

In the Matter of:

VISUAL SIMULATION BY U.S. DEPARTMENT OF INTERIOR BUREAU OF OCEAN ENERGY MANAGEMENT North Carolina Offshore Wind Planning Ef

MEETING

August 12, 2013

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VISUAL SIMULATION
BY THE U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT
North Carolina Offshore Wind Planning Effort

August 12, 2013
5:00 p.m. - 8:00 p.m.

Wingate Hotel
1511 North Howe Street
Southport, NC 28461

PARTICIPANT COMMENTS

Reported by:
Tracy T. Neal
Court Reporter

1 TREVOR SILVERS

2 MR. SILVERS: I have a question. I
3 don't know how I want to word it exactly. It was in
4 regards to the waves coming through the wind
5 generated farms, because the poles are going to go
6 down to the ocean floor and a lot of the -- is all
7 the wind -- ground swells and medium period swells
8 and hurricane stuff all come up from South Africa, so
9 all the wave generation comes from the ocean floor
10 until it gets to shallower water. So how is the
11 energy going to be affected when it hits the wind
12 farm and has to make its way around the tubes in the
13 ground? Because I'm pretty sure they're a couple of
14 feet in diameter, at least, 600 feet tall -- the
15 units are 600 feet tall, so the base has to be at
16 least -- at least ten or 20 feet round. So 200
17 things out there that could disrupt the wave energy,
18 which in return could affect, for instance, the Outer
19 Banks, surfing community, people travel there, they
20 have surfing contests. A lot of money could be lost
21 in the area if that causes an issue.

22 And along with the mammal question that
23 the other people were asking, that the migration --
24 that could affect the migration. Because they're
25 only concerned about vibration of units when

1 spinning, but what about the water swells changing
2 direction and being -- energies being disbursed,
3 could that also confuse the animals?

4 Otherwise, I love the idea. But I think
5 it's better on land.

6 ANONYMOUS

7 MR. ANONYMOUS: The following
8 question applies to all aspects of the research and
9 available data for this entire project. The
10 uncertainty is the inclusiveness of the totality of
11 data relative to geographics. Said differently: One
12 of the things that we heard tonight in this highly
13 specific presentation was that the data was focused
14 on United States. There were references made to
15 Europe, and there were references made to Japan, and
16 elsewhere in the area, where apparently there's a
17 significant more -- a greater amount of experience in
18 solar -- wind energy -- excuse me.

19 Specifically the question is are we
20 intending to be completely inclusive of the totality
21 of worldwide research relative to this type of
22 process?

23 MR. ANONYMOUS: I think you've got
24 it. Even specific to the different types of
25 disciplines that we work with, so with, you know,

1 avian resources or marine mammals, or --

2 MS. ANONYMOUS: Absolutely, the
3 entire process. Said differently: The totality of
4 associated elements. Rock and roll. Thank you.

5 A. BIASOTTI

6 MR. BIASOTTI: My first comment is
7 that since the closest that the fields are allowed to
8 come to shore is three nautical miles, there was no
9 simulation showing what the nighttime or daytime
10 visualizations would be for a field that close. This
11 is a tourist area, and from the looks of the ten mile
12 simulation, those -- the larger and the smaller of
13 the proposed or the used windmills are obviously
14 visible. At three miles it would be even worse.
15 That would destroy, I think, the tourist trade in the
16 Brunswick Islands, which is where we are now.

17 As far as the question that's asked here,
18 which says, which is the closest distance that would
19 be acceptable, I will say the minimum distance would
20 be the 20 nautical mile, both day and night. Because
21 that would put it out of sight, generally, in the
22 daytime, and it would pretty much, even with the
23 lighting situation, put it out of sight in the
24 evening.

25 I would like to see a simulation at night

1 with different cloud conditions. Generally when you
2 have an overcast sky, you get some reflections. For
3 example, if you're near a big city, you see sky glow
4 coming in from Wilmington or something that you don't
5 normally see on a clear, starry night.

6 But other than that, I appreciate being
7 be given the chance to see this.

8 CAROL SCOTT

9 MS. SCOTT: I'm most disturbed that
10 the simulation does not cover a wind field six and
11 seven miles offshore, which is what is proposed
12 outside of Sunset Beach. The wind farms are, what,
13 33 percent closer or something, and the simulations
14 don't take that into account at all. And I think
15 there's going to be a very big difference in the
16 sight visibility from six miles out, as opposed to
17 what they showed here today, the closest one was ten
18 miles out.

19 So until you do a study that shows the
20 closest proposed range, you have failed in the
21 purpose of coming up with simulations to show the
22 effects of these on various communities, okay? And
23 that includes night views and day views. That's my
24 concern.

25 RICH CERRATO

1 MR. CERRATO: I guess I have three
2 concerns. One is I'm concerned about the distance.
3 Sunset Beach is a tourist community, and I would like
4 to see the wind farms at least 20 miles out. I think
5 they're too close to shore. I think the lighting
6 would be a concern. I'd like to have them as far out
7 as they can without being visible. I'm not a
8 mathematician, I don't know how to do that.

9 And my other concern was with the lights.
10 It's going to destroy the precious coastline that we
11 have.

12 And the other concern that I have is what
13 is the direct benefit to the consumer for this
14 project? What will I see? Lower electric bill?
15 And, if so, how much? That's it.

16 MALCOLM MORRISON

17 MR. MORRISON: Basically what I --
18 I came in with a very positive attitude; I am for
19 renewable energy. I was taken back a bit by the
20 simulations. Of course they are worst case
21 simulations, that's good, so we know the bounds
22 there. And having seen that, I think we think for
23 the tourism industry -- and I'm not a -- I'm just a
24 citizen concerned -- that we have seen enough that we
25 think that it needs to be pushed back, you know.

1 The lady from down here, at one of the
2 beaches down here, they're saying is it's seven miles
3 from their shoreline, and ten mile simulations were a
4 concern, and even pushing out to 20 miles with the
5 larger wind turbine, is problematic.

6 And so first I'd say something about
7 modeling -- I think it was done by not these people,
8 but by the contractors. And I would like to have
9 seen taken another approach when -- instead of some
10 of these extrapolations that they did, I would say
11 take a helicopter with a light suspended below it,
12 and fly the route out here at night at ten miles, 20
13 miles, you know, on out, at the height, at the
14 highest height that they're modeling in there for the
15 tallest things we might consider, and get that
16 snapshot of that light to put into their simulations.
17 Just wherever they put a simulated light, take that
18 real light that's been recorded, put it into the
19 model, rather than saying, we think it's like this
20 and we're going to extrapolate out. Because when you
21 start extrapolating, you start building errors, okay?
22 So that's one thing I would say for the simulations,
23 to try to get some more realism in there. And I
24 don't think it would be that -- it wouldn't break the
25 bank, and certainly it would be useful all up and

1 down the coast that we've got some actual
2 representation of can I see the light.

3 We don't mind the lighthouse; we think
4 it's a beautiful thing at night, but that's one. But
5 we don't need 400 lighthouses flashing, flashing.

6 And the point was made that, yeah, we're
7 -- simulations are at sea level there, I think, where
8 somebody on the beach would see it; but if you're in
9 your house, up 40 more feet, you're going to see out
10 further.

11 And so it looks like to me that we need
12 to -- from what I've seen, is try to move the fields
13 further out. I don't know how viable the bottom is
14 out here to go that far. At some point you drop off
15 the shelf, and the water's going to get deeper as you
16 go out there. But what we've got to do, first and
17 foremost, is solve the visual pollution problem for
18 the tourism industry. If we can do that, we'll have
19 a larger buy-in, because I am for windmills. But I
20 want them to be compatible with the economy.

21 But on a larger scale, see, I look at
22 this as an economic opportunity here, that -- well,
23 we can say, well, if we push it back out to a point,
24 and we say, that's not too bad, but it has too bad --
25 a little bit of too bad in there, not too bad. There

1 is some downside of it, and the people of Brunswick
2 County are paying that price. Consequently, my view
3 and advice to the government is to work with the
4 county here to assure that the jobs associated with
5 this are located in the county. Okay? And that our
6 leadership and Washington should be with us on that,
7 although they represent the whole -- you know,
8 representatives have other counties that they are in.
9 But we want to -- we want their push and all to help
10 get industry to bring the jobs to us rather than
11 export the jobs.

12 Now we have a, I think, a very good
13 infrastructure to get the rotors, the hubs and the
14 rotors in here through the rail system that serves
15 the nuclear power plant. And the place where we're
16 going to put in the mega port would be -- well,
17 that's where the cable, looks like, it's going to
18 come in here to the transmission lines that go out
19 through Duke Power. And so facilities that support
20 this could be located on that, and it looks like
21 that's what they've designed it to do.

22 Now, there's other things that --
23 maintenance and feeding of this farm out here is
24 going to take some infrastructure to support it.
25 That infrastructure, I think, could probably fit -- I

1 think; what do I know -- but I would say examine the
2 old mega port land there that the state spent \$30
3 million to purchase, which had some environmental
4 problems with it, that people turned it down, as the
5 location. That the rail can come in here, and
6 there's jobs created with that, because that
7 maintenance facility is there, and these rotors have
8 to be refurbished.

9 And what we would like -- we -- my view
10 would be is that we try to get a company like GE, and
11 we use -- hopefully we can use U.S. produced rotors,
12 and the parts for the windmill to be produced like
13 GE. There's other companies, I guess, that make it
14 in the States, but that's the one I clicked to first
15 when I did my little search yesterday. And so they
16 are -- with their energy and things like that, they
17 have places where they do refurbishment. And so
18 these rotors are going to need to be refurbished.
19 And so we can bring them in, refurbish them, and take
20 them back out, and you don't have to send them long
21 distances to do that if you have the facility here.
22 You can bring in a new one when you need it, and also
23 in the construction of it, and you've got that rail
24 coming in that can extend to this and make that
25 viable.

1 And you want to talk about a systems
2 approach to this, is that -- we've talked about
3 infrastructure and transmission and things like that.
4 We need to get the leg up and the estimates are out
5 there like ten to 20 years before this becomes
6 viable; I'm hoping it's at the shorter end. And that
7 we start the job training or getting prepared to do
8 the job training at Brunswick Community College,
9 that's in Brunswick County. I see all the jobs
10 associated with this in Brunswick County, okay?

11 The education can be there; it will make
12 the college stronger to develop that. It will
13 parallel or be similar to the ones out in the west
14 where they have the wind farms out there, and the
15 community colleges training workers to support that.
16 So it's the type of -- a lot of jobs there are the
17 type that are technical, that can be trained at the
18 community college level. And, again, of course
19 you're going to have other types of things associated
20 with it that are going to go on up the educational
21 scale. But we can start with the community college
22 to provide workers so that we have an educated,
23 trained work force that ties in when they first start
24 needing it with the coordination of the planning
25 between government, the person -- the company that

1 wins the bid for the lease of the field, and the
2 manufacturers, such as GE.

3 And so that's kind of -- that's the kind
4 of view that will make this sell in the county if we
5 can solve the visual pollution.

6 Now, one solution, as I mentioned, was to
7 push it further out if the land will accept it out
8 there. And the other might be in efficiencies in the
9 windmill construction, the rotors and things like
10 that, and the blades and the technology to make it
11 more efficient to bring down the cost of so many
12 kilowatts, you know, megawatts. What's the cost of a
13 megawatt, depends on the efficiency of the windmill,
14 of the setup there. And so if we can't get it cost
15 effective so that Brunswick Electric can buy that
16 power, it's not going to be viable, you know.

17 Now, the other thing is -- and this is
18 political, and I don't know that it's solvable -- but
19 you read in the papers that big oil, oil and gas
20 companies, have subsidies through the tax structure.
21 I don't -- you know, you read that. I can't point to
22 one specific instance, but it's referred to a lot of
23 times about subsidies to other industries. And I
24 would say -- well, it's the double edge sword. Take
25 away those subsidies, and their profits decline or

1 our energy price goes up. Which one do you think the
2 CEOs are going to choose? I think prices go up to
3 main profit levels, but that's a personal bias.

4 So we need to have a level playing field
5 is the bottom line on this. An objective one, not a
6 political one. But an agency that is objective
7 outside of the political system to say that this and
8 this and this are the benefits. And I don't like to
9 say if you give it to them, they can give it to the
10 windmills, because I'm not for subsidies. Because
11 we're paying it in tax dollars every time we give a
12 subsidy. And so I'm not for increasing taxes to give
13 subsidies; I'm for taking subsidies away. It saves
14 the government money. We may pay for it, as I
15 mentioned, you know, but --

16 So that's kind of my take on it. I'd
17 like a systems approach to it, that we're getting
18 this all integrated together. This is a good early
19 warning. You know, some people complain about, we
20 didn't see it in the paper. Well, there's other
21 opportunities; it's on the Internet, and so we're
22 getting this view early on enough to start talking
23 like we're talking here to find solutions. And,
24 again, we want to get to yes. Remember that book
25 that they wrote how when you're dealing with two

1 sides you come to agreement? That's getting to yes.

2 And so that's what we want to do for this. And so

3 that's my brain dump.

4 ELLEN DEGROOF

5 MS. DEGROOF: I think my -- my
6 biggest question that's been raised as I look at this
7 is the -- everything that we do has a risk/benefit
8 ratio. And we've -- can imply that there's certain
9 risk with doing it. What I don't understand, what I
10 need to educate myself on is the benefits of this
11 source of energy, as opposed to other sources of
12 energy. Not just in cost, but in the number of
13 people that it serves, and the efficiency of it.

14 MARYBETH ALTHAUS

15 MS. ALTHAUS: I have environmental
16 concerns. There's always unintended consequences to
17 everything we do and I wonder if enough -- I've lost
18 the word -- enough research will be done looking at
19 the impact on birds, on turtles, on sea creatures,
20 fish, mammals, things like that. They're important.

21 I don't know what the consequences are of
22 drilling, even installing one thing. I know it's not
23 as bad as drilling for oil, but you're still drilling
24 into the ocean bed. I worry about that. I don't
25 think that's usually taken into account as much as it

1 should be.

2 And also I wonder what happens when they
3 -- what kind of failures there could be and what the
4 environmental impact would be of a failure. We've
5 seen it with oil rigs, but what happens with this? I
6 know it's cleaner, but if they fall over, then what?

7 JENNA FONTAINE

8 MS. FONTAINE: First of all, I'd
9 like to thank the Bureau of Ocean Energy Management
10 for doing this, because I think it allays some fears
11 people have maybe about what it's going to look like
12 potentially from our beaches.

13 I have to just say that I am really pro
14 wind/solar development of energy. I feel that global
15 warming is a very, very real and critical issue, and
16 our dependence on fossil fuels must be turned around.

17 We've traveled fairly extensively in
18 Europe and Europe is the -- you know, on the coast of
19 Ireland they've got them; in the interior of France
20 they have them; up the Pyrenees. Wherever there is
21 reliable wind, that is one of the, you know, sources
22 that they have exploited successfully for their
23 power. And I just feel like we have not invested.
24 And I think, personally, it's because the petroleum
25 industry has put up a lot of extra roadblocks and

1 worked with public opinion against putting money
2 elsewhere. But this was really eye-opening and very
3 wonderful. Thank you.

4 ART FONTAINE

5 MR. FONTAINE: I just wanted to say
6 that I'm basically for renewable energy as far as
7 wind and solar goes. And I feel that there has been
8 a process to go ahead and install -- to deflate the
9 progress of solar and wind power. And I think this
10 is a great thing; I think that it's great that
11 they're doing this. And I hope it was as informative
12 to everybody as it was to me.

13 STEPHEN KIEL

14 MR. KIEL: I mean nothing -- I
15 don't have anything really profound to say other than
16 generally I'm in favor of the concept of a
17 diversified portfolio of energy generation. So, you
18 know, I think wind and solar, along with nuclear and
19 coal, all make sense on a blended basis.

20 So I don't see any problems with what was
21 presented today in terms of what the visual issues
22 are with turbines being located offshore. That's my
23 statement.

24 AMANDA KIEL

25 MS. KIEL: Just basically concerned

1 with the environmental -- the turtles, the lights;
2 how it's going to affect the fishing industry of a
3 small town like this. Like other coastal towns, the
4 fishermen, this is their livelihoods; the esthetic
5 part of it. Basically that.

6 I wish we would do more with making solar
7 energy more affordable in this state. We came from
8 Ohio where we could put solar on our home in a
9 non-sunny state and we could own the electricity that
10 it generated. Here in this state, the power
11 companies take it all, and then sell it back to us.
12 So it doesn't make it as economically attractive for
13 somebody to go through the money to put all that
14 stuff on their house. So, anyway, I'd rather do
15 that.

16 BETTY JO ELLENDER

17 MS. ELLENDER: Well, first of all,
18 I do like the wind as a source of energy. And I'm
19 impressed that it's not that visually invasive; and
20 I'm a beach bum, I'm on Oak Island a lot. But I
21 didn't see that it was a visual disturbance to me at
22 the various nautical miles.

23 The nighttime, I saw it just as part of
24 the starlit sky. So both of those -- and during the
25 daytime and during the nighttime it does not disturb

1 my visualization of the beach at all. And I'm just
2 amazed that they can be sunk into the water. So I'm
3 impressed, I like it very much.

4 And I think, certainly, we are capable of
5 keeping the visualization, keeping it safe, and that
6 it's not going to be a flight hazard; it's not going
7 be to a boat -- transportation in any way hazard. So
8 I like it.

9 VICKI STURGILL

10 MS. STURGILL: I think that the
11 visual simulations gave me a much better
12 understanding of what it would look like. I am a
13 huge supporter of sustainable energy. I want the
14 beach to look like it does when I was growing up when
15 my grandchildren are there. I do not want to see oil
16 drilling off of the coast of North Carolina. I'm a
17 native North Carolinian.

18 I thought both of the presentations, both
19 the printed pictures, as well as the simulations,
20 gave me a different perspective. I especially like
21 the nighttime ones; I love the Christmas lights, love
22 it, looks like Christmas.

23 I think the benefits of the offshore
24 energy development far outweighs any visual questions
25 I might have about the process. I don't see it

1 interfering with the enjoyment of a national park,
2 state park, or local community at all. I think once
3 people understand what it is really going to benefit
4 North Carolinians, South Carolinians, and people in
5 Georgia, that will far outweigh any questions that
6 people might have.

7 I think the historical value of the
8 Southport and Brunswick County areas in general is
9 already being preserved in terms of Fort Anderson,
10 Brunswick Town, the Mariners' Museum, I think those
11 things are very, very important, and this -- wind
12 energy would not impact that already historical
13 information that is available here in Brunswick
14 County.

15 I was very impressed at the compliance
16 with the FAA and the Coast Guard requirements. They
17 explained very in detail the difference in the
18 lighting sources, whether it be at the bottom of the
19 blade, or the source -- the airplanes can see it as
20 well as the Coast Guard. I think that is very, very
21 forward thinking based upon some accidents that have
22 happened here in Southport with boating and things
23 not being lighted. So I think the simulations in
24 showing the lights makes it very safe for pilots,
25 whether it's a commercial pilot or small airplane

1 pilot, or commercial ship liner or small boats.

2 (END OF PARTICIPANT COMMENTS)

3

4 C E R T I F I C A T E

5 STATE OF NORTH CAROLINA)

6 COUNTY OF BRUNSWICK)

7

8 I, TRACY T. NEAL, court reporter and notary
9 public in and for the State of North Carolina, do
10 hereby certify that the foregoing is a true and
11 complete transcription of my stenographic notes of
12 the participant comments taken by me in this matter
13 to the best of my ability and understanding.

14

15 I further certify that I am not associated
16 with nor related to any of the parties to this
17 matter, nor do I have any interest in the outcome
18 hereof.

19

20 Witness my hand, on this 20th day of August,
21 2013.

22

23 Tracy T. Neal, LCR #360
24 Notary Public #201303900066

25

My Commission Expires: February 4, 2018

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