energy, and provide improved air quality benefits. The energy  
17 generated by the Facility would displace energy generated with fossil fuels such  
18 as coal, oil, and natural gas, which are a source of air pollutants such as SO<sub>2</sub>,  
19 NO<sub>x</sub>, mercury, fine particulates, as well as carbon dioxide, a major contributor to  
20 greenhouse gases. North Carolina currently has no deliverable supply of  
21 indigenous fossil fuels, thus requiring 100% importation of these energy  
22 resources into the State. Therefore, development of wind energy would keep  
23 revenues from the sale of power generated in the State from flowing out of State

1 to pay for the importation of these fossil fuels. If approved, this facility will be  
2 North Carolina's second largest wind generator to be constructed in the State.  
3

4 **Q. DOES THE FACT THAT THE APPLICANT IS SEEKING A CPCN AS A**  
5 **MERCHANT PLANT PRESENT ANY OTHER FACTORS THAT THE**  
6 **COMMISSION SHOULD CONSIDER?**

7 **A.** Yes. In its May 21, 2001, Order to adopt rules for the certification of merchant  
8 plants in the State (Docket No. E-100, Sub 85), the Commission indicated that  
9 Commission Rule R8-63 was being adopted to accomplish several different  
10 goals, including: a) to facilitate, and not to frustrate merchant plant development;  
11 b) to speed up and streamline the procedures for the certification of merchant  
12 plants in the State; and c) to adopt a flexible standard for the showing of need  
13 with regard to merchant plants that anticipate selling electricity in a competitive  
14 wholesale market, while still continuing to ensure an adequate and reliable supply  
15 of electricity for the State. These goals indicate that the Commission's intent in  
16 adopting a certification process for merchant plants was to be facilitative and not  
17 rigid or burdensome. The number of proposals for merchant plants and large  
18 industrial-scale renewable projects continues to grow in the State as a result of  
19 the Act and as envisioned by the General Assembly.  
20

21 **Q. HAS THE STATE CLEARINGHOUSE COMPLETED ITS APPLICATION**  
22 **REVIEW?**



1 A. No. On September 15, 2011, the State Clearinghouse acknowledged receipt of  
2 copies of the application from the Commission's Chief Clerk's Office. At that  
3 time, the State Clearinghouse posted the application for review by pertinent state  
4 agencies for 30 days. On October 21, 2011, the State Clearinghouse filed a  
5 letter with attached comments. The letter stated the Department of Environment  
6 and Natural Resources (DENR) had attached comments and requested that the  
7 concerns be adequately addressed prior to their concurrence with the certificate  
8 application. In the attached comments, DENR requested additional information  
9 on the environmental impacts of the project and encouraged the Applicant to  
10 work directly with the resource agencies prior to submitting additional information  
11 for review. The comments from agencies within DENR included comments from  
12 the Division of Coastal Management, the North Carolina Wildlife Resources  
13 Commission (WRC), and the Division of Marine Fisheries. Additional comments  
14 were submitted by the Division of Emergency Management of the Department of  
15 Crime Control and Public Safety and the State Historic Preservation Office of the  
16 Department of Cultural Resources.

17  
18 Q. HAS THE APPLICANT RESPONDED TO THE CLEARINGHOUSE  
19 COMMENTS?

20 A. Yes. On November 21, 2011, the Applicant filed the supplemental testimony of  
21 David Groberg and Karyn Coppinger. The supplemental testimony provides  
22 greater detail on the Applicant's efforts to address the concerns raised in the  
23 Clearinghouse comments. According to the supplemental testimony, the

1 Applicant has been in contact with each of the organizations that provided  
2 comments, and discussion of necessary actions and studies have been ongoing  
3 throughout the development of the project. The supplemental testimony  
4 indicates that in some instances the author of the agency's Clearinghouse  
5 comments was not the same person with whom discussions had been taking  
6 place and the comments did not reflect all previous discussions or further  
7 planned actions. Two items that should be noted in Ms. Coppinger's  
8 supplemental testimony include the following: 1) the Applicant is currently  
9 conducting site-specific avian and bat studies, and this information will be used to  
10 develop an avoidance and mitigation plan once the study is completed; and 2)  
11 the Applicant plans to develop and implement a post-construction monitoring  
12 plan for birds and bats in consultation with the United States Fish and Wildlife  
13 Service (USFWS) and the WRC. Based on the level of public interest expressed  
14 in this docket over these matters, the Public Staff requests that the Commission  
15 order the Applicant to file these documents with the Commission as soon as they  
16 are completed in order to make them publicly available.

17  
18 **Q. HAS THE COMMISSION RECEIVED ADDITIONAL INFORMATION FROM**  
19 **MEMBERS OF THE PUBLIC ON THIS MATTER?**

20 **A.** Yes. The public hearing held on November 17, 2011 in Washington, North  
21 Carolina, was attended by approximately 90 members of the public. Seventeen  
22 members of the public spoke at the hearing, representing a range of viewpoints  
23 both in support of and against the Project. In addition, six written statements of

1 position by members of the public have been filed with the Commission. All of  
2 these letters request that the Commission deny the application or delay its review  
3 until further analysis is completed.  
4

5 **Q. WHAT ACTIONS SHOULD THE COMMISSION TAKE WITH REGARD TO THE**  
6 **CONCERNS RAISED BY THE STATE CLEARINGHOUSE AND THE**  
7 **STATEMENTS OF POSITION?**

8 A. The Public Staff appreciates the concerns raised by these parties and agrees  
9 that continued study of potential environmental impacts is necessary prior to  
10 construction and operation of the Facility. Neither the Public Staff nor the  
11 Commission; however, has the expertise or the statutory authority to resolve  
12 these issues. In proceedings where issues such as historical preservation or  
13 environmental impact are raised, the Commission traditionally leaves these  
14 matters to the State and federal agencies that have been given statutory  
15 responsibility for addressing such issues. In addition, there is no requirement in  
16 G.S. 62-110.1(a) that the environmental concerns be completely resolved before  
17 a project receives a CPCN. The Public Staff is satisfied that the dialogue  
18 underway between State environmental agencies and the Applicant will help to  
19 ensure that these issues will be fully addressed, and if the issues cannot be  
20 resolved to the satisfaction of the agencies, the agencies will take appropriate  
21 action within their statutory authority. To ensure that this is the case, the Public  
22 Staff also recommends that the Commission impose conditions on the CPCN, as  
23 discussed later in my testimony.

1 Q. DOES PANTEGO WIND AND ITS PARENT COMPANY, INVENERGY  
2 INVESTMENT COMPANY, LLC HAVE THE MANAGERIAL AND TECHNICAL  
3 CAPABILITY TO BUILD AND OPERATE THE FACILITY?

4 A. Yes. According to the application, Invenergy Investment Company,  
5 LLC.(Invenergy) Is the nation's largest independent wind energy owner, operator  
6 and developer and also owns and operates large-scale wind, solar, and natural  
7 gas-fueled electric generation assets in Europe. Invenergy has 26 wind turbine  
8 facilities that total more than 2,435 MW of capacity with an additional 15,000 MW  
9 of capacity under construction, which should result in 3,500 MW of wind  
10 generation by the end of 2012.

11  
12 Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON THE  
13 APPLICATION FOR A CPCN?

14 A. I recommend that the Commission grant the Certificate of Public Convenience  
15 and Necessity for the Pantego Energy site, subject to the following conditions:

- 16 a. The Applicant shall obtain all necessary local, State, and federal permits  
17 required for the acquisition, construction and operation of the Facility prior to  
18 the installation or construction of the Facility.
- 19 b. The Facility shall be constructed and operated in strict accordance with  
20 applicable laws and regulations, including any environmental permitting  
21 requirements.

- 1 c. The Applicant shall provide the Commission with updated information on  
2 any changes to the site design or capacity within 30 days following such  
3 changes.
- 4 d. *Prior to the installation or construction of the Facility, the Applicant shall file*  
5 *in this docket a copy of any mitigation plan, post-construction monitoring*  
6 *plan, or other agreements reached as a result of consultation with the*  
7 *United States Fish and Wildlife Service and the North Carolina Wildlife*  
8 *Resources Commission in order to reduce avian and bat impacts associated*  
9 *with Facility construction and operation.*
- 10 e. The Applicant shall file with the Commission an Annual Certification Report,  
11 prior to December 31 each year, listing all generating units installed or  
12 constructed during the applicable year pursuant to the Certificate and  
13 including the following information with regard to each unit: its location and  
14 operation, its maximum output or capacity, its installation and operation  
15 dates, and the cumulative total of generator output or capacity installed  
16 pursuant to the Certificate.
- 17 f. The Applicant will not assert that the issuance of the Certificate in any way  
18 constitutes authority to exercise any power of eminent domain, and shall  
19 abstain from attempting to exercise such power.
- 20 g. The Certificate shall be subject to Commission Rule R8-63(e) and all orders,  
21 rules, and regulations as are now or may hereafter be lawfully made by the  
22 Commission..

1 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

2 A. Yes, it does.

## APPENDIX A

## KENNIE D. ELLIS

I am a graduate of North Carolina State University with a Bachelor of Science Degree in Engineering with a concentration in nuclear power.

I began my employment with the Public Staff Electric Division in May of 2003. While with the Electric Division, my primary responsibilities have been fuel factor computation and inventory, generation adequacy, small power and utility generator Certificates of Public Convenience and Necessity, investigation of inquiries and complaints, and management of various tracking databases. I have also worked in the areas of rate analysis and design, revenue analysis and design, nuclear decommissioning, power plant performance, utility service rules and regulations, cost of service, analysis and review of conservation and load management programs, least-cost integrated resource planning, avoided cost, electromagnetic fields, electrical safety, customer growth analysis and validation, unbundling of service, review of wheeling and rates and depreciation analysis.

From October of 1984 until April of 2002, I was employed by Carolina Power & Light Company (Progress Energy Carolinas) primarily at the Shearon Harris Nuclear Power Plant in various capacities including Regulatory Specialist, Operating Experience Coordinator, Corrective Action Program Specialist, Pressure Test Engineer, and Health Physics Technician.

From 1978 until 1984, I was employed by the United States Navy in the Naval Nuclear Power Program. I was an instructor at the Navy's Nuclear Power Program S5G prototype providing instruction in the areas of Chemistry, Radiochemistry, Radiation

Protection and Monitoring, Mechanical Systems, Mechanical Watchstanding, and Integrated Plant Operations. I also served aboard the SSBN-644 (USS Lewis & Clark) as Leading Engineering Laboratory Technician. I was qualified Engine Room Supervisor and all subordinate watchstations.

I have previously filed testimony before the Commission in new certificate applications for generating facilities, fuel proceedings, general rate cases, renewable energy portfolio standards recovery proceedings, and participated in several special investigations.



1 BY MR. DODGE:

2 Q Do you have a summary of your testimony?

3 A I do.

4 Q Would you please give us that summary?

5 A I will. My testimony presents the Public Staff's .  
6 position on the managerial and technical aspects of the  
7 application of Pantego Wind Energy for a certificate of  
8 public convenience and necessity to construct a wind turbine  
9 electric generating facility of up to 80 megawatts in  
10 Beaufort County near Pantego, North Carolina. The proposed  
11 facility will be located on approximately 11,000 acres of  
12 farmland and will consist of meteorological towers,  
13 conductors, switches, substations, a maintenance building  
14 and up to 49 turbines rated at approximately 1.6 megawatts  
15 each.

16 The Public Staff believes that the Applicant has  
17 demonstrated the need for the facility and has the technical  
18 and managerial ex -- expertise necessary to build and  
19 operate the facility.

20 The State Clearinghouse review of the project  
21 indicated that additional information on the potential  
22 environmental impacts was necessary in order to complete its  
23 review and encouraged the Applicant to work directly with  
24 the various resource agencies prior to submitting additional

1 information for review.

2           Following receipt of the Clearinghouse comments,  
3 the Applicant filed the supplemental testimony of David  
4 Groberg and Karyn Coppinger to provide greater detail on the  
5 Applicant's communications with State agencies and its  
6 efforts to address -- to address the concerns raised in  
7 those comments. The supplemental testimony indicated that  
8 on-site avian and bat studies were underway which would be  
9 used to develop avoidance and mitigation plans, if  
10 necessary. The supplemental testimony also states that a  
11 post-construction monitoring plan for birds and bats will be  
12 developed in conjunction with the United States Fish and  
13 Wildlife Services and the Wildlife Resources Commission.

14           The Public Staff believes that continued study of  
15 the potential environmental impacts is necessary prior to  
16 construction and operation of the facility and neither the  
17 Public Staff nor the Commission, however, has the expertise  
18 or statutory authority to resolve the issues.

19           The Public Staff is satisfied that the dialogue  
20 underway between State environmental agencies and the  
21 Applicant will help to ensure that these issues will be  
22 fully addressed. And if the issues cannot be resolved to  
23 the satisfaction of the agencies, the agencies will take the  
24 appropriate action within their statutory authority.

1           To ensure that this is the case, the Public Staff  
2 recommends that the Commission issue the requested  
3 certificate with certain conditions set forth in my  
4 testimony. In this regard, the Public Staff is continuing  
5 to discuss with the Applicant the specific language of the  
6 proposed conditions with the clear goal of keeping the  
7 Commission and the Public Staff informed of the status of  
8 the project as it moves forward and of ensuring that the  
9 project is proceeding in full compliance with all local,  
10 State and federal requirements.

11           This completes my summary.

12           MR. DODGE: The witness is available for  
13 cross-examination.

14           COMMISSIONER CULPEPPER: Cross-examination,  
15 Mr. Olson?

16           MR. OLSON: Yeah. I just have one question.

17 CROSS-EXAMINATION BY MR. OLSON:

18           Q     You -- you mentioned -- well, good afternoon, Mr.  
19 Ellis.

20           A     Good afternoon.

21           Q     You mentioned that the Public Staff and the -- and  
22 the Applicant were working on conditions or proposed  
23 conditions. How will that come about? Will that be through  
24 some sort of settlement agreement that will be entered in

1 the record or how do you propose those conditions will be  
2 arrived at?

3 A The Applicant had submitted to the Public Staff  
4 some additional proposed language that would address the  
5 comment -- well, address some comments that they had on the  
6 conditions that we had proposed. We have -- we have not  
7 completed our review of those comments as of yet and are  
8 still in discussion with the Applicant in that regard.

9 I would propose that the Public Staff could file  
10 some recommendation based on the comments that -- or some  
11 resolution that we would reach with the Applicant in that  
12 regard.

13 Q All right. Okay. That -- that's a legal  
14 question, so that's not your field; is that fair to say?

15 A Certainly.

16 Q Okay. Thank -- well, then, thank you very much.

17 COMMISSIONER CULPEPPER: Cross-examination,  
18 Mr. Griffin?

19 MR. CAMPEN: Just one question,  
20 Commissioner --

21 COMMISSIONER CULPEPPER: Mr. Campen.

22 MR. CAMPEN: -- Culpepper.

23 COMMISSIONER CULPEPPER: Yes, sir.

24 CROSS-EXAMINATION BY MR. CAMPEN:

1 Q Good afternoon, Mr. Ellis.

2 A Good afternoon.

3 Q Henry Campen appearing on behalf of Pantego.

4 Just one question. Is it fair to say that from  
5 your testimony that it's the Public Staff's position that  
6 the Commission should not delay action on this certificate  
7 application pending filing of the avoidance and minimization  
8 plan and post-construction monitoring plan for the Fish and  
9 Wildlife Service that has been testified to here this --  
10 this afternoon -- this morning?

11 A Yes. That is my position right now.

12 Q Thank you.

13 MR. CAMPEN: That's all.

14 COMMISSIONER CULPEPPER: Redirect  
15 Examination, Mr. Dodge?

16 MR. DODGE: One clarification.

17 REDIRECT EXAMINATION BY MR. DODGE:

18 Q Mr. Ellis, just in regards to the discussion about  
19 the discussions that are underway with possible modification  
20 and the conditions or fine-tuning of those conditions with  
21 the Applicant, those would likely be expressed in --  
22 potentially in proposed orders that would be filed in this  
23 proceeding following the conclusion of this hearing?

24 A Certainly one avenue we could do that, yes.

1 Q Okay. Thank you.

2 COMMISSIONER CULPEPPER: Questions by the  
3 Commission? Commissioner Allen.

4 COMMISSIONER ALLEN: Thank you.

5 EXAMINATION BY COMMISSIONER ALLEN:

6 Q Good afternoon, Mr. Ellis.

7 A Good afternoon.

8 Q What happens if a significant number of those  
9 conditions which are agreed to in the proposed order cannot  
10 or will not be met?

11 A Well, ma'am, the -- the Commission has some  
12 authority. If we issue a condition under -- with -- if we  
13 issue a certificate with conditions, the Commission has the  
14 authority to review any data submitted before the Commission  
15 and has the authority to basically revoke any certificate  
16 that's been issued based on failure to comply with those  
17 conditions.

18 Q Thank you.

19 COMMISSIONER CULPEPPER: Questions based on  
20 Commissioner Allen's questions, Mr. Dodge?

21 MR. DODGE: One follow-up on that as well.

22 FURTHER REDIRECT EXAMINATION BY MR. DODGE:

23 Q In the -- in situations where an applicant is  
24 found to be not in compliance with conditions, would first

1 the likely steps be providing the applicant with an  
2 opportunity to cure those deficiencies prior to  
3 consideration of revocation or anything along those lines?

4 A Yes. Certainly they could do that.

5 Q Okay. Thank you.

6 COMMISSIONER CULPEPPER: Questions based on  
7 the Commission's questions, Mr. Olson?

8 MR. OLSON: No, sir.

9 COMMISSIONER CULPEPPER: Mr. Campen?

10 MR. CAMPEN: No, sir.

11 COMMISSIONER CULPEPPER: All right. Thank  
12 you, Mr. Ellis. That will conclude your testimony. You may  
13 step down from the witness chair.

14 (Whereupon, the witness was  
15 excused.)

16 MR. DODGE: Commissioner Culpepper, the  
17 Public Staff has also filed an affidavit by Mr. Calvin Craig  
18 of the Economic Research Division of the Public Staff in  
19 this proceeding. Unless the Commission or other parties  
20 would like to question Mr. Craig, we request that the  
21 affidavit that was filed on November 23, 2011, by Calvin  
22 Craig be received into evidence.

23 COMMISSIONER CULPEPPER: All right. Well, in  
24 that regard, then, the affidavit of Calvin C. Craig, III,

1 which was filed in this docket on November 23, 2011, is  
2 received into evidence.

3 (Whereupon, the affidavit of Calvin  
4 C. Craig, III, was admitted into  
5 evidence.)

6 MR. DODGE: Thank you. And we -- I -- we  
7 also move that any remaining items that the Public Staff has  
8 asked to be admitted today be -- or to be filed or marked is  
9 to be admitted into evidence.

10 COMMISSIONER CULPEPPER: That motion is  
11 allowed.

12 Anything further, Mr. Campen or Mr. Griffin?

13 MR. CAMPEN: No, sir.

14 MR. GRIFFIN: No, sir.

15 COMMISSIONER CULPEPPER: All right. Then  
16 that will conclude the evidentiary hearing.

17 With respect to post-hearing filings in the  
18 form of proposed orders, briefs and other -- or other  
19 post-hearing filings, they will be due to be filed with the  
20 Commission on or before 30 days from the publication of this  
21 tran -- of the transcript of today's proceeding on the  
22 Commission's web site.

23 And, of course, Mr. Griffin, Mr. Campen,  
24 you'll recall the exhibit that we've delayed ruling on and



1 we'll be hearing from you about that within ten days with  
2 your response in that regard served on all the other parties  
3 to this proceeding.

4 MR. GRIFFIN: Yes, sir.

5 COMMISSIONER CULPEPPER: Anything further,  
6 Mr. Campen, Mr. Griffin?

7 MR. CAMPEN: No, sir.

8 COMMISSIONER CULPEPPER: Mr. Dodge?

9 MR. DODGE: No, sir.

10 COMMISSIONER CULPEPPER: Mr. Olson?

11 MR. OLSON: No, sir.

12 COMMISSIONER CULPEPPER: Thank you very much,  
13 ladies and gentlemen. We stand adjourned.

14  
15 Whereupon, the hearing was adjourned.  
16  
17  
18  
19  
20  
21  
22  
23  
24

CERTIFICATE

The undersigned Court Reporter certifies that this is the transcription of notes taken by her during this proceeding and that the same is true, accurate and correct.



Candace Covington  
Court Reporter II

**FILED**

**DEC 20 2011**

Clerk's Office  
N.C. Utilities Commission