Volume 1, Pages 1-224

# UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE CAPE WIND ENERGY PROJECT

Public Hearing
Tuesday, March 11, 2008
5:01-8:55 p.m.
Nantucket High School
10 Surfside Road
Nantucket, Massachusetts

MR. MOORE: It's about 5:00. If you would find your seats, we would like to

get started with the hearing for this evening.

5 Good evening, everyone. My name is

6 Chris Moore. I am with a private firm called

CDR Associates, and my colleague, Jennifer

8 Graham, and I are here as an independent

9 facilitator firm to facilitate the meeting

10 this evening. So I would like to welcome all

11 of you here, and I recognize a lot of faces,

12 folks who were over at the meeting in Yarmouth

13 last night. I am glad to see you all again,

14 and also for all the folks from Nantucket, who

15 have come to the meeting and decided to spend

16 some time this evening talking about a pretty

17 important issue.

So to begin, what I'd like to do is to talk just a little bit about the hearing and then I'll turn it over to the MMS, who will talk a little bit about the Cape Wind

22 Project.

18

19

20

21

1

1

2

3

This hearing, I think, is an important part of the public involvement

3

#### Cape Wind Energy Project - March 11, 2008

2 process, and it gives all of you a chance to

3 have input on this proposed Draft

4 Environmental Impact Statement.

5 Your input is valuable. It's one

6 that the agencies will use to assess the

7 adequacy of what they've done, where they need

8 to make some changes before they go ahead and

9 do a final environmental impact statement.

10 And they will talk a little bit about that

11 process.

12

13

17

21

So your input tonight is important.

It's your meeting, it's your chance to talk to

14 the MMS, and to provide them with your views

15 on this proposed project. So let me say a

16 little about my and MMS's role tonight and

Jennifer, my other colleague, to help you have

18 the best meeting it's possible to have.

We had a real good one last night.

20 One of the things that I think was really

helpful was the civility, the conciseness and

22 the ability to really state their views in a

23 way that really helps. So I hope we will have

24 the same kind of meeting tonight. So my role

#### Cape Wind Energy Project - March 11, 2008

2 is to help make the meeting move as quickly as

3 it possibly can and be as effective as we can.

4 Mineral Management's role is to listen

5 tonight, because you're the people who are the

6 speaker, not them. They have done a lot of

7 research, but it's their turn to hear from

8 you.

1

9 Let me say just a little bit about

10 logistics before we talk about the actual

11 meeting process, and talk a bit about meeting

12 guidelines. First of all, we will be going

13 for five hours. We will have a break after

14 about the first two hours, so that people can

use the restrooms and do whatever you need to

16 do.

17

18

1

For those of you who need restrooms, there are two locations for the

19 restrooms. One is you go out in the hall that

20 you came in, go down to the center of the

21 school and off to the right, and you will see

22 men's and women's restrooms. If those are

23 full, go down a little farther. That first

24 hall that you can turn to the left, you will

5

#### Cape Wind Energy Project - March 11, 2008

2 go by the gymnasium. And as soon as you pass

3 the glass, there are double doors. You could

4 go through there and they are past the boys'

5 and girls' locker rooms and there are also

6 facilities that are there. There are also

7 drinking fountains.

8 Exits, if we need to get out

9 quickly for some reason, a fire alarm or

10 whatever, these doors, and you could also go

11 out these doors. And they will take you out.

12 And the exit signs are in the back.

One other question. Does anyone in

the audience have EMT training? So if you do,

okay, we'll look to you if we need some help,

16 so that's important to know. So I think those

10 30 that 3 important to know. 30 i think those

17 are the major things we need to know as far as

18 logistics. So let me talk about the meeting

19 itself.

13

22

The meeting is for you to talk; it

21 is not primarily a question and answer

session. So if you have a question that you

23 want answered, fill out one of the forms, drop

it in the box up here, and Mineral Management

will get back to you on your question. 2

3 It is a multiple way to have input.

4 You could talk here; you could go to one of

the other meetings; you could send in 5

6 information, which we will put up on the

screen in just a minute. Actually, we can

actually go to that right now. You can send 8

in information.

1

10

11

21

23

1

7

8

14

15

17

21

23

24

And I might mention, and we encourage you to tell your friends, that the

location for the meeting, and if we could go 12

13 back, in Boston has been changed because we

14 have gotten a larger venue. We had 900 people

at the meeting last night, and the venue that 15

we had planned for in Boston was essentially 16

17 equivalent. So we've got a bigger place. So

it has been changed. So it will be at the 18

Clark Leonard Athletic Center Gym. So let 19

your friends know. 20

You could also send in by e-mails 22 or written comment. There are a lot of ways to make your voice known to MMS. Your input

24 is valuable.

7

#### Cape Wind Energy Project - March 11, 2008

Let me mention a little bit about 2

good public hearings. I would like to know, 3

how many of you have been to a town meeting 4

before? Raise hands. 5

Okay, you have all been to town 6

meetings or most of you.

What makes a good town meeting? If

you wanted to have your own guidelines or 9

10 ground rules for a town meeting that worked

11 well for you, what would you want.

12 AUDIENCE MEMBER: Speak with

brevity. 13

MR. MOORE: All of you heard that,

speak with brevity. What else? What else

16 makes a good town meeting?

AUDIENCE MEMBER: Be able to hear

18 everybody.

MR. MOORE: Everybody gets a chance 19

20 to speak.

AUDIENCE MEMBER: A moderator.

MR. MOORE: If you have a 22

moderator, the moderator is working for you.

AUDIENCE MEMBER: Respect.

#### Cape Wind Energy Project - March 11, 2008

MR. MOORE: So a degree of respect.

3 That is very helpful. Any others?

AUDIENCE MEMBER: Shut off the cell

5 phones.

1

2

11

1

21

6 MR. MOORE: You must have read our

mind, right. Actually, I'm going to turn mine

off, too, right now, okay? So, if you haven't

done it you might turn yours off. We have

some other guidelines, most of which you 10

probably mentioned yourself, so if you could

12 flip them up to the guidelines here.

13 Turn off your cell phones and

14 pagers. Maintain civil, respectful behavior,

which you already mentioned. Listen

attentively to what's being said. Allow your 16

17 fellow citizens to present their views in an

uninterrupted manner. Avoid side 18

19 conversations to the extent possible and use

the breaks. 20

21 Refrain from cheering or

applauding, and that's the hardest one, 22

because I know you want to support folks who

24 are expressing the same views as you. And

# Cape Wind Energy Project - March 11, 2008

avoid making derogatory remarks and aside

conversations to the greatest extent possible.

If you need to talk to colleagues, go outside.

Use the breaks to discuss the issue.

6 Let me mention one other thing.

Last night, because there were a lot of

speakers, we didn't get through every one. We

will try to do that tonight, but it requires

10 focus and staying within time limits. The

11 time limits are, for elected officials, they

have five minutes. They represent larger

13 groups of people. Individual citizens, each

of you get three minutes. And I will put up

15 a, essentially, a traffic light up here that

will show green to go; yellow, you've got 30

17 seconds; and red, it's time to stop. And I

will ask you to stop at your time limit, 18

because I want to let everyone speak who 19

20 possibly could tonight.

So I think that is probably enough

about the general guidelines. And so what I 22

would like to do is to turn it over to MMS, 23

and to have them talk a little bit about the

#### Cape Wind Energy Project - March 11, 2008

background of the DEIS and MMS, and what the 2 3 overall process is.

4 So, Bob?

1

5 MR. LaBELLE: Thank you, Chris.

6 Good evening, everyone. Thank you 7

very much for taking the time and making the

- 8 effort to come out and give us your thoughts
- and opinions on the Draft Environmental Impact 9
- Statement. I am Bob LaBelle, Associate 10
- Director for Offshore Energy and Mineral 11
- Management, MMS, and we would like to, in the
- interest of brevity, just give you a quick 13
- 14 synopsis of what MMS does.

15 We are an agency that was created

- in 1983. We are small, but we manage the 16
- offshore oil and gas program, which is quite 17
- extensive, involving Mexico and is growing in 18
- Alaska. And we also have some facilities in 19
- southern California. 20

21 We also are responsible for leasing

- offshore sand resources for beach nourishment, 22
- for example, and we are also responsible for 23
- handling the royalties. 24

11

#### Cape Wind Energy Project - March 11, 2008

Next. 2

1

In 2005, the Energy Policy Act gave 3

us authority for regulating alternative energy 4

- projects -- you could see they are listed here 5
- -- offshore in federal waters. Federal 6
- waters run from three miles off the coast of 7
- Massachusetts. And you will see, we are 8
- looking at wind, wave, ocean current energy. 9
- 10 Next.

11 Again, this is my name. I want to

- introduce Maureen Bornholdt, who is your 12
- 13 program manager from Alternative Energy
- 14 Programs, MMS; and Dr. Rodney Cluck, who is
- 15 the Cape Wind Project manager, and Rodney is
- 16 the one who has been most involved with this
- particular Draft Environmental Impact Study. 17

18 Next.

19 The purpose of the EIS process is

- that it's a process, and it, it's a public 20
- process, and so this input we are receiving 21
- through public meetings like this, commenting 22
- on paper, or writing in comments, is key to 23
- the whole system, and we want to use the 24

## Cape Wind Energy Project - March 11, 2008

- information to inform decisionmakers on
- particular projects. And also, if the
- decision is to go ahead, to identify
- reasonable ways to mitigate some of the
- impacts and monitor some of the activities.

Next.

1

7

So we are looking for your comments 8

- on the DEIS, Draft Environmental Impact
- Statement. We are looking for your issues of 10
- concern, and identification of these 11
- mitigation and monitoring measures, and any
- additional other environmental information 13
- that you feel has not been significantly
- characterized in the draft document.
- Remember, this is a draft. We will look at 16
- all the comments, which Rodney will talk
- about. 18

19

Next.

And just for a moment I wanted to 20

- talk just on the point that this EIS is not 21
- the end of the process. After the DEIS, any
- 23 potential opposition, if the project is
- 24 approved, would go through the additional

13

#### Cape Wind Energy Project - March 11, 2008

- provisions, things like rentals, and return
- from the project, decommissioning, the taking
- the structures out, for which we require the
- operator to be bonded, to have money to take
- things out when they are, when they should be
- 7 removed.

14

15

Financial assurance I just 8

- mentioned, revenue-sharing with the state,
- which 27 percent is the law. And of course 10
- 11 ensure safety and environmentally sound
- operations. For example, if the project were
- 13 to be approved, a response plan with the Coast
  - Guard would have to be developed.

Next.

16 Again, beyond the DEIS, but any

17 projects we would approve require a detailed

- plan on site assessment, people on call during 18
- this project, operation, decommissioning. To 19
- accomplish this we would have periodic
- inspections; people going out there and 21
- looking at how well the project is doing. 22
- Does it make any sense, safety sense, 23
- environmental protection sense. We require a

1

# Cape Wind Energy Project - March 11, 2008

2 lot.

1

14

15

22

1

5

6

13

15

16

17

18

24

3 So the EIS is not final say on how 4 some of these issues are dealt with.

5 Next.

6 So important for me commenting on 7 the Draft EIS, we would like your comments; we 8 welcome them. If you don't speak, please 9 leave a comment or get on-line to do so.

And with that, I will introduce Dr. 10 Cluck who will talk a little bit about the 11 12

specific Cape Wind Project.

13 DR. CLUCK: Thank you, Bob.

I'm Rodney Cluck and I am the Cape Wind Project manager.

16 Can everyone hear me out there?

17 Okay. First of all, I want to say

that to aid in the development of the Draft 18

19 Environmental Impact Statement, he hired, MMS

hired TRC Environmental Corporation to help us 20 21

to do that, to aid in the process of this.

This open comment period and the public comment, in fact, is one of the

23 actually most enviable parts of this to me, 24

15

#### Cape Wind Energy Project - March 11, 2008

because it allows all the work to be done for 2

the people to comment on all the information 3

that is put together. 4

With that said, let me just give you a rundown of the project itself. The

project is located in Nantucket Sound, along 7

Horseshoe Shoal, as most of you know, about 8

six and a half, seven miles from Cape Cod,

10 nine miles from Martha's Vineyard, 13 miles

11 from Tuckernuck Island, 468 megawatts.

12 Next.

130 turbines, over 400 feet above 14 water. 16 to 18 foot diameter monopiles. We have 33 kilovolt inner-array cables and you have two 115 kilovolt strand mixed cables running along Horseshoe Shoal. This is the bay area.

19 Next.

20 In order to assess alternatives to 21 the proposed Horseshoe Shoals, we developed a, a lot of criteria to try and screen 22 23 alternative sites. These criteria included

things like wave height. They include water

#### Cape Wind Energy Project - March 11, 2008

depth, current technology that is available,

substrate, the seabed; things like that are

factors when putting the wind farm in.

5 Transmission line distance, minimum wind

6 speed. Again, technology available or not.

7 We also have a limited economic 8 analysis to look at the relevant economic

programs among alternatives.

10 And this is essentially what we come up with here. In the green we have 11

proposed action, Horseshoe Shoal; the red is 12

the smaller alternative, which would be 65 13

turbines as opposed to the 130. We also

looked at phased development, which is Phase I 15

and Phase II, where 65 turbine generators 16

could go in, and then those would be monitored

18 for environmental impacts and other types of

19 effects.

24

1

11

21

22

23

20 Then there's Phase II, and 21

depending on what we find out from Phase I, we

looked at a condensed phase, which is also 22

23 available, which is just a smaller footprint,

essentially. And there is the alternative

17

# Cape Wind Energy Project - March 11, 2008

Monomoy Shoals, and the orange is south of

Tuckernuck Island. 3

4 Next.

5 In order to determine impacts, the

6 impact-producing factors, we set out a series 7 of impact-producing conditions from routine

and non-routine activities. We looked at a

whole host of factors; everything you could

10 possibly think of. But I thought I would give

you an example of a few here just to put in

12 your head how we do it.

13 Always we look at projects from the construction phase of development, operation

and decommissioning. But for example, a 15

16 routine impact, noise and vibration factors,

17 construction noise and vibration factors, put

it in one column. Non-routine is oil and fuel 18

19 spills. During operation, routine impact is

20 if we found scour on the foundation.

Non-routine would be if a monopile collapses.

During the decommissioning, seabed site clearance -- somebody talked about decommissioning. We were doing everything we

elected public officials, and there are four

of them. So we would like to start off with

Whitey Willauer, who is the chairman of the

18 20 Cape Wind Energy Project - March 11, 2008 1 Cape Wind Energy Project - March 11, 2008 1 could think of, everything we have. So seabed bit about the speakers and the way that we do 2 3 site clearance is a routine part of activities it efficiently. We had some suggestions at and if there are two vessels while doing it the meeting last night, so we are going to try 5 that ran into each other, that would be 5 something a little bit different tonight. 6 non-routine. 6 First, our first speakers are 7 Next. publicly elected officials and they will have 8 We then took impact levels that I five minutes; and I will give their names and have them come down so they are here on the 9 mentioned, which is assigned to different resource areas, so you will understand the dais. Then as soon as you, all members of the 10 10 impact is negligible, no measurable impact; public, have an opportunity to speak, what I 11 11 it's minor, the resource will recover 12 would like to do is to call six people. 13 13 completely. If it's moderate, that means it You'll note on this side is the odd 14 will recover, but you are going to have some 14 numbers and this side is the even numbers. So mitigation involved. And if it's major, the one, three, five, two, four, six will be here. 15 15 resource would not recover even with And what I would like you to do is to come up 16 16 17 mitigation. and to, if there are seats that are available, 18 or there are some over here, just go ahead and Next. 18 19 Most impacts we found were sit down. But I would like to make sure that 19 negligible or minor. The moderate impacts we we have at least three people up here. When 20 20 21 did find are here and those are in your number, you see number 6 goes, Number 7 21 mitigation, and we will continue to do that in go over there, and Number 8 go over there. So 22 22 23 working with our agencies for the final say. we always have somebody waiting and that means 24 Those are avifauna, marine birds, during 24 we could go quickly and not have transfer time 19 21 Cape Wind Energy Project - March 11, 2008 Cape Wind Energy Project - March 11, 2008 1 construction and phases of the development. to get to the mike. 2 Fisheries, during construction. Marine mammal 3 So I will periodically find out 3 where we are, and make sure you know so you impacts that occur during construction and operation, moderate impacts were visual. You 5 could line up. 5 will be able to see it. Major impact is in 6 I just want to mention one other close proximity. Of course if you arrived thing, Pat is our court reporter. And being 7 during construction, it would be a large as I think it's important for you to be heard 8 visual impact. and a record of what you've said, I may ask 9 10 Competing uses. At regattas, you to slow down at some point so that she 10 11 during races, you might have to detour or could get everything, so there is a transcript 12 avoid the operation, and vessel operations 12 that you could have to keep your thoughts. 13 sailing inside the wind park would be moderate 13 When you come up, the little card 14 impact, especially in times of heavy fog. that you had, if you will write your name very 15 Next. 15 clearly on that card, and give it to either 16 The time line again, as Bob 16 Jennifer here, or one of our two colleagues 17 mentioned, the time periods, April 21st 17 here, raising their hands, and they will take comments due. Public hearings are now, and your name and then we will have it accurately 18 18 19 the final, projected Final EIS would be fall 19 up there. We don't want to have it 20 of 2008. Record of decision 30 days after 20 misspelled. that. I guess that's it. 21 21 So let's start off with your

22

23

22

23

24

MR. MOORE: Thank you very much.

So now the meeting is yours, so

what we would like to do is explain a little

- 2 selectmen, so why don't you go over there.
- 3 And we will start also with Michael Kopko.

1

18

19

20

1

10

- 4 Michael, if you could go over to
- 5 this one. And then to H. Flint Ranney, if you
- 6 would come over to this one, and then Al
- 7 Peterson, who is from the Nantucket Airport.
- 8 Can't read what it says. Manager, I assume.
- 9 So Al would come over on this side.

We will have you speak, the four of you, each of you have five minutes, and then we will go over to the residents of Nantucket.

Thank you very much.

MR. WILLAUER: Welcome. My name is
Whitey Willauer. I am the chairman of the
Board of Selectmen of Nantucket, and welcome
all of you people of America.

The Board of Selectmen of Nantucket has not taken a position on Cape Wind, because it really doesn't directly impact the island.

21 As a matter of fact, there is no real positive

22 benefit to Nantucket, because they are beyond

23 the three-mile limit, and there is some

24 negative impact, but not a great deal.

#### 23

#### Cape Wind Energy Project - March 11, 2008

2 However, we are considering wind

3 turbines on land in Nantucket, and we've got

- ten sites that we are reviewing. And our
- 5 first site probably will be at the Waste
- 6 Options site in Madaket, or commonly known as
- 7 the Madaket Mall. And that we have an RFP out
- 8 now to investigate that.

9 Our problem here is that we are

short of land, so we can't, such as the

11 Germans, we don't have space enough to have

12 land-based turbines. So when I heard about

- 13 all this I said, well, where would I like to
- 14 have turbines in the water base? Well,
- 15 certainly not off Siasconset, because that is
- 16 some of the best bass fishing in the world.
- 17 And I notice you put your site just where our
- 18 borrow site would be encased when the
- 19 Siasconset Beach Nourishment Project comes on
- 20 the line.
- 21 Also, we discovered there are quite
- 22 a few shellfish there. 20 percent of our
- 23 ducks eat out there, and so that is a problem.
- 24 However, I would love to see a site off

#### Cape Wind Energy Project - March 11, 2008

- 2 Tuckernuck, because Tuckernuck is not where we
- navigate; it's not where we sail; it's not
- 4 where aircraft move. It's pretty much out of
- 5 the way, and we have high average wind
- 6 velocities, we could get up to the average
- 7 19.2 miles per hour year round. However, the
- 8 wave height is fairly high there, and also,
- 9 but it's fairly shallow, and as far as
- 10 visibility is concerned it won't bother many
- 11 people except the people in Tuckernuck, and I
- 12 haven't heard that many negative comments from
- 13 them.

14

1

2

1

Then if we did that, we could bring

- 5 the power back through Nantucket, and we have
- 16 two cables going to the mainland, and these
- 17 cables carry 35 megawatts. So since there is
- 18 no capability here of storing electricity,
- 19 since we don't have the gravity possibility,
- 20 we could use these cables as a storage
- 21 capability, send our excess capacity to the
- 22 mainland, and then we could use the capacity
- 23 from Tuckernuck to supply Nantucket and make
- 24 Nantucket energy independent.

25

#### Cape Wind Energy Project - March 11, 2008

It would cost us a bundle. I guess

3 it would cost about three million dollars per

- 4 megawatt, so we are talking about, if we have
- 5 a hundred megawatts out there, we would be
- 6 talking about \$300 million. And if we could
- taiking about \$500 million. And if we could
- 7 bring us some nice people to develop that,
- 8 that would be nice.
- 9 So, in conclusion, I'd like to see
- 10 us become energy independent. I don't think
- 11 the Cape Wind Project heads us in that
- 12 direction, but the site at Tuckernuck would.
- 13 And so -- and my, my other vice chairman here
- 14 has a different point of view, so you'll get
- 15 the alpha and the omega on the Board of
- 16 Selectmen.

18

22

17 Thank you very much.

- (Applause.)
- 19 MR. MOORE: Thank you. It's also
- 20 encouraging to have a colleague to speak a
- 21 different view, so we would like to hear it.
  - MR. KOPKO: Thank you. It's
- 23 wonderful to be the Omega. Thank you all for
- 24 coming. I know this is a long and arduous

26

#### Cape Wind Energy Project - March 11, 2008

- process, and you hear a lot of people say a 2
- 3 lot of, I'm sure the same things in a
- different kind of way, but my name is Michael
- Kopko. I am on the Board of Selectmen. 5
- 6 As Whitey said, the board has not
- 7 taken an official position on the Cape Wind
- Project, so I am here speaking for myself, not 8
- on behalf of any other board, commission or
- member. 10

1

1

- I think I understand a little bit 11
  - about the opposition to this project, because
- when it was first proposed I vehemently 13
- 14 opposed this project. And there were a lot of
- concerns that I had about environmental issues 15
- and navigational issues and safety issues and 16
- 17 all kinds of issues. And as I said, I was
- vehemently opposed, so I understand those 18
- concerns, I think, to an extent. 19
- 20 Like everyone else in the room
- here, I don't think there is anyone here in 21
- the room who wouldn't say they are very much 22
- 23 in favor of renewable energy generation and
- clean energy generation. I think we are all 24

# 27

#### Cape Wind Energy Project - March 11, 2008

- pretty much in agreement about that. 2
- And I wanted to like this project, 3
- I really did, but there were a lot of
- questions. Over the course of a year, a year 5
- and a half, I started to find those questions 6
- answered to my satisfaction about the impact 7
- of the project on the environment and on 8
- navigation and such, but what really turned 9
- the tide for me was a presentation by some 10
- 11 representatives who came here from Denmark,
- who had built a wind farm not -- I think not
- 13 quite on the scale of what we are talking
- 14 about here, but something that I thought was
- 15 similar enough. And while the gentleman from
- 16 the power utility said what you would expect a
- 17 power person, utility person to say, the other
- gentleman was an official from the government 18
- 19 who was in charge of the tourism in that area,
- and it was a resort area. And he indicated he 20
- had also vehemently fought this project since 21
- 22 its inception, and fought it through, in and
- out, and fought it and fought it. By the time 23
- he came to speak to us I think it was a year 24

#### Cape Wind Energy Project - March 11, 2008

- and a half to two years into the project being
- up and running. He was there to say it was
- the best thing to ever happen to their
- community.
- 6 Tourism had increased dramatically
- simply from people who wanted to come see the
- wind farm. The threatened environmental
- catastrophes and navigational catastrophes had
- not manifested themselves, and it was a real 10
- benefit to the community. 11
- 12 I am not going to bother you, I'm
- sure that you heard a lot of people explain to 13
- you about the vagaries of the fossil fuel
- power generation and the atmosphere, and all
- that other stuff, and I am not going to bother 16
- you with all of that because I think we all
- know about that. 18
- 19 But I see this project in a bigger
- context, in that there are social and 20
- environmental and economic and political 21
- issues involved with our generation in the 22
- 23 world, such that we need to develop renewable
- 24 energy production, and we need to develop as

#### 29

#### Cape Wind Energy Project - March 11, 2008

- much of it as we can and as fast as we can.
- And I don't think -- I already talked about
- the Tuckernuck, because we are exploring other
- alternatives, and I would not say alternatives
- to Cape Wind, but adjuncts to Cape Wind,
- because we need to develop as much alternative 7
- 8 energy as we can.
- And it's not going to replace all
- the nuclear power plants, it's not a panacea, 10
  - but every watt that is generated from these
- 12
- resources is not having to be generated by
- 13 some other type of fuel.

14

18

- So I'm here to speak in favor of
- 15 this project and I hope you would consider
- 16 allowing it here, because if not us, who? And
- 17 if not now, when? I think it's time.
  - (Applause.)
- MR. MOORE: The colleague from the 19
- Steamship Authority. 20
  - MR. RANNEY: My name is H. Flint
- Ranney. I'm a Nantucket resident living in 22
- Monomoy, and we thank you for coming to 23
- Nantucket to listen to the citizens and their

30 32 Cape Wind Energy Project - March 11, 2008 1 Cape Wind Energy Project - March 11, 2008 1 2 opinions. 2 (Applause.) 3 I am a Nantucket member and current 3 MR. MOORE: AI? 4 chairman of the Steamship Authority. And 4 AUDIENCE MEMBER: He will be back though I believe your Draft EIS suggests we shortly. 5 6 have 12 boats a day crossing Nantucket Sound, 6 MR. MOORE: He will be back, okay. in fact in the summer between the Hi-Line and When he comes back we will put him in. 8 the Steamship Authority we operate 46 vessels, 8 So I think those are the public passenger and freight, going back and forth on officials who are going to speak tonight. So a daily basis between Nantucket and Hyannis. that we will start with those of you who have 10 10 The Steamship Authority carries more than numbers who signed up. So if we could have 1, 11 11 3 and 5 here (indication). 2, 4 and 6 over 500,000 people in a season. 12 12 here. 7 can go over there and 8 up here. We 13 Last night in Yarmouth you had 13 14 heard a statement from our general manager, 14 will start. Wayne Lamson, expressing concerns about the 15 So Number 1, if you would stand and 15 proposed wind farm's location and its state your name, please. 16 16 17 potential effects on navigation in Nantucket 17 MS. EDWARDS: Good evening. My Sound. I won't repeat his statement, but I name is Jacqueline Edwards. I'm a resident on 18 18 19 would like to emphasize five key points that 19 Nantucket for the last 38 years. the Steamship Authority is concerned about. 20 20 I wonder in your eight years of 21 One, the Coast Guard has not 21 investigating Nantucket Sound waters if you completed their required study of this have investigated any other alternative sites. 22 22 23 23 project, and we believe they should do so And as a follow-up to my question regarding 24 before you complete your report. Reducing the 24 alternative sites, I would like to request 31 33 Cape Wind Energy Project - March 11, 2008 Cape Wind Energy Project - March 11, 2008 1 1 amount of navigable water in Nantucket Sound that the MMS evaluate better alternatives to 2 meet our energy needs than Cape Wind. The would have an impact on the choice of courses 3 for and comfortable operation of our vessels, cost-effectiveness of energy efficiency 4 particularly going into the foggy weather. programs like those done by Cape Light Compact 5 5 Placement of the wind power will 6 should be compared to Cape Wind. 7 7 force a lot of small boats out of the We have over 8,000 megawatts of Horseshoe Shoals and into ferry routes which untapped energy efficiency potential available 8 9 are right next to it, with increased potential in New England, and at a third of the cost of 10 for accidents. 10 new supply, with none of the siting issues 11 No complete study on the effects of 11 Cape Wind poses. We could also upgrade the 12 these turbines on shipboard radar has been 12 existing fossil fuel plants to 13 made. No study has been offered on the 13 high-efficiency, cleaner fuel sources at a 14 effects of ice formation around these towers 14 fraction of the cost. 15 during cold winters when temperatures drop so 15 Another alternative is deep wind 16 low Nantucket Sound freezes, or the 16 water. Deeper water sites offer stronger 17 consequences that might have for contributing 17 winds and greater potential with fewer to freeze-ups which might start near the downsides. They pose significantly lower 18 18 risks to navigational safety and to coastal 19 towers and spread out across the Sound. 19 20 Finally, the Steamship Authority 20 economies that depend on tourism, as well as

fewer visual impacts.

The potential for deep water sites

greater than hundred feet is vast. Nearly 90

percent of the offshore wind potential in the

21

22

23

21 does not oppose the concept of wind farms.

22 Our concern is about this location and safety

into factors into consideration.

23

24

risks this poses. I hope you will take these

- U.S. is in deep water, and these depths are 2
- feasible today. A 2006 study by the 3
- Department of Energy National Renewable Energy
- Lab shows a depth limit of 100 feet for 5
- 6 monopile foundations like that proposed by
- Cape Wind, 200 feet limit for tripods, jackets
- 8 and trusses, and practically unlimited depths
- for floating structures. Lattice structures
- are already operating in 150 feet with two 10
- turbines installed in Scotland, at the 11
- Beatrice pilot. 12
- 13 In addition, two large-scale
- 14 projects are slated for construction in
- Germany this year, that are more than 20 miles 15
- offshore and at depths of almost a hundred 16
- 17 feet. By comparison, Cape Wind's project
- relies on water that's no more than 50 feet, 18
- and less than six miles from shore. 19
- 20 Deeper water wind technology is
- advancing so rapidly that a project by Cape 21
- Wind should not be built in Nantucket Sound. 22
- 23 The public would get the same benefits --
- MR. MOORE: I ask you to finish up 24

### 35

#### Cape Wind Energy Project - March 11, 2008

- please. You need to finish up, please. 2
- 3 MS. EDWARDS: Thank you very much.
- MR. MOORE: Thank you very much. 4
- Number 2? 5

1

- 6 (Applause.)
- 7 MR. MOORE: Number 2, okay.
- MR. EDDY: Coming at you. 8
- 9 I am the Reverend Bill Eddy. I am
- a priest at St. Paul's Church here in 10
- 11 Nantucket. And in the winter of 2003 when I
- 12 was in Falmouth, I was one of the founders of
- 13 Clean Power Now. I built my first wind
- turbine in 1976 to celebrate the Bicentennial
- 15 of the nation. I am approaching this from a
- 16 slightly different pattern; more of a moral
- 17 point of view.
- As we contemplate construction of 18
- this project, I always believed that it would 19
- 20 be permanent. And my personal interest has
- always been to secure the local benefits of 21
- the people of this region. That is why we 22
- 23 began this particular organization.
- 24 We would like to see somehow in the

#### Cape Wind Energy Project - March 11, 2008

- final draft something about the local
- opportunity to secure this power. We need to
- learn more about a municipal light plant and
- how it could secure power and purchase it. We
- need to take something like the Cape Light
- Compact and turn it into an energy block which
- would allow the residents of Martha's Vineyard
- as well as the Cape to actually purchase the
- tower. 10

1

- We believe this wind farm/wind bill 11
- should be of direct benefit for us.
- 13 Interestingly enough, for the people here on
- Nantucket, the creation of a power source
- would be a direct benefit here for the people, 15
- with the creation of a municipal light plant 16
- right here. And you could even lay a cable
- from the farm and secure all of its power, or 18
- 19 you could guarantee the price for 20 years.
- 20 We need people to step up to the
- 21 plate who will help us solve problems and not
- create more problems. And we have a fantastic 22
- 23 intelligence and wealth of the minds to do it
- 24 here. We just need to say yes, we can, and

36

#### Cape Wind Energy Project - March 11, 2008

2 mean it.

- 3 In 1843, the Reverend Stephen
- Foster came to this island and reminded the
- clergy of this island that they couldn't worry
- about selling the saddle and not worry about
- 7 also selling people into human bondage.
- He came to this island to warn the 8
- clergy here that this island had a conscience
- and needed to act on it. The speaker went on 10
- to accuse the clergy of the island to be a
- brotherhood of thieves, stealing the future
- 13 away from the people who lived there, as well
- 14 as the people around the nation.
  - Back then people felt that
- 16 Nantucket was the center of the world, and
- 17 once again it's becoming a center of the
- world, of great power and prestige. If it was 18
- to lend its support to the wind power, it 19
- 20 would definitely change the way the nation
- deals with the future, and it could do 21
- 22 something that all of us could be glad about.
- 23 My main concern is when this wind
  - farm structure is permanent, that it be a

- 2 direct benefit. And I would go so far as to
- 3 say that as the founder of one of the

1

- 4 organizations that has been a proponent of
- 5 this project from the very beginning, that I
- 6 would want to see a national energy policy
- 7 enabled, implemented as soon as possible, and
- 8 within it I would like to see 20, 22, 24, 25
- 9 years from now when this wind farm is
- 10 delicensed, is removed, decommissioned, is
- 11 removed, it would not have to be stored in the
- 12 upper mountains. And when it is
- 13 decommissioned, it would herald the beginning
- 14 of deep water wind farms.
- This is the beginning of our
- 16 revolution and we once again, Nantucketers,
- 17 should be proud to be a part of it.
- 18 MR. MOORE: Thank you very much.
- 19 (Applause.)
- MR. MOORE: Number 3, and can we
- 21 have 9 and 10 back to back, so we could....
- Oh, great.
- 23 MR. GOLDING: My name is Ian
- 24 Golding, and I have been a full-time resident

39

#### Cape Wind Energy Project - March 11, 2008

- 2 of Nantucket for 27 years, since 1980.
- 3 VOICES: Louder.
- 4 MR. MOORE: You need to move
- 5 closer, please.

1

14

15

21

- 6 MR. GOLDING: My name is Ian
- 7 Golding, and I have been a full-time resident
- 8 of Nantucket for 27 years, since 1980.
- 9 My great-grandparents first came to
- 10 the island in the 1880's, and my earliest
- 11 memories go back to 1951 as a four-year-old,
- 12 peering through the cracks in the wooden
- 13 planks of the ferry --
  - MR. MOORE: You need to speak slowly and be close to the mike, so she can
- 16 get what you are saying.
- 17 MR. GOLDING: -- ferry terminal at
- 18 the surging waters below, waiting to catch the
- 19 boat from Woods Hole, having arrived there
- 20 with my family by train.
  - My point is that over my lifetime I
- 22 have seen a lot of changes; that I consider
- 23 references by opponents of the wind farm as to
- 24 the pristine nature of Nantucket Sound to beg

#### Cape Wind Energy Project - March 11, 2008

- the question of the buildout on nearly every
- 3 barrier beach, wetland, and scenic viewpoint
- 4 on both the island and the Cape, that has
- 5 contributed to making the wind farm necessary,
- 6 and that I am personally a strong supporter of
  - this project.
    - I spoke in favor of it at the Army
- 9 Corps of Engineers' hearing in December 2004,
- 10 and because of the vagaries of our political
- 11 system, I find myself before you yet again
- 12 today.

1

8

1

15

17

- 13 The Executive Summary of the Army
- 14 Corps of Engineers' DEIS makes clear that the
- 15 objections raised by the wind farm's opponents
- 16 as to the dangers it might pose to navigation,
- 17 wildlife, fisheries, the environment, and
- 18 aviation are specious; not based on objective
- 19 fact, but political or personal in nature.
- In the meantime, since 2004 the
- 21 science assessing the impact of global warming
- 22 has continued to become more and more
- 23 compelling. As a delegate to the UN's 60th
- 24 DPI/NGO conference last September in New York,

41

#### Cape Wind Energy Project - March 11, 2008

- 2 Climate Change: How It Impacts Us All, I was
- 3 privileged to listen to some of the world's
- 4 leading scientists on the subject.
- 5 The Secretary-General's
- 6 introductory message read, in part, "The
- 7 impact of climate change is grave and growing.
- 8 We cannot go on this way for long. We cannot
- 9 continue with business as usual. The time has
- 10 come for decisive action on a global scale."
- 11 The end note speaker was Rahendra Pachauri,
- 12 the chairman of the Intergovernmental Panel on
- 13 Climate Change, which shared the 2007 Nobel
- 14 Peace Prize with Al Gore.
  - Besides summarizing the
- 16 overwhelming body of scientific evidence that
  - has led to the conclusion that global warming
- 18 is going to be catastrophically disruptive in
- 19 many parts of the world, even if man-made
- 20 greenhouse gas emissions were to stop
- 21 tomorrow, he added that much of the IPCC's
- 22 fourth report, released last December, was
- 23 basically already out of date, due to the
- 24 unanticipated acceleration of many of the

10

44

Cape Wind Ene	ergy Project -	March 11	. 2008
---------------	----------------	----------	--------

- 2 observed realities on the ground compared to
- 3 the mathematical modeling on which components
  - of the report were based.

1

- 5 Last year Pope Benedict XVI urged
- 6 Christians not to squander the world's
- 7 resources, and the other day the Vatican
- 8 announced it had added environmental
- 9 degradation to the list of seven mortal sins.
- 10 The Vatican has also declared its intention to
- 11 install solar panels on the roof of an
- 12 auditorium within the Holy See.
- 13 I put it to this hearing that if
- 14 the Pope has seen fit to install solar panels
- 15 within the Vatican's medieval walls, the least
- 16 we can do is to approve a wind farm in
- 17 Nantucket Sound.
- Thank you.
- 19 (Applause.)
- 20 MS. WASSERMAN: Hello. My name is
- 21 Laura Wasserman.
- 22 I have lived on Nantucket for
- 23 almost 20 years, and I am strongly in support
- 24 of the wind project.

1

43

#### Cape Wind Energy Project - March 11, 2008

- 2 First, I would like to thank the
- 3 Minerals Management Service for their
- 4 diligence and the comprehensiveness of their
- 5 report, and this opportunity to participate in
- 6 this permitting process for the Cape Wind
- 7 project. I was pleased to see that the DEIS
- 8 showed only negligible and minor impacts, only
- 9 a couple of moderate impacts in the whole
- 10 1700-page report, and no major impacts.
- 11 I am disappointed in the statements
- 12 of our elected officials, however, and their
- 13 ongoing lack of support for this project, as I
- 14 don't believe they are acting in the public's
- 15 best interest. At the very least, they don't
- 16 speak for me. How do they expect to achieve
- 17 the new renewable energy standards and carbon
- 18 emission reductions mandated to us by the
- 19 state, the country and the times? This can
- 20 only be achieved through utility-scale
- 21 renewable energy projects like Cape Wind.
- 22 I am also disappointed to see so
- 23 many off-island faces here to give testimony
- 24 today. Clearly, the opposition to this

## Cape Wind Energy Project - March 11, 2008

- 2 project has mobilized their forces and ferried
- 3 over a boatload of off-island opponents.
- 4 While this is a public hearing, I presumed it
- 5 was intended for island voices, and I hope you
- 6 will take that into consideration when
- 7 weighing our comments. I have lived on
- 8 Nantucket for almost 20 years, and I strongly
- 9 support the Cape Wind project.

True story. I went to bed last

11 night thinking about what I was going to say

- 12 today and worrying about this hearing.
- 13 Significantly, I found myself dreaming that I
- 14 was perched on a hilltop with views for miles,
- 15 and the whole hillside was covered in trash.

So this is what I have to say. We

- 17 are on the Titanic, and there aren't enough
- 18 lifeboats. This wind farm is a great big
- 19 lifeboat, and I think it's time we launched it
- 20 and began this rescue mission. And it is our
- 21 island that is the Titanic.

22 Nantucket is currently losing land

- 23 at a rate of at least six acres per year
- 24 according to the Woods Hole Oceanographic

45

#### Cape Wind Energy Project - March 11, 2008

- 2 Institute. And this does not include land
- 3 lost to storm damage. This is a very
- 4 substantial loss. This rise in sea level is
- 5 directly related to global warming. The
- 6 Number 1 contributor to global warming is fuel
- 7 combustion and carbon dioxide emissions. The
- 8 wind farm will displace one million tons of
- 9 carbon dioxide annually, and it is the most
- 10 significant way that we can stem global
- 11 warming in our region.

12 Furthermore, global warming, not a

13 wind farm, is also the biggest threat to our

- 4 local bird populations. In fact, it is the
- 15 Number 1 threat to birds, followed by glass
- 16 windows, automobiles, house cats and hunters,
- 17 all of which kill no less than 100 million
- 18 birds annually each, and we aren't trying to
- 19 stop any of these.

22

The DEIS report has shown that any

- 21 impacts to piping plovers will be minor, if
  - any, and that the wind farm will have
- 23 inconsequential effects to the roseate term
- 4 population. On the other hand, we are losing

2 whole avian species due to climate change.

3 I know there are a lot of concerns,

4 and the DEIS addresses most of them. As for

- navigation worries, the wind farm will be 5
- 6 positioned at least one mile from ferryboat
- routes. Concerning air traffic, the turbines
- 8 will stand more than 500 feet below minimum
- flight altitude requirements. Regarding
- sailing, the turbines will be placed a 10
- distance of six to nine football fields apart, 11
- leaving more than enough room for pleasure
- 13 boating. And as far as real estate and
- 14 tourism are concerned, the presence of a wind
- farm has only been beneficial and increased
- tourism in similar communities around the 16
- 17 world.

18

1

1

Finally, I would like to address

- one of the big issues, that of location, as 19
- expressed in last week's editorial in the 20
- 21 Inquirer & Mirror. There has been extensive
- 22 research into siting for this project, and the
- 23 DEIS addresses it as well. Horseshoe Shoal
- 24 was found to be the best location for this

46

#### Cape Wind Energy Project - March 11, 2008

- project, inclusive of wind availability, 2
- protection from elements, access to power 3
- sources, cost and community need. 4
- As a final point, the editorial 5
- also brings up the question of a 6
- decommissioning bond, though this has been 7
- addressed time and time again for the past 8
- seven years. Yes, Cape Wind will post a 9
- 10 decomissioning bond. The DEIS is requiring
- 11 it. So no, this project won't be abandoned in
- our Sound. 12

13

17

As a nation that comprises 3% of the world population and uses 25% of its

15

resources, we need to take responsibility for

16 our consumption and the planet and begin to

mitigate the effects of climate change.

18 So I ask that we look beyond

19 ourselves, our fears, our own personal

aesthetics, and support this bold, visionary, 20

environmentally sound project to protect our 21

environment, our future, and to truly save 22

Nantucket Sound. 23

24 Thank you.

#### Cape Wind Energy Project - March 11, 2008

(Applause.)

1

2

3

4

7

1

14

MR. MOORE: Thank you very much.

Number 5, 6, Number 7, and move

5 forward so we could begin.

6 Number 5, you are next.

MR. BORCHERT: Good evening.

8 Dear Minerals Management Service,

the Cape Wind Energy Project would be capable

of supplying 79% of the region's electrical 10

energy needs on average. The project is 11

economically viable because of no fuel costs,

13 set maintenance costs, fixed-price power

14 purchase agreements, and it can also bid zero

fuel cost in the hourly spot market, knocking 15

higher bidders off the top of the bid stack. 16

17 This saves ratepayers money.

18 There are no harmful emissions such

19 as carbon dioxide and mercury, which

contribute to global warming, poison our air 20

and contaminate our waters and fish. The wind 21

resource here is unsurpassed and there is an

22

23 estimated 900,000 megawatts of offshore wind

24 potential in the US, with 300,000 megawatts

48

#### Cape Wind Energy Project - March 11, 2008

- right here in the Mid-Atlantic Bight from
- Maine to North Carolina. 3

The Mid-Atlantic Bight is very 4

attractive for offshore wind development

because it is adjacent to large cities and

7 could produce enough electrical power for the

entire Eastern Seaboard. A large and 8

expensive transmission system would be avoided

10 along the East Coast if we build wind farms

11 within 35 miles from shore. The technology

12 for shallow water near shore sites like

13

Horseshoe Shoal is available now and proven.

I have visited offshore wind parks

in Denmark at Nysted and Blavand and was

16 stunned to see how quiet and benign they are.

17 These two wind parks have been so successful

18 that the Danish government has ordered them to

be doubled in size, and has set a goal for the 19

20 country to get 50% of its electrical power

from wind by 2025. 21

22 Cape Wind at peak will produce

enough power for 468,000 homes, with average 23

production for 185,000 homes. The turbines

- require no imported oil from geopolitically 2
- unstable zones, no natural gas from dangerous 3
- LNG tankers, no coal from devastating
- 5 mountaintop removal techniques, and no uranium
- 6 from radioactive mines.

1

- 7 No single-hulled oil barges will be
- necessary to fuel the project, eliminating the 8
- 9 chance of a catastrophic oil spill. The total
- footprint of the monopoles will be less than 10
- one acre, and the wind farm grid will be open 11
- to recreational boaters and commercial 12
- 13 fishermen once construction is completed.
- 14 After seven years of exhaustive
- review and four major government reports, 15
- including this one, no major problems with the 16
- 17 Cape Wind Energy Project have been identified.
- 18 The project will be funded by private
- investment, and the production tax credit 19
- 20 doesn't cost the taxpayer a penny.
- 21 The Mass. Audubon Society is the
- largest and most respected avian authority in 22
- 23 New England, and they have granted conditional
- 24 approval of the project. Let's build Cape

### 51

#### Cape Wind Energy Project - March 11, 2008

- Wind now and begin to create a safer, cleaner 2
- and more secure world for our country, our 3
- children and our grandchildren. 4
- MS. VOLLANS: I'm Dorothy Vollans. 5
- MR. MOORE: You need to move up as 6
- 7 if you are a rock star.

1

- MS. VOLLANS: Thank you for this 8
- opportunity to speak in favor of Cape Wind. I 9
- have lived year round in Nantucket since 1979, 10
- 11 and I have served on the Nantucket Zoning
- 12 Board of Appeals and as an advisor to the
- 13 Nantucket Historic District Commission.
- 14 I care about my backyard and how it
- 15 looks, but I care even more about the air I
- 16 breathe. I also care about the future of the
- bird population, and the quality of our lives
- in general. 18

17

- 19 Cape Wind offers us a means of
- providing electricity without burning fossil 20
- fuels. As you know, oil and gas emissions 21
- contribute to climate instability on a huge 22
- scale. Back in 2005 I traveled to Denmark to 23
- view the offshore wind farms, with an 24

#### Cape Wind Energy Project - March 11, 2008

- undecided mind as to what I'd find.
- 3 Briefly, I found in favor of those
- working projects. And I also find that the
- statements by Cape Wind regarding their
- project on Horseshoe Shoals are factual.
- 7 Sadly, the Alliance, who oppose the
- 8 development of wind power, have argued over
- and over against wind power, with points that
- have been addressed repeatedly with true 10
- facts. 11

1

- 12 Their arguments are innuendo and
- 13 worse, untrue. Their only item that stands is
  - not wanting this power plant in their back
- 15 yard, even though they will barely see it on a
- clear day. 16

17

1

13

- Photos and artist's drawings of the
- wind farm as seen from shore are all 18
- foreshortened and make it appear close to the 19
- dune grass. This is a telephoto effect. In 20
- 21 the North Sea and other waters off Denmark,
- the turbines were barely visible from shore. 22
- We went by boat, oared out amongst them, and I
- 24 found them to be quiet, smooth and elegant.

## 53

#### Cape Wind Energy Project - March 11, 2008

- Our boat moored right alongside one of them. 2
- 3 No problem.
- I hope you will find in favor of 4
- clean power as soon as possible.
- 6 Thank you.
- 7 MR. MOORE: Thank you very much.
- 8 Number 7 and Number 8.
- Anyone who has a written report
- that you want to submit it, please do. It 10
- will help make sure that our transcript is as
- 12 accurate as possible. Thank you.
  - MS. PICKWICK: Hello. My name is
- Victoria Pickwick. I am a year-round resident
- 15 of Nantucket. First, I'd like to commend the
- 16 MMS for all their hard work in preparing this
- 17 thorough, accurate and non-partisan DEIS, and
- to hear our feedback. Second, I'd like to 18
- 19 clear up some inaccurate statements, fear
- 20 tactics and innuendos promulgated by an
- off-island group called the Alliance, who 21
- purportedly wants to save our Sound for us. 22
- 23 Their talking points include, quote, "Right
- idea; wrong place," which sounds like NIMBYism

2 to me.

3 In other words, I would like to

4 comment on fear mongering about local economy,

- jobs, tourism, rent values, bird, fishing 5
- 6 commercial and recreational, fishing for
- mollusks, finfish as well as shellfish. I
- 8 would like to comment on navigation, too.
- This includes plains, trains, automobiles,
- hang gliding, and in general whatever moves. 10
- Our Coast Guard states the proposed plan meets 11
- standards necessary for navigational safety. 12
- 13 You are going to hear a lot about
- 14 Denmark. I know Denmark is not Nantucket, but
- there are some valid similarities. The Nysted
- 16 and Horns Rev locations in Denmark have avian
- 17 migration radar studies showing that the fear
- of negative impact on avian life is but 18
- 19 another bit of hysteria promulgated by the
- Alliance, who say they want to protect 20
- 21 Nantucket bird life.
- We have the blessing of the 22
- 23 Massachusetts Audubon Society. I equate them,
- 24 the Audubon Society, to bird lovers. Are we

### 55

#### Cape Wind Energy Project - March 11, 2008

not to believe them? 2

1

- 3 Nysted in Denmark is a town very
- much like Nantucket in terms of its livelihood
- being dependent on tourism, historic houses, 5
- day sailors like ourselves, who now sail past 6
- the beautiful windmills. Both the mayor and 7
- the director of the Chamber of Commerce of 8
- 9 Nysted said, "Why me? Why us? Can't you pick
- 10 another spot," before the fact, and their
- 11 fears were unfounded after the wind farm was a
- 12 fait accompli.
- 13 We ask, "Why here?" Well, the
- 14 Danes reported no impact on tourism, property
- 15 value, boating and fishing; indeed, just the
- 16 opposite.
- 17 This project is indeed in shallow
- water, a shoal, which is the optimum location 18
- 19 for the pylons and the perfect place to
- 20 enhance the mollusks, fish, et cetera. The
- 21 marine life will go on these pylons, thinking
- 22 they are rocks and a safe place to start a
- 23 family. These structures will enhance the
- livelihoods of our recreational and commercial 24

#### Cape Wind Energy Project - March 11, 2008

fishermen.

1

6

11

1

3 It's a shame the SOS people are so

intent on fooling people for their own private

5 agenda.

MR. MOORE: It's time.

MS. PICKWICK: We live here. We 7

8 can see with our own eyes.

9 Thank you.

10 (Applause.)

MS. WHEATLEY: My name is Nancy

Wheatley, and I live on Nantucket. Somewhat

13 over 30 years ago I also used to fish with my

14 father on Horseshoe Shoals, and in 1979, I had

15 my first experience with alternative energy,

when I was on the staff of the MIT Energy Lab,

17 developing regulations for the Public Utility

Regulatory Policy Act, which some of us in the 18

19 room may remember.

20 I want to speak in favor of the

21 Cape Wind Project on Nantucket Sound. After

22 two comprehensive DEIS's, one by the Army

23 Corps and one by the Minerals Management

24 Service, it is clear that the project will

57

#### Cape Wind Energy Project - March 11, 2008

- provide many types of benefits without harming
- 3 our environment or our home.
- 4 During this process, many serious
- questions have been asked, and those have been
- answered, and I trust that in the Final
- Environmental Impact Study, those additional
- questions will also be answered.
- Nevertheless, we continue to hear claims about
- 10 the risks posed to -- the risks to us which
- 11 are posed by this project.

12 The statements about these risks

are intended to fan our fears, and they make 13

inconsistent claims to enhance those fears.

15 We are told the developer is going to make

16 money. Well, this is a private enterprise

17

country, and in this state, in particular,

most of our energy comes from private 18 19 enterprise, and we wouldn't have that energy

20 if those energy providers didn't make money.

21 We've also recently heard the

project is so expensive that it can't, that it 22

23 is going to raise our electricity rates. If

the project is too expensive, first of all, it

won't be built, and second of all, if it is

2 built and the cost is too high, the price is 3

1

7

16

17

18

1

11

14

21

too high, then no one will buy the energy. So

Cape Wind Energy Project - March 11, 2008

once again it's a fear that is not real. 5

6 We hear about the potential for oil

in the Sound from the transformer. It's a

relatively small amount of oil, particularly 8

9 given all the boating that goes on in the

Sound, and all the oil barges that go back and 10

forth from the Canal power plant. And if I 11

thought that the ferries and the planes

couldn't navigate buildings, docks, towers and 13

14 things like that, I wouldn't fly to Boston,

and I wouldn't take the boat to the Cape. 15

At this point the opposition seems to have evolved to "Right project; put it some

place else." That is the very essence of not

in my backyard. Nantucket has a long history 19

as a innovator and a leader. This project is 20

in fact about leadership. It is big enough to 21

make a difference. It is big enough to have a 22

23 very real impact on the very real power plant

24 at the end of the canal, which I have seen Cape Wind Energy Project - March 11, 2008

problems navigating through and around the

wind park, and it has not stopped them from

coming to Nysted and enjoying themselves. The

mayor of Nysted told me that property values

6 are going up, not down. No problems there.

7 Only one dead bird was recovered in

8 the first 18 months of operation by the

maintenance crews on their boats. There have

not been any reports of major bird kills at 10

Nysted. No problems there. 11

12 At first the lights on top of the

nacelles were flashing randomly. Then the 13 operators fixed this problem by making all the

lights flash at the same time on each turbine 15

nacelle. I looked at the wind park at night 16

and could barely see the lights. No

operational problems there. 18

In conclusion, I have visited these 19

20 wind parks personally and I am of the opinion

that we have nothing to fear or worry about. 21

They are out at sea quietly and beautifully 22

23 producing clean electricity.

(Applause.)

58

# Cape Wind Energy Project - March 11, 2008

many times when I have gone to Boston on Cape 2

Air. This project, the Cape Wind Project 3

alone, will not change the world, but will, 4

proudly enough, it will make a difference. 5

6 Thank you very much.

(Applause.) 7

MR. MOORE: Thank you. 8

9 Number 9? So 9, 10, 11, 12, 13,

and then 14. Would you come up so you are 10

ready at the mike.

12 MR. ALLFATHER: My name is Randy

13 Allfather. I am a resident on Nantucket.

Dear MMS, I went to Nysted, Denmark

15 in May of 2005 to see the offshore wind park

16 there for myself, and this is what I have to

17 report. The Nysted wind park is 1.5 miles

from the shipping lane in the Baltic Sea, 18

19 where 65,000 ships pass per year. There are

20 no operational problems with the wind park as

far as shipping is concerned here.

Over 20,000 German sailors and 22

23 their families and friends descend upon Nysted

24 from Germany every summer. They have had no 61

#### Cape Wind Energy Project - March 11, 2008

MR. FREEDMAN: My name is Don

3 Freedman and I live here in Nantucket.

When this thing, whole concept 4

became of concern, I was in the middle of the

road; I really couldn't decide, and therefore

continued to try to get as much information as 7

I could. 8

24

1

2

10

9 After listening to all the facts,

some of which were so clearly stated earlier,

it became obvious to me that this plant is an

opportunity for us to do something that's

13 leading the East Coast, leading Massachusetts,

leading the United States, and saying, "We are

15 going to do something about it. We are not

16

going to just stand back and see what happens

17 or hope it goes away."

18

The problem of global warming is

19 obvious. The facts that were stated are

clear, so I felt it not necessary to reiterate 20

21 those facts. It seems to be reiterated for

years now, and some people just come up with, 22

I hate to say, kind of cock and bull stories

that are on the other side of the fence that

64

#### Cape Wind Energy Project - March 11, 2008

- 2 just don't seem to be based on facts.
- 3 The facts seem to be true, that
- 4 this is not a problem, this is a good thing.
- We need it before Nantucket doesn't exist any 5
- 6 longer, or is

1

- 7 not -- or maybe just portions of it disappear.
- Nantucket could be, needless to 8
- say, Nantucket could be a beautiful place for
- our children and our grandchildren to share, 10
- and I think we need to do something aggressive 11
- about it and make a stand to do something that
- makes us proud. 13
- 14 I hope you consider all these
- things, and I think it's wonderful that you
- are here listening to public views like this. 16
- 17 I think it's great, what the world is all
- about. 18
- 19 Thank you very much.
- (Applause.) 20
- MR. MOORE: 11. 21
- MR. SAWYER: 11? 22
- 23 MR. MOORE: Yes.
- 24 MR. SAWYER: Good evening. I'm

#### 63

#### Cape Wind Energy Project - March 11, 2008

Pete Sawyer. 2

1

- MR. MOORE: A little closer. 3
- MR. SAWYER: I first came to 4
- Nantucket in 1924, and have been coming here 5
- summers ever since. I've been here full-time 6
- since 1991. 7
- I have been sailing in Nantucket 8
- Harbor and the Sound for over 70 years. The
- 10 idea that the wind farm would close off
- 11 sailing in the Sound is ridiculous. The
- spacing of the towers will be on a grid of 30
- 13 miles in one direction, and a half a mile in
- the other direction, and that's more than the
- distance from Coatue's first point to the
- 16 Jetties Beach. I think even the Figawi could
- manage to sail through a channel that is a 17
- half a mile wide. 18

19

20

- The horseshoe Shoal wind farm project has gone through years of analysis and
- 21 review. Better than 90 percent of the results
- are favorable. The balance fall in the area 22
- of marginal and don't yet have enough 23
- information. 24

#### Cape Wind Energy Project - March 11, 2008

- When the United States put Neil
- Armstrong on the moon, it did not have all the
- answers either. Cape Wind has been in the
- planning and review process as long as it took
- the Apollo project to get from John Kennedy's
- 7 decision to launch it until Armstrong got to
- 8 the moon.

1

2

- 9 We've had enough of the petty
- bickering about trivial details and the myriad 10
  - of what-ifs that are thrown across our bow.
- The time has come to get on with it, and as
- 13 NASA did, Cape Wind can solve any remaining
- 14 problems as it goes along.
- 15 The Cape and Island need clean
- energy and renewable energy. The country 16
- 17 needs energy that we don't have to buy from
- our enemies, and the world needs relief from 18
- the pollution from burning fossil fuels. 19
- This project will be a major step 20
- towards getting our country moving on the 21
- right track. Let's do it. 22
- 23 (Applause.)
  - MR. MOORE: Number 12, 13, 14, 15

## 65

#### Cape Wind Energy Project - March 11, 2008

- and 16. So if you would come down so you are
- ready. 3

24

- MS. PARKER: My name is Audra 4
- Parker, and I am proud to be a director of the
- Alliance to Protect Nantucket Sound.
  - For the last 30 minutes you have
- been listening to some people, particularly
- members of Clean Power Now, that believe that
- 10 Cape Wind is the miracle project. In fact, if
- 11 you look at the DEIS summary impacts table,
- 12 you could see why you would believe this.
- 13 There is no other way to describe a
  - massive industrial development that only has
- 15 minor and negligible impact on almost every
- conceivable issue area. Unfortunately, when
- 17 you look at the DEIS in more detail, many
- blatant representations become clear. Example 18
- 1, the DEIS estimates a total loss to the 19
- entire fishing community of \$15,000 over the
- life of the project, but a recent in-depth 21
- 22 study by the Massachusetts Fisherman's
- Partnership of just the mobile gear segment 23
- estimates an \$8 million impact if the area

- 2 remains open to fishing, and 13 million if
- 3 it's closed to mobile gear fishing. Add in
- 4 other fishing segments, and the actual impact
- 5 is 1,000 times more than the DEIS claims.
- 6 \$15,000 according to MMS. Between eight
- 7 million, eight and \$13 million according to
- 8 the fishermen that fish Horseshoe Shoal.
- 9 In another example, the DEIS states
- 10 there is only a minor impact on aviation, but
- 11 the Federal Aviation Administration, the FAA,
- 12 recently issued a presumed hazard designation
- 13 for Cape Wind, and determined that additional
- 14 studies were needed.

1

1

- 15 A third example of the
- 16 misrepresentations in the DEIS concern visual
- 17 impacts, and I'm sure this would be a popular
- 18 one right now, a technical report called
- 19 Visual Impact Assessment is done for both the
- 20 state and federal reviews.
- 21 This report found that every
- 22 location with a view of the proposed project
- 23 would be adversely affected. I'm sorry,
- 24 adversely affected. However, in the DEIS when

#### 67

66

1

2

12

1

2

13

18

24

#### Cape Wind Energy Project - March 11, 2008

- 2 the results of this report were presented,
- 3 most of these characterizations are actually
- 4 reversed and they will have no adverse effect.
- 5 Finally, the DEIS gives navigation
- 6 impacts a minor, but the Coast Guard has
- 7 requested a complete study on wind plant radar
- 8 interference and the serious effects that it
- 9 could have on safe navigation for both large
- 10 and small vessels in Nantucket Sound.
- 11 Those are only a few examples of
- 12 the errors and the misstatements in the DEIS.
- 13 We have a team of independent experts that are
- 14 going to cover more. Cape Wind is not a
- 15 miracle project as portrayed in the DEIS, or
- 16 is believed by members of Clean Power Now. It
- 17 is a massive industrial development with
- 18 serious and significant impacts.
- 19 Thank you.
- 20 (Applause.)
- 21 MR. MOORE: 13.
- MR. MARKS: I'm Phillip Marks. I'm
- 23 a long-time Nantucket resident my whole life.
- 24 MR. MOORE: A little closer.

### Cape Wind Energy Project - March 11, 2008

MR. MARKS: I worked on a project

- at the Nantucket landfill for six wind
- 4 turbines out there. I was approved at one
- 5 meeting to put them in there, and a group such
- 6 as what is against the wind farm in the Sound,
- 7 went together and squashed that project, and
- 8 several things like that. They didn't want to
- 9 look at it and "Find someplace else to put
- 10 them," and on and on, which caused the demise
- 11 of that project.
  - Again we are in the same situation.
- 13 We are told to look someplace else, and
  - 4 everybody went and looked someplace else and
- 15 they picked a place away from all the houses
- and away from all the people, and used all the
- 17 available technology today to put the wind
- 18 farms in the ocean. And today's technology
- 19 picked a place in Nantucket Sound, which is a
- 20 great wind resource and shallow enough water
- 21 for our current technology, and that is where
- 22 they chose to put it. And again, the same
- 23 type of rhetoric about how we shouldn't have
- 24 it there comes up again.

# 69

#### Cape Wind Energy Project - March 11, 2008

- Now, the state, under the
- 3 deregulation, mandated that all the energy
- o deregulation, mandated that all the energy
- 4 providers in the State of Massachusetts had to
- 5 derive a percentage of their energy from a
- 6 renewable resource. I don't understand where
- 7 the renewable resource is supposed to come
- 8 from other than things like wind, which is the
- 9 predominant renewable resource that is
- 10 available for us. This project would allow
- 1 the Massachusetts energy providers to meet
- 12 that goal of our percentages.
  - We are only going to use 10 percent
  - if we took the whole land area of the wind
- 15 farm to produce 79 percent of the energy that
- 16 is required for the Cape and Islands. That is
- 17 a pretty significant thing.
  - Nantucket used to steal energy from
- 19 the wind. We ground our corn back before we
- 20 had electricity from wind turbines that are
- 21 right behind us here up on the hill. All our
- 22 ships were sailing all over the ocean for
- 23 whaling and stuff.
  - So I think the history and the

1

15

19

4

11

15

16

18

21

22

#### Cape Wind Energy Project - March 11, 2008

- 2 visual impact of the wind turbines are things
- 3 that will be embraced as time goes on, because
- 4 people would look at wind farms and see what
- 5 we did to protect our environment and to move
- 6 forward into the wind farm, and get this
- ' project going so we could maybe move and get
- 8 it further away from the people, if that is
- 9 what it needs to do.

1

10

11

12

13

14

15

22

1

5

7

We need to start with what we have today, and we can't keep putting it off. We already put it off 20 years from when I first tried doing it. So I ask the Board to make a favorable recommendation and to provide the permit for Cape Wind to proceed.

16 (Applause.)

MR. MOORE: Number 15. 14 over

18 here. No 14? Okay, 15, 16.

Over to my mike, please.

MR. BERGER: Good afternoon. My name is John Berger. I am a Ph.D. candidate

from the University of Rhode Island.

Over the course of the last eight months, I have been working with the

71

#### Cape Wind Energy Project - March 11, 2008

- 2 Massachusetts fishermen to do an economic
- 3 valuation of the Horseshoe Shoal area as a
- 4 mobile gear fishing grounds.

Approximately 146 mobile gear

6 fishing vessels hold Massachusetts coastal

access permits, endorsed with both squid and

- 8 fluke. This grants them an exclusive right to
- 9 fish the Horseshoe Shoals area of Nantucket
- 10 Sound during the spring, small mesh squid

11 season, and the inshore summer fluke season.

These endorsements, in a sense, act

13 like a property right. They may be traded on

14 the open market and offer a degree of

15 exclusivity to the holder. And according to a

16 study by the Massachusetts Division of Marine

17 Fisheries, nearly all squid landed in

- 18 Massachusetts are taken from Nantucket and
- 19 Vineyard Sounds. And the Horseshoe Shoals
- 20 area is identified in this report as the
- 21 second most trawled area in Nantucket Sound.
- These exclusive mobile gear
- 23 fishermen were never identified by Cape Wind's
- 24 Environmental Impact Statement, so a type of

#### Cape Wind Energy Project - March 11, 2008

- contingent valuation mail and telephone survey
- 3 was developed and administered to this
- 4 exclusive group of mobile gear fishermen.
- 5 Forty-eight mobile gear fishermen were
- 6 contacted by phone or through the mail.
- 7 Thirty-four of the forty-eight fishermen
- 8 contacted said that they annually fish in the
- 9 Horseshoe Shoals area of Nantucket Sound.

The average annual income derived specifically from the Horseshoe Shoals area

for these vessels is roughly \$14,590, which

13 represents about 40 percent of their average

14 annual income from Nantucket Sound.

Based on the evidence of other

16 offshore wind farms around the world,

17 developing a wind farm on traditional fishing

18 grounds imposes social costs to commercial

fishermen, especially trawlers.

20 Many European wind farms have been

21 closed to trawling at least temporarily. If

22 not closed, it is still recognized that

23 commercial fishing effort may be displaced,

24 due to an unwillingness or inability of

73

#### Cape Wind Energy Project - March 11, 2008

trawlers to effectively tow their gear through

3 the wind farms.

In the case of the Barrow's Wind

Farm in northern Wales, mobile gear fishermen

6 have taken legal action to seek compensation

7 for the loss of fishing grounds in the Barrow

8 area as a result of the wind farm development,

9 even though it has not been closed to mobile

10 gear fishing.

The contingent valuation scenario

invites fishermen to enter into a class action

13 lawsuit against Cape Wind for possible

14 compensation if the rights to develop a wind

farm are granted to this area.

Thirty-two of the thirty-four

17 commercial fishermen interviewed agreed that

they had historical evidence of fishing in

19 this area, and would take part in this

20 lawsuit, regardless of whether or not the wind

farm remained open to mobile gear fishing.

The total economic value of

23 Horseshoe Shoals is estimated under two

24 scenarios: First, a wind farm developed on

76

#### Cape Wind Energy Project - March 11, 2008

- 2 Horseshoe Shoals and open to mobile gear
- 3 fishing; and two, a wind farm developed on
- 4 Horseshoe Shoals and closed to mobile gear
- 5 fishing. A policy relevant, compensating
- 6 surplus measure of welfare is estimated based
- 7 on this scenario.

1

- 8 The results show a total net
- 9 present value discounted over a 25-year
- 10 expected life of the project, if the wind farm
- 11 remained open to mobile gear fishing, of
- 12 approximately \$8 million. The total net
- 13 present value over the same time horizon for
- 14 the second scenario --
- MR. MOORE: Finish up.
- MR. BERGER: -- where the wind farm
- 17 is closed to mobile gear fishing is
- 18 approximately \$13.3 million.
- 19 MR. MOORE: Thank you.
- 20 (Applause.)
- 21 MR. DACKERMAN: My name is Ray
- 22 Dackerman. I am the general manager of Blue H
- 23 USA.

24

1

Blue H USA is the exclusive

75

#### Cape Wind Energy Project - March 11, 2008

- 2 developing company for Blue H Technologies BV,
- 3 which in December of 2007 launched the world's
- 4 first floating wind energy platform.
- 5 I would first of all like to thank
- 6 MMS for all of its hard work. I have attended
- 7 many MMS hearings, and I see the hard work
- 8 that has been involved, and I would like to
- 9 thank MMS for what you have done thus far.
- 10 Excuse me if I am a bit incoherent, but since
- 11 yesterday I had a big announcement. I had
- 12 almost no sleep and no food, but today I am
- 13 going to try to make an announcement that deep
- 14 water wind energy is here today and not in the
- 15 future.
- 16 Yesterday, at the John F. Kennedy
- 17 Museum in Hyannis, Blue H USA announced the
- 18 submission of nomination of a lease to
- 19 install the first deep water wind energy unit
- 20 in the United States. This location is 23
- 21 miles south of Martha's Vineyard and 45 miles
- 22 off of New Bedford.
- To be clear, we are not applying to
- 24 install a met tower, we are applying to

#### Cape Wind Energy Project - March 11, 2008

- 2 install an actual deep water wind energy unit
- 3 which is the product of over ten years of
- 4 development and hard work in Europe by Martin
- 5 Jakubowski, our chief technology officer.
- 6 As mandated by MMS, this
- 7 demonstration unit, which will be
- 8 non-operational, and thus will consist of our
- 9 deep water counterweight, deep water platform
- 10 and nacelle, to simulate the actual weight, so
- 11 therefore, we would not produce electricity.
- 12 But we want to make it clear that this unit we
- 13 are putting in will prove the construction,
- 14 the commissioning and decommissioning of deep
- 15 water wind energy in the United States.

Blue H as a deep water wind energy

- 17 company must contrast its technology with
- 18 shallow water technology. We are inherently,
- 19 in relationship with shallow water technology,
- 20 non-invasive. We place a counterweight on the
- 21 sea floor. We are not damaging the sea floor.
- 22 So in terms of environmental impact, we don't
- 23 have the long construction period; we don't
- 24 have any construction period. See, in fact,

77

#### Cape Wind Energy Project - March 11, 2008

- 2 we are assembling, actually, we are assembling
- 3 fully on shore, but we are just launching at
- 4 sea.

13

18

- 5 As such, we have lower installation
- 6 costs. Not only that, at some point in time
- 7 in the future, over 30 years, approximately,
- 8 these units are going to have to be
- 9 decommissioned. We could either leave our
- 10 counterweight on the sea floor to act as an
- 11 artificial reef, or we can bring them back up.
- 12 We don't have to decommission the unit.

I don't have enough time to say

- everything that I want to say, but in summary,
- 15 I want to say we have located a site that is
- 16 not in the ferry lanes or shipping lanes or in
- 17 the area of high traffic.
  - Prior to today, many people don't
- 19 know the wind farm is here. We are here to
- 20 announce to the people in Massachusetts, we're
- 21 here, and we would like MMS to take into their
- 22 consideration that deep water needs to be in
- 23 the final regulations.
- 24 Thank you.

#### Cape Wind Energy Project - March 11, 2008

2 (Applause.)

1

3 MR. CARROLL: What I have heard

4 earlier tonight is a scripted campaign to

- 5 discredit the work of the Alliance. The
- 6 Alliance is not a small group of opponents, it
- 7 is tens of thousands of Cape Codders strong.
- 8 The Alliance is your senators, your
- 9 Congressman, your selectmen, your airport
- 10 commissions, your Chambers of Commerce, your
- 11 ferry lines and your neighbors.

12 Who does Clean Power Now think they

13 are fooling?

22

23

1

17

24

14 Good evening. My name is Cliff

5 Carol, one of the founders of windstop.org.

16 Before I speak, I would like to clarify that

17 my statement last night was not meant to be

18 construed as a direct charge against Dr.

19 Cluck. They were directed against the entire

20 team that is responsible for the preparation

21 of this grossly negligent document.

It is important to know that this entire island of Nantucket has been designated

24 as a national historic site. The people of

#### 79

78

#### Cape Wind Energy Project - March 11, 2008

- 2 this island have worked very hard to preserve
- 3 the beautiful island, making it one of the
- 4 most beautiful tourist destinations in America
- 5 today. Nantucket does not even have a red
- 6 light. Therefore, it is no place for a
- 7 24-square-mile steel forest.

The other thing that should be

9 noted is that when you live on an island, you

10 have to be able to get here from there. With

11 that being said, your Draft Environmental

12 Impact Statement has completely ignored the

13 danger that this 43-story, 24-square- mile

14 industrial plant presents to the critical

15 lifelines of ship and air navigation that this

16 island depends on.

The good people of this island have

18 to traverse Nantucket Sound every day all

19 year. That means summer, winter, spring,

20 fall. It also means flying, boating and

21 navigating in sunny days, rainy days,

22 snowstorms, ice storms and of course fog.

of fog on the Nantucket Sound. In fact,

On average, there are over 170 days

Cape Wind Energy Project - March 11, 2008

2 Nantucket got her name Gray Lady from being

3 covered in a shroud of fog. With all of that

4 being said, MMS has been completely negligent

5 in the area of demanding comprehensive studies

6 on the massive radar interference on these

7 ships and sea rescues. There are over 3

8 million ferry passengers and 400,000 flights a

9 year that go through this 24-square-mile

10 footprint.

11

17

24

1

10

14

18

1

The DEIS falsely states that the

FAA has okayed the project. In fact, it is

13 two years old. Cape Wind no longer has FAA

14 approval. In fact, the FAA has stamped a

15 "presumed hazard" on this project. You

16 neglected to put that in your report.

The U.S. Coast Guard has asked for

18 a complete radar interference investigation

19 into the shipping, communication, navigation

20 radar systems, yet you chose to prematurely

21 release the DEIS before the FAA and U.S. Coast

22 Guard did their studies and they have been

23 completed.

The MMS continues to ignore the

81

#### Cape Wind Energy Project - March 11, 2008

deadly risk that this radar interference could

3 present to the millions in the sea and air

4 that traverse waters every year under every

5 weather condition. It would be an act of

6 gross negligence. Wind farm radar

7 interference is real. Would you please

8 investigate it fully before someone gets

9 killed out here.

Thank you.

11 (Applause.)

MR. MOORE: What was your number?

MR. CARROLL: 17.

MR. MOORE: 18, 19, 20 and 21.

MR. CRONIN: My name is Larry

16 Cronin. Thank you very much for this

17 opportunity to speak and coming to the Island.

I have 45 years of fishing and

19 diving in the Sound, and making observations.

20 Bringing any kind of industrial project into

21 the Sound could be a disaster, because any

22 industrial project would bring all kinds of

23 problems, as I have seen in many other areas,

24 outside of this area.

#### Cape Wind Energy Project - March 11, 2008

In some of those projects those disasters that could be caused in the Sound are like bringing in pathogens, industrial pollutants. Nantucket Sound is unique, and I want to bring to the table some new information since I spoke to you four years ago. Now for some new information I want to

1 2

3

5 6

8

10

11

12

13

14

15

16

17

18

19

20

21

22 23

24

1

8

22

23

aquifer.

bring to the table. And since then we have had approximately, because Nantucket Sound is unique, it is a well-oiled machine, in that it brings cold water and nutrients into the Sound, which produces vital plankton and zooplankton. This feeds a vast nursery of both the inshore and offshore vertebrates and invertebrates. And this is feeding the offshore fisheries, which is now in flux.

So water coming in from the Vineyard Sound feeds this shallow water system. It's unique. The only other area is Stellwagen Bank and Brown's Bank, which has the similar situation.

The other issue, Nantucket may have

83

#### Cape Wind Energy Project - March 11, 2008

a serious problem with its fresh water supply. And any deep drilling in Nantucket Sound could 3 cut off our water supply, the reason being that drilling in Nantucket Sound could allow 5 salt water to percolate into our fresh water supply that comes across the Sound in a deep 7

9 The other situation is a meteorological one. We have, in Nantucket 10 11 Sound, we could have 20 to 30-mile-an-hour 12 winds. This happens nowhere else. Neither 13 north of here or south of here do we have a

situation like this. This would make

15 Nantucket extremely dangerous in foggy

situations, which we have a lot of. 16

17 Thank you very much.

MR. MOORE: Thank you. 18

We have one of our elected 19 officials who was earlier with us. If you 20 21

could hold on, is Al here?

MR. PETERSON: Hello. Thank you very much for waiting. I had another meeting and I just got back from that. I am speaking 24

## Cape Wind Energy Project - March 11, 2008

on behalf of the Nantucket Memorial Airport Commission.

4 We took a position some time ago opposing the location of the wind farm, simply from the standpoint of safety and concern about some of the studies that have been done

on the radar, primarily by the British

Ministry of Defense. They have indicated they have put in new restrictions in terms of where 10

the wind farms could go, in terms of creating 11

a black hole in the radar currently, according to our Congressman, Representative Delahunt, 13

and he has a letter from Bobby Sturgell, who

is the acting director of the FAA. 15

And I encourage you to take your 16 17 time in making this decision until these studies are completed, radar studies are

18 19 completed by the Institution of

20 Telecommunications in Boulder, Colorado. And

until we get those studies, we won't know 21

whether or not the wind farm will have an

impact on the radar. And we currently have up

to a thousand operations a day at Nantucket

85

# Cape Wind Energy Project - March 11, 2008

Memorial Airport.

3

18

The second factor is the safety factor of the size of this area, that will prohibit rescue aircraft, helicopters, to have an impact on any kind of search and rescue operation in this area that will be covered by the turbines with their 500-foot height.

8 9 From a safety viewpoint on this radar issue, I encourage you to take your time 10 in making your decision, wait until the study 12 is resolved, the radar issue, and the FAA is 13 well aware of it, and I know that Senator Kennedy and Representative Delahunt have 15 encouraged us to take our time on this issue. Thank you.

16 17 (Applause.)

MR. TAYLOR: My name is R.C.

Taylor. I'm a resident of Nantucket. I am 19 20 also, just by way of background, a civil

engineer. I also have an honorary Ph.D. in 21

business administration, so I have a little education, so I think I know what I am 23

speaking about.

2 I have a number of issues with the

- 3 Draft EIS, and I think this is an emotional
- 4 issue, as well as a factual issue.

1

- 5 I hope that you all really study
- 6 the facts, the key issues that I have
- encountered, many of which you already heard.
- 8 One is public safety, it has to do with the
- FAA and the Coast Guard. Without their full,
- complete studies, I don't know how we can make 10
- an intelligent decision on this. 11
- I think public safety is key, 12
- critical. I have been out on the Sound in pea 13
- 14 soup fog and you can't see or hear anything.
- 15 It's really a tough situation. If
- 16 we have a search and rescue situation and we
- 17 are foggy, the black hole that Al just talked
- about won't let them go out, won't be safe for 18
- 19 them to go out and do search and rescue for
- people who have had an accident. So let's 20
- wait until we get those reports before you 21
- make a decision. 22

1

23 There is a tremendous difference of 24 opinion on the costs involved, particularly

86

#### Cape Wind Energy Project - March 11, 2008

- 2 the cost of what the electricity is going to
- come in at. Some of those things are variable 3
- 4 right now from the report two or three years
- ago, which I have submitted in writing to you, 5
- which I think you should study, because, wow, 6
- I wonder how this thing can be economically
- viable. And the fact that I understand one 8
- place in Delaware has been cancelled, another
- 10 one on Long Island. Why were they stopped?
- 11 Probably economically. So I think that is
- 12 really something we need to look at.
- 13 Have alternate sites been

14 evaluated?

15

16

17

18

19

20

23

24

The government has an Air Force base on the Cape. There is an island on the end of Martha's Vineyard called Neumann's Island. We could have it there.

The other thing is, there is a new technology, we just heard tonight. There is 21 also tidal or current energy. Although it's 22 in its infancy, we will never run out of tides; they are going to flow forever, or as

long as we are going to be here. I think that

#### Cape Wind Energy Project - March 11, 2008

- really needs to be looked at.
- 3 Something about, I think, I'm
- concerned about the political pressure that is
- there. Even though it has been seven years in
- 6 the making, let's do it right or let's not do
- 7 it.

11

15

21

1

1

- 8 Thank you.
- 9 (Applause.)
- MR. MOORE: 20, 21, 22, 23, 24. 10
  - MR. BASSETT: Good evening. My
- name is George Bassett. I'm the director of
- 13 operations in the Nantucket boat basin, and I
  - am a retired Coast Guard officer.
    - I, as I think everybody in this
- room is, am all for alternate energy, 16
- 17 especially if it's going to go away with
- fossil fuels. I am, however, against the 18
- 19 destruction of the pristine waterways, and ask
- 20 that this project be relocated.
  - My major concern is something about
- renewal. I heard it tonight. In my Coast 22
- 23 Guard days, I was a captain of two coast buoy
- 24 tenders in which I worked, and most of the

89

88

# Cape Wind Energy Project - March 11, 2008

- lighthouses from Connecticut to Maine.
- 3 Several years or several times in
- the 10 years, I had these two buoys, we had
- ice seasons, and I'm not talking about a 5
- really snowy day, I'm talking about ice that 6
- forms particularly in the Sound, Buzzard's
- Bay, in my experience with Buzzard's Bay. And
- these are steel structures that are full of
- 10 cement, that are 16 and 20 feet across, very
- 11 similar to these monopole structures that Cape
- Wind is talking about, the Canal approach from 12
- 13 the Buzzard's Bay side. They had ice damage.
- 14 Several of those steel encased structures were
- carried away or bent over on a 40, 45-degree
- 15 16 angle from the force of these ice floes.
- 17 Again, I speak from experience. I have
- observed this. I'm sure it's still in the 18
- Coast Guard records. 19

20 People who state winters are

- getting warmer, yes, they are correct. The 21
- greenhouse effect's warming things up the 22
- entire world, but I do feel in the future that 23
- at some point or another, we will have severe

winters. We had severe winters. There was 22 2

3 inches of ice. At least four times I have

seen the harbor frozen over, and so it's going

to happen again. 5

Second, my concern I have is in

7 today's modern Homeland Security, what if

Homeland Security defines a wind farm as a 8

facility that could be a terrorist target,

people blowing it up? Then if that is there 10

for a clearance facility, nobody could use it,

it's a restricted zone; we absolutely couldn't 12

13 use it.

1

6

11

16

1

7

10

11

12

17

18

14 Again, I heard somebody say about

the solution as an offshore deep water wind

turbine, the gentleman from the Blue H. I

17 think we should go with that.

18 Thank you.

19 (Applause.)

MR. LOHMANN: My name is Chris 20

21 Lohmann. I am a resident of Nantucket.

22 Our family has owned property on

23 Great Point for 60 years. Most of that land

24 was donated to and is now administered for the

90

1

#### Cape Wind Energy Project - March 11, 2008

benefit of all by The Trustees of 2

Reservations, a well-known Massachusetts 3

non-profit conservation organization. 4

Like all Nantucketers, we have 5

enjoyed and valued the wide ocean views from 6

horizon to horizon that Great Point offers,

and if there is any place on Nantucket from 8

which the proposed wind farm would be visible, 9

it is Great Point.

Having seen many other turbines

both in this country and in Europe, we do not

13 believe, however, that even the large turbines

14 proposed for this project will have a

15 significantly negative impact on anyone's

16 appreciation of the views from Great Point.

We believe it is long overdue to

get serious about developing clean, renewable

energy sources to reduce our dependence on 19

20 fossil fuels, reduce pollution, and reduce

global warming. The proposed wind farm 21

presents a major opportunity to do so. The 22

potential long-term benefits of developing 23

successful alternative energy, in our opinion, 24

#### Cape Wind Energy Project - March 11, 2008

far outweigh the local and short-term risks.

In a 2005 letter to the Army Corps

of Engineers, the federal agency then charged

with overseeing this project, we expressed our

overall support, qualified by some concerns

about the environmental impact of the wind

farm. In the intervening two years, many

further studies have been conducted, all

tending toward answering our concerns. 10

We do not have a problem with 11

granting a private firm rights to develop the

wind farm in public waters, as long as a 13

strict performance bond assures proper safety

measures, proper maintenance, proper attention 15

to potential emergency situations, and strict 16

requirements for replacement or

decommissioning as necessary. We also believe 18

that the terms of the lease must guarantee the 19

public an appropriate share in long-term 20

profits, in addition to the benefits of clean 21

electrical power at competitive prices. 22

23 We hope that you will look

24 favorably on implementing the proposed wind

93

92

#### Cape Wind Energy Project - March 11, 2008

farm while insuring that strong measures will

be taken to protect the environment and the

public interest.

(Applause.)

MS. TAYLOR: My name is Sandy

Taylor, and I live here on Nantucket, and I

just have some thoughts that I wish to give to

you.

1

5

6

10

19

22

The Cape Wind federal report is

flawed, and the MMS DEIS report on Cape Wind

is flawed. It grossly understates or ignores

13 negative impacts to the environment, public

safety and the economy. On the environment:

15 The harbor environment is fragile and as an

example, in the late '80's there was saltwater

intrusion in Sesachacha Pond, located in 17

Quidnet on the eastern shore of Nantucket. 18

Conservationists and

20 environmentalists decided that it would be

prudent not to open the pond to the ocean 21

twice yearly, as had been done for centuries,

starting with the Indians. For 10 years the 23

pond remained closed. In that time, the

2 erosion on the eastern shoreline was extreme.

- 3 Many homes in Siasconset were lost to the sea
- 4 by the strong waves of nor'easter storms, and
- F atill to day, manny and threatened
- 5 still today many are threatened.
- The change seemed very small and
- 7 insignificant, yet the result was an economic
- 8 and environmental disaster. The sea floor
- 9 along the shore was altered as a result of the
- 10 flush not happening. A small and seemingly
- insignificant happening, yet the result is
- 40 tradia
- 12 tragic.

1

1

- How do we know that the building of
- 14 these 140 wind towers would not have an effect
- on the ocean floor, on the fisheries, on the
- 16 wild bird life? Perhaps it requires more
- 17 thought than minimal impact.
- Public safety. It is my
- 19 understanding that both air and sea, the
- 20 whirling and locations of the 140 wind
- 21 turbines will create a pepper effect on a
- 22 radar screen, or referred to as a black hole.
- 23 The DEIS has yet to hear from the Air Safety
- 24 Board for their opinion, as well as the U.S.

#### 95

#### Cape Wind Energy Project - March 11, 2008

- 2 Coast Guard for their report.
- 3 How can you state that the safety
- will only minimally be impacted if you have
- 5 not heard or seen the reports by the very
- 6 agencies which oversee these areas? Why is it
- 7 that the SSA and the Airport Authority are
- 8 negative about the safety of this project?
- 9 What do they know that you have not given
- 10 proper consideration to? Perhaps it requires
- 11 more thought than minimal impact.
- 12 Economy. Frankly, I am most
- 13 confused. Cape Wind says it will reduce the
- 14 cost of electricity to the Cape and Islands.
- 15 How is it then that experts who have done the
- 16 math suggest that our costs will double, and
- 17 with subsidies perhaps triple, as this project
- 18 has become much more costly than anticipated?
- 19 I agree that it is essential to
- 20 create alternative means for capturing and
- 21 producing energy. There are new thoughts
- 22 about tidal power, land-based wind power, and
- 23 just last night, deep water turbines, and
- 24 hopefully other means of capturing energy will

#### Cape Wind Energy Project - March 11, 2008

be devised.

1

- 3 We do thank Jim Gordon for making
- 4 us very aware that energy can be gathered by
- 5 alternative methods. However, should we
- 6 continue to build it if before all the
- 7 permitting is even completed we realize the
- 8 expense of the project outweighs the benefit?
- 9 Perhaps it requires more thought than minimal
- 10 impact.

14

15

18

1

7

11

12

- 11 I just wanted to say one other
- 2 thing that I happened to find, a quote, a very
- 13 old quote; it's Latin.
  - MR. MOORE: Finish up.
  - MS. TAYLOR: It says, "Deliberate
- 16 often; decide once." And I hope that perhaps
- 17 you could do that.
  - Thank you.
- 19 (Applause.)
- 20 MR. McGREGOR: Good evening. My
- 21 name is Gordon McGregor. I have lived on
- 22 Nantucket on and off for four and a half
- 23 years. And since that time, from the moment I
- 24 came on the island, this topic has been the

#### 97

#### Cape Wind Energy Project - March 11, 2008

- 2 hot topic that we have all been able to
- 3 discuss and dialogue. What I love about
- 4 tonight is that we represent an island of
- 5 choices, and we all stand here with a choice
- 6 to make.
  - We also are in an era and time of
- 8 change. We keep hearing everyone talk about
- 9 change. And the definition of change is to
- 10 make a shift from one to another. Make a

  - difference; cause a transformation.
    - Well, when oil is sold at \$109 a
- 13 barrel yesterday on the stock market, if we
- 14 are not going to make a change to let go of
- 15 oil and make a difference in this world, what
- 16 are we doing?
- 17 If you want to continue to pay a
- 18 hundred dollars a barrel, if you want to pay
- 19 more for gas and electricity, you have a
- 20 choice. But I'm saying it's time to change,
- 21 and that's what we are moving towards.
- 22 What are we waiting for? We are,
- 23 we have an opportunity to be leaders in
- 4 renewable energy and in clean energy. Do you

# Cape Wind Energy Project - March 11, 2008

- want to be leaders or followers? Let's be 2
- 3 leaders in this movement of change. We need
- to make a decision. Not what it looks like,
- 5 but what it would do for the future of all of
- 6 our lives.

1

- 7 This wind farm has an opportunity
- to allow us to make change. We hear the 8
- slogan, "Save our Sound." I ask you now to 9
- make a decision to save our earth. 10
- Thank you. 11
- 12 (Applause.)
- 13 MR. MOORE: Number 25, Number 26,
- 14 Number 27.

1

- 15 MR. HEMMENWAY: Todd Hemmenway. I
- am against it. This is about the wind, so 16
- 17 let's talk about the wind. I have been
- 18 sailing in Nantucket Sound for 50 years. And
- over the last ten I have observed less wind. 19
- 20 The data March 8th, 1600 hours, wind south, I
- read 18 knots to 22 knots. The Cape Wind 21
- 22 Horseshoe Shoal data tower posted 28 to 32.
- 23 March 9, 1400 hours, wind
- 24 northwest, I read 10 knots gusting to 20. The

#### Cape Wind Energy Project - March 11, 2008

- tower posted 25 to 30. There is a clear 10 2
- knot difference between the actual wind speed 3
- and the data posted on the Cape Wind website. 4
- This so-called data needs to be verified by an 5
- independent and responsible, repeat 6
- responsible, organization. 7
- Also, if you feed phony data to the 8
- feds, you could be indicted for perjury. If 9
- you were actually serious about a 10
- 11 wind-generated electrical power, you put the
- 12 turbines on the Continental Shelf where there
- 13 is a constant supply of 25 knot wind all day,
- 14 all night, all year.
- 15 There is already a hydroelectric
- 16 plant in Quebec that provides some of New
- 17 England's power, that could be increased.
- 18 There is now the Blue H proposal. These
- 19 turbines would be offshore, 23 miles south of
- 20 the Vineyard with constant wind. These
- 21 turbines float, are constructed on shore, are
- half the height and use two blades that turn 22
- 23 faster and produce more power.
- 24 The tips of the Cape Wind blades

#### 1 Cape Wind Energy Project - March 11, 2008

- will rise to 440 feet. At that height, the
- horizon is 27 miles away, meaning that this
- will be seen from Eastham, Chatham, Monomoy,
- Nantucket, the Vineyard, most of the Elizabeth
- chain, across Buzzard's Bay, up to Manomet,
- and back to two-thirds of Cape Cod Bay.
- 8 This is an architectural travesty.
- The devastation to tourism and jobs has been
- 10 much talked about. This is the most historic
- 11 marine place in the country. The Wampanoag
- have been here longer than anybody. There
- were Vikings here in 1100. The Pilgrims long 13
- lived in Provincetown. The Venice mariners,
- the entire trading globe. We were the whaling
- trade in Nantucket. And let it not be argued, 16
- the American Industrial Revolution, that is a
- 18 project worth talking about. The Cape Wind is
- 19 hot air.
- 20 (Applause.)
- 21 MR. MOORE: 26.
- 22 MR. INGLIS: My name is Robert
- 23 Inglis. I am a resident of Nantucket Island.
- 24 I rise to speak in favor of the Cape Wind

### 101

## Cape Wind Energy Project - March 11, 2008

- Project on Horseshoe Shoal. I offer the
- 3 following:

1

- 4 Much has been made to you of the
- project's 40,000 gallons of transformer oil as
- a hazard to the Sound's marine life. I am
- 7 comfortable with the transformer oil in this
- wind energy project, considering that the oil
- is confined in triple containment. Currently,
- at any given time, it is not unusual to have 10
- 11 more than 40,000 gallons of fuel in Nantucket
- 12 Sound in the hulls of power vessels that is
- 13 confined by the one layer of containment of a
- fuel tank from the Sound or the one layer of a 14
- 15 fuel tank from a bilge pump.
- 16 Since the transformer will be above
- 17 the impact zone of vessels and stationary,
- 18 concern for oil spills is more logically
- 19 directed toward power vessels traveling the
- 20 Sound. Further, if oil is recognized as a
- potential environmental hazard, one might consider that power generated by the Cape Wind 22
- 23 turbines will reduce regional fuel oil demand
- by 95,000,000 gallons a year, lessening a more

102

## Cape Wind Energy Project - March 11, 2008

- likely source of spills by diminishing oil 2
- 3 barge traffic.

1

- 4 Much has been made of Cape Wind as
- a for-profit operation using a public 5
- resource, Nantucket Sound. I am comfortable 6
- with Cape Wind's use of the Sound under the
- terms of the review and permitting process by 8
- the Minerals Management Service as the
- authorized agency of the Department of the 10
- Interior, to grant a lease to Cape Wind for 11
- use of this public resource for the useful
- life of this wind-generated energy project. 13
- 14 We currently have many public
- resources in for-profit lease arrangements by
- 16 private

1

10

11

- for-profit enterprises. Most notable in
- relevance are fossil carbon resource 18
- extraction sites where carbon-based fuel is 19
- extracted from below the Earth's surface. 20
- 21
  - I approve of this wind energy
- project enjoying the same privileges and same 22
- 23 review and lease arrangements. I point out
- 24 there is no resource extraction in the Cape

# 103

#### Cape Wind Energy Project - March 11, 2008

- 2 Wind Project as in fossil carbon fuel
- extraction. I am comfortable that the Sound 3
- 4 will not be altered beyond the useful life of
- the wind generation project, because 5
- decommissioning of the project and the 6
- guaranteed financial instrument for that
- decommissioning are required in the permitting 8
- 9 process.
  - I am confident we will have no
  - permanent loss of a public resource. I offer
- 12 that there is a public resource we all have a
- 13 right to enjoy and that is fresh clean air.
- This wind energy project will enhance the
- 15 abundance of that resource by eliminating the
- 16 need for some polluting carbon source power
- 17 generation.
- 18 Much has been made, too, of the
- infeasibility of power generation in a marine 19
- environment, and the attendant unusually high 20
- and impractical costs of maintenance. I offer 21
- for your consideration that electric power 22
- generation is achieved by relatively simple 23
- means with little more than spinning a mass of

- Cape Wind Energy Project March 11, 2008
- ferrous metal between a mass of copper
- windings. This action generates electricity
- whether the spinning ferrous metal mass is
- driven by an internal combustion engine, hydro
- power, a steam turbine or propeller blades.
- The process requires a similar regulation of
- the electricity and distribution of the
- electricity by whichever means it is
- 10 generated.
- Let us look at a comparison of Cape 11
  - Wind electricity and another generation source
- that involves fossil fuel extraction from an 13
- ocean oil or gas rig. The ocean fuel
- extraction rig permitted to operate in a 15
- public resource area successfully operates in 16
- 17 a potentially harsh and remote marine
- environment, and permanently removes a 18
- resource that is not only below the water, it 19
- 20 is below the sea bed.

21

- Problems encountered below the
- water's surface and below the sea bed are
- 23 difficult to deal with and sometimes result in
- 24 horrific carbon resource spills. The wind

#### 105

#### Cape Wind Energy Project - March 11, 2008

- turbine operates in the same potentially harsh
- isolation, but the working apparatus of the
- wind turbine is accessible for all types of
- 5 maintenance.
- 6 The wind turbine is a complete
- package of generation, harvesting only
- something that cannot be seen or contained.
- The oil or gas rig is only one link in a chain
- 10 of four links forming its power generation
- 11 package. All these four links require
- 12 maintenance and pose various hazards.
  - The rig's purpose is extraction.
- 13 We then have product transportation to
- 15 refinement of that carbon resource, then more
- transportation to the location of the 16
- combustion apparatus that spins the ferrous 17
- metal in the copper windings, that generates 18
- 19 the electricity.

- 20 A simpler, more practical process
- than what we currently accept as the status 21
  - quo in the oil or gas rig can be found in the
- wind energy turbines such as we have proposed 23
- in the Cape Wind project.

106 108 Cape Wind Energy Project - March 11, 2008 1 Cape Wind Energy Project - March 11, 2008 1 2 I put to you that I am in favor of appeal and you drag out the process to try to 3 the Cape Wind project 95,000,000 to 40,000. disadvantage the developer economically. 4 (Applause.) Sometimes it works. I know the game well. 5 MS. BAKALAR: Good evening. My 5 It's my privilege and pleasure to 6 name is Tracy Bakalar and I am a director here know that the environmental movement now, 7 to make a short statement on behalf of the suddenly, stands on resonance of being able to board of the Chamber of Commerce on Nantucket. 8 say yes, to a developer, yes to a good The board of directors of the development, that is positive for the 9 Nantucket Island Chamber of Commerce, with the 10 environment. 10 majority of votes, is opposed to the location 11 Lirepresent Clean Power Now as an 11 in Nantucket Sound of the wind farm that is 12 intervenor in the state administrative 12 proceedings. Probably will appear in federal 13 proposed by Cape Wind Associates. 13 14 The Chamber's main concern is proceedings as well, and for a citizens' transportation safety and the economic impact 15 group. 15 as related to tourism, including the 16 16 To be at a hearing in favor of the 17 protection of the unique and pristine 17 developer is a new thing, and it's an characteristics of Nantucket Sound and the important thing, and it's happening because of 18 18 surrounding communities. the position that we find ourselves in now, 19 19 20 Thank you. 20 with the twin threats of the energy security 21 (Applause.) 21 crisis and the global warming crisis, which, MR. MOORE: 29, 28? no doubt, is the greatest moral and social 22 22 23 23 MR. PAWA: My name is Matt Pawa, threat that our world is facing right now. 24 and my last name is P-a-w-a. I'm a lawyer; I 24 For these reasons, Clean Power Now 109 107 Cape Wind Energy Project - March 11, 2008 Cape Wind Energy Project - March 11, 2008 1 represent Clean Power Now. And while I cannot is supporting the project, and environmental 2 and will not take off my hat as a zealous groups and attorneys like myself all across 3 advocate for my client, let me speak, if I the country are strongly supporting the 4 may, from the heart, if anyone believes a project. And we commend the Department of the 5 Interior for the excellent job it has done lawyer can speak from the heart. 6 7 I grew up in upstate New York. I 7 thus far in the federal review process, and we live in the Boston area now. I have had the look forward to continuing participating in 8 8 privilege of living part-time, sometimes that process, to produce a first-rate product 9 full-time, on the Cape Brewster area, and I 10 that can make sure that this absolutely vital 10 11 have a deep love for the Cape and for 11 project begins, and as soon as possible. 12 Nantucket Sound, where I have gone sailing and 12 Thank you. 13 boating. 13 (Applause.) 14 I have been a lawyer now for the 14 MR. MOORE: We have been going 15 better part of 12 years. And during this time 15 about two hours, and we would like to take a 16 period I have represented a number of national 15-minute break so that you can use the 17 environmental groups, as I do now, who are 17 restrooms, and so that Pat gets a chance to concerned about global warming as I am, which rest and not have to do the keyboard for 18 18 another two hours. So come back in 15 19 is why I have dedicated my life to this 19

20

21

22

23

20

21

22

23

24

pursuit. I have also represented citizens'

groups, and I know the game. When you are

opposed to a developer, you file every legal

challenge at every level of government:

Local, state and federal. You file every

minutes, and we will continue the hearing.

would like to have Number 30 here and -- so

29, 30, 31, 32, and 33. 33 is over here. 29.

MR. MOORE: So Number 30. So I

(Break.)

2 MR. ROWLAND: My name is Scott 3 Rowland. I am a Nantucketer. I would much

- 4 rather be back in a workshop tonight than down
- here talking about politics, but it is too 5
- 6 important of an issue. I haven't been
- threatened by perjury for coming over budget
- 8 for any of my projects, so you guys don't have
- 9 it easy.

10

11

12

13

14

15

16

17

18

19

20

21

23

1

2

3

5

6

7

8

9 10

11

12

14

15

16

17

1

If we believe in the science that, regarding global warming, and we believe in the cost of burning fossil fuel, we can only come to one conclusion, we need to decrease our demand for energy. We need to find a way of reducing it that doesn't wreak havoc on our environment.

The practice of a one-way-street consumption of the world's natural resources must be abandoned if we are to survive as a species. The stakes are high; the time is now. Our motto for growth must be fashioned in terms of sustainability, if we are to have 22 any hope of meeting the challenges that stand 24 before us.

111

#### Cape Wind Energy Project - March 11, 2008

This is not just a Cape Cod problem or an American problem, but a global problem, and we must think of it in those terms. All of us must be willing to make sacrifices for that of the greater good.

The residents of Cape Cod can now all be called upon to make that sacrifice by allowing Cape Wind to build wind turbines on Horseshoe Shoals. This is our chance as a community to make a difference; let's not let it pass us by.

13 (Applause.)

> MR. FOREGGER: My name is Doug Foregger. I am a year-long Nantucket resident. Everyone here is pro wind power. This is just the wrong place for it.

Nantucket Sound should be a national park, not 18

- a wind park. This is not a case of winning, 19
- 20 it's a case of preserving something as unique
- 21 as Yellowstone or Yosemite. I want to address
- 22 some of the problems with Cape Wind.
- 23 First, the environmental impacts. You put 130 towers out there. I don't feel 24

#### Cape Wind Energy Project - March 11, 2008

- the study has addressed all -- 400 feet high,
- the airplanes and the light and the cityscape
- that is going to create, these lights will
- create, and their glow are going to do untold
- 6 damage. Rare bird species, disturbing their
- nesting habits, et cetera. There is not
- nearly enough done to understand the impact of
- the lights.

1

10 We all here on both sides of the

issue have a sense of green guilt, and you 11

have heard that over and over again. There is

a solution. The solution is deep water 13

turbines, which we heard about tonight. I

implore you all to study that at greater

length. 16

17

18

1

17

21

Also, my family and I live near to Tuckernuck and we go on there almost a daily

19 basis in the spring, summer and fall. Another

concern is navigation safety with the incoming 20

tide, the loss of power on our boat. We are 21

going to drift right into the center of these 22

23 monoliths; and I don't really feel we have

24 done enough to study, enough of a study on the

113

#### Cape Wind Energy Project - March 11, 2008

search and rescue aspects of, once you get

into what people have deemed here, the black 3 4

hole.

5 There is also a severe economic

6 impact that also hasn't been addressed here,

which are these lights. They are going to

impact the economy of the whole island. It's

the Gray Lady. We have this very low fog

10 ceiling. All these lights, 130, which I think

11 is times three, is going to bounce off of that

12 low cloud ceiling and it's going to light up

13 all of Nantucket. And I think there is going

to be an effect on tourists here. Some people

say, "Fine," some people say, "I'm not going

15

16 to go there, I am going to go to a place that

is more pristine."

I also think these turbines are 18 going to affect shore property values. This 19 is going to have a trickle-down effect on 20 carpenters, cleaners, everybody else. The people who are going to do well here is the 22 developer with his tax credit. I think that 23

needs to be thought of long and hard.

#### Cape Wind Energy Project - March 11, 2008

2 MR. MOORE: Thank you.

3 MR. BUSSIERE: Thank you. My name

is Robert Bussiere. I am from Mashpee. I am

- 5 a proud co-founder of Wind Stop, a citizens'
- 6 group opposed to industrialization of
- 7 Nantucket Sound.

1

- 8 The DEIS has stated that the
- 9 wholesale cost of generating electricity from
- 10 this proposed project will be about three
- 11 times the cost we have now. Based on that
- 12 fact, why should we do this? Just that fact
- 13 alone. We have, today, the benefit of the
- 14 factual results of the wind generation efforts
- 15 of Denmark, and they have cancelled their next
- three wind parks for 2008.
- 17 They have achieved their goal, 20
- 18 percent of electricity generated by wind, as
- 19 well as 29 and a half cents per kilowatthour
- 20 rates as reported in 2005 to the Department of
- 21 Energy.

1

- 22 Again, the documented, a documented
- 23 result. They also have had to sell their
- 24 generated power to other countries because

### 115

114

#### Cape Wind Energy Project - March 11, 2008

- 2 they couldn't use it when needed. Again,
- 3 documented fact.
- 4 Why in February of 2004 was there
- 5 no output from their turbines? I don't know,
- 6 but, again, documented.
- 7 Why do we ignore the fact that 130
- 8 megawatt wind turbines based on land on the
- 9 Gaspe Peninsula in Quebec have only achieved
- 10 18 percent capacity, at best, in the five-year
- 11 period since 2005?
- 12 The operator of that wind park
- 13 stated that the electricity generated was nine
- 14 and a half cents per kilowatthour more than if
- they had purchased it from the hydroelectric
- 16 plant nearby. Documented fact.
- 17 There is a plethora of information
- 18 available from sites around the world that
- 19 actually show the results of wind power
- 20 generation, and none of them support the
- 21 claims here regarding the Cape Wind Project.
- 22 We have heard that 79 percent of the Cape and
- 23 Island electricity needs will be provided in
- 24 this project. Show us the supporting facts

#### 1 Cape Wind Energy Project - March 11, 2008

- 2 for this plan. They won't and can't. In
- 3 fact, the wind data used by the DEIS wasn't
- 4 provided by Cape Wind, even though they have
- 5 been allowed to collect it from their data
- 6 tower for years.

11

- 7 Planned sites in Delaware and Long
- 8 Island have been cancelled because of the lack
- 9 of economic viability. Why does the developer
- 10 think it's going to be different here?
  - In closing, I request that the DEIS
- 12 deny the applicant a permit, based on lack of
- 13 factual information used to represent
  - 4 generating capacities of this project.
- 15 At least when I buy a vacuum
- 16 cleaner, I get a guarantee. There is no
- 17 guarantee with Cape Wind. I am not prepared
- 18 to turn the keys of Nantucket Sound over to
- 19 anyone, and I hope you aren't.
- 20 Thank you.
- 21 (Applause.)
- 22 MR. MOORE: 32, 33, 34 and 35.
- 23 MR. WATTLEY: My name is Glenn
- 24 Wattley, president and CEO of the Alliance to

# 117

#### Cape Wind Energy Project - March 11, 2008

- 2 Protect Nantucket Sound. And I would like to
- 3 address Appendix F, the alternative site
- 4 analysis of ten sites, and the high cost of
- 5 power that Cape Wind would generate. This
- 6 analysis of alternative sites needs to include
- 7 a deep water analysis.
- 8 While the analysis presented in
- 9 Appendix F concludes that Cape Wind is not
- 10 economically viable because the cost of power
- 11 is so high, these cost estimates are likely
- 12 too low.

- The DEIS states that the estimated
- cost of producing electricity from the
- 15 proposed wind project is above the regional
- 16 New England market for electricity. The DEIS
- 17 shows the cost of electricity to be \$122 per
- 18 megawatthour. This compares to the regional
- 19 southeastern wholesale market, to the
- 20 southeaster wholesale Massachusetts market, of
- 21 \$66 per megawatthour. The cost of Cape Wind
- 22 is double the price of this market, and that
- 23 includes the significant subsidies we will
- 24 give Cape Wind.

2 Furthermore, the DEIS does not make3 available the cost data and/or assumed capital

4 cost. But the capital is \$1.2 billion. It is

- 5 likely too low, given the escalation costs we
- 6 have seen with the cancelled offshore project.
- 7 And recent media coverage has put Cape Wind's
- 8 capital at approximately 1.6 billion. A
- 10 the \$122 per kilowatt hour.

1

11 Other assumptions in Appendix F are

higher cost would drive the cost well above

12 also questionable, and if corrected would

- 13 drive costs higher. For example, the
- 14 debt/equity ratio seems to be too much debt.
- 15 With more expensive equity, the overall cost
- 16 would increase. The debt current coverage
- 17 ratio is also too low with the risk of this
- 18 project. With larger debt coverage, the cost
- 19 would increase. If Cape Wind cannot get more
- 20 viable, we need an additional bond to remove
- 21 the project before the 20 years is up. This
- 22 bond should also be able to remove the project
- 23 even in year one, if possible.

The big question is, what is the

119

#### Cape Wind Energy Project - March 11, 2008

- 2 impact on our monthly bills on the Cape and
- 3 Islands? Well, the monthly impact would be
- 4 \$20, \$40. This is something that should be
- 5 examined to see the total economic impact of
- 6 Cape Wind. This is a question that should be
- 7 asked Cape Wind, "How much will our bills go
- 8 up?"

24

1

- 9 Thank you.
- 10 (Applause.)
- MS. INGLIS: My name is Alison
- 12 Inglis. I am a Nantucket resident.

MR. MOORE: You are going to have

14 to speak a little closer to the mike.

MS. INGLIS: One of the most

16 disturbing aspects of the opposition to the

17 proposed wind farm is the not-in-my-backyard

18 objection on the aesthetic grounds.

19 Having lived on Nantucket for 46

years, I have been increasingly dismayed by the development that is running loose. The

22 Island's many sacred places have been utterly

23 destroyed by the blatant placement of \$3

24 million homes on these pristine sites.

#### Cape Wind Energy Project - March 11, 2008

The sweeping vistas have been

forever marked by this ever-encroaching march

of development. As well, the downtown area

5 has been irrevocably changed by looming

6 edifices of the deluxe condominiums, the Great

7 Harbor Yacht Club, et cetera. These

8 gargantuan structures are much more visible

9 than the proposed wind turbines will be from

10 the Island.

1

2

11

12

While there are many legitimate

concerns about the proposed wind farm, I find

13 the aesthetic concern one of rank hypocrisy.

4 Why do you accept the blight already created

15 on the aesthetic character of Nantucket and

16 condemn the barely visible turbines of a

17 proposed wind farm that might serve to

18 mitigate some of the consequences of the

19 destruction already wrought on this no longer

20 pristine island?

21 I urge those of you whose main

22 objection to the wind farm is that of

23 aesthetics to consider instead the urgent need

24 for alternative energy both locally and

121

#### Cape Wind Energy Project - March 11, 2008

- 2 globally.
- 3 (Applause.)
- 4 MR. MOORE: Number 34.
- 5 MR. BISHOP: Hello. My name is
- 6 Charles Bishop, and I'm a frequent visitor to
- 7 the island. And I would like to speak to you
- Title Island. And I would like to speak to you
- 8 tonight on what I believe to be the
- 9 shortcomings of the DEIS.

10 In my opinion, the DEIS is flawed

in several significant respects, and requires

12 a supplemental report to address its

13 shortcomings. First and foremost, the Cape

4 Wind report is released before the federal

15 regulations governing offshore wind

development had even developed themselves.

17 This is not something that Congress had

18 intended.

21

19 Accordingly the DEIS review should

20 be suspended, in my view, until the

regulations have been established and the

22 public knows what to expect from the developer

23 like Cape Wind, and what to expect from MMS

4 from the development of offshore public land

#### Cape Wind Energy Project - March 11, 2008

- 2 trusts in proximity to your communities.
- 3 Second, several significant
- 4 information gaps exist in the DEIS that were
- 5 expected to be included. There were no Coast
- 6 Guard terms and conditions for safe navigation
- 7 in Nantucket Sound. There is no biological
- 8 assessment, the cornerstone for evaluating
- 9 potential effects on endangered bird species
- 10 that occur in Nantucket Sound.
- 11 Also, the federally required
- 12 consultation process on impacts to historic
- 13 properties and vistas is missing and is only
- 14 now just underway. These gaps are so
- 15 substantial that the DEIS should not have been
- 16 issued prior to their being addressed.
- 17 Third, the DEIS shortchanges
- 18 discussions of mitigation points. It is
- 19 imperative that details of any mitigation plan
- 20 be presented to the public early on in the
- 21 process so the people could respond. The
- 22 build it now, fix it later theme that seems to
- 23 be emerging from the agency by way of the DEIS
- 24 is unacceptable to many people, including

### 123

122

#### **Cape Wind Energy Project - March 11, 2008**

2 myself.

1

1

- 3 I encourage and ask tonight for you
- 4 to suspend the permitting process for Cape
- 5 Wind until these fundamental issue areas are
- 6 addressed, and until the supplemental DEIS or
- 7 complete information can be released,
- 8 reviewed, and responded to by the public.
- 9 Thank you very much.
- 10 (Applause.)
- MR. MOORE: Which number?
- MS. GRAHAM: 35 should be next.
- 13 MR. MOORE: Okay. 35, 36, 37 and
- 14 38. If you could come up as quickly as you
- 15 can.
- Okay. 39. If they're not here, we
- 17 can't wait.
- 18 Okay, 39.
- 19 Okay. 36, 38, 39 over here.
- MR. DeCOSTA: 39.
- 21 MR. MOORE: Okay. 40. Here 41.
- Okay, yes. Thank you.
- MS. ROCKWELL: Good evening. My
- 24 name is Heather Rockwell, and I work for the

#### Cape Wind Energy Project - March 11, 2008

- 2 Alliance to Protect Nantucket Sound. I'm also
- 3 on the board of directors for the Preservation
- 4 Society International, and I am on the
- 5 advisory board of the Cape Cod Stranding
- 6 Network.

1

15

24

1

- 7 While I appreciate the efforts to
- B pursue non-fossil-fuel-generated electricity,
- 9 I am troubled by the potential impacts of the
- 10 Cape Wind Project on the wildlife,
- 11 particularly those in the Endangered Species
- 12 Act and Marine Mammal Protection Act, that
- 13 continue to be inadequately considered and
  - 4 misrepresented within the DEIS.
    - The DEIS acknowledges vessel
- 16 strikes are a significant threat to large
- 7 whales, yet without adequate reasoning
- 18 concludes impacts are minor and offers no
- 19 mitigation in the event the vessels are
- 20 transiting in the vicinity of whales, or a
- 21 strike occurs. Furthermore, interactions that
- 22 could occur while in transit from Rhode Island
- 23 or New Bedford are not considered.
  - The DEIS states that noise

#### 125

#### Cape Wind Energy Project - March 11, 2008

- 2 generated will be slightly higher than Level B
- 3 harassment levels as defined by the Marine
- 4 Mammal Protection Act, requiring permits, as
- 5 this is a violation of the MMPA, but no
- 6 mitigation strategies or impact studies are
- 7 proposed.
- 8 The proposed placement of Cape Wind
- 9 is in an area rich with protected species
- 10 including seals, sea turtles and marine
- 11 mammals. It is important that any threats to
- 12 these species be addressed before
- 13 construction, and that continuous monitoring
- 14 and mitigation measures be carried out through
- 15 the construction and operation of Cape Wind.
- 16 This is especially important given
- 17 the proposed placement of Cape Wind in close
- 18 proximity to critical habitat for the
- 19 federally-endangered North Atlantic right
- 20 whale. One of our main concerns is that the
- 21 impact of construction and operation on these
- 22 animals, numbering only about 300, is not well
- 23 understood.
- 24 Previous installations of offshore

#### Cape Wind Energy Project - March 11, 2008

- wind turbines and studies of impacts on marine 2
- 3 mammals have focused primarily on toothed
- 4 whales. The impact of wind turbine
- construction and operation on baleen whales, 5
- 6 particularly North Atlantic right whales, is
- not well understood and needs to be addressed
- 8 in much greater depth by Cape Wind.
- Finally, cumulative impacts 9
- continue to be inadequately addressed. We 10
- strongly feel that the potential impacts to 11
- endangered species should be considered 12
- 13 throughout their migratory range, not simply
- 14 by addressing other proposed construction in
- the immediate vicinity of the proposed site. 15
- Critically endangered NA right 16
- 17 whales migrate from Canada to Florida. In
- their migratory route, six offshore LNG 18
- 19 facilities have been approved for
- construction, with four more proposed. At 20
- 21 least three additional wind plants are
- 22 proposed.

1

8

1

- 23 In 2007, the Bush Administration
- 24 issued a bill to boost aquaculture sites in

### 127

#### Cape Wind Energy Project - March 11, 2008

- federal waters, and this does not consider 2
- sand and gravel mining or oil and gas leasing 3
- on the OCS approved by the MMS. Nor does this
- consider additional impacts such as pollution, 5
- noise, habitat disturbance, vessel traffic and 6
- entanglement. 7
  - Cumulative impacts are not
- adequately addressed by simply reviewing other 9
- 10 proposed construction projects in the same
- 11 geographic area.
- 12 Thank you.
- 13 MR. DeCOSTA: My name is Bob
- 14 DeCosta. I am a second generation commercial
- 15 fishing and charter boat captain. My family
- 16 moved to Nantucket in 1967. I started working
- 17 the following summer at the age of 9, and this
- is to start my fortieth season of fishing. I 18
- spend 150 to 180 days a year on Nantucket 19
- 20 Sound. I don't hold any Ph.D., but I have a
- pretty good idea of what goes on up there. 21
- 22 My concern in this project is that
- all the life that we fish on during the summer 23
- months comes up Vineyard Sound in early April. 24

#### Cape Wind Energy Project - March 11, 2008

- Squid, salmon and other small bait fish comes
- right across this area. It filters through
- the Sound through the entire summer months
- 5 until late November, and eventually, after it
- 6 lays its eggs, the young squid and other fish
- 7 and so on hatch and they flush out east to
- around Great Point. 8
- 9 It is amazing the amount of bait
- that comes out of the Sound, young fish or 10
- juvenile fish, but predators follow around, 11
- fluke, bonito. And all of this life 12
- 13 originates in the Horseshoe Shoal area.
- 14 During the two or three years of
- construction time, this life is going to be 15
- disrupted. Fish are very susceptible to 16
- 17 noise, the light, and there is going to
- definitely be a bunch of that going on up 18
- 19 there.
- 20 After the project is done and
- things settle down, I am very concerned that 21
- at some point Homeland Security could decide 22
- 23 that this is actually am operational power
- 24 plant and close the entire area to any

### 129

#### Cape Wind Energy Project - March 11, 2008

- traffic. At any given time they could
- heighten security and this could be something
- that would be very detrimental to all of us
- who live and make a living on the water up 5
- 6 here.

1

- 7 The idea of the Blue H program that
- I just heard today, and I am going to be
- public, that I am going to publicly endorse
- 10 this project, whenever you put an offshore
- platform in place, as you are probably very
- 11
- 12 aware of in the Gulf, we have the oil
- 13 platforms, large fish are actually attracted,
- because they go for food, and their bait
- 15 source doesn't have a structure to collect on,
- 16 so all the small little bait fish in that
- 17 area, which we also fish, cling onto that.
- Marlin and sharks will be attracted to these 18
- platforms, giving us a better, actually a 19
- 20 better place to fish.

- So I'm not against wind generation.
- I think it's definitely the future. We have 22
- 23 to get away from fossil fuels. I'm just very
  - concerned about what kind of devastating, what

#### Cape Wind Energy Project - March 11, 2008 1

- devastation happens to the habitat in the 2
- Horseshoe Shoal area, and I just think that 3
- there are better locations than could be
- 5 offshore from than this one.
- 6 (Applause.)
- 7 MS. LIPTON: My name is Barbara
- Lipton, and I am happy to be here tonight. I 8
- am a Nantucket resident.
- I am very much in favor of the wind 10
- power. I am not in favor of this in Nantucket 11
- Sound; I think it's the wrong location. And 12
- quite frankly, would prefer to see a wind 13
- 14 turbine in my actual backyard.
- One of my concerns about this 15
- project is it could create real problems in 16
- getting the necessities of life to the 17
- residents of Nantucket Island in the event 18
- that the area -- the area is closed to 19
- transportation due to turbine failure or for 20
- maintenance purposes or Homeland Security. 21
- The U.S. Government has yet to rule on that, 22
- 23 and I think it's premature to do that at this
- 24 public comment hearing today, with vital

### 131

130

1

10

11

#### Cape Wind Energy Project - March 11, 2008

pieces of information missing. 2

1

- In addition, I think the economic 3
- impact of Cape Wind has been seriously
- affected. Comparing this area to the two 5
- places in Denmark are unrealistic; Denmark's 6
- economy is driven by the production and 7
- exploration of energy technology, while 8
- southeast Massachusetts is tourism. 9
- 10 The comparison of world-renowned
- 11 destinations such as Cape Cod and Nantucket,
- 12 Martha's Vineyard and unheard-of spots in
- 13 Denmark do not add up to two million tourists
- in Denmark, compared to southeastern
- Massachusetts, which has 22 million tourists 15
- 16 per year. No other offshore power plant has
- 17 ever been placed in such a tourist-dependent
- location such as Nantucket Sound. 18
- 19 Another area of concern which is
- not adequately covered in your report is that 20
- this project would be a realization of 21
- extinction for some critically-endangered 22
- species. That means that many species of sea 23
- turtles, mammals, fishes which are considered 24

#### Cape Wind Energy Project - March 11, 2008

- to be endangered or near extinction are trying
- to survive in the waters of Cape Cod.
- While the monopoles are driven into
- the sea bed there are also going to be
- hundreds of miles of turbines linked between
- the surface area and the mainland, completely
- tearing away the bottom of the sea in that
- area and changing their habitat.
  - Electromagnetic fields have been an
- issue that has been neglected in your report.
- Although the installation of these turbines
- 13 has the probability of realizing some initial
- damage to the environment, the long-term
- effects from the water alone would be harmful, 15
- as there have never been wind farm turbines 16
- located in water inhabited with these
- sound-sensitive and endangered species, and 18
- potential of disaster exists. 19
- 20 Your focus is on noise emitted from 21 a single turbine, not the cumulative noise
- level of the entire project. Specifically 22
- 23 your report says "Since the turbines will be
- 24

# spaced 360 feet apart, there will be no

133

#### Cape Wind Energy Project - March 11, 2008

- cumulative noise." That is an error that
- needs to be addressed. 3
- Your calculations are based on the 4
- hearing abilities of humans. Sound generally
- travels eight times farther underwater, and
- fish sensitivities to sound are significantly 7
- more than humans', more than this
- 25-square-mile area.

10

- MR. MOORE: Thank you very much.
- 11 (Applause.)
- 12 MR. MOORE: 41? 42 over here, 40.
- 13 You're 41; are you 41?
  - MR. GERMINARA: Yes, I am.
- 15 MR. MOORE: Okay, 40.
- 16 MR. SANDERS: Hello, I'm Grant
- 17 Sanders. I have only been a resident of
- Nantucket for 14 years, but I have been a 18
- citizen of the planet Earth my entire life.
- 19
- 20 I'm not here because I'm angry, and
- I'm not here because I'm scared or worried. 21
- I'm not here because I am envious of some 22
- developer harnessing wind to make money. I am 23
- here because of another emotion, and that is

- 2 hope. I hope that we can do the right thing
- 3 for our planet, for our environment, and for
- 4 our future.

1

- 5 I've taken a look at the Draft
- 6 Environmental Impact Statement, and from what
- I could tell from reading all the available
- 8 information, there is only a single reason to
- oppose Cape Wind that's valid, from what I
- could see, and that is aesthetics. 10
- 11 Maybe you won't like the way this
- 12 wind farm is going to look, and I think it's
- 13 because they are looking at it in the context
- 14 of Nantucket Sound. Nantucket Sound is a
- natural place, and the wind farm is a
- 16 mechanical thing. But I think the context we
- 17 should look at this project is, should be much
- larger than Nantucket Sound or even the Cape 18
- 19 and the Islands.

1

14

- 20 For example, I may not like the
- look of turbines in Nantucket Sound, but I 21
- also don't like the look of an oil spill off 22
- 23 the coast of Alaska. I also don't like the
- 24 look of a strip mine in West Virginia.

### 135

134

#### Cape Wind Energy Project - March 11, 2008

- And I don't like the look of the 2
- black lung in coal miners, or the \$2 billion 3
- in coal miner death benefits the federal
- government has paid out to date. I don't like 5
- the look of our federal energy policy, or of 6
- wars in the Middle East waged largely or in 7
- part due to our need for cheap energy. 8
- 9 So I think when you take a look at
- the Cape Wind Project in the context of these 10
- 11 other aesthetic issues, Cape Wind is not
- 12 looking really too bad.
- 13 I hope that you see fit to permit
  - this project, and that we go and get to work
- 15 building the next one.
- 16 Thank you.
- 17 (Applause.)
- 18 MR. MOORE: 41.
- 19 MR. GERMINARA: My name is Len
- Germinara, and I washed ashore on Nantucket 20
- almost four years ago. 21
- 22 Before I came here, what I knew
- 23 about Nantucket could be summed up in a
- postcard. That postcard had a red and white 24

#### Cape Wind Energy Project - March 11, 2008

- lighthouse on it, and below it it said,
- "Nantucket." Nantucket was known as the place
- where the lamps of the world were filled. And
- the light from that lamp shone on the entire
- 6 country, and perhaps on the entire world.
- 7 At this time we are faced with the
- same kind of situation that Nantucket was 8
- faced with when they hunted the whales almost
- to extinction; we are out of oil. We need an
- alternative. We need an alternative that is 11
- 12 renewable.

1

- 13 We need to be considerate of not
- 14 only ourselves, but of the generations to
  - come. And for that I am challenging Nantucket
- to light the lamp of the world again, and make
- that light a hope. Make that a light that
- will shine for the next 150 years, next 250 18
- 19 years.

1

7

11

18

21

- 20 I ask you to consider making this
- 21 project a reality, and I hope that you will.
- And I ask that all of the energy that has been 22
- expended both pro and con against this project
- 24 and for this project be redirected toward, not

# 137

#### Cape Wind Energy Project - March 11, 2008

- this project, but for the hope of this planet.
- 3 Thank you.
- (Applause.) 4
- 5 MR. MOORE: 42 and 43, if you will
- 6 get ready, please.
  - MS. McCALLEY: My name is Adrienne
- McCalley. I washed ashore here in 1925. I 8
- have been here ever since. I have lived here
- 10 for 50 years as a year-round resident, and I'm
  - pretty unhappy about this whole project.
- 12 I didn't bring a prepared speech
- 13 with me, but I did want to focus in on one
- point. I'm just here saying, and obviously our body of water around here is a great
- 16 attraction to cruising and sail and powerboat
- 17 people.
  - It's a mecca; Nantucket is a mecca,
- and its body of water is a mecca. We sponsor 19
- the Nantucket Community Sail, a group that has
  - done a lot to get the Nantucket children
- sailing. They have the Upper House Cup and 22
- the Nantucket Race Week. 23
- Over 120 boats participate; most of 24

### Cape Wind Energy Project - March 11, 2008

- 2 them from other places. They all have to
- 3 cross the Sound coming and going. This, this
- event has brought a lot of money here. It has
- 5 brought, in the last ten years, almost a
- 6 million dollars, and probably top over a
- 7 million this summer.

8 I live here. I have concern, as

- many of my fellow sailing enthusiasts, that
- 10 this kind of activity will be terminated by
- 11 this project. Sailors don't like this kind of
- 12 thing, really. They don't want to find an
- 13 open body of water that is filled with
- 14 turbines.

1

Now, as far as the Figawi race is

- 16 concerned, a lot of people don't understand
- 17 sailing. You could only go in a straight
- 18 course with the wind behind you. If you are
- 19 going towards the wind farm you can't do that,
- 20 you have to zig and zag or you are going to
- 21 run right into the wind farm, and that is
- 22 going to totally alter their race course, I
- 23 would think, if the wind is in a certain
- 24 direction.

1

2

139

138

#### Cape Wind Energy Project - March 11, 2008

So all in all, I am just concerned

- 3 about the impact this could have, because of
- 4 the amount of money that is raised from these
- 5 people coming here. It's not only the
- 6 sailors, it's the people who come with them,
- that go ashore. They shop; they go to
- 8 restaurants. They just patronize everything
- 9 on the island. They bring an awful lot of
- 10 money; probably thousands of dollars. I think
- 11 this could have an impact on it. That's it,
- 12 thank you.

14

- 13 (Applause.)
  - MR. MOORE: Thank you very much.
- MR. BECKHAM: My name is Steven
- 16 Beckham (phonetic). I have lived on Cape Cod
- 17 and Nantucket almost all of my 57 years. For
- the better part of my life I have continued to
- 19 sail and powerboat Nantucket Sound. I travel
- 20 back and forth many times a week on
- 21 commercially-operated planes and fast ferries.
- I can see the brown-yellow smog
- 23 coming from Great Point traveling up the
- 24 coast, and the plume from the Canal plant

#### 1 Cape Wind Energy Project - March 11, 2008

- 2 waving over land and sea. And speaking of
- 3 pollution, the residents of Cape Cod and the
- 4 Islands have too long been subjected to tall
- 5 tales of woe and destruction; the innuendo,
- 6 the red herrings, the lies in the newspaper
- 7 and on the radio.

8

18

Fabrications such as, 75 percent of

- the fish caught in Nantucket Sound are caught
- 10 on Horseshoe Shoals. Cape Cod boaters, Cape
- 11 Cod's radar would be rendered ineffective
- 12 because of the turbines. The turbines bring
- 13 predatory species to the area. We will pay
- 14 more for electricity because of Cape Wind.
- 15 The project will decimate our tourism
- 16 industry. Real estate values will plummet,
- 17 especially in Nantucket.

Ferries will collide with each

- 19 other and recreational vehicles. Massive
- 20 numbers of collisions will occur in this
- 21 project. The Coast Guard will not be able to
- 22 come to the rescue.

The project will not help reduce

24 our dependence on foreign oil and fossil

141

# Cape Wind Energy Project - March 11, 2008

- 2 fuels. The project will not reduce the amount
- 3 of pollution we breathe. And my all-time
- 4 favorite, you will be able to see turbines
- 5 from Hyannis. You guessed it, another lie by
- 6 the opponents.

7 Now the opponents stuck in this

- baloney sandwich on white bread, of magically
- 9 a deep water turbine coming through to an area
- 10 near you, to see if you will fight. They are
- 1 desperate to protect their view. I have had
- 12 enough of this. The air we breathe, the food
- 13 we eat every day are polluted and becoming
- we cat every day are policied and becoming
- 14 much more so each and every day.

15 Cape Wind is an opportunity for our

- 16 communities to start to reverse this
- 17 catastrophic environmental disaster we are
- 18 bequeathing to our children and our
- 19 grandchildren to suffer.

20

I heartily support this project and

- 21 trust MMS will have the forbearance and
- 22 strength to prudently completely review and
- 23 ultimately put their stamp of approval on this
  - historic and magnificent project.

	140		1 1 1
١,	142	١,	Cone Wind Energy Project Moreh 14, 2008
1	Cape Wind Energy Project - March 11, 2008	1	Cape Wind Energy Project - March 11, 2008
2	Thank you for listening.	2	reviewing this project, from both sides,
3	(Applause.)	3	you're going to really question who has the
4	MR. MOORE: 44, 45, 46, 47, 48, 49,	4	supplied that data that went into those models
5	50, 51, 52.  What number are you?	5	to produce the results. As you all know, many of us in the audience realize this, the
6	MR. VIGIL: 50.	6	·
7	MR. MOORE: 50.	7	proponents of this project have an awful lot of money; their livelihood is at stake.
8		8	5
9	And your number? MS. RAY: 49.	9	Other are vastly underfunded that
10		10	might like to go and do studies on right
11	MR. MOORE: What number are you? MS. DINEEN: 51.	11	whales or sea turtles or terns or the variety
12		12	of the other critters that live in Nantucket
13	MR. MOORE: Okay, 51.	13	Sound. They don't have the funding and they
14	MS. RAY: I feel like I should yell	14	haven't had the time to raise the money to
15	"Beano."	15	produce studies to put into your modeling.
16	MR. MOORE: Bingo.	16	What you have before you is a
17	MS. RAY: My name is Edith Ray, and	17	snapshot only, a snapshot of what goes on in
18	I have been involved in various capacities	18	Nantucket Sound. Yes, this project seemingly
19	with marine mammals, sea turtles and birds for	19	has gone on forever, but specific studies have
20	almost all of the 30 years I have lived here	20	only been done for a short period of time;
21	on Nantucket year-round.	21	only a few field seasons.
22	I have really enjoyed hearing	22	You all realize, too, as we do, the
23	friends and neighbors speaking on both sides	23	difficulty in gathering information in
24	of this issue, and I really do respect their	24	inclement weather. Someone else referenced
١,	143 Cape Wind Energy Project - March 11, 2008		Cone Wind Energy Project Moreh 14, 2008
1	Cabe wind Energy Project - Warch 11, 2008		
_		1	Cape Wind Energy Project - March 11, 2008
2	opinions. One of the things that I really	2	170 days in the fog, and who knows in the fog
2	opinions. One of the things that I really want to make sure that you guys don't go away	2	170 days in the fog, and who knows in the fog how many birds are going to whack into those
	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on	2 3 4	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my
3	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY	2	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting
3	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight	2 3 4 5 6	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals,
3 4 5	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I	2 3 4 5	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes,
3 4 5 6 7 8	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of	2 3 4 5 6 7 8	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory
3 4 5 6 7 8 9	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our	2 3 4 5 6 7 8	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.
3 4 5 6 7 8 9	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.	2 3 4 5 6 7 8 9	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge
3 4 5 6 7 8 9 10	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through	2 3 4 5 6 7 8 9 10	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific
3 4 5 6 7 8 9 10 11 12	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it	2 3 4 5 6 7 8 9 10 11	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you
3 4 5 6 7 8 9 10	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I	2 3 4 5 6 7 8 9 10 11 12 13	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.
3 4 5 6 7 8 9 10 11 12	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your	2 3 4 5 6 7 8 9 10 11 12 13	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up,
3 4 5 6 7 8 9 10 11 12 13	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot	2 3 4 5 6 7 8 9 10 11 12 13 14 15	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.
3 4 5 6 7 8 9 10 11 12 13 14	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.
3 4 5 6 7 8 9 10 11 12 13 14 15 16	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name is. And I think that all of us here, including	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.  (Applause.)
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name is. And I think that all of us here, including yourselves, have heard the term, garbage in,	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.  (Applause.)  MR. MOORE: Thank you very much.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name is. And I think that all of us here, including yourselves, have heard the term, garbage in, garbage out. These models and what they	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.  (Applause.)  MR. MOORE: Thank you very much. Yes, sir. This is 50.
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name is. And I think that all of us here, including yourselves, have heard the term, garbage in, garbage out. These models and what they produce are only as good as the information	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.  (Applause.)  MR. MOORE: Thank you very much. Yes, sir. This is 50.  MR. VIGIL: Good evening, ladies
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	opinions. One of the things that I really want to make sure that you guys don't go away with is the thought that everybody on Nantucket is worried about the whole NIMBY thing. You have heard a lot of talk tonight about seeing these things in our waters. I hope you realize that that is not what most of us are here to talk about, and that is not our major concern.  I have very quickly looked through a lot of the DEIS report. I have not taken it to bed and studied it every night, but I notice that a lot of the findings in your report come from modeling things such as a lot of information about birds and whether they are going to whack into things, such as produced by Hatch and Brault, I think the name is. And I think that all of us here, including yourselves, have heard the term, garbage in, garbage out. These models and what they	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	170 days in the fog, and who knows in the fog how many birds are going to whack into those towers. You have incomplete data, in my opinion, on the actual structure, the lighting and construction and its impact on mammals, sea turtles, endangered sea ducks and, yes, even the tweetie birds, such as migratory birds.  In ending, I actually, really urge you guys to take the time to gather specific data from a wide variety of sources before you make your decision.  MR. MOORE: You need to finish up, please.  MS. RAY: And I want you to have a complete picture of our beloved Sound.  Thank you.  (Applause.)  MR. MOORE: Thank you very much. Yes, sir. This is 50.

#### Cape Wind Energy Project - March 11, 2008

- have been a summer resident on Nantucket for
- 3 25 years. I would like to come here more, but
- 4 I'm just too busy. I was a research scientist
- 5 at the MIT Energy Lab in the late '70's. I
- 6 also later went on in life, I became a heavy
- 7 electrical and utility contractor, and I came
- 8 to Nantucket in 1983 to build the electrical
- 9 aspects of the Steamship Authority Terminal
- 10 and never left. So I believe I have standing
- 11 in going forward and discussing the aspects of
- 12 this hearing. My concerns are both technical
- 13 and policy-oriented.
- But first let me speak about what
- 15 my six-year-old grandson Zack has said in a
- 16 phone conversation with my son. I overheard.
- 17 He says, "You don't get it. You don't get
- 18 it. You don't get it." And my paraphrase to
- 19 that is, we all just don't get it. We don't
- 20 get it.

1

1

- 21 And what I mean by that is this
- 22 energy policy that has been developed is very
- 23 poor. Cape Wind has been allowed to go
- 24 forward with no regulation from the

147

146

1

15

#### Cape Wind Energy Project - March 11, 2008

- 2 government. I think it's inherent upon us to,
- 3 all the residents of the Cape and Islands,
- 4 that we have input, and that we share and
- 5 benefit from the classes in energy that's
- 6 produced by Alternative Energy.
- 7 Someone is hopefully going to look
- 8 at the excellent model the Town of Hull, Mass.
- 9 has developed. They all worked collectively
- 10 to develop a program where all the town
- 11 residents benefit from the energy that is
- 12 produced.
- 13 I have a friend that lives in Hull,
- 14 and his whole home is electric, and his
- 15 electric bills are small in comparison to what
- 16 we pay for energy. I implore MMS to
- 17 restructure their energy policy to include
- 18 citizens of our country, especially those in
- 19 the Cape and Islands, ratepayers that will be
- 20 affected.
- Thank you.
- MR. MOORE: Thank you very much.
- 23 (Applause.)
- 24 MR. MOORE: 51.

#### Cape Wind Energy Project - March 11, 2008

2 MS. DINEEN: Hi. My name is Kate

- 3 Dineen, and I am a proud employee of the
- Dineen, and I am a proud employee of the Alliance to Protect Nantucket Sound.
- 5 Firstly, I would just like to
- 6 denounce the slew of very personal attacks
- against me and my organization this evening.
- 8 I would like to encourage everyone on both
- 9 sides of this very emotional debate to keep
- 10 their testimony focused on what we are here to
- 11 discuss tonight. In case you have forgotten,
- 12 it's the very specific DEIS. So now I am
- 13 going to discuss some technical issues, so
- 4 bear with me; it is important.
  - The DEIS does not correctly address
- 16 Cape Wind's actual role in the Mass. Renewable
- 17 Portfolio Standard, or RPS. This legislation
- 18 requires all retail providers of electricity
- 19 in Massachusetts to supply a certain
- 20 percentage of power from renewable sources.
- 21 The Mass. Division of Energy Resources issues
- 22 an annual report on RPS compliance. The most
- 23 recent report raises serious questions about
- 24 the reality of RPS benefits from constructing

149

#### Cape Wind Energy Project - March 11, 2008

- 2 Cape Wind.
- 3 Specifically, the report projects
- 4 that Cape Wind alternative energy projects
- 5 already in the pipeline will supply an
- 6 increasing share of RPS obligations,
- 7 potentially reaching 100 percent in the next
- 8 two years. In fact, the OER perceives the
- 9 possibility that supplies will approach
- meeting demand during 2007 and 2008 alone.
- 11 The report also states that
- 2 renewable supply would come from a wide
- 13 variety of sources, including landfill methane
  - plants and biomass plants in Canada and the
- 15 United States.
- In addition to 178 megawatts of new
- 17 capacity in 2007, another 121 megawatts is
- 18 expected to come on line in 2007 and 2009.
- 19 These additions by themselves equal 21 percent
- 20 of the capacity projected by Cape Wind. And
- 21 the DOER expects to receive applications for
- 22 still more wind capacity, based on new acts.
- The most likely impact of Cape Wind
  - would be to back out more environmentally

5

1

#### Cape Wind Energy Project - March 11, 2008

2 desirable projects, rather than encourage 3 alternative energy.

4 In general, Cape Wind will not be needed for the RPS program to succeed. This 5

6 program is already successfully encouraging

wind development on the same scale of Cape

8 Wind, but without the devastating

environmental costs of this project. Together

we should aggressively pursue renewable energy 10

projects that are supported and embraced by 11

the communities like Nantucket that they will

13 impact. Cape Wind gives wind power a bad

14 name. Let's reject this irresponsible project

and do it right. 15

18

23

24

1

11

12

13

14

1

16 Thank you.

17 (Applause.)

MR. MOORE: 52, 53, 54, 55, 56.

19 MR. COHEN: My name is Steven

20 Cohen. I'm an attorney here on Nantucket, but

21 I am just representing myself tonight. 22

Now, it drives me crazy when people say that the idea of this being in the wrong

place is some sort of NIMBY. My house, which

151

## Cape Wind Energy Project - March 11, 2008

I am so blessed to have, is located between 2

Nantucket Memorial Airport and an asphalt

plant. I can assure you that my views will

not be marred by this. 5

6 The problem with Cape Wind is that,

and you have already heard of the details, but

it's going to have, I think, terrible impacts 8

on environmental, fishing, recreational,

10 transport and economic necessities in

Nantucket Sound.

And I think the problems with the DEIS report are that it doesn't look at the

aggregate risks, it only looks at the level of

risk compared to other areas offshore. So

16 even though there might be a small level of

17 some risk, but large levels of other risk,

18 what I think you also should be looking at is

19 how many risks there are here as compared to

other areas. Because basically outside of 20

Nantucket Sound there is almost no risk to 21

anything. 22

23 It's more expensive to do it out 24

there, we might have to employ other

#### Cape Wind Energy Project - March 11, 2008

technologies to do it out there, but there is

almost no risk as compared to a great risk in

the Sound I think is substantial.

The other thing I think is the DEIS

6 does not look at the level of dependency of

the Cape and Islands on the Sound for the sole

8 option of all of the necessary connections to

the mainland. If the Sound is messed up, we

can't just take a different road; the 10

airplanes can't go somewhere else; the boats 11

12 can't go elsewhere; the fishermen can't go

someplace else. That's it. We only have one. 13

You can't take a detour.

15 Also, most of the resources that

MMS deal with, the coal and oil, can only be 16

17 taken from the spot they are in, but wind can

be harvested anywhere. So we should be 18

19 looking at, can we do this in a place where

there is a low or no risk to the area, or can 20

we do it in a place where -- can we do it in a 21

place -- it's not whether or not can we do it 22

23 here, it's can we do it somewhere else without

24 all these problems; and because wind can be

153

#### Cape Wind Energy Project - March 11, 2008

done basically anywhere, why do we have to

take all these risks to Nantucket Sound where 3

we might not be able to recover; where we

might have 25 years of some problem? Where

doing it somewhere else has no problem and the

7 same benefit at no cost. It's the same.

MMS would never allow Cape Wind to 8

put these turbines in Yellowstone National

10 Park, or right outside the Newark, New Jersey

11 port, for obvious reasons. I don't know why

you would do the same thing to Nantucket

13 Sound. It's not that there are rich people

who come here and even have fancy homes with

15 open vistas, it's just that we live here and

16 we need it.

17 Millions of people depend on that

Sound. And it's also an environmentally 18

19 pristine area that should be preserved. I'm

20 against --

21

MR. MOORE: You have to finish up.

22 MR. COHEN: The last thing is I'm

23 against it for the same reason as drilling in

Alaska. It's not in my backyard, but it's a

#### Cape Wind Energy Project - March 11, 2008

- 2 non-renewable resource that shouldn't be
- 3 ruined for short-term gain.
- 4 (Applause.)

1

1

- 5 CHRISTINA: Hi. My name is
- 6 Christina, and I would like to speak on the
- 7 visual impact of the proposed Cape Wind
- 8 Project. The DEIS treatment of the visual
- resources is totally inadequate. More than
- 120 miles of shoreline of open views of the 10
- proposed project are largely unassessed. 11
- The DEIS recommends Cape Cod 12
- depends on recreation, and the highest 13
- 14 aesthetic quality of the Cape Cod natural and
- cultural resources is important to its 15
- popularity as a recreational destination. 16
- 17 However, there is no assessment of how the
- scenic degradation caused by the proposed 18
- project will affect the local economy. 19
- 20 The DEIS also inaccurately reports
- the visual impact assessment. The technical 21
- visual impact study of the Cape Wind Project 22
- 23 found that every location of the project would
- 24 be adversely affected. This report evaluated

## 155

154

#### Cape Wind Energy Project - March 11, 2008

- views for the project from 23 locations. Of 2
- these, there were no views of the project in 3
- three locations. Three additional sites were
- not evaluated because no historical property 5
- was affected. The views from all 17 remaining 6
- locations were determined to have an adverse 7
- effect from the wind turbine. 8
- 9 This shows how severe the aesthetic
- impact will be on locations as far as 14 miles 10
- 11 away. But in the DEIS when the results of
- 12 this report were presented, most of these
- 13 categorizations are totally reversed and
- 14 labelled as having no adverse effect.
- 15 For example, in the DEIR and FEIR,
- 16 impacts on Nantucket and Nantucket Sound are
- 17 classified as adverse impact. However, this
- was reversed in the DEIS with no adverse 18
- 19 affect, as mentioned. In fact, in an
- 20 overwhelming 13 instances of the 23 examples
- given, the classification was reversed. 21
- 22 I respectfully request that MMS
- acknowledge the significance of the visual 23
- impacts on Cape Cod and the Islands, as well 24

#### Cape Wind Energy Project - March 11, 2008

- as evaluating the local effects to our local
- economies.

1

8

- 4 Thank you.
- 5 (Applause.)
- 6 MR. MOORE: 54, 55, 56, will be
- over here, please.
  - MR. BLAKE: Hi. My name is Lyman
- Blake, and I thank you for the opportunity to
- 10 speak.
- I see the green light. The red 11
- lights seem to work pretty good. And that is
- why it's hard to stop, we don't have a stop 13
- 14 light.

1

15

- 15 I am happy to see that you're able
- to take all the different opinions that are 16
- available to you, and I certainly applaud your
- perseverance and commitment towards coming to 18
- a resolution of this issue. And I hope that 19
- 20 we resolve this. In fact, mostly everybody
- here is actually in favor of this project, as 21
- long as it gets a green light from you. 22
- 23 The issues that people are
- 24
  - concerned with are certainly important, and

# 157

#### Cape Wind Energy Project - March 11, 2008

- they certainly should be. My personal
- opinion, from my own research of all of this,
- is that I am in favor of this project, and I
- feel that any of the issues that need
- mitigation can be successfully mitigated. And
- I would urge that the process be thoroughly, 7
- obviously, studied, but also with expedient
- studies so that the project could begin. We
- could be having six years of data of this 10
- 11 project already being working, any issues and
- problems would be already resolved, and we
- 13 could see how this particular form of energy
- 14 can be renewed.
  - I feel that it is necessary not
- 16 just to clean off this site in particular, not
- 17 to think about alternative sites, but as has
- been stated before, for additional sites. We 18
- 19 need every place that we could possibly use to
- 20 utilize for alternative forms of energy.
- 21 I hope that you also are able to
- take into consideration the larger issues of 22
- 23 the world environment, not only globally, but
  - social and cultural, and that you apply that

#### Cape Wind Energy Project - March 11, 2008

to this, because it really does transcend any 2

3 of the small issues that we have in terms of

4 our local environment. We need to be able to

protect our home, which is the entire planet. 5

Thank you for your time and taking on this particular task. I urge you,

obviously, to support it. 8

9 (Applause.)

MR. MOORE: Thank you very much. 10

11 Next.

1

6

7

19

1

10

11

19

20

MR. TAYLOR: My name is Mike 12

Taylor. I am a resident of Nantucket. I 13

14 would also like to thank you for coming and I

hope -- I disagree with his characterization.

16 Rather than saying we hope, it's okay as long

17 as you all take care of it, I think there are

a lot of people here in my position, as well. 18

I support alternative energy

production, but I oppose this project, and I

would hope that you would as well. You have 21

heard tonight from people more qualified than 22

23 me, representing the Airport Authority, the

24 Steamship Authority, former Coast Guard

# 159

158

1

8

#### Cape Wind Energy Project - March 11, 2008

officers. They are all concerned about one 2

thing, safety. 3

Just two or three weeks ago we had 4

an LPG tanker floating around off Chatham 5

without power for a couple of days. Adjacent 6

to these windmills are places, sea lanes,

where oil tankers, ferries, all kinds of boat

9 traffic go back and forth, and accidents do

happen.

Now, these questions of safety,

12 feasibility, economic impact and environmental

13 impact all persist in spite of all the years

14 and the studies, and I propose that it doesn't

make sense to proceed with the gamble when

there is an abundant alternative resource 16

where the towers could be relocated. Where 17

these won't exist. 18

> We have thousands, thousands and thousands of miles of interstate highways in

21 this country. In between the two roads that

22 make up interstates are the median strips in

almost all neighborhoods, and they are in 23

close proximity to power lines, population 24

#### Cape Wind Energy Project - March 11, 2008

centers, and they are all unused.

3 Why don't we, in the near term, try

out 180 wind towers on these median strips?

Let's save our unspoiled resource called

Nantucket Sound until it's a matter of

national security and we need to use it.

Yes, it's easy to develop power on

Nantucket Sound or we wouldn't be talking

about it. But even easier is this vast 10

under-utilized, already altered resource 11

called median strips that go throughout this

country, that are near the people we are 13

trying to service.

15 I would urge you to consider that

before approving this. Thank you. 16

17 (Applause.)

MR. McGUIRE: I'm Number 56.

MR. MOORE: It always helps to 19

20 know.

18

21

1

2

10

15

16

MR. McGUIRE: My name is William

McGuire, and after listening to everybody here

23 tonight, I think I misunderstood the

24 assignment.

161

#### Cape Wind Energy Project - March 11, 2008

I have been a resident of Nantucket

for 25 years now, and I'm pretty much growing 3

weary of this debate. We had this discussion

four years ago, three years and four months,

but it's like four. And at that time Cape

Wind was a good idea. Now, I'm sure it was a

great idea, and I still feel that way, it's

still a great idea for it today.

As you all know, we do not have

11 renewable resources; we are running out. And

we knew it then and we know it now. On 9/11,

13 the cost of a barrel of oil was \$25. When we

stood here four years ago it was \$35; the

other day it was 109.

Instead of embracing Cape Wind for

its obvious and prudent benefits, instead of 17

believing the opinings of the DEIS, it appears

to me that some people would rather have sons 19

and daughters or fathers and husbands and our

brothers and sisters serve on foreign soil. 21

22 And I ask for what?

23 Are they dying for another barrel

of oil? Are they dying so we could continue

#### Cape Wind Energy Project - March 11, 2008

- 2 to keep our air and water and our soil? Cape
- 3 Wind, by itself, is not enough to correct our
- 4 pollution problems or correct global warming;
- 5 it's not enough to catch up with other nations
- 6 in the world who are taking these important
- 7 issues seriously; but I believe that it is
- 8 enough in the United States to get started
- 9 toward a pollution-free solution.

1

Some say Cape Wind will be an

- 11 eyesore. I, for one, will view the wind
- 12 turbines as every American, with pride and as
- 13 a symbol. As it was in 1776, the wind
- 14 turbines will be to me the symbol of American
- 15 independence, American pride, its ingenuity.
- 16 And they will reflect the sacrifices that they
- 17 have made possible, and they will reflect the
- 18 sacrifices that make them possible, while also
- 19 symbolizing my hope for continued --
- 20 (Applause.)
- 21 MR. McGUIRE: Hope for the future.
- MR. MOORE: Thank you very much.
- 23 57, 58, 59 and 60, please. 57 is
- 24 Mr. Bob Thompson.

1

2

163

162

#### Cape Wind Energy Project - March 11, 2008

- MR. THOMPSON: I have been a
- 3 resident here for 30 years. I came here as a
- 4 traffic controller, so I speak in a couple of
- 5 parts. Technology. Is the technology really
- 6 developed at this point? I am for wind power,
- 7 but is the technology there for the wind farm
- 8 to be in? An example. The FAA installed
- 9 radar and it's a well-known fact the antenna
- 10 was installed at Nantucket. It has an
- 11 expected life of 15 to 20 years. Actually,
- 12 after approximately five years Westinghouse
- 13 engineers came out and looked at it and had to
- 14 replace it immediately because of the erosion
- 15 impact of building on Nantucket Sound and
- 16 building at sea. That's why the windmills
- 17 have to be careful. That's why the zone is
- 18 there now, to protect the antenna.
- 19 Is there going to be -- you know,
- 20 technology is not there for the wind farms.
- 21 Secondly, as a traffic controller,
- 22 the Cape and Islands spend many, many days
- 23 with a
- 24 thousand-foot ceiling. Air traffic is now

#### 1 Cape Wind Energy Project - March 11, 2008

- 2 allowed to fly in 500 feet below the clouds.
- 3 The tops of the windmills are going to be
- 4 approximately 470 feet. That's going to put a
- 5 50-foot, 30-foot buffer for the aircraft
- 6 flying below the clouds.

7

The airports of Hyannis, Nantucket

- 8 Sound and Martha's Vineyard form a perfect
- 9 triangle. There are approximately 400 flights
- 10 per day that go back and forth. It's pretty
- 11 much a straight line in the two areas. They
- 2 are going to come right through there. That
- 13 means that they are going to have to go
- 14 around, stay apart. That is going to be a
- 15 huge chunk of air space that is going to be
- 16 closed during those conditions when we, in the
- 17 summertime, anybody who has lived here knows,
- 18 that we have between the Cape and Islands.
- 19 I had other questions. Who is
- 20 actually going to build the wind farm? Is
- 21 Cape Wind really going to build it or are they
- 22 obtaining a license and then going to sell it?
- 23 Are we going to deal with somebody entirely
- 24 different?

1

4

165

#### Cape Wind Energy Project - March 11, 2008

- Thank you.
- 3 (Applause.)
  - MR. MOORE: 58, 59, 59?
- 5 MR. JUDSON: 59.
- 6 MR. MOORE: Okay. 60, 60 over
- 7 here, 61, 62. Are you 62? 63, 64.
- 8 MR. JUDSON: My name is Nick Judson
- 9 and I want to thank you for the opportunity to
- 10 speak tonight.
- 11 I am currently employed as the
- 2 executive director of the Nantucket Sound
- 13 Community Sailing and I've spent most of my
- o community saming and i ve spent most of in
- 14 life in and around the waters of Nantucket
- 15 Sound. Tonight I am here speaking for myself
- 16 and not as a member of any organization. Most
- importantly, I want to let it be known I am in
- 18 favor of alternative sources of energy. And
- 19 in my job, one of the primary roles that I
- 20 play comes down to safety; safety for people
- 21 we are putting out in the water and having to
- 22 back that up and monitor that.
- 23 And that's where some of the
- 4 questions I have and some of the questions

# Cape Wind Energy Project - March 11, 2008

- 2 come from. I have concerns that the DEIS
- 3 statement does not adequately address a number
- 4 of topics, concerns. That it does not look at
- radars in the windmills. As stated earlier, 5
- 6 Nantucket Sound is unique in that we have fog
- and high winds. This is a concern if small
- 8 boats cannot be picked up by radar, especially
- by larger craft that have lesser ability to
- maneuver. 10

1

11

13

14

15

16

17

18

19

20

21

22

23

24

1

2

3

4

11

19

20

23

24

I have concerns that the deep reefs that we see have not been addressed, and how they, as well as the ice floes we see on Nantucket Sound, will affect these structures.

I have concerns about the reduction in navigable water between Nantucket Sound and Hyannis. The windmills would force smaller boats in with larger, and when this mix occurs often accidents will happen. Mixing fog, high winds and the experience level of many of our weekend warriors and the listing goes on.

I strongly encourage that these issues be addressed more thoroughly and comprehensively, and above all, no decision be

#### 1 Cape Wind Energy Project - March 11, 2008

- boats, is the only deep water in the channel
- going through Nantucket Sound, and the flight
- paths of the airplanes and general aviation.
- On a clear day that is fine, but as we all
- 6 know, when the fog sets in, the tide runs, the
- wind continues to blow, and then night falls,
- 8 very often you are in a place you'd rather not
- be; this happens often. We now rely on radar,
- which is an issue that is under controversy. 10
- We have been hearing both sides, but I 11
- believed, two years, three years ago, I don't
- 13 remember when, I believed it would definitely
  - be an issue especially on the water.

15 So anyway, this hasn't been settled and sooner or later, inevitably an accident 16 will occur. Now it's time for the search and rescue, which I believe is going to be very 18 19 difficult at best.

20 And also, it's going to be a heavy burden on the Coast Guard, which they do their 21 damnedest in all kinds of weather, they send 22

up a helicopter, it's a beautiful day, the

boat's on the water and again, we have this

167

24

1

166

#### Cape Wind Energy Project - March 11, 2008

made. I'm sorry, no decisions be made on this project until the Coast Guard and FAA studies

have been completed and reviewed.

I want to thank you for your time. 5

6 (Applause.)

7 MR. MOORE: Thank you very much.

MR. KAIZER: 62. 8

9 MR. MOORE: 62, thank you.

10 MR. KAIZER: Good evening,

everybody. I'm a little late, but my name is

Pete Kaizer. I have been here for 35 years.

13 Mostly on the water, above, below and under

14 it. I have been a pilot, salvage diver, also

15 a commercial fisherman slash charter boat. I

am very familiar with the Sound. It's been 16

17 good to me, very good to me, as well as

surrounding waters. 18

Also, the concept of alternative energy, I believe, is a no-brainer. Everyone 21 on this island, I believe, is in favor of it, 22 which they should be. Unfortunately this project, which is proposed in the busiest spot in Nantucket Sound, adjacent to the ferry

#### Cape Wind Energy Project - March 11, 2008

169

issue, the radar. I believe it's going to be 3 an issue.

4 So anyway, I have a statement to

make. Technology owes the ecology an apology.

With that it follows: The beginning of April.

Historically Nantucket Sound has been known

for the largest spawning ground for squid on 8

the East Coast. They return because of a

10 thing called site fidelity, which means they

11 return to where they were born, Nantucket

12 Sound. Following close are the scupper and

13 sea bass, which also spawn in Nantucket Sound.

Then come the fluke, the bluefish and the

15 strikers, all in hot pursuit of the elusive

16 squid, which at this point in time they have,

17 will, and hopefully in the future, they all

arrive through Vineyard Sound directly and 18

19 through Horseshoe Shoals, which is where you

20 hear all the talk about the fishing.

21 That is a very highly productive place, which is, we often call, the nursery. 22 23 Here lies an epic problem. If the squid no longer return to this area, due to the

170 172 Cape Wind Energy Project - March 11, 2008 Cape Wind Energy Project - March 11, 2008 1 industrialization of this shoal, it will We've all agreed on that. However, Nantucket reflect to the fishing and marine life of all Sound is an inappropriate location for such a the whole Cape and Islands, possibly forever, project as this, as it is one of New England's and I wouldn't wish this legacy on any busiest waterways for transportation, pleasure commission. I would look back at George 6 boating and fishing and the Coast Guard, as Bassett's feeling about the ice, epic damage. well as the air traffic. MR. MOORE: You need to finish up, 8 Nantucket Sound is no place to construct a project of this magnitude and complexity. It has been well established that MR. KAIZER: And, also, this area 10 has been designated as an essential fish 11 we are, that there are alternate locations, as Whitey Willauer pointed out, and that a wind MR. MOORE: Thank you. Thank you farm could be constructed that would pose no 13 hazard to navigation and air traffic. 15 I believe it would be very (Applause.) MR. MOORE: Next speaker. irresponsible to construct such an industrial 16 What number are you? facility in the very center of Nantucket MR. MORIARTY: 65. 18 Sound, that is used by so many pleasure MR. MOORE: Thank you very much. boaters and sources of transportation. 19 MR. LANG: I'm 64. 20 This is not a case of not in my MR. MOORE: We have got 64 somehow backyard, this is a case of possibly allowing 21 a hazard to be created that would put my 22 MR. LaFRANCE: 61 over here. 23 generation and my children's generation at MR. MOORE: Who's here, 64? 64 24 risk in years to come. I am all in favor of 171 173 Cape Wind Energy Project - March 11, 2008 Cape Wind Energy Project - March 11, 2008 1 wind energy, and I have been for many years, goes here. Come on down. MR. LANG: I didn't prepare a 3 but not at the risk of public safety, when statement, I just made some notes. alternate locations are clearly available. 5 The Cape Wind Project where planned My name is Robert Lang. I live on Nantucket Sound with my wife and my two 6 would be a huge public safety hazard. Please daughters. Nantucket has been my year-round encourage them to build it in a more 7 home for 35 years next month. 8 appropriate location. Thank you for coming to Nantucket 9 Thank you very much. for your concerns. After listening to the 10 (Applause.) many concerned citizens this evening, I now 11 MR. MOORE: Thank you. have more concerns than ever; but I'm going to 12 65. try to focus on the most important concern to 13 MR. MORIARTY: 65. me, and what I think is the most important 14 Good evening, everyone. My name is concern to all of us, and that is public 15 Dave Moriarty, a lifelong resident of Cape 16 Cod. And I just want to say I love Nantucket. We have heard from the Coast Guard, 17 You know, I remember this as my most favorite, we have heard from the Steamship Authority you know, my fourth grade and we were going on 18 representative, that the Coast Guard has not 19 a field trip, and we were going to the Whaling got all the reports yet, and we implore this Museum, and I just want to say that was one of 20

21

22

23

my most favorite field trips in my whole life,

except for the National Seashore, but that's

read a little statement I have for you, and if

another story. But anyway, I just want to

1

2

3

5 6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

1

2

3

4

5

6

7

8

9

10

11

12 13

14

15

16

17

18

19

20

21

22

23

24

safety.

decisions are made.

board to at least evaluate that before any

or not we need alternative resources. We do.

This is not a question of whether

here.

please.

habitat.

very much.

#### Cape Wind Energy Project - March 11, 2008

- 2 there is any time left I would like to add a
- 3 few comments.

1

- 4 It is in my humble opinion that I
- 5 state my adamant opposition to this
- 6 irreversible historical and economic damage
- 7 that would be caused to all my friends and my
- 8 family that depends on this vital and
- 9 irreplaceable Sound.
- 10 People have been coming here for
- 11 hundreds of years, not to see the wind
- 12 turbines, but to see the beautiful, pristine,
- 13 majestic, unique national treasure that I
- 14 happen to call my home. This is where I get
- 15 everything I need to sustain my life from,
- 16 from the Sound, and a lot of people in this
- 17 room, too. I hope you will take that into
- 18 consideration.
- 19 I consider the Sound to be the
- 20 National Bank of the Cape and Islands; secured
- 21 and protected by the citizens for the
- 22 citizens. It used to be that way, until now.
- Obviously, you guys are here, and we can't
- 24 protect our own home anymore for some reason;

# 175

174

# Cape Wind Energy Project - March 11, 2008

2 I don't know why.

1

11

15

- 3 But the Sound, the pearl of the
- Eastern Seaboard, it's life-sustaining
- 5 perfection in motion, home of Nantucket
- 6 whalers, land of Wampanoags, providing and
- sustaining life for Cape and Islanders, summer
- 8 after summer, year after year, generation
- 9 after generation, like clockwork. Our economy
- 10 depends on it.
  - So let us not forget who we are,
- 12 for we are Americans. We can do anything,
- 13 can't we? I hope so. Anybody out there?
- 14 This we can achieve.
  - (Applause.)
- MR. MORIARTY: We can achieve
- 17 energy independence if we truly set our minds
- 18 and our resources to doing so. We can,
- 19 because we are Americans. We don't have to
- 20 ruin a beautiful, a natural historic site. We
- 21 are Americans. We can do this somewhere else.
- 22 There are other alternatives for us, okay?
- 23 It won't be long before big oil is
- 24 pushed out the door of the White House. It

#### Cape Wind Energy Project - March 11, 2008

- won't be long, you guys will have all kinds of
- 3 projects to work on. You will have nothing to
- 4 worry about. That's coming. It's only what,
- 5 nine months? You could hang in there, can't
- 6 you? We sure can.
- 7 Okay.

1

- 8 MR. MOORE: It's about time.
- 9 MR. MORIARTY: Oh, no. Anyway, the
- 10 risk is much too high; the return is much too
- 11 small. Our way of life depends on your
- 12 critical consideration.
- 13 Thank you very much.
- 14 (Applause.)
- 15 MR. MOORE: 66, 67, 68.
- MR. KURKER: 67. My name is Wayne
- 17 Kurker, and I am the owner/operator of the
- 18 Hyannis Marina for over 30 years.
- We have all heard the pros and cons
- of marine safety and commercial fishing, but
- 21 the fact is that all the major users,
- 22 professional mariners of this waterway, agree
- 23 that Cape Wind will make this waterway unsafe
  - for navigation. The ferry line and steamship,

## 177

#### Cape Wind Energy Project - March 11, 2008

- the Hi-Line both agree; the commercial
- 3 fishermen agree. The pleasure boaters agree;
- 4 the marina operators agree; we all agree it
- 5 will be unsafe.

1

- 6 However, for over six years we have
- reached out to Cape Wind, and for over six
- 8 years Cape Wind has responded to us by
- 9 dismissing our concerns or by responding with
- 10 insincere or unrealistic solutions.
- 11 Let me read you one guick example
- of Cape Wind's solution relative to bringing
- 13 radar into this. This is a quote directly
- 4 from Cape Wind's Revised Navigation Risk
- 15 Assessment Executive Summary. Page 4,
- 16 Paragraph 3. Cape Wind's report says, quote,
- 17 "To avoid collisions with other vessels in and
- 18 around the wind park, mariners will need to
- To around the wind park, mariners will need to
- 19 scrutinize more closely radar data received,
- 20 to identify vessels that may be temporarily
- 21 masked by radar echoes, either true or false,
- 22 from wind turbine generators," end quote.
- This is so misleading it's
- unconscionable, because the radar experts

#### Cape Wind Energy Project - March 11, 2008

agree that no matter how closely you 2

1

1

- scrutinize a radar screen, you simply can't 3
- see other boats or buoys or anything if they
- are in the shadows or silos of turbines. 5
- 6 Cape Wind's navigational risk
- 7 assessment also dismisses the commercial
- 8 fishermen's concerns. With all of the
- evidence that we have submitted over the last
- six and a half years, I hope you understand 10
- that the commercial fishermen have stated 11
- right along that these are the most important
- fishing grounds within the Sound, and they 13
- 14 fish virtually the entire triangle.
- There aren't many shallows or many 15
- areas that they really have to avoid. It's 16
- not a shallow area, as is represented, to you 17
- that's useless to these fishermen. The 18
- commercial fisherman are opposed to the wind 19
- 20 farm, and their association of the Mass.
- Fishermen's Partnership representing 17 21
- fishing organizations is opposed because they 22
- 23 say, quote, "trawling amongst 130 turbines
- 24 spaced one third to one half a mile apart

## 179

178

#### Cape Wind Energy Project - March 11, 2008

- would be hazardous or impossible," end quote. 2
- These same commercial fisherman say 3
- that if they are forced to coexist with a wind 4
- farm, the turbines need to be spaced at a 5
- minimum of one to one and a half miles apart, 6
- so they could safely turn between -- the 7
- fishermen don't want this wind farm at all, 8
- but if you are going to force them to work and 9
- make a living in that area, at least give them 10
- 11 the spacing they need between these turbines
- 12 so that we aren't -- so that they could remain
- 13 making a living.
- 14 Thank you.
- 15 (Applause.)
- 16 MR. MOORE: Thank you very much.
- 17 68, 69, 70, 71, 72, 73, 74, 75, 76,
- 18 77, 78. Okay.
- 19 MS. MURPHY: Hi. My name is
- 20 Roberta Murphy.
- First of all, I want to thank you 21
- very much. We needed a breath much of fresh 22
- 23 air in this room.
- 24 I am going to start out by

#### 1 Cape Wind Energy Project - March 11, 2008

- addressing the DEIS with one comment. On Page
- 2, Paragraph 3, you made a mistake. It
- actually was reversed. I'll read it. "The
- life of offshore turbines is much higher than
- land-based turbines." In fact, the life for
- offshore is five to ten, and more than likely
- the lesser, and land-based are 20 years. You
- reversed it.

10

18

- Next, I want to address the
- audience and anyone that is remaining here 11
- that has brought up the renewable energy and
- 13 doing away with oil and coal. And I just, I
- can't believe that in this day and age, people
- don't understand that it's not going away. 15
- The wind turbines are a definite item we are 16
- going to be dealing with in the future.
  - Electricity uses two percent of the
- oil consumed in this country; 68 percent of 19
- 20 the oil is for transportation. The oil is
- 21 converted into gasoline. Out of that
- conversion process something is born called 22
- carbon. Carbon is now being used to create
- 24 what is called carbon fiber. Carbon fiber is
  - 181

# Cape Wind Energy Project - March 11, 2008

- now the number one hot commodity on Wall
- Street. It's what's keeping this country
- 4 going.

13

21

22

- 5 We're on the verge of economic
- 6 collapse. We are being fed with money from
- the Arab nations. Kuwait and Singapore just
- invested millions into Citigroup. Lehman
- Brothers is ready to fold unless they go the
- 10 same route.
- 11 Wind is the new investment in this
- 12 country, so it will be growing. However, we
- have to be smart about it. If we want to go
- 14 green, get off the grid; hunker down; get
- 15 solar; do other things, but the wind is not
- going to go away. There will be a grid, but
- 17 you can't complain about the oil consumption
- 18 because it's not going to stop.
- 19 We just got a new bleed in from
- Libya, and in order to keep us growing, we are 20
  - going to keep doing it.
  - That's it. I have 30 seconds left
- 23 if somebody wants to use it.
- 24 (Applause.)

#### Cape Wind Energy Project - March 11, 2008

2 MS. DOWLING: Hi. My name is

- 3 Rachel Dowling. I'm a resident of Nantucket
- 4 for about ten years. And this really has been
- 5 an interesting evening and interesting four
- 6 years, because I, like somebody at the
- 7 beginning of the evening, I was with the
- 8 Alliance for Nantucket Sound four years a
- 8 Alliance for Nantucket Sound four years ago,9 and I have studied this thing. I'm not going
- 10 to say that I have been taking every document,
- 11 you know, to bed with me to read at night, but
- 12 I have been trying to pay attention and trying
- 13 to use my head.

1

- 14 I think it is obviously a very
- 15 tough issue for us, because it's such an
- 16 emotional issue. And when you are talking
- 17 about a historic island that is a historic
- 18 landmark, it's a very unique environment.
- 19 People have a lot of pride about that, and
- 20 it's understandable.
  - Why do people come to Nantucket, if
- 22 not for the quality of life here, for the
- 23 peace of mind, for the beautiful sea, and the
- 24 sunrise in the morning, and the birds, and all

## 183

182

1

18

19

1

13

#### Cape Wind Energy Project - March 11, 2008

2 of that?

21

1

- 3 But I'm just going to ask people to
- think about what is the risk and what is the
- 5 benefit, and does the benefit outweigh the
- 6 risk?
- 7 I've heard some people say that
- 8 they can't visualize it. They see this
- 9 project costing us more money in the long run.
- 10 I find that really, that particular piece to
- 11 be very difficult.
- Yeah, maybe to offset the initial
- 13 cost of the development, but in the long, long
- 14 run, I think we would really be saving
- 15 ourselves in a very big way. And I just, you
- 16 know, I hear, I keep hearing these comments,
- 17 "The wind is still going to be there."
- 18 Everybody who has stood up here tonight has
- 19 said, "I am all for wind energy, but..."
- 20 There has got to be a time when we stop saying
- 21 "but".
- You know, I, I am a child of the
- 23 '70's. I'm 41 years old. We have been
- 24 talking about finding renewable sources of

#### Cape Wind Energy Project - March 11, 2008

- energy for the past 25 years, that I can
- remember, but when are we going to finally do
- something about it?
- 5 To me, I really don't understand
- 6 the point of view of this aesthetic blight on
- the horizon, because, you know, I just don't
- B get that. I find that, you know, they are
- 9 really not that bad to look at if you can't
- 10 really see them. And, you know, when you sort
- 11 of look at the picture that is up there, and
- 12 then sort of try to visualize the turbines, I
- 13 mean, already the boundaries between the sky
- 14 and the sea are kind of blurred. I don't
- 15 really see that happening.
- Okay, I got my stop sign, so I'm
- 17 just going to say, everybody should just think
  - about this really hard. So thank you.
    - (Applause.)
- 20 MS. CHARDER: My name is Ara
- 21 Charder. I'm a resident for 31 years now,
- 22 almost 32. Thank you for coming to Nantucket
- 23 and allowing us to share our thoughts so that
- 24 we may be part of your decision-making.

#### 185

#### Cape Wind Energy Project - March 11, 2008

- 2 Green energy; everyone here said
- 3 yes. This meeting has had the opportunity to
- 4 hear from Al Peterson, from Nantucket Memorial
- ......
- 5 Airport, with concerns for radar; with
- 6 concerns for safety. George Bassett, with
- 7 concerns for preservation of our pristine
- 8 waterway. From Chris Lohmann, with hopes to
- 9 protect our environment, and public interest;
- 10 from Ted Taylor and many others. The question
- 11 of viability in this project, they all depend
- 12 on our viable waterway. Why risk it?
  - Please consider deep water energy.
- 4 Tonight we heard from Blue Water USA. It's an
- 15 option. Wind energy in an area with more
- 16 constant wind, transportation safety, our
- 17 utmost concern. Wind energy installed on
- 18 ground, possibly ground already owned by the
- 19 U.S. Government, such as Otis.
- 20 Please, save our unspoiled
- 21 resources, tide. If we harness this energy,
- 22 could this effect an increase or at least a
- 23 slowdown of further shore erosion? Green
- 4 energy, yes; wind farm, as proposed by Cape

186 188 Cape Wind Energy Project - March 11, 2008 1 Cape Wind Energy Project - March 11, 2008 2 There is no experience in the world I wish to repeat the quote shared 3 to date with decommissioning offshore wind by Sandy Taylor tonight. "Deliberate often; projects, and MMS should be prepared for the possibility of large costs to the taxpayer associated with the abandonment of such a project. If this project is to be considered MS. FITZ-GIBBON: 78. Good 8 evening. My name is Bonnie Fitz-Gibbon and I at all, MMS needs to require a specific plan for decommissioning to protect the public from 10 year-round resident of Nantucket for 25 years. incurring these costs, and to protect us from 11 I want to talk tonight about the 12 a defunct project sitting in the middle of risks of the proposed Cape Wind Project, and Nantucket Sound. 13 what guarantees this private developer would 14 In ending, and on a more personal note, and I will speak quickly, I would like 15 The Cape Wind Project would be the to say that the risks involved are neither 16 first offshore wind plant in the United short-sighted or short-term, as Cape Wind States. Why build this wind plant, this first 18 asserts. We are simply dealing with too many wind plant, in a national treasure, and take 19 unknowns. 20 I believe that the environment The Cape Wind Project relies on a 21 movement is fueled by heartbreak; heartbreak brand-new technology. 3.6 megawatt turbines over loss, destruction and extinction. To have never been used on a commercial scale. 23 take a very rare, pristine and beautiful piece

187

24

1

#### Cape Wind Energy Project - March 11, 2008

Secondly, existing offshore wind

parks have experienced problems in the past.

I have read that two major offshore wind parks 3

- in Denmark have had serious operating problems
- due to mechanical issues and due to the fact 5
- 6 that their environment is a harsh one.

What if we allow this massive plant 7

- to be built on our beautiful Nantucket Sound, 8
- and then the wind power fails? What happens 9
- when the plant needs to be removed at the end 10
- of its useful life? Will we endure months of 12 repairs, as is the case in Denmark? Who will
- 13 cover the cost of the repairs? We should not
- take the risk of a new technology in the
- Sound. 15

1 2

3

5

6

7

8

9

10

11

12

13 14

15

16

17

18

19

20 21

22 23

24

1

11

Wind, no.

decide once."

have been a

all the risks?

Thank you.

(Applause.)

be required to make to the public.

16 At a minimum, provisions for

17 repairs and dismantlement must be made. How

- much will Cape Wind need to guarantee and to 18
- post up front? MMS needs to ensure that the 19
- 20 developer has made separate arrangements so
- that when the plant needs to be dismantled, 21
- there will be sufficient funds to do this. 22
- which are separate from the funds for the 23
- building and operating of this plant. 24

189

of our environment and destroy it to make an

Cape Wind Energy Project - March 11, 2008

- energy statement to the world that will provide a modest, if not negligible, economic
- gain is a crime against the heart of any true
- environmentalist. It's a little like robbing
- Peter to pay Paul. And the loss here does not
- mirror the gain, and I ask you to please not
- allow this project to go forward.
- 9 Thank you.
- 10 (Applause.)
- 11 MR. MOORE: Thank you.
- 12 79.
- 13 MR. GROSS: 75.
- 14 MR. MOORE: Pardon me, 75.
- Is there a 79? Is there an 80? Is 15
- there anyone above 80? 16
  - Okay, I think you have the last
- word. 18

17

19 MR. GROSS: My name is Jim Gross.

- I have been here for 35 years; a little while.
- I have been a commercial fisherman; I have
- been in the marine engine business. Right now 22
- 23 I'm in the generator business, and I see what
- happens with land-based generators and how

#### Cape Wind Energy Project - March 11, 2008

2 long they last, and they don't last long

3 enough.

1

11

14

4 But you have to look at what's

5 going on out in the Sound. When the glacier

6 made Nantucket 23,000 years ago, the glacier

was 1200 feet tall. It came down and it

8 stopped on Nantucket. It burped and it made

Nantucket, and it started melting.

10 And what you have south of the

island, or from Saul's Hill, which is the

12 middle there of the island, south, is the

13 outwash part. And all the debris and the sand

and the silt and the rocks float out to the

15 south.

Down to the south it goes. You go

150 miles and you go out to the Continental

18 Shelf and it goes right down to 6,000 feet.

19 Other than that it's about 150 on the way out.

20 So the glacier, as it melted back,

21 it receded 18,000 years ago. It got back to

22 Cape Cod and it moved again. It started

23 moving forward, made the Cape and started

24 receding.

1

2

8

19

1

191

190

1

# Cape Wind Energy Project - March 11, 2008

So on the Cape we had the same

3 thing. As the glacier melted all that sand

and rocks and all that stuff made the Sound,

5 the water level came up 300 feet, and that's

6 what it is today.

7 But in doing this, what you've got

out there, bedrock underneath Nantucket is

9 1500 feet down. On the Vineyard it's about

10 850 feet. As you drive to Boston, as you get

11 to Plymouth you see bedrock on the side of the

12 highway. So what you've got out in the middle

13 of the Sound is all sand. And you've got a

14 two or three knot current in the sand moving

15 around all the time. But the windmills are

16 going to be 440 feet tall, and of that they

17 are going to put 80 feet -- they're going to

18 drive a 20-foot piling into the sand, 80 feet.

19 So you've got one-sixth in the sand, and

20 you've got about five-sixths up in the air.

21 So once you go up in the air, then they have a

22 300-foot fan on this thing spinning around,

23 all right?

24 The winds we have here are not

#### Cape Wind Energy Project - March 11, 2008

2 constant. We don't get an east, west, summer,

3 winter wind like they do in California and

4 Arizona where the wind farms are, we get it

5 all around. The other day it was blowing 40

6 out of the southwest. But what we get is not

The second section of the section of the second section of the section of the second section of the section of the second section of the section of the second section of the section of the

7 constant. We get a buffeting; it's a gust.

8 So it was more than 40, and then it gusts to

9 60. So that's going, you know, everything is

10 gusting and moving.

11 And then two days ago we had a

2 northeast breeze that was blowing 40, and it

13 was gusting to 60 again, but that's a

14 different direction. And then it comes around

15 northwest. So it's moving all around. And in

16 doing this, this hole in the glacial outwash,

17 which is sand, they are eventually going to

18 start losing their footing.

And then you have got the tide.

The tide flows six hours one way, and then it

21 flows six hours the other way. And back in

22 the '70's, when we got a lot of ice, it froze

23 all the way to Hyannis. It has done it a few

24 times. But that ice on those pilings is going

193

#### Cape Wind Energy Project - March 11, 2008

2 to adhere to them, and as George or anyone

3 around here has seen a piling in the ice, as

4 the tide changes, as the tide goes up, at the

5 bottom, as low tide freezes, as the tide comes

6 up, it pulls the pilings out of the ground.

7 MR. MOORE: It's about time.

WIK. WOOKE. It's about time.

8 MR. GROSS: And you've got a whole

9 lot of pilings to pull out of there. And as

10 the ice is moving, it bends over.

11 It's a great idea, but you have to

12 do it on land for longevity. 20 years is not

13 a long time. Thank you.

14 (Applause.)

MR. MOORE: Thank you very much.

16 Yes?

17 One more speaker. No, we don't,

18 okay.

19 It's been a long evening. Tonight

20 we have heard some very important comments and

21 some very important concerns from different

22 views, and those will be taken into

23 consideration by the Minerals Management

24 Service.

	194
1	Cape Wind Energy Project - March 11, 2008
2	We also encourage you to submit by
3	e-mail or by snail mail or meetings tomorrow,
4	which would be in Martha's Vineyard, or in
5	Boston, the new location, which is the Clark
6	Gymnasium, to come and to submit your views on
7	these issues.
8	So we want to thank you a lot, and
9	I don't know whether MMS or Bob wants to say
10	anything, or should we just end our evening?
11	MR. LaBELLE: Thank you very much.
12	MR. MOORE: Drive safely and avoid
13	the traffic lights.
14	(Time ended 8:55 p.m.)
15	(mile shada eres pilm)
16	
17	
18	
19	
20	
21	
22	
23	
23	
24	
24	195
	195 Cane Wind Energy Project - March 11, 2008
1	Cape Wind Energy Project - March 11, 2008
1 2	
1 2 3	Cape Wind Energy Project - March 11, 2008
1 2 3 4	Cape Wind Energy Project - March 11, 2008 CERTIFICATE
1 2 3 4 5	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered
1 2 3 4 5 6	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of
1 2 3 4 5 6 7	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the
1 2 3 4 5 6 7 8	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate
1 2 3 4 5 6 7 8	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on
1 2 3 4 5 6 7 8 9 10	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate
1 2 3 4 5 6 7 8 9 10 11	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on
1 2 3 4 5 6 7 8 9 10 11 12	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on
1 2 3 4 5 6 7 8 9 10 11 12 13	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on
1 2 3 4 5 6 7 8 9 10 11 12 13 14	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	Cape Wind Energy Project - March 11, 2008  CERTIFICATE  I, Patricia A. Bucko, Registered  Professional Reporter in the Commonwealth of  Massachusetts, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on  March 11, 2008 in the above-captioned matter.

\$109 [1] - 97:12 \$122 [2] - 117:17, 118:10 \$13 [1] - 66:7 \$14,590 [1] - 72:12 \$15,000 [2] - 65:20, 66:6 \$20 [1] - 119:4 \$25 [1] - 161:13 \$300 [1] - 25:6 \$35 [1] - 161:14 \$40 [1] - 119:4	146 [1] - 71:5 15 [5] - 64:24, 70:17, 70:18, 109:19, 163:11 15-minute [1] - 109:16 150 [5] - 34:10, 127:19, 136:18, 190:17, 190:19 1500 [1] - 191:9 16 [4] - 15:14, 65:2, 70:18, 89:10 1600 [1] - 98:20 17 [3] - 81:13, 155:6, 178:21	126:23, 149:10, 149:17, 149:18  2008 [5] - 1:11, 19:20, 114:16, 149:10, 195:10  2009 [1] - 149:18  2025 [1] - 49:21  21 [3] - 81:14, 88:10, 149:19  21st [1] - 19:17  22 [5] - 38:8, 88:10, 90:2, 98:21, 131:15  23 [5] - 75:20, 88:10, 99:19, 155:2, 155:20	34 [2] - 116:22, 121:4 35 [8] - 24:17, 49:11, 116:22, 123:12, 123:13, 167:12, 171:8, 189:20 36 [2] - 123:13, 123:19 360 [1] - 132:24 37 [1] - 123:13 38 [3] - 32:19, 123:14, 123:19 39 [4] - 123:16, 123:18, 123:19, 123:20	142:13, 147:24  52 [2] - 142:5, 150:18  53 [1] - 150:18  54 [2] - 150:18, 156:6  55 [2] - 150:18, 156:6  56 [3] - 150:18, 156:6, 160:18  57 [3] - 139:17, 162:23  58 [2] - 162:23, 165:4  59 [4] - 162:23, 165:4, 165:5  5:00 [1] - 2:2  5:01-8:55 [1] - 1:12
<b>\$66</b> [1] - 117:21	<b>170</b> [2] - 79:23, 145:2	<b>23,000</b> [1] - 190:6	4	6
<b>'70's</b> [2] - 146:5, 183:23	1700-page [1] - 43:10 1776 [1] - 162:13 178 [1] - 149:16 18 [5] - 15:14, 60:8, 81:14, 98:21, 115:10	24 [2] - 38:8, 88:10 24-square [1] - 79:13 24-square-mile [2] - 79:7, 80:9 25 [9] - 38:8, 98:13,	<b>4</b> <sub>[2]</sub> - 32:12, 177:15 <b>40</b> <sub>[8]</sub> - 72:13, 89:15, 123:21, 133:12, 133:15, 192:5,	<b>6</b> [3] - 20:21, 32:12, 48:4 <b>6,000</b> [1] - 190:18 <b>60</b> [6] - 90:23, 162:23,
1	<b>18,000</b> [1] - 190:21 <b>180</b> [2] - 127:19, 160:4	99:2, 99:13, 146:3, 153:5, 161:3, 184:2,	192:8, 192:12 <b>40,000</b> [3] - 101:5, 101:11, 106:3	165:6, 192:9, 192:13 <b>60th</b> [1] - 40:23
1 [6] - 1:1, 32:11, 32:15, 45:6, 45:15, 65:19 1,000 [1] - 66:5 1-195 [1] - 1:1 1.2 [1] - 118:4 1.5 [1] - 59:17 1.6 [1] - 118:8 10 [8] - 1:14, 38:21, 59:9, 69:13, 89:4, 93:23, 98:24, 99:2 100 [3] - 34:5, 45:17, 149:7 109 [1] - 161:15	180 [2] - 127:19, 160:4 1843 [1] - 37:3 185,000 [1] - 49:24 1880's [1] - 39:10 19 [1] - 81:14 19.2 [1] - 24:7 1924 [1] - 63:5 1925 [1] - 137:8 1951 [1] - 39:11 1967 [1] - 127:16 1976 [1] - 35:14 1979 [2] - 51:10, 56:14 1980 [2] - 39:2, 39:8 1983 [2] - 10:16, 146:8 1991 [1] - 63:7	186:11  25%[1] - 47:14  25-square-mile[1] - 133:9  25-year[1] - 74:9  250[1] - 136:18  26[2] - 98:13, 100:21  27[5] - 13:10, 39:2, 39:8, 98:14, 100:3  28[2] - 98:22, 106:22  29[4] - 106:22, 109:24, 114:19	101:11, 106:3  400 [3] - 15:13, 112:2, 164:9  400,000 [1] - 80:8  41 [6] - 123:21, 133:12, 133:13, 135:18, 183:23  42 [2] - 133:12, 137:5  43 [1] - 137:5  43-story [1] - 79:13  44 [1] - 142:4  440 [2] - 100:2, 191:16  45 [3] - 75:21, 81:18, 142:4  45-degree [1] - 89:15	61 [2] - 165:7, 170:23 62 [4] - 165:7, 167:8, 167:9 63 [1] - 165:7 64 [5] - 165:7, 170:20, 170:21, 170:24 65 [5] - 16:13, 16:16, 170:18, 173:12, 173:13 65,000 [1] - 59:19 66 [1] - 176:15 67 [2] - 176:15, 176:16 68 [3] - 176:15, 179:17, 180:19 69 [1] - 179:17
<b>11</b> <sub>[5]</sub> - 1:11, 59:9, 62:21, 62:22, 195:10	2	<b>3</b> [6] - 32:12, 38:20, 80:7, 119:23,	<b>46</b> [3] - 30:8, 119:19, 142:4	7
1100 [1] - 100:13 115 [1] - 15:16 12 [4] - 30:6, 59:9, 64:24, 107:15 120 [2] - 137:24, 154:10 1200 [1] - 190:7 121 [1] - 149:17 13 [6] - 15:10, 59:9, 64:24, 66:2, 67:21, 155:20 13.3 [1] - 74:18 130 [6] - 15:13, 16:14, 111:24, 113:10, 115:7, 178:23 14 [6] - 59:10, 64:24, 70:17, 70:18, 133:18, 155:10 140 [2] - 94:14, 94:20 1400 [1] - 98:23	2 [5] - 32:12, 35:5, 35:7, 135:3, 180:3 20 [17] - 23:22, 34:15, 36:19, 38:8, 42:23, 44:8, 70:12, 81:14, 83:11, 88:10, 89:10, 98:24, 114:17, 118:21, 163:11, 180:8, 193:12 20,000 [1] - 59:22 20-foot [1] - 191:18 200 [1] - 34:7 2003 [1] - 35:11 2004 [3] - 40:9, 40:20, 115:4 2005 [6] - 11:3, 51:23, 59:15, 92:3, 114:20, 115:11 2006 [1] - 34:3 2007 [6] - 41:13, 75:3,	177:16, 180:3  3%[1] - 47:13  3.6[1] - 186:22  30[14] - 9:16, 19:20, 56:13, 63:12, 65:7, 77:7, 99:2, 109:22, 109:23, 109:24, 142:20, 163:3, 176:18, 181:22  30-foot[1] - 164:5  30-mile-an-hour[1] - 83:11  300[2] - 125:22, 191:5 300,000[1] - 48:24 300-foot[1] - 191:22 31[2] - 109:24, 184:21 32[4] - 98:22, 109:24, 116:22, 184:22 33[4] - 15:15, 109:24, 116:22	468 [1] - 15:11 468,000 [1] - 49:23 47 [1] - 142:4 470 [1] - 164:4 48 [1] - 142:4 49 [2] - 142:4, 142:10  5 5[3] - 32:12, 48:4, 48:6 50 [7] - 34:18, 98:18, 137:10, 142:5, 142:7, 142:8, 145:21 50% [1] - 49:20 50-foot [1] - 164:5 500,000 [1] - 30:12 500-foot [1] - 85:8 51 [4] - 142:5, 142:12,	7 [4] - 20:21, 32:13, 48:4, 53:8 70 [2] - 63:9, 179:17 70's [1] - 192:22 71 [1] - 179:17 72 [1] - 179:17 73 [1] - 179:17 74 [1] - 179:17 75 [4] - 140:8, 179:17, 189:13, 189:14 76 [1] - 179:17 77 [1] - 179:18 78 [2] - 179:18, 186:8 79 [4] - 69:15, 115:22, 189:12, 189:15 79% [1] - 48:10

# 20:22, 3

8<sub>[5]</sub> - 20:22, 32:13, 53:8, 65:24, 74:12 8,000<sub>[1]</sub> - 33:7 80<sub>[4]</sub> - 189:15, 189:16, 191:17, 191:18 80's<sub>[1]</sub> - 93:16 850<sub>[1]</sub> - 191:10 8:55<sub>[1]</sub> - 194:14 8th<sub>[1]</sub> - 98:20

#### 9

9 [5] - 38:21, 59:9, 98:23, 127:17 9/11 [1] - 161:12 90 [2] - 33:23, 63:21 900 [1] - 6:14 900,000 [1] - 48:23 95,000,000 [2] -101:24, 106:3

# Α

abandoned [2] -47:11, 110:19 abandonment [1] -188:6 abilities [1] - 133:5 ability [2] - 3:22, 166:9 able [12] - 7:17, 19:6, 79:10, 97:2, 108:7, 118:22, 140:21, 141:4, 153:4, 156:15, 157:21, 158:4 above-captioned [1] -195:10 absolutely [2] - 90:12, 109:10 abundance [1] -103:15 abundant [1] - 159:16 acceleration [1] -41:24 accept [2] - 105:21, 120:14 access [2] - 47:3, 71:7 accessible [1] - 105:4 accident [2] - 86:20, 168:16 accidents [3] - 31:10, 159:9, 166:19 accompli [1] - 55:12 accomplish [1] -

13:20

according [5] - 44:24,

66:6, 66:7, 71:15, 84:12 Accordingly [1] -121:19 accurate [3] - 53:12, 53:17, 195:8 accurately [1] - 21:18 accuse [1] - 37:11 achieve [3] - 43:16, 175:14, 175:16 achieved [4] - 43:20, 103:23, 114:17, 115:9 acknowledge [1] -155:23 acknowledges [1] -124:15 acre [1] - 50:11 acres [1] - 44:23 act [4] - 37:10, 71:12, 77:10, 81:5 Act [5] - 11:3, 56:18, 124:12, 125:4 acting [2] - 43:14, 84:15 action [5] - 16:12, 41:10, 73:6, 73:12, 104:3 activities [3] - 12:6, 17:8, 18:3 activity [1] - 138:10 acts [1] - 149:22 actual [8] - 4:10, 66:4, 76:2, 76:10, 99:3, 130:14, 145:5, 148:16 adamant [1] - 174:5 Add [1] - 66:3 add [2] - 131:13, 174:2 added [2] - 41:21, 42:8 addition [4] - 34:13, 92:21, 131:3, 149:16 additional [9] - 12:13, 12:24, 57:7, 66:13, 118:20, 126:21, 127:5, 155:4, 157:18 **additions** [1] - 149:19 address [7] - 46:18, 111:21, 117:3, 121:12, 148:15, 166:3, 180:10 addressed [13] - 47:8, 52:10, 112:2, 113:6, 122:16, 123:6,

125:12, 126:7,

126:10, 127:9,

133:3, 166:12,

166:23

addresses [2] - 46:4, 46:23 addressing [2] -126:14, 180:2 adequacy [1] - 3:7 adequate [1] - 124:17 adequately [3] -127:9, 131:20, 166:3 adhere [1] - 193:2 adjacent [2] - 49:6, 167:24 Adjacent [1] - 159:6 adjuncts [1] - 29:6 administered [2] -72:3. 90:24 Administration [2] -66:11, 126:23 administration [1] -85:22 administrative [1] -108:12 Adrienne [1] - 137:7 advancing [1] - 34:21 adverse [5] - 67:4, 155:7, 155:14, 155:17, 155:18 adversely [3] - 66:23, 66:24, 154:24 advisor [1] - 51:12 advisory [1] - 124:5 advocate [1] - 107:4 aesthetic [7] - 119:18, 120:13, 120:15, 135:11, 154:14, 155:9, 184:6 aesthetics [3] - 47:20, 120:23, 134:10 affect [4] - 113:19, 154:19, 155:19, 166:14 affected [6] - 66:23, 66:24, 131:5, 147:20, 154:24, 155:6 afternoon [1] - 70:20 age [2] - 127:17, 180:14 agencies [3] - 3:6, 18:23, 95:6 agency [4] - 10:15, 92:4, 102:10, 122:23 agenda [1] - 56:5 aggregate [1] - 151:14 aggressive [1] - 62:11 aggressively [1] -150:10 ago [13] - 56:13, 82:8,

84:4, 87:5, 135:21,

159:4, 161:5,

161:14, 168:12, 182:8, 190:6, 190:21, 192:11 agree [8] - 95:19, 176:22, 177:2, 177:3, 177:4, 178:2 agreed [2] - 73:17, 172:2 agreement [1] - 27:2 agreements [1] -48:14 ahead [3] - 3:8, 12:4, 20:18 aid [2] - 14:18, 14:21 air [16] - 46:7, 48:20, 51:15, 79:15, 81:3, 94:19, 100:19, 103:13, 141:12, 162:2, 164:15, 172:7, 172:14, 179:23, 191:20, 191:21 Air [4] - 59:3, 87:15, 94:23, 163:24 aircraft [3] - 24:4, 85:5, 164:5 airplanes [3] - 112:3, 152:11, 168:4 Airport [7] - 22:7, 84:2, 85:2, 95:7, 151:3, 158:23, 185:5 airport [1] - 78:9 airports [1] - 164:7 AI [7] - 22:6, 22:9, 32:3, 41:14, 83:21, 86:17, 185:4 alarm [1] - 5:9 Alaska [3] - 10:19, 134:23, 153:24 Alison [1] - 119:11 all-time [1] - 141:3 ALLFATHER [1] -59:12 Allfather [1] - 59:13 Alliance [11] - 52:7, 53:21, 54:20, 65:6, 78:5, 78:6, 78:8, 116:24, 124:2, 148:4, 182:8 **allow** [7] - 36:8, 69:10, 83:5, 98:8, 153:8, 187:7, 189:8 Allow [1] - 8:16 allowed [3] - 116:5, 146:23, 164:2 allowing [4] - 29:16, 111:9, 172:21, 184:23 allows [1] - 15:2

almost [15] - 34:16, 42:23, 44:8, 65:15, 75:12, 112:18, 135:21, 136:9, 138:5, 139:17, 142:20, 151:21, 152:3, 159:23, 184:22 alone [4] - 59:4, 114:13, 132:15, 149:10 alongside [1] - 53:2 alpha[1] - 25:15 alter [1] - 138:22 altered [3] - 94:9, 103:4, 160:11 alternate [4] - 87:13, 88:16, 172:11, 173:4 alternative [26] - 11:4, 15:23, 16:13, 16:24, 29:7, 32:22, 32:24, 33:15, 56:15, 91:24, 95:20, 96:5, 117:3, 117:6, 120:24, 136:11, 149:4, 150:3, 157:17, 157:20, 158:19, 159:16, 165:18, 167:19, 171:24 Alternative [2] - 11:13, 147:6 alternatives [6] -15:20, 16:9, 29:5, 33:2, 175:22 altitude [1] - 46:9 amazing [1] - 128:9 America [2] - 22:17, 79:4 American [5] - 100:17, 111:3, 162:12, 162:14, 162:15 Americans [3] -175:12, 175:19, 175:21 amount [5] - 31:2, 58:8, 128:9, 139:4, 141:2 analysis [6] - 16:8, 63:20, 117:4, 117:6, 117:7, 117:8 angle [1] - 89:16 angry [1] - 133:20 **animals** [1] - 125:22 announce [1] - 77:20 announced [2] - 42:8, 75:17 announcement [2] -75:11, 75:13 annual [3] - 72:10,

bait [4] - 128:2, 128:9,

129:14, 129:16

72:14, 148:22 64:7 129:18 applying [2] - 75:23, annually [3] - 45:9, 75:24 **Army** [4] - 40:8, 40:13, attraction [1] - 137:16 45:18, 72:8 appreciate [1] - 124:7 56:22, 92:3 attractive [1] - 49:5 answer [1] - 5:21 appreciation [1] arrangements [3] audience [3] - 5:14, 102:15, 102:23, answered [4] - 5:23, 91:16 144:6, 180:11 187:20 27:7, 57:6, 57:8 approach [2] - 89:12, **AUDIENCE** [6] - 7:12, answering [1] - 92:10 149:9 array [1] - 15:15 7:17, 7:21, 7:24, 8:4, answers [1] - 64:4 approaching [1] arrive [1] - 169:18 32:4 arrived [2] - 19:7, **auditorium** [1] - 42:12 antenna [2] - 163:9, 35:15 163:18 appropriate [2] -39:19 Audra [1] - 65:4 artificial [1] - 77:11 92:20, 173:8 Audubon [3] - 50:21, anticipated [1] - 95:18 approval [3] - 50:24, artist's [1] - 52:17 54:23, 54:24 anyway [3] - 168:15, 80:14, 141:23 ashore [3] - 135:20, 169:4, 173:23 Authority [11] - 29:20, **Anyway** [1] - 176:9 **approve** [3] - 13:17, 137:8, 139:7 30:4, 30:8, 30:11, 42:16, 102:21 aside [1] - 9:2 30:20, 31:20, 95:7, apart [5] - 46:11, 132:24, 164:14, approved [5] - 12:24, aspects [4] - 113:2, 146:9, 158:23, 178:24, 179:6 13:13, 68:4, 126:19, 119:16, 146:9, 158:24, 171:18 Apollo [1] - 64:6 127.4 146:11 authority [2] - 11:4, approving [1] - 160:16 asphalt [1] - 151:3 50:22 apology [1] - 169:5 April [3] - 19:17, assembling [2] - 77:2 authorized [1] apparatus [2] - 105:3, 127:24, 169:6 102:10 105:17 asserts [1] - 188:18 aquaculture [1] automobiles [2] appeal [1] - 108:2 assess [2] - 3:6, 15:20 45:16, 54:9 126:24 Appeals [1] - 51:12 assessing [1] - 40:21 availability [1] - 47:2 aquifer [1] - 83:8 assessment [5] appear [2] - 52:19, **Ara** [1] - 184:20 available [13] - 16:2, 108:13 13:18, 122:8, Appendix [3] - 117:3, **Arab** [1] - 181:7 154:17, 154:21, 16:6, 16:23, 20:17, 117:9, 118:11 architectural [1] -178:7 33:8, 49:13, 68:17, 69:10, 115:18, applaud [1] - 156:17 100:8 Assessment [2] arduous [1] - 25:24 118:3, 134:7, applauding [1] - 8:22 66:19, 177:15 156:17, 173:4 area [49] - 15:18, assigned [1] - 18:9 Applause [58] - 25:18, average [7] - 24:5, 29:18, 32:2, 35:6, 27:19, 27:20, 63:22, assignment [1] -24:6, 48:11, 49:23, 65:16, 65:24, 69:14, 38:19, 42:19, 48:2, 160:24 72:10, 72:13, 79:23 71:3, 71:9, 71:20, 56:10, 59:7, 60:24, Associate [1] - 10:10 avian [4] - 46:2, 50:22, 71:21, 72:9, 72:11, 62:20, 64:23, 67:20, associated [1] - 188:6 73:8, 73:15, 73:19, 54:16, 54:18 70:16, 74:20, 78:2, **Associates** [2] - 2:7, aviation [3] - 40:18, 81:11, 85:17, 88:9, 77:17, 80:5, 81:24, 106:13 82:21, 85:4, 85:7, 66:10, 168:4 90:19, 93:5, 96:19, association [1] -104:16, 107:8, Aviation [1] - 66:11 98:12, 100:20, 178:20 106:4, 106:21, 107:10, 120:4, avifauna [1] - 18:24 assume [1] - 22:8 109:13, 111:13, 125:9, 127:11, Avoid [1] - 8:18 **assumed** [1] - 118:3 128:3, 128:13, avoid [5] - 9:2, 19:12, 116:21, 119:10, assumptions [1] -128:24, 129:17, 121:3, 123:10, 177:17, 178:16, 118:11 130:3, 130:19, 130:6, 133:11, 194:12 assurance [1] - 13:8 131:5, 131:19, 135:17, 137:4, avoided [1] - 49:9 **assure** [1] - 151:4 132:7, 132:9, 133:9, 139:13, 142:3, aware [3] - 85:13, assures [1] - 92:14 140:13, 141:9, 145:19, 147:23, 96:4, 129:12 Athletic [1] - 6:19 152:20, 153:19, 150:17, 154:4, awful [2] - 139:9, Atlantic [4] - 49:2, 169:24, 170:10, 156:5, 158:9, 144:7 49:4, 125:19, 126:6 160:17, 162:20, 178:17, 179:10, atmosphere [1] -185:15 165:3, 167:6, В 28:15 170:15, 173:10, areas [8] - 18:10, attacks [1] - 148:6 81:23, 95:6, 123:5, background [2] -175:15, 176:14, attendant [1] - 103:20 179:15, 181:24, 151:15, 151:20, 10:2, 85:20 attended [1] - 75:6 184:19, 186:7. 164:11, 178:16 backyard [6] - 51:14, attention [2] - 92:15, 189:10, 193:14 argued [2] - 52:8, 58:19, 119:17, 182:12 applicant [1] - 116:12 100:16 130:14, 153:24, attentively [1] - 8:16 applications [1] arguments [1] - 52:12 172:21 attorney [1] - 150:20 bad [3] - 135:12, 149:21 Arizona [1] - 192:4 attorneys [1] - 109:3 apply [1] - 157:24 150:13, 184:9 Armstrong [2] - 64:3,

attracted [2] - 129:13,

**BAKALAR** [1] - 106:5 Bakalar [1] - 106:6 balance [1] - 63:22 **baleen** [1] - 126:5 baloney [1] - 141:8 Baltic [1] - 59:18 Bank [3] - 82:22, 174:20 Barbara [1] - 130:7 barely [4] - 52:15, 52:22, 60:17, 120:16 barge [1] - 102:3 barges [2] - 50:7, 58:10 barrel [4] - 97:13, 97:18, 161:13, 161:23 **barrier** [1] - 40:3 Barrow [1] - 73:7 Barrow's [1] - 73:4 base [2] - 23:14, 87:16 Based [2] - 72:15, 114:11 based [14] - 23:12, 40:18, 42:4, 62:2, 74:6, 95:22, 102:19, 115:8, 116:12, 133:4, 149:22, 180:6, 180:8, 189:24 basin [1] - 88:13 basis [2] - 30:10, 112:19 bass [2] - 23:16, 169:13 **BASSETT** [1] - 88:11 Bassett [2] - 88:12, 185:6 Bassett's [1] - 170:7 bay [1] - 15:18 **Bay** [5] - 89:8, 89:13, 100:6, 100:7 beach [2] - 10:22, 40:3 Beach [2] - 23:19, 63:16 Beano [1] - 142:15 bear [1] - 148:14 **Beatrice** [1] - 34:12 beautiful [10] - 55:7, 62:9, 79:3, 79:4, 168:23, 174:12, 175:20, 182:23, 187:8, 188:23 **beautifully** [1] - 60:22 became [3] - 61:5, 61:11, 146:6 BECKHAM [1] -

139:15

Beckham [1] - 139:16 become [4] - 25:10, 40:22, 65:18, 95:18 becoming [2] - 37:17, 141:13 bed [6] - 44:10, 104:20, 104:22, 132:5, 143:13, 182:11 Bedford [2] - 75:22, 124:23 bedrock [2] - 191:8, 191:11 beg [1] - 39:24 began [2] - 35:23, 44:20 begin [5] - 2:18, 47:16, 48:5, 51:2, 157:9 beginning [5] - 38:5, 38:13, 38:15, 169:6, 182:7 begins [1] - 109:11 **behalf** [3] - 26:9, 84:2, 106:7 behavior [1] - 8:14 behind [2] - 69:21, 138:18 believes [1] - 107:5 beloved [1] - 145:17 below [11] - 39:18, 46:8, 102:20, 104:19, 104:20, 104:21, 104:22, 136:2, 164:2, 164:6, 167:13 bends [1] - 193:10 Benedict [1] - 42:5 beneficial [1] - 46:15 benefit [13] - 22:22, 28:11, 36:12, 36:15, 38:2, 91:2, 96:8, 114:13, 147:5, 147:11, 153:7, 183:5 benefits [8] - 34:23, 35:21, 57:2, 91:23, 92:21, 135:4, 148:24, 161:17 benign [1] - 49:16 bent [1] - 89:15 bequeathing [1] -141:18 BERGER [2] - 70:20, 74:16 Berger [1] - 70:21 best [7] - 3:18, 23:16, 28:4, 43:15, 46:24, 115:10, 168:19

better [6] - 33:2,

107:15, 129:19, 129:20, 130:4, 139:18 Better [1] - 63:21 between [12] - 30:7, 30:10, 99:3, 104:2, 132:6, 151:2, 159:21, 164:18, 166:16, 179:7, 179:11, 184:13 Between [1] - 66:6 beyond [4] - 13:16, 22:22, 47:18, 103:4 Bicentennial [1] -35:14 bickering [1] - 64:10 **bid** [2] - 48:14, 48:16 bidders [1] - 48:16 big [8] - 44:18, 46:19, 58:21, 58:22, 75:11, 118:24, 175:23, 183:15 bigger [2] - 6:17, 28:19 biggest [1] - 45:13 Bight [2] - 49:2, 49:4 bilge [1] - 101:15 Bill [1] - 35:9 **bill** [2] - 36:11, 126:24 billion [3] - 118:4, 118:8, 135:3 **bills** [3] - 119:2, 119:7, 147:15 Bingo [1] - 142:16 **biological** [1] - 122:7 biomass [1] - 149:14 bird [10] - 45:14, 51:17, 54:5, 54:21, 54:24, 60:7, 60:10, 94:16, 112:6, 122:9 birds [9] - 18:24, 45:15, 45:18, 142:19, 143:16, 145:3, 145:8, 145:9, 182:24 BISHOP [1] - 121:5 Bishop [1] - 121:6 bit [13] - 2:19, 2:21, 3:10, 4:9, 4:11, 7:2, 9:24, 14:11, 20:2, 20:5, 26:11, 54:19, 75:10 black [5] - 84:12, 86:17, 94:22, 113:3, 135:3 blades [3] - 99:22,

99:24, 104:6

BLAKE [1] - 156:8

Blake [1] - 156:9

blatant [2] - 65:18, 119:23 Blavand [1] - 49:15 **bleed** [1] - 181:19 blessed [1] - 151:2 blessing [1] - 54:22 blight [2] - 120:14, 184:6 block [1] - 36:7 blow [1] - 168:7 **blowing** [3] - 90:10, 192:5, 192:12 Blue [9] - 74:22, 74:24, 75:2, 75:17. 76:16, 90:16, 99:18, 129:7, 185:14 **bluefish** [1] - 169:14 blurred [1] - 184:14 Board [7] - 22:16, 22:18, 25:15, 26:5, 51:12, 70:13, 94:24 board [7] - 26:6, 26:9, 106:8, 106:9, 124:3, 124:5, 171:21 boat [9] - 39:19, 52:23, 53:2, 58:15, 88:13, 112:21, 127:15, 159:8, 167:15 boat's [1] - 168:24 boaters [4] - 50:12, 140:10, 172:19, 177:3 boating [6] - 46:13, 55:15, 58:9, 79:20, 107:13, 172:6 **boatload** [1] - 44:3 **boats** [9] - 30:6, 31:7, 60:9, 137:24, 152:11, 166:8, 166:18, 168:2, 178:4 **Bob** [7] - 10:4, 10:10, 14:13, 19:16, 127:13, 162:24, 194:9 **Bobby** [1] - 84:14 body [4] - 41:16, 137:15, 137:19, 138:13 bold [1] - 47:20 **bond** [5] - 47:7, 47:10, 92:14, 118:20, 118:22 bondage [1] - 37:7 **bonded** [1] - 13:5 **bonito** [1] - 128:12 **Bonnie** [1] - 186:9

boost [1] - 126:24

**BORCHERT** [1] - 48:7

born [2] - 169:11, 180:22 **Bornholdt** [1] - 11:12 **borrow** [1] - 23:18 Boston [7] - 6:13, 6:16, 58:14, 59:2, 107:8, 191:10, 194:5 bother [3] - 24:10, 28:12, 28:16 bottom [2] - 132:8, 193:5 Boulder [1] - 84:20 bounce [1] - 113:11 boundaries [1] -184:13 bow [1] - 64:11 **box** [1] - 5:24 boys' [1] - 5:4 brainer [1] - 167:20 **brand** [1] - 186:22 brand-new [1] -186:22 **Brault** [1] - 143:18 bread [1] - 141:8 break [2] - 4:13, 109:16 Break [1] - 109:21 breaks [2] - 8:20, 9:5 breath [1] - 179:22 breathe [3] - 51:16, 141:3, 141:12 **breeze** [1] - 192:12 brevity [3] - 7:13, 7:15, 10:13 Brewster [1] - 107:10 Briefly [1] - 52:3 bring [9] - 24:14, 25:7, 77:11, 81:22, 82:6, 82:9, 137:12, 139:9, 140:12 Bringing [1] - 81:20 bringing [2] - 82:4, 177:12 brings [2] - 47:6, 82:13 British [1] - 84:8 brotherhood [1] -37:12 brothers [1] - 161:21 Brothers [1] - 181:9 brought [3] - 138:4, 138:5, 180:12 **brown** [1] - 139:22 Brown's [1] - 82:22 brown-yellow [1] -

139:22

195:15

Bucko [2] - 195:5,

budget [1] - 110:7

buffer [1] - 164:5 buffeting [1] - 192:7 build [10] - 49:10, 50:24, 96:6, 111:9, 122:22, 146:8, 164:20, 164:21, 173:7, 186:18 building [5] - 94:13, 135:15, 163:15, 163:16, 187:24 **buildings** [1] - 58:13 buildout [1] - 40:2 built [6] - 27:12, 34:22, 35:13, 58:2, 58:3, 187:8 bull [1] - 61:23 bunch [1] - 128:18 bundle [1] - 25:2 buoy [1] - 88:23 buoys [2] - 89:4, 178:4 burden [1] - 168:21 burning [3] - 51:20, 64:19, 110:12 **burped** [1] - 190:8 **Bush** [1] - 126:23 busiest [2] - 167:23, 172:5 business [4] - 41:9, 85:22, 189:22, 189:23 **BUSSIERE** [1] - 114:3 Bussiere [1] - 114:4 **busy** [1] - 146:4 but" [1] - 183:21 but.. [1] - 183:19 buy [3] - 58:4, 64:17, 116:15 Buzzard's [4] - 89:7, 89:8, 89:13, 100:6 **BV** [1] - 75:2 C cable [1] - 36:17 cables [5] - 15:15, 15:16, 24:16, 24:17, 24:20

cable [1] - 36:17
cables [5] - 15:15,
15:16, 24:16, 24:17,
24:20
calculations [1] 133:4
California [2] - 10:20,
192:3
campaign [1] - 78:4
Canada [2] - 126:17,
149:14
canal [1] - 58:24
Canal [3] - 58:11,
89:12, 139:24
cancelled [4] - 87:9,
114:15, 116:8, 118:6

candidate [1] - 70:21 cannot [6] - 41:8, 105:8, 107:2, 118:19, 166:8 capability [2] - 24:18, 24:21 capable [1] - 48:9 capacities [2] -116:14, 142:18 capacity [6] - 24:21, 24:22, 115:10, 149:17, 149:20, 149:22 **CAPE** [1] - 1:6 Cape [156] - 2:21, 11:15, 14:12, 14:14, 15:9, 22:19, 25:11, 26:7, 29:6, 33:3, 33:5, 33:6, 33:11, 34:7, 34:17, 34:21, 36:6, 36:9, 40:4, 43:6, 43:21, 44:9, 47:9, 48:9, 49:22, 50:17, 50:24, 51:9, 51:19, 52:5, 56:21, 58:15, 59:2, 59:3, 64:4, 64:13, 64:15, 65:10, 66:13, 67:14, 69:16, 70:15, 71:23, 73:13, 78:7, 80:13, 87:16, 89:11, 93:10, 93:11, 95:13, 95:14, 98:21, 99:4, 99:24, 100:7, 100:18, 100:24, 101:22, 102:4, 102:7, 102:11, 102:24, 104:11, 105:24, 106:3, 106:13, 107:10, 107:11, 111:2, 111:7, 111:9, 111:22, 115:21, 115:22, 116:4, 116:17, 117:5, 117:9, 117:21, 117:24, 118:7, 118:19, 119:2, 119:6, 119:7, 121:13, 121:23, 123:4, 124:5, 124:10, 125:8, 125:15, 125:17, 126:8, 131:4, 131:11, 132:3, 134:9, 134:18, 135:10, 135:11, 139:16, 140:3, 140:10, 140:14, 141:15, 146:23, 147:3, 147:19,

148:16, 149:2, 149:4, 149:20, 149:23, 150:4, 150:7, 150:13, 151:6, 152:7, 153:8, 154:7, 154:12, 154:14, 154:22, 155:24, 161:6, 161:16, 162:2, 162:10, 163:22, 164:18, 164:21, 170:4, 173:5, 173:15, 174:20, 175:7, 176:23, 177:7, 177:8, 177:12, 177:14, 177:16, 178:6, 185:24, 186:13, 186:16, 186:21, 187:18, 188:17, 190:22, 190:23, 191:2 capital [3] - 118:3, 118:4, 118:8 captain [2] - 88:23, 127:15 captioned [1] - 195:10 capturing [2] - 95:20, 95:24 Carbon [2] - 180:23, 180:24 carbon [12] - 43:17, 45:7, 45:9, 48:19, 102:18, 102:19, 103:2, 103:16, 104:24, 105:15, 180:23, 180:24 carbon-based [1] -102:19 card [2] - 21:13, 21:15 care [4] - 51:14, 51:15, 51:16, 158:17 careful [1] - 163:17 Carol [1] - 78:15 Carolina [1] - 49:3 carpenters [1] carried [2] - 89:15, 125:14 carries [1] - 30:11 CARROLL [2] - 78:3, 81:13 carry [1] - 24:17 case [7] - 73:4, 111:19, 111:20, 148:11, 172:20, 172:21, 187:12

catastrophes [2] -

28:9

catastrophic [2] -50:9, 141:17 catastrophically [1] -41:18 catch [2] - 39:18, 162:5 categorizations [1] -155:13 cats [1] - 45:16 caught [2] - 140:9 caused [4] - 68:10, 82:3, 154:18, 174:7 CDR [1] - 2:7 ceiling [3] - 113:10, 113:12, 163:24 **celebrate** [1] - 35:14 cell [2] - 8:4, 8:13 cement [1] - 89:10 Center [1] - 6:19 center [5] - 4:20, 37:16, 37:17, 112:22, 172:17 centers [1] - 160:2 cents [2] - 114:19, 115:14 centuries [1] - 93:22 **CEO**[1] - 116:24 certain [2] - 138:23, 148:19 certainly [4] - 23:15, 156:17, 156:24, 157:2 certify [1] - 195:7 cetera [3] - 55:20, 112:7, 120:7 chain [2] - 100:6, 105:9 chairman [5] - 21:24, 22:15, 25:13, 30:4, 41:12 challenge [1] - 107:23 challenges [1] -110:23 challenging [1] -136:15 Chamber [3] - 55:8, 106:8, 106:10 Chamber's [1] -106:14 Chambers [1] - 78:10 chance [6] - 3:2, 3:13, 7:19, 50:9, 109:17, 111:10 Change [2] - 41:2, 41:13 change [13] - 37:20, 41:7, 46:2, 47:17,

59:4, 94:6, 97:8,

97:9, 97:14, 97:20,

98:3, 98:8 changed [3] - 6:13, 6:18, 120:5 changes [3] - 3:8, 39:22, 193:4 changing [1] - 132:9 channel [2] - 63:17, 168:2 **character** [1] - 120:15 characteristics [1] -106:18 characterization [1] -158:15 characterizations [1] -67:3 characterized [1] -12:15 CHARDER [1] -184:20 Charder [1] - 184:21 charge [2] - 27:19, 78:18 charged [1] - 92:4 Charles [1] - 121:6 charter [2] - 127:15, 167:15 Chatham [2] - 100:4, 159:5 cheap [1] - 135:8 cheering [1] - 8:21 chief [1] - 76:5 child [1] - 183:22 children [4] - 51:4, 62:10, 137:21, 141:18 children's [1] - 172:23 choice [3] - 31:3, 97:5, 97:20 choices [1] - 97:5 **chose** [2] - 68:22, 80:20 Chris [4] - 2:6, 10:5, 90:20, 185:8 Christians [1] - 42:6 **CHRISTINA** [1] - 154:5 Christina [1] - 154:6 chunk [1] - 164:15 Church [1] - 35:10 cities [1] - 49:6 **Citigroup** [1] - 181:8 citizen [1] - 133:19 citizens [7] - 8:17, 9:13, 29:24, 147:18, 171:11, 174:21, 174:22 citizens' [3] - 107:20, 108:14, 114:5 cityscape [1] - 112:3

civil [2] - 8:14, 85:20

civility [1] - 3:21 claims [4] - 57:9, 57:14, 66:5, 115:21 clarify [1] - 78:16 Clark [2] - 6:19, 194:5 class [1] - 73:12 classes [1] - 147:5 classification [1] -155:21 classified [1] - 155:17 clean [9] - 26:24, 53:5, 60:23, 64:15, 91:18, 92:21, 97:24, 103:13, 157:16 Clean [7] - 35:13, 65:9, 67:16, 78:12, 107:2, 108:11, 108:24 cleaner [3] - 33:13, 51:2, 116:16 cleaners [1] - 113:21 clear [10] - 40:14, 52:16, 53:19, 56:24, 61:20, 65:18, 75:23, 76:12, 99:2, 168:5 clearance [3] - 17:23, 18:3, 90:11 clearly [3] - 21:15, 61:10, 173:4 Clearly [1] - 43:24 **clergy** [3] - 37:5, 37:9, 37:11 client [1] - 107:4 Cliff [1] - 78:14 Climate [2] - 41:2, 41:13 climate [4] - 41:7, 46:2, 47:17, 51:22 cling [1] - 129:17 **clockwork** [1] - 175:9 close [8] - 19:7, 39:15, 52:19, 63:10, 125:17, 128:24, 159:24, 169:12 closed [9] - 66:3, 72:21, 72:22, 73:9, 74:4, 74:17, 93:24, 130:19, 164:16 closely [2] - 177:19, 178:2 closer [4] - 39:5, 63:3, 67:24, 119:14 closing [1] - 116:11 cloud [1] - 113:12 clouds [2] - 164:2, 164:6 Club [1] - 120:7 Cluck [4] - 11:14,

14:11, 14:14, 78:19

CLUCK [1] - 14:13 co [1] - 114:5 co-founder [1] - 114:5 coal [5] - 50:4, 135:3, 135:4, 152:16, 180:13 coast [4] - 11:7, 88:23, 134:23, 139:24 Coast [22] - 13:13, 30:21, 49:10, 54:11, 61:13, 67:6, 80:17, 80:21, 86:9, 88:14, 88:22, 89:19, 95:2, 122:5, 140:21, 158:24, 167:3, 168:21, 169:9, 171:17, 171:19, 172:6 coastal [2] - 33:19, 71:6 Coatue's [1] - 63:15 cock [1] - 61:23 Cod [15] - 15:9, 100:7, 111:2, 111:7, 124:5, 131:11, 132:3, 139:16, 140:3, 140:10, 154:12, 154:14, 155:24, 173:16, 190:22 Cod's [1] - 140:11 Codders [1] - 78:7 coexist [1] - 179:4 COHEN [2] - 150:19, 153:22 Cohen [1] - 150:20 cold [2] - 31:15, 82:13 collapse [1] - 181:6 collapses [1] - 17:21 colleague [4] - 2:7, 3:17, 25:20, 29:19 colleagues [2] - 9:4, 21:16 collect [2] - 116:5, 129:15 collectively [1] - 147:9 collide [1] - 140:18 collisions [2] -140:20, 177:17 Colorado [1] - 84:20 column [1] - 17:18 **combustion** [3] - 45:7, 104:5. 105:17 comfortable [4] -31:4, 101:7, 102:6, 103:3 Coming [1] - 35:8 coming [17] - 25:24, 29:23, 60:4, 63:5, 81:17, 82:19, 110:7,

138:3, 139:5, 139:23, 141:9, 156:18, 158:14, 171:9, 174:10, 176:4, 184:22 commend [2] - 53:15, 109:5 comment [9] - 6:22, 14:9, 14:22, 14:23, 15:3, 54:4, 54:8, 130:24, 180:2 commenting [2] -11:22, 14:6 comments [10] -11:23, 12:8, 12:17, 14:7, 19:18, 24:12, 44:7, 174:3, 183:16, 193:20 Commerce [4] - 55:8, 78:10, 106:8, 106:10 commercial [16] -50:12, 54:6, 55:24, 72:18, 72:23, 73:17, 127:14, 167:15, 176:20, 177:2, 178:7, 178:11, 178:19, 179:3, 186:23, 189:21 commercially [1] -139:21 commerciallyoperated [1] - 139:21 Commission [2] -51:13, 84:3 commission [2] -26:9, 170:6 commissioning [1] -76:14 commissions [1] -78:10 commitment [1] -156:18 commodity [1] - 181:2 commonly [1] - 23:6 Commonwealth [1] -195:6 communication [1] -80:19 communities [5] -46:16, 106:19, 122:2, 141:16, 150:12 community [5] - 28:5, 28:11, 47:4, 65:20, 111:11 Community [2] -137:20, 165:13

Compact [2] - 33:5,

36:7

company [2] - 75:2, 76:17 compared [6] - 33:6, 42:2, 131:14, 151:15, 151:19, 152:3 compares [1] - 117:18 Comparing [1] - 131:5 comparison [4] -34:17, 104:11, 131:10, 147:15 **compelling** [1] - 40:23 compensating [1] -74:5 compensation [2] -73:6, 73:14 Competing [1] - 19:10 competitive [1] -92:22 complain [1] - 181:17 complete [8] - 30:24, 31:11, 67:7, 80:18, 86:10, 105:6, 123:7, 145:17 completed [7] - 30:22, 50:13, 80:23, 84:18, 84:19, 96:7, 167:4 completely [5] -18:13, 79:12, 80:4, 132:7, 141:22 complexity [1] -172:10 compliance [1] -148:22 **components** [1] - 42:3 comprehensive [2] -56:22, 80:5 comprehensively [1] -166:24 comprehensiveness [1] - 43:4 comprises [1] - 47:13 con [1] - 136:23 conceivable [1] -65:16 concept [3] - 31:21, 61:4, 167:19 concern [20] - 12:11, 31:22, 37:23, 61:5, 66:16, 84:6, 88:21, 90:6, 101:18, 106:14, 112:20, 120:13, 127:22, 131:19, 138:8, 143:10, 166:7, 171:13, 171:15, 185:17 concerned [13] -

24:10, 30:20, 46:14,

59:21, 88:4, 107:18, 128:21, 129:24, 138:16, 139:2, 156:24, 159:2, 171:11 Concerning [1] - 46:7 concerns [22] - 26:15, 26:19, 30:15, 46:3, 92:6, 92:10, 120:12, 125:20, 130:15, 146:12, 166:2, 166:4, 166:11, 166:15, 171:10, 171:12, 177:9, 178:8, 185:5, 185:6, 185:7, 193:21 conciseness [1] -3:21 concludes [2] - 117:9, 124:18 conclusion [4] - 25:9, 41:17, 60:19, 110:13 condemn [1] - 120:16 condensed [1] - 16:22 condition [1] - 81:5 conditional [1] - 50:23 conditions [3] - 17:7, 122:6, 164:16 condominiums [1] -120:6 conducted [1] - 92:9 conference [1] - 40:24 confident [1] - 103:10 confined [2] - 101:9, 101:13 confused [1] - 95:13 Congress [1] - 121:17 Congressman [2] -78:9, 84:13 **Connecticut** [1] - 89:2 connections [1] -152:8 cons [1] - 176:19 **conscience** [1] - 37:9 consequences [2] -31:17, 120:18 conservation [1] -91:4 Conservationists [1] -93:19 consider [11] - 29:15, 39:22, 62:14, 101:22, 120:23, 127:2, 127:5, 136:20, 160:15, 174:19, 185:13 considerate [1] -136:13

31:24, 44:6, 77:22, 95:10, 103:22, 157:22, 174:18, 176:12, 193:23 considered [5] -124:13, 124:23, 126:12, 131:24, 188:8 considering [2] - 23:2, 101:8 consist [1] - 76:8 constant [5] - 99:13, 99:20, 185:16, 192:2, 192:7 construct [2] - 172:9, 172:16 constructed [2] -99:21, 172:13 constructing [1] -148:24 construction [21] -17:14, 17:17, 19:2, 19:3, 19:4, 19:8, 34:14, 35:18, 50:13, 76:13, 76:23, 76:24, 125:13, 125:15, 125:21, 126:5, 126:14, 126:20, 127:10, 128:15, 145:6 construed [1] - 78:18 consultation [1] -122:12 consumed [1] -180:19 consumption [3] -47:16, 110:18, 181:17 contacted [2] - 72:6, 72:8 contained [1] - 105:8 containment [2] -101:9, 101:13 contaminate [1] -48:21 contemplate [1] -35:18 context [4] - 28:20, 134:13, 134:16, 135:10 Continental [2] -99:12, 190:17 contingent [2] - 72:2, 73:11 continue [9] - 18:22, 41:9, 57:9, 96:6, 97:17, 109:20, 124:13, 126:10, 161:24 consideration [9] -

continued [4] - 40:22, 61:7, 139:18, 162:19 continues [2] - 80:24, 168:7 continuing [1] - 109:8 continuous [1] -125:13 contractor [1] - 146:7 contrast [1] - 76:17 contribute [2] - 48:20, 51:22 contributed [1] - 40:5 contributing [1] -31:17 contributor [1] - 45:6 controller [2] - 163:4, 163:21 controversy [1] -168:10 conversation [1] -146:16 conversations [2] -8:19, 9:3 conversion [1] -180:22 converted [1] - 180:21 copper [2] - 104:2, 105:18 corn [1] - 69:19 cornerstone [1] -122:8 Corporation [1] -14:20 Corps [4] - 40:9, 40:14, 56:23, 92:3 correct [3] - 89:21, 162:3, 162:4 corrected [1] - 118:12 **correctly** [1] - 148:15 cost [30] - 25:2, 25:3, 33:4, 33:9, 33:14, 47:4, 48:15, 50:20, 58:3, 87:2, 95:14, 110:12, 114:9, 114:11, 117:4, 117:10, 117:11, 117:14, 117:17, 117:21, 118:3, 118:4, 118:9, 118:15, 118:18, 153:7, 161:13, 183:13, 187:13 cost-effectiveness [1] - 33:4 costing [1] - 183:9 costly [1] - 95:18 costs [12] - 48:12, 48:13, 72:18, 77:6, 86:24, 95:16,

103:21, 118:5, 118:13, 150:9, 188:5, 188:11 could... [1] - 38:21 counterweight [3] -76:9, 76:20, 77:10 countries [1] - 114:24 country [16] - 43:19, 49:20, 51:3, 57:17, 64:16, 64:21, 91:12, 100:11, 109:4, 136:6, 147:18, 159:21, 160:13, 180:19, 181:3, 181:12 couple [3] - 43:9, 159:6, 163:4 course [7] - 13:10, 19:7, 27:5, 70:23, 79:22, 138:18, 138:22 courses [1] - 31:3 court [1] - 21:7 cover [2] - 67:14, 187:13 coverage [3] - 118:7, 118:16, 118:18 covered [4] - 44:15, 80:3, 85:7, 131:20 cracks [1] - 39:12 craft [1] - 166:9 crazy [1] - 150:22 create [8] - 36:22, 51:2, 94:21, 95:20, 112:4, 112:5, 130:16, 180:23 created [3] - 10:15, 120:14, 172:22 creating [1] - 84:11 creation [2] - 36:14, 36:16 credit [2] - 50:19, 113:23 crews [1] - 60:9 **crime** [1] - 189:4 crisis [2] - 108:21 criteria [2] - 15:22, 15:23 critical [4] - 79:14, 86:13, 125:18, 176:12 Critically [1] - 126:16 critically [1] - 131:22 criticallyendangered [1] -131:22 critters [1] - 144:12

**CRONIN** [1] - 81:15

Cronin [1] - 81:16

cross [1] - 138:3 crossing [1] - 30:6 cruising [1] - 137:16 cultural [2] - 154:15, 157:24 cumulative [3] -126:9, 132:21, 133:2 Cumulative [1] - 127:8 Cup [1] - 137:22 current [7] - 11:9, 16:2, 30:3, 68:21, 87:21, 118:16, 191:14 cut [1] - 83:4

**cut** [1] - 83:4 D DACKERMAN [1] -74:21 Dackerman [1] - 74:22 daily [2] - 30:10, 112:18 dais [1] - 20:10 damage [6] - 45:3, 89:13, 112:6, 132:14, 170:7, 174:6 damaging [1] - 76:21 damnedest [1] -168:22 Danes [1] - 55:14 danger [1] - 79:13 dangerous [2] - 50:3, 83:15 dangers [1] - 40:16 **Danish** [1] - 49:18 data [13] - 98:20, 98:22, 99:4, 99:5, 99:8, 116:3, 116:5, 118:3, 144:4, 145:4, 145:12, 157:10, 177:19 date [3] - 41:23, 135:5, 188:3 daughters [2] -161:20, 171:7 Dave [1] - 173:15 days [10] - 19:20, 79:21, 79:23, 88:23, 127:19, 145:2, 159:6, 163:22, 192:11 dead [1] - 60:7 deadly [1] - 81:2 deal [4] - 22:24, 104:23, 152:16, 164:23 dealing [2] - 180:17,

188:18

deals [1] - 37:21

dealt [1] - 14:4 Dear [2] - 48:8, 59:14 death [1] - 135:4 debate [2] - 148:9, 161:4 debris [1] - 190:13 debt 131 - 118:14. 118:16, 118:18 debt/equity [1] -118:14 **December** [3] - 40:9, 41:22, 75:3 decide [4] - 61:6, 96:16, 128:22, 186:5 decided [2] - 2:15, 93:20 decimate [1] - 140:15 decision [12] - 12:4, 19:20, 64:7, 84:17, 85:11, 86:11, 86:22, 98:4, 98:10, 145:13, 166:24, 184:24 decision-making [1] -184:24 decisionmakers [1] -12:2 decisions [2] - 167:2, 171:22 decisive [1] - 41:10 declared [1] - 42:10 decomissioning [1] -47:10 decommission [1] -77:12 decommissioned [3] -38:10, 38:13, 77:9 decommissioning [12] - 13:3, 13:19, 17:15, 17:22, 17:24, 47:7, 76:14, 92:18, 103:6, 103:8, 188:3, 188:10 DeCosta [3] - 123:20, 127:13, 127:14 decrease [1] - 110:13 dedicated [1] - 107:19 deemed [1] - 113:3 deep [23] - 33:15, 33:22, 34:2, 38:14, 75:13, 75:19, 76:2, 76:9, 76:14, 76:16, 77:22, 83:3, 83:7, 90:15, 95:23,

107:11, 112:13,

117:7, 141:9,

185:13

34:20

166:11, 168:2,

Deeper [2] - 33:16,

**Defense** [1] - 84:9 defined [1] - 125:3 defines [1] - 90:8 definite [1] - 180:16 definitely [4] - 37:20, 128:18, 129:22, 168:13 **definition** [1] - 97:9 defunct [1] - 188:12 degradation [2] -42:9, 154:18 degree [2] - 8:2, 71:14 **DEIR** [1] - 155:15 **DEIS** [55] - 10:2, 12:9, 12:22, 13:16, 40:14, 43:7, 45:20, 46:4, 46:23, 47:10, 53:17, 65:11, 65:17, 65:19, 66:5, 66:9, 66:16, 66:24, 67:5, 67:12, 67:15, 80:11, 80:21, 93:11, 94:23, 114:8, 116:3, 116:11, 117:13, 117:16, 118:2, 121:9, 121:10, 121:19, 122:4, 122:15, 122:17, 122:23, 123:6, 124:14, 124:15, 124:24, 143:12, 148:12, 148:15, 151:13, 152:5, 154:8, 154:12, 154:20, 155:11, 155:18, 161:18, 166:2, 180:2 **DEIS's** [1] - 56:22 **Delahunt** [2] - 84:13, 85:14 **Delaware** [2] - 87:9, delegate [1] - 40:23 **Deliberate** [2] - 96:15, 186:4 delicensed [1] - 38:10 deluxe [1] - 120:6 demand [3] - 101:23, 110:14, 149:10 demanding [1] - 80:5 demise [1] - 68:10 demonstration [1] -76:7 Denmark [15] - 27:11, 49:15, 51:23, 52:21, 54:14, 54:16, 55:3,

59:14, 114:15,

131:6, 131:13,

131:14, 187:4,

187:12

Denmark's [1] - 131:6 **denounce** [1] - 148:6 deny[1] - 116:12 **DEPARTMENT**[1] -1:4 **Department** [4] - 34:4, 102:10, 109:5, 114:20 dependence [2] -91:19, 140:24 dependency [1] -152:6 dependent [2] - 55:5, 131:17 depth [4] - 16:2, 34:5, 65:21, 126:8 depths [3] - 34:2, 34:8, 34:16 deregulation [1] -69:3 derive [1] - 69:5 derived [1] - 72:10 derogatory [1] - 9:2 descend [1] - 59:23 describe [1] - 65:13 designated [2] -78:23, 170:11 designation [1] -66:12 **desirable** [1] - 150:2 desperate [1] - 141:11 destination [1] -154:16 destinations [2] -79:4, 131:11 destroy [1] - 188:24 destroyed [1] - 119:23 destruction [4] -88:19, 120:19, 140:5, 188:22 detail [1] - 65:17 detailed [1] - 13:17 details [3] - 64:10, 122:19, 151:7 **determine** [1] - 17:5 determined [2] -66:13, 155:7 detour [2] - 19:11, 152:14 detrimental [1] - 129:4 devastating [3] - 50:4, 129:24, 150:8 devastation [2] -100:9, 130:2 develop [8] - 25:7, 28:23, 28:24, 29:7, 73:14, 92:12, 147:10, 160:8 developed [9] - 13:14,

15:21, 72:3, 73:24, 74:3, 121:16, 146:22, 147:9, 163:6 developer [11] - 57:15, 107:22, 108:3, 108:8, 108:17, 113:23, 116:9, 121:22, 133:23, 186:14, 187:20 developing [5] -56:17, 72:17, 75:2, 91:18, 91:23 development [17] -14:18, 16:15, 17:14, 19:2, 49:5, 52:8, 65:14, 67:17, 73:8, 76:4, 108:9, 119:21, 120:4, 121:16, 121:24, 150:7, 183:13 devised [1] - 96:2 dialogue [1] - 97:3 diameter [1] - 15:14 difference [7] - 58:22, 59:5, 86:23, 97:11, 97:15, 99:3, 111:11 different [12] - 18:9, 20:5, 25:14, 25:21, 26:4, 35:16, 116:10, 152:10, 156:16, 164:24, 192:14, 193:21 difficult [3] - 104:23, 168:19, 183:11 difficulty [1] - 144:23 diligence [1] - 43:4 diminishing [1] -102:2 **DINEEN** [2] - 142:12, 148.2 Dineen [1] - 148:3 dioxide [3] - 45:7, 45:9, 48:19 direct [4] - 36:12, 36:15, 38:2, 78:18 directed [2] - 78:19, 101:19 direction [5] - 25:12, 63:13, 63:14, 138:24, 192:14 directly [4] - 22:20, 45:5, 169:18, 177:13 director [6] - 55:8, 65:5. 84:15. 88:12. 106:6, 165:12 **Director** [1] - 10:11 directors [2] - 106:9,

124:3

disadvantage [1] -

108:3 disagree [1] - 158:15 disappear [1] - 62:7 disappointed [2] -43:11, 43:22 disaster [4] - 81:21, 94:8, 132:19, 141:17 disasters [1] - 82:3 discounted [1] - 74:9 discovered [1] - 23:21 discredit [1] - 78:5 discuss [4] - 9:5, 97:3, 148:11, 148:13 discussing [1] -146:11 discussion [1] - 161:4 discussions [1] -122:18 dismantled [1] -187:21 dismantlement [1] -187:17 dismayed [1] - 119:20 dismisses [1] - 178:7 dismissing [1] - 177:9 displace [1] - 45:8 displaced [1] - 72:23 disrupted [1] - 128:16 disruptive [1] - 41:18 distance [3] - 16:5, 46:11, 63:15 distribution [1] -104:8 **District** [1] - 51:13 disturbance [1] -127:6 disturbing [2] - 112:6, 119:16 diver [1] - 167:14 diving [1] - 81:19 **Division** [2] - 71:16, 148:21 docks [1] - 58:13 document [3] - 12:15, 78:21, 182:10 documented [4] -114:22, 115:3, 115:6 Documented [1] -115:16 **DOER** [1] - 149:21 dollars [4] - 25:3, 97:18, 138:6, 139:10 **Don** [1] - 61:2 donated [1] - 90:24 done [18] - 3:7, 4:6, 8:9, 15:2, 33:5, 66:19, 75:9, 84:7, 93:22, 95:15, 109:6,

112:8, 112:24,

144:20, 153:2, 192:23 door [1] - 175:24 doors [3] - 5:3, 5:10, 5:11 Dorothy [1] - 51:5 double 131 - 5:3. 95:16, 117:22 doubled [1] - 49:19 doubt [1] - 108:22 Doug [1] - 111:14 **DOWLING** [1] - 182:2 **Dowling** [1] - 182:3 **Down** [1] - 190:16 down [16] - 4:20, 4:23, 20:9, 20:19, 21:10, 60:6, 65:2, 110:4, 113:20, 128:21, 165:20, 171:2, 181:14, 190:7, 190:18, 191:9 downsides [1] - 33:18 downtown [1] - 120:4 **DPI/NGO** [1] - 40:24 **Dr** [4] - 11:14, 14:10, 78:18, 145:24 DR [1] - 14:13 draft [3] - 12:15, 12:16, 36:2 **Draft** [10] - 3:3, 10:9, 11:17, 12:9, 14:7, 14:18, 30:5, 79:11, 86:3, 134:5 drag [1] - 108:2 dramatically [1] - 28:6 drawings [1] - 52:17 dreaming [1] - 44:13 drift [1] - 112:22 drilling [3] - 83:3, 83:5, 153:23 drinking [1] - 5:7 drive [4] - 118:9, 118:13, 191:10, 191:18 **Drive** [1] - 194:12 driven [3] - 104:5, 131:7, 132:4 drives [1] - 150:22 drop [2] - 5:23, 31:15 ducks [2] - 23:23, 145:7 due [9] - 19:18, 41:23, 46:2, 72:24, 130:20, 135:8, 169:24, 187:5 dune [1] - 52:20 during [12] - 13:18, 18:24, 19:3, 19:4, 19:8, 19:11, 31:15,

128:20, 137:21,

71:10, 107:15, 127:23, 149:10, 164:16 **During** [4] - 17:19, 17:22, 57:4, 128:14 **dying** [2] - 161:23, 161:24

#### Ε

e-mail [1] - 194:3

e-mails [1] - 6:21 earliest [1] - 39:10 early [2] - 122:20, 127:24 Earth [1] - 133:19 earth [1] - 98:10 Earth's [1] - 102:20 easier [1] - 160:10 East [4] - 49:10, 61:13, 135:7, 169:9 east [2] - 128:7, 192:2 eastern [2] - 93:18, 94:2 Eastern [2] - 49:8, 175:4 Eastham [1] - 100:4 easy [2] - 110:9, 160:8 eat [2] - 23:23, 141:13 echoes [1] - 177:21 ecology [1] - 169:5 economic [16] - 16:7, 16:8, 28:21, 71:2, 73:22, 94:7, 106:15, 113:5, 116:9, 119:5, 131:3, 151:10, 159:12, 174:6, 181:5, 189:3 economically [5] -48:12, 87:7, 87:11, 108:3, 117:10 economies [2] -33:20, 156:3 economy [6] - 54:4, 93:14, 113:8, 131:7, 154:19, 175:9 Economy [1] - 95:12 EDDY [1] - 35:8 Eddy [1] - 35:9 edifices [1] - 120:6 Edith [1] - 142:17 editorial [2] - 46:20, 47:5 **education** [1] - 85:23 EDWARDS [2] - 32:17, 35:3 Edwards [1] - 32:18 effect [9] - 52:20, 67:4, 94:14, 94:21,

essence [1] - 58:18

113:14, 113:20, 155:8, 155:14, 185:22 effect's [1] - 89:22 effective [1] - 4:3 **effectively** [1] - 73:2 effectiveness [1] -33:4 effects [10] - 16:19, 30:17, 31:11, 31:14, 45:23, 47:17, 67:8, 122:9, 132:15, 156:2 efficiency [3] - 33:4, 33:8, 33:13 efficiently [1] - 20:3 effort [2] - 10:8, 72:23 efforts [2] - 114:14, 124.7 eggs [1] - 128:6 eight [7] - 32:20, 66:6, 66:7, 70:23, 72:5, 72:7, 133:6 EIS [7] - 11:19, 12:21, 14:3, 14:7, 19:19, 30:5. 86:3 either [4] - 21:15, 64:4, 77:9, 177:21 elected [5] - 9:11, 20:7, 21:22, 43:12, 83:19 electric [3] - 103:22, 147:14, 147:15 electrical [7] - 48:10, 49:7, 49:20, 92:22, 99:11, 146:7, 146:8 Electricity [1] - 180:18 electricity [24] - 24:18, 51:20, 57:23, 60:23, 69:20, 76:11, 87:2, 95:14, 97:19, 104:3, 104:8, 104:9, 104:12, 105:19, 114:9, 114:18, 115:13, 115:23, 117:14, 117:16, 117:17, 124:8, 140:14, 148:18 Electromagnetic [1] -132:10 elegant [1] - 52:24 elements [1] - 47:3 eliminating [2] - 50:8, 103:15 Elizabeth [1] - 100:5 **elsewhere** [1] - 152:12 elusive [1] - 169:15 embraced [2] - 70:3, 150:11 embracing [1] -

161:16 emergency [1] - 92:16 emerging [1] - 122:23 **emission** [1] - 43:18 emissions [4] - 41:20, 45:7, 48:18, 51:21 emitted [1] - 132:20 emotion [1] - 133:24 emotional [3] - 86:3, 148:9, 182:16 emphasize [1] - 30:19 employ[1] - 151:24 employed [1] - 165:11 employee [1] - 148:3 **EMT** [1] - 5:14 enabled [1] - 38:7 encased [2] - 23:18, 89:14 encountered [2] -86:7, 104:21 encourage [9] - 6:11, 84:16, 85:10, 123:3, 148:8, 150:2, 166:22, 173:7, 194:2 encouraged [1] -85:15 encouraging [2] -25:20, 150:6 encroaching [1] -120:3 end [8] - 12:22, 41:11, 58:24, 87:17, 177:22, 179:2, 187:10, 194:10 endangered [8] -122:9, 125:19, 126:12, 126:16, 131:22, 132:2, 132:18, 145:7 Endangered [1] -124:11 ended [1] - 194:14 ending [2] - 145:10, 188:14 endorse [1] - 129:9 endorsed [1] - 71:7 endorsements [1] -71:12 endure [1] - 187:11 enemies [1] - 64:18 energy [81] - 11:4, 11:9, 24:24, 25:10, 26:23, 26:24, 28:24, 29:8, 33:3, 33:4, 33:8, 36:7, 38:6, 43:17, 43:21, 48:11, 56:15, 57:18, 57:19, 57:20, 58:4, 64:16,

64:17, 69:3, 69:5,

69:11, 69:15, 69:18, 75:4, 75:14, 75:19, 76:2, 76:15, 76:16, 87:21, 88:16, 91:19, 91:24, 95:21, 95:24, 96:4, 97:24, 101:8, 102:13, 102:21, 103:14, 105:23, 108:20, 110:14, 120:24, 131:8, 135:6, 135:8, 136:22, 146:22, 147:5, 147:11, 147:16, 147:17, 149:4, 150:3, 150:10, 157:13, 157:20, 158:19, 165:18, 167:20, 173:2, 175:17, 180:12, 183:19, 184:2, 185:2, 185:13, 185:15, 185:17, 185:21, 185:24, 189:2 Energy [12] - 10:11, 11:3, 11:13, 34:4, 48:9, 50:17, 56:16, 114:21, 146:5, 147:6, 148:21 **ENERGY** [1] - 1:6 engine [2] - 104:5, 189:22 engineer [1] - 85:21 Engineers [1] - 92:4 engineers [1] - 163:13 Engineers' [2] - 40:9, 40:14 England [3] - 33:9, 50:23, 117:16 England's [2] - 99:17, 172:4 enhance [4] - 55:20, 55:23, 57:14, 103:14 enjoy [1] - 103:13 enjoyed [2] - 91:6, 142:22 enjoying [2] - 60:4, 102:22 ensure [2] - 13:11, 187:19 entanglement [1] -127:7 enter [1] - 73:12 **enterprise** [2] - 57:16, 57:19 enterprises [1] -102:17 enthusiasts [1] -

138:9

entire [14] - 49:8, 65:20, 78:19, 78:23, 89:23, 100:15, 128:4, 128:24, 132:22, 133:19, 136:5, 136:6, 158:5, 178:14 entirely [1] - 164:23 enviable [1] - 14:24 envious [1] - 133:22 environment [22] -27:8, 40:17, 47:22, 57:3, 70:5, 93:3, 93:13, 93:14, 93:15, 103:20, 104:18, 108:10, 110:16, 132:14, 134:3, 157:23, 158:4, 182:18, 185:9, 187:6, 188:20, 188:24 Environmental [10] -3:4, 10:9, 11:17, 12:9, 14:19, 14:20, 57:7, 71:24, 79:11, 134:6 environmental [20] -3:9, 12:13, 13:24, 16:18, 26:15, 28:8, 28:21, 42:8, 76:22, 92:7, 94:8, 101:21, 107:17, 108:6, 109:2, 111:23, 141:17, 150:9, 151:9, 159:12 environmentalist [1] -189:5 environmentalists [1] - 93:20 environmentally [4] -13:11, 47:21, 149:24, 153:18 epic [2] - 169:23, 170:7 equal [1] - 149:19 equate [1] - 54:23 equity [1] - 118:15 equivalent [1] - 6:17 era [1] - 97:7 erosion [3] - 94:2, 163:14, 185:23 error [1] - 133:2 **errors** [1] - 67:12 **escalation** [1] - 118:5 especially [8] - 19:14, 72:19, 88:17, 125:16, 140:17, 147:18, 166:8,

168:14

essential [2] - 95:19, 170:11 essentially [4] - 6:16, 9:15, 16:10, 16:24 established [2] -121:21, 172:10 estate [2] - 46:13, 140:16 estimated [4] - 48:23, 73:23, 74:6, 117:13 estimates [3] - 65:19, 65:24, 117:11 et [3] - 55:20, 112:7, 120:7 **Europe** [2] - 76:4, 91:12 European [1] - 72:20 evaluate [2] - 33:2, 171:21 evaluated [3] - 87:14, 154:24, 155:5 evaluating [2] - 122:8, 156:2 evening [23] - 2:4, 2:5, 2:10, 2:16, 10:6, 32:17, 48:7, 62:24, 78:14, 88:11, 96:20, 106:5, 123:23, 145:22, 148:7, 167:10, 171:11, 173:14, 182:5, 182:7, 186:9, 193:19, 194:10 event [3] - 124:19, 130:18, 138:4 eventually [2] - 128:5, 192:17 ever-encroaching [1] - 120:3 evidence [4] - 41:16, 72:15, 73:18, 178:9 evolved [1] - 58:17 **examined** [1] - 119:5 example [12] - 10:23, 13:12, 17:11, 17:15, 66:9, 66:15, 93:16, 118:13, 134:20, 155:15, 163:8, 177:11 **Example** [1] - 65:18 **examples** [2] - 67:11, 155:20 excellent [2] - 109:6, 147:8 except [2] - 24:11, 173:22 excess [1] - 24:21 exclusive [4] - 71:8,

71:22, 72:4, 74:24 **exclusivity** [1] - 71:15 Excuse [1] - 75:10 Executive [2] - 40:13, 177:15 **executive** [1] - 165:12 exhaustive [1] - 50:14 exist [3] - 62:5, 122:4, 159:18 existing [2] - 33:12, 186:24 exists [1] - 132:19 exit [1] - 5:12 Exits [1] - 5:8 expect [4] - 27:16, 43:16, 121:22, 121:23 expected [4] - 74:10, 122:5, 149:18, 163:11 expects [1] - 149:21 **expedient** [1] - 157:8 expended [1] - 136:23 expense [1] - 96:8 expensive [5] - 49:9, 57:22, 57:24, 118:15, 151:23 experience [5] -56:15, 89:8, 89:17, 166:20, 188:2 experienced [1] -187:2 experts [3] - 67:13, 95:15, 177:24 explain [2] - 19:24, 28:13 exploration [1] - 131:8 exploring [1] - 29:4 expressed [2] - 46:20, 92:5 expressing [2] - 8:24, 30:15 extensive [2] - 10:18, 46:21 extent [3] - 8:19, 9:3, 26:19 extinction [4] -131:22, 132:2, 136:10. 188:22 **extracted** [1] - 102:20 extraction [6] -102:19, 102:24, 103:3, 104:13, 104:15, 105:13 extreme [1] - 94:2 extremely [1] - 83:15 eyes [1] - 56:8 eyesore [1] - 162:11

# F

FAA [10] - 66:11, 80:12, 80:13, 80:14, 80:21, 84:15, 85:12, 86:9, 163:8, 167:3 Fabrications [1] -140:8 faced [2] - 136:7, 136:9 faces [2] - 2:11, 43:23 facilitate [1] - 2:9 facilitator [1] - 2:9 facilities [3] - 5:6, 10:19, 126:19 facility [3] - 90:9, 90:11, 172:17 facing [1] - 108:23 fact [26] - 14:23, 22:21, 30:7, 40:19, 45:14, 55:10, 58:21, 65:10, 76:24, 79:24, 80:12, 80:14, 87:8, 114:12, 115:3, 115:7, 115:16. 116:3, 149:8, 155:19, 156:20, 163:9, 176:21, 180:6, 187:5 factor [2] - 85:3, 85:4 factors [6] - 16:4, 17:6, 17:9, 17:16, 17:17, 31:24 facts [8] - 52:11, 61:9, 61:19, 61:21, 62:2, 62:3, 86:6, 115:24 factual [4] - 52:6, 86:4, 114:14, 116:13 fails [1] - 187:9 failure [1] - 130:20 fairly [2] - 24:8, 24:9 fait [1] - 55:12 fall [4] - 19:19, 63:22, 79:20, 112:19 falls [1] - 168:7 Falmouth [1] - 35:12 false [1] - 177:21 falsely [1] - 80:11 familiar [1] - 167:16 families [1] - 59:23 family [6] - 39:20, 55:23, 90:22, 112:17, 127:15, 174:8 fan [2] - 57:13, 191:22 fancy [1] - 153:14 fantastic [1] - 36:22

far [10] - 5:17, 24:9,

38:2, 46:13, 59:21,

75:9, 92:2, 109:7, 138:15, 155:10 farm [59] - 16:4, 27:12, 28:8, 36:18, 37:24, 38:9, 39:23, 40:5, 42:16, 44:18, 45:8, 45:13, 45:22, 46:5, 46:15, 50:11, 52:18, 55:11, 63:10, 63:19, 68:6, 69:15, 70:6, 72:17, 73:8, 73:15, 73:21, 73:24, 74:3, 74:10, 74:16, 77:19, 81:6, 84:5, 84:22, 90:8, 91:9, 91:21, 92:8, 92:13, 93:2, 98:7, 106:12, 119:17, 120:12, 120:17, 120:22, 132:16, 134:12, 134:15, 138:19, 138:21, 163:7, 164:20, 172:13, 178:20, 179:5, 179:8, 185:24 Farm [1] - 73:5 farm's [2] - 30:16, 40:15 farm/wind [1] - 36:11 farms [12] - 31:21, 38:14, 49:10, 51:24, 68:18, 70:4, 72:16, 72:20, 73:3, 84:11, 163:20, 192:4 fashioned [1] - 110:21 fast [2] - 29:2, 139:21 faster [1] - 99:23 father [1] - 56:14 fathers [1] - 161:20 favor [17] - 26:23, 29:14, 40:8, 51:9, 52:3, 53:4, 56:20, 100:24, 106:2, 108:16, 130:10, 130:11, 156:21, 157:4, 165:18, 167:21, 172:24 favorable [2] - 63:22, 70:14 favorably [1] - 92:24 favorite [3] - 141:4, 173:17, 173:21 fear [5] - 53:19, 54:4, 54:17, 58:5, 60:21 fears [4] - 47:19, 55:11, 57:13, 57:14 feasibility [1] - 159:12 feasible [1] - 34:3 February [1] - 115:4

fed [1] - 181:6 federal [11] - 11:6, 66:20, 92:4, 93:10, 107:24, 108:13, 109:7, 121:14, 127:2, 135:4, 135:6 Federal [2] - 11:6, 66:11 federally [2] - 122:11, 125:19 federallyendangered [1] -125:19 feds [1] - 99:9 feed [1] - 99:8 feedback [1] - 53:18 feeding [1] - 82:17 feeds [2] - 82:15, 82:20 feet [22] - 15:13, 33:23, 34:5, 34:7, 34:10, 34:17, 34:18, 46:8, 89:10, 100:2, 112:2, 132:24, 164:2. 164:4. 190:7. 190:18, 191:5, 191:9, 191:10, 191:16, 191:17, 191:18 FEIR [1] - 155:15 fellow [2] - 8:17, 138:9 felt [2] - 37:15, 61:20 fence [1] - 61:24 ferried [1] - 44:2 Ferries [1] - 140:18 ferries [3] - 58:12, 139:21, 159:8 ferrous [3] - 104:2, 104:4, 105:17 ferry [8] - 31:8, 39:13, 39:17, 77:16, 78:11, 80:8, 167:24, 176:24 ferryboat [1] - 46:6 few [6] - 17:11, 23:22, 67:11, 144:21, 174:3, 192:23 fewer [2] - 33:17, 33:21 fiber [2] - 180:24 fidelity [1] - 169:10 field [3] - 144:21, 173:19, 173:21 fields [2] - 46:11, 132:10 Figawi [2] - 63:16, 138:15 fight [1] - 141:10 file [2] - 107:22,

107:24

fill [1] - 5:23 filled [2] - 136:4, 138:13 filters [1] - 128:3 **Final** [2] - 19:19, 57:6 final [7] - 3:9, 14:3, 18:23, 19:19, 36:2, 47:5, 77:23 **finally** [1] - 184:3 Finally [4] - 31:20, 46:18, 67:5, 126:9 Financial [1] - 13:8 financial [1] - 103:7 findings [1] - 143:14 fine [1] - 168:5 Fine [1] - 113:15 finfish [1] - 54:7 Finish [2] - 74:15, 96:14 finish [5] - 34:24, 35:2, 145:14, 153:21, 170:8 fire [1] - 5:9 firm [3] - 2:6, 2:9, 92:12 First [9] - 4:12, 14:17, 20:6, 43:2, 53:15, 73:24, 111:23, 121:13, 179:21 first [21] - 4:14, 4:23, 20:6, 23:5, 26:13, 35:13, 39:9, 56:15, 57:24, 60:8, 60:12, 63:4, 63:15, 70:12, 75:4, 75:5, 75:19, 109:9, 146:14, 186:17, 186:18 first-rate [1] - 109:9 Firstly [1] - 148:5 Fish [1] - 128:16 fish [19] - 48:21, 55:20, 56:13, 66:8, 71:9, 72:8, 127:23, 128:2, 128:6, 128:10, 128:11, 129:13, 129:16, 129:17, 129:20, 133:7, 140:9, 170:11, 178:14 fisheries [3] - 40:17, 82:18, 94:15 Fisheries [2] - 19:3, 71:17 fisherman [4] -167:15, 178:19, 179:3, 189:21 Fisherman's [1] -65:22 fishermen [17] -

gentlemen [1] -

189:7

50:13, 56:2, 66:8, 77:10, 94:8, 94:15 fragile [1] - 93:15 gallons [3] - 101:5, foreign [2] - 140:24, 71:2, 71:23, 72:4, Florida [1] - 126:17 161:21 frankly [1] - 130:13 101:11, 101:24 72:5, 72:7, 72:19, flow [1] - 87:23 foremost [1] - 121:13 Frankly [1] - 95:12 gamble [1] - 159:15 73:5, 73:12, 73:17, flows [2] - 192:20, foreshortened [1] free [1] - 162:9 game [2] - 107:21, 152:12, 177:3, 192:21 52:19 FREEDMAN [1] - 61:2 108:4 178:11, 178:18, fluke [4] - 71:8, 71:11, forest [1] - 79:7 Freedman [1] - 61:3 gaps [2] - 122:4, 179:8 128:12, 169:14 forever [4] - 87:23, freeze [1] - 31:18 122:14 fishermen's [1] flush [2] - 94:10, 120:3, 144:19, 170:4 garbage [2] - 143:20, freeze-ups [1] - 31:18 178:8 128:7 forget [1] - 175:11 freezes [2] - 31:16, 143:21 Fishermen's [1] flux [1] - 82:18 forgotten [1] - 148:11 gargantuan [1] -193:5 178:21 120:8 fly [2] - 58:14, 164:2 form [2] - 157:13, freight [1] - 30:9 fishes [1] - 131:24 gas [9] - 10:17, 41:20, flying [2] - 79:20, 164:8 frequent [1] - 121:6 fishing [30] - 23:16, 50:3, 51:21, 97:19, 164:6 **formation** [1] - 31:14 fresh [4] - 83:2, 83:6, 54:5, 54:6, 55:15, focus [4] - 9:10, former [1] - 158:24 104:14, 105:9, 103:13, 179:22 65:20, 66:2, 66:3, 105:22, 127:3 132:20, 137:13, **forming** [1] - 105:10 friend [1] - 147:13 66:4, 71:4, 71:6, 171:13 forms [3] - 5:23, 89:7, gasoline [1] - 180:21 friends [5] - 6:11, 72:17, 72:23, 73:7, focused [2] - 126:3, 157:20 6:20, 59:23, 142:23, Gaspe [1] - 115:9 73:10, 73:18, 73:21, 148:10 gather [1] - 145:11 forth [5] - 30:9, 58:11, 174:7 74:3, 74:5, 74:11, fog [11] - 19:14, 79:22, gathered [1] - 96:4 139:20, 159:9, front [1] - 187:19 74:17, 81:18, 79:24, 80:3, 86:14, gathering [1] - 144:23 164:10 froze [1] - 192:22 127:15, 127:18, 113:9, 145:2, 166:6, fortieth [1] - 127:18 gear [15] - 65:23, 66:3, frozen [1] - 90:4 151:9, 169:20, 166:19, 168:6 71:4, 71:5, 71:22, Forty [1] - 72:5 fuel [19] - 17:18, 170:3, 172:6, foggy [3] - 31:5, 72:4, 72:5, 73:2, forty [1] - 72:7 28:14, 29:13, 33:12, 176:20, 178:13, 83:15, 86:17 73:5, 73:10, 73:21, Forty-eight [1] - 72:5 33:13, 45:6, 48:12, 178:22 fold [1] - 181:9 74:2, 74:4, 74:11, forty-eight [1] - 72:7 48:15, 50:8, 101:11, **fit** [2] - 42:14, 135:13 folks [3] - 2:12, 2:14, forward [7] - 48:5, 101:14, 101:15, 74:17 FITZ [1] - 186:8 8:23 general [7] - 9:22, 101:23, 102:19, 70:6, 109:8, 146:11, **Fitz** [1] - 186:9 follow [2] - 32:23, 30:14, 51:18, 54:10, 103:2, 104:13, 146:24, 189:8, FITZ-GIBBON [1] -128:11 74:22, 150:4, 168:4 104:14, 110:12, 190:23 186:8 follow-up [1] - 32:23 General's [1] - 41:5 124:8 fossil [13] - 28:14, Fitz-Gibbon [1] **followed** [1] - 45:15 33:12, 51:20, 64:19, fueled [1] - 188:21 generally [1] - 133:5 186:9 followers [1] - 98:2 generate [1] - 117:5 88:18, 91:20, fuels [6] - 51:21, five [10] - 4:13, 9:12, **Following** [1] - 169:12 generated [11] -102:18, 103:2, 64:19, 88:18, 91:20, 20:8, 20:15, 22:11, 29:11, 29:12, 99:11, following [2] - 101:3, 104:13, 110:12, 129:23, 141:2 30:19, 115:10, 127:17 124:8, 129:23, full [7] - 4:23, 38:24, 101:22, 102:13, 163:12, 180:7, follows [1] - 169:6 140:24 39:7, 63:6, 86:9, 104:10, 114:18, 191:20 114:24, 115:13, food [3] - 75:12, Foster [1] - 37:4 89:9, 107:10 five-sixths [1] -124:8, 125:2 129:14, 141:12 fought [4] - 27:21, full-time [4] - 38:24, 191:20 generates [2] - 104:3, fooling [2] - 56:4, 27:22, 27:23 39:7, 63:6, 107:10 five-year [1] - 115:10 105:18 78:13 foundation [1] - 17:20 fully [2] - 77:3, 81:8 fix [1] - 122:22 generating [2] - 114:9, foundations [1] - 34:6 fundamental [1] foot [2] - 15:14, fixed [2] - 48:13, 60:14 116:14 163:24 founder [2] - 38:3, 123:5 **fixed-price** [1] - 48:13 generation [19] football [1] - 46:11 114:5 **funded** [1] - 50:18 flash [1] - 60:15 footing [1] - 192:18 founders [2] - 35:12, funding [1] - 144:13 26:23, 26:24, 28:15, **flashing** [1] - 60:13 28:22, 103:5, footprint [3] - 16:23, 78:15 funds [2] - 187:22, flawed [3] - 93:11, 103:17, 103:19, 50:10, 80:10 fountains [1] - 5:7 187:23 93:12, 121:10 103:23, 104:12, for-profit [3] - 102:5, four [20] - 20:15, Furthermore [3] flight [2] - 46:9, 168:3 105:7, 105:10, 102:15, 102:17 21:22, 22:10, 39:11, 45:12, 118:2, 124:21 flights [2] - 80:8, 114:14, 115:20, forbearance [1] -50:15, 72:7, 73:16, future [13] - 37:12, 164:9 127:14, 129:21, 141:21 82:7, 90:3, 96:22, 37:21, 47:22, 51:16, Flint [2] - 22:5, 29:21 172:23, 175:8, 175:9 Force [1] - 87:15 105:10, 105:11, 75:15, 77:7, 89:23, flip [1] - 8:12 generations [1] force [4] - 31:7, 89:16, 126:20, 135:21, 98:5, 129:22, 134:4, float [2] - 99:21, 136:14 161:5, 161:6, 162:21, 169:17, 166:17, 179:9 190:14 161:14, 182:5, 182:8 180:17 generator [1] - 189:23 forced [1] - 179:4 floating [3] - 34:9, generators [3] - 16:16, forces [1] - 44:2 four-year-old [1] -177:22, 189:24 75:4, 159:5 39:11 G FOREGGER [1] floes [2] - 89:16, gentleman [3] - 27:15, fourth [2] - 41:22, 111:14 gain [3] - 154:3, 189:4, 27:18, 90:16 166:13 173:18 Foregger [1] - 111:15

fraction [1] - 33:14

foregoing [1] - 195:8

floor [5] - 76:21,

145:23 51:4, 62:10, 141:19 109:3 harbor [2] - 90:4, geographic [1] grandparents [1] growing [5] - 10:18, 93:15 127:11 39:9 41:7, 161:3, 181:12, Harbor [2] - 63:9, grandson [1] - 146:15 181:20 geopolitically [1] -120:7 growth [1] - 110:21 hard [8] - 53:16, 75:6, grant [1] - 102:11 guarantee [5] - 36:19, George [4] - 88:12, 75:7, 76:4, 79:2, Grant [1] - 133:16 170:6, 185:6, 193:2 granted [2] - 50:23, 92:19, 116:16, 113:24, 156:13, German [1] - 59:22 73:15 116:17, 187:18 184:18 guaranteed [1] - 103:7 hardest [1] - 8:22 Germans [1] - 23:11 granting [1] - 92:12 Germany [2] - 34:15, grants [1] - 71:8 guarantees [1] harmful [2] - 48:18, 186.14 132:15 59:24 grass [1] - 52:20 GERMINARA [2] -Guard [19] - 13:14, harming [1] - 57:2 grave [1] - 41:7 133:14, 135:19 30:21, 54:11, 67:6, harness [1] - 185:21 gravel [1] - 127:3 80:17, 80:22, 86:9, Germinara [1] harnessing [1] gravity [1] - 24:19 88:14, 88:23, 89:19, 135:20 133:23 Gray [2] - 80:2, 113:9 95:2, 122:6, 140:21, **GIBBON** [1] - 186:8 harsh [3] - 104:17, Great [7] - 90:23, 91:7, 158:24, 167:3, Gibbon [1] - 186:9 91:10, 91:16, 120:6, 105:2, 187:6 168:21, 171:17, girls' [1] - 5:5 harvested [1] - 152:18 128:8, 139:23 171:19, 172:6 given [7] - 58:9, 95:9, harvesting [1] - 105:7 great [12] - 22:24, guess [2] - 19:21, 25:2 hat [1] - 107:3 101:10, 118:5, 37:18, 38:22, 39:9, guessed [1] - 141:5 125:16, 129:2, 44:18, 62:17, 68:20, Hatch [1] - 143:18 guidelines [5] - 4:12, 155:21 137:15, 152:3, hatch [1] - 128:7 7:9, 8:10, 8:12, 9:22 glacial [1] - 192:16 161:8, 161:9, 193:11 hate [1] - 61:23 guilt [1] - 112:11 glacier [4] - 190:5, great-grandparents havoc [1] - 110:15 Gulf [1] - 129:12 190:6, 190:20, 191:3 [1] - 39:9 hazard [7] - 66:12, gust [1] - 192:7 glad [2] - 2:13, 37:22 greater [5] - 33:17, 80:15, 101:6, glass [2] - 5:3, 45:15 33:23, 111:6, gusting [3] - 98:24, 101:21, 172:14, 112:15, 126:8 192:10, 192:13 Glenn [1] - 116:23 172:22, 173:6 gusts [1] - 192:8 gliding [1] - 54:10 greatest [2] - 9:3, hazardous [1] - 179:2 guys [5] - 110:8, 108:22 global [15] - 40:21, hazards [1] - 105:12 143:3, 145:11, Green [2] - 185:2, 41:10, 41:17, 45:5, head [2] - 17:12, 174:23, 176:2 185:23 182:13 45:6, 45:10, 45:12, **Gym** [1] - 6:19 48:20, 61:18, 91:21, green [6] - 9:16, heads [1] - 25:11 Gymnasium [1] -107:18, 108:21, 16:11, 112:11, hear [15] - 4:7, 7:17, 110:11, 111:3, 162:4 194:6 156:11, 156:22, 14:16, 25:21, 26:2, gymnasium [1] - 5:2 globally [2] - 121:2, 181:14 53:18, 54:13, 57:9, 157:23 greenhouse [2] -58:6, 86:14, 94:23, Н 41:20, 89:22 **globe** [1] - 100:15 98:8, 169:20, glow [1] - 112:5 grew [1] - 107:7 183:16, 185:4 habitat [5] - 125:18, grid [4] - 50:11, 63:12, goal [3] - 49:19, 69:12, heard [27] - 7:14, 21:8, 127:6, 130:2, 132:9, 114:17 181:14, 181:16 23:12, 24:12, 28:13, 170:12 GROSS [3] - 189:13, 30:14, 57:21, 78:3, Golding [2] - 38:24, habits [1] - 112:7 189:19, 193:8 86:7, 87:20, 88:22, 39:7 half [12] - 15:9, 27:6, GOLDING [3] - 38:23, gross [1] - 81:6 90:14, 95:5, 112:12, 28:2, 63:13, 63:18, 112:14, 115:22, 39:6, 39:17 Gross [1] - 189:19 96:22, 99:22, Gordon [2] - 96:3, grossly [2] - 78:21, 129:8, 143:6, 114:19, 115:14, 143:20, 151:7, 96:21 93:12 178:10, 178:24, 158:22, 171:17, Gore [1] - 41:14 ground [7] - 7:10, 179:6 171:18, 176:19, governing [1] - 121:15 42:2, 69:19, 169:8, hall [2] - 4:19, 4:24 183:7, 185:14, 185:18, 193:6 Government [2] hand [1] - 45:24 193:20 130:22, 185:19 grounds [5] - 71:4, handling [1] - 10:24 Hearing [1] - 1:10 72:18, 73:7, 119:18, government [7] hands [2] - 7:5, 21:17 hearing [16] - 2:4, 27:18, 49:18, 50:15, 178:13 hang [2] - 54:10, 2:19, 2:23, 40:9, 87:15, 107:23, group [7] - 53:21, 176:5 42:13, 44:4, 44:12, 135:5, 147:2 68:5, 72:4, 78:6, happy [2] - 130:8, 97:8, 108:16, grade [1] - 173:18 108:15, 114:6, 156:15 109:20, 130:24, 137:20 **GRAHAM** [1] - 123:12 harassment [1] -133:5, 142:22, groups [4] - 9:13, **Graham** [1] - 2:8

125:3

107:17, 107:21,

grandchildren [3] -

146:12, 168:11,

183:16 hearings [3] - 7:3, 19:18, 75:7 heart [3] - 107:5, 107:6, 189:4 heartbreak [2] -188:21 heartily [1] - 141:20 Heather [1] - 123:24 heavy [3] - 19:14, 146:6, 168:20 height [5] - 15:24, 24:8, 85:8, 99:22, 100:2 heighten [1] - 129:3 helicopter [1] - 168:23 **helicopters** [1] - 85:5 Hello [5] - 42:20, 53:13, 83:22, 121:5, 133:16 help [7] - 3:17, 4:2, 5:15, 14:20, 36:21, 53:11, 140:23 helpful [2] - 3:21, 8:3 helps [2] - 3:23, 160:19 HEMMENWAY [1] -98:15 Hemmenway [1] -98:15 herald [1] - 38:13 hereby [1] - 195:7 herrings [1] - 140:6 **Hi** [7] - 30:7, 148:2, 154:5, 156:8, 177:2, 179:19, 182:2 Hi-Line [2] - 30:7, 177:2 High [1] - 1:13 high [14] - 24:5, 24:8, 33:13, 58:3, 58:4, 77:17, 103:20, 110:20, 112:2, 117:4, 117:11, 166:7, 166:19, 176:10 high-efficiency [1] -33:13 higher [5] - 48:16, 118:9, 118:13, 125:2, 180:5 **highest** [1] - 154:13 highly [1] - 169:21 highway [1] - 191:12 **highways** [1] - 159:20 hill [1] - 69:21 Hill [1] - 190:11 hillside [1] - 44:15 hilltop [1] - 44:14

140:10, 169:19 12:11 hired [2] - 14:19, implemented [1] -14:20 horseshoe [1] - 63:19 identified [3] - 50:17, 38:7 Historic [1] - 51:13 host [1] - 17:9 71:20, 71:23 implementing [1] historic [8] - 55:5, hot [4] - 97:2, 100:19, identify [2] - 12:4, 92:24 implore [3] - 112:15, 78:24, 100:10, 169:15, 181:2 177:20 147:16, 171:20 122:12, 141:24, **ifs** [1] - 64:11 hour [2] - 24:7, 118:10 175:20, 182:17 hourly [1] - 48:15 ignore [2] - 80:24, important [20] - 2:17, historical [3] - 73:18, hours [8] - 4:13, 4:14, 115:7 2:24, 3:12, 5:16, 14:6, 21:8, 78:22, 155:5, 174:6 98:20, 98:23, **ignored** [1] - 79:12 Historically [1] - 169:7 109:15, 109:19, ignores [1] - 93:12 108:18, 110:6, 125:11, 125:16, history [2] - 58:19, 192:20, 192:21 **II** [2] - 16:16, 16:20 69:24 148:14, 154:15, house [2] - 45:16, immediate [1] -156:24, 162:6, hold [3] - 71:6, 83:21, 150:24 126:15 171:13, 171:14, 127:20 House [2] - 137:22, immediately [1] -163:14 178:12, 193:20, holder [1] - 71:15 175:24 193:21 Hole [2] - 39:19, 44:24 houses [2] - 55:5, Impact [10] - 3:4, 10:9, importantly [1] hole [5] - 84:12, 86:17, 68:15 11:17, 12:9, 14:19, 165:17 94:22, 113:4, 192:16 huge [3] - 51:22, 57:7, 66:19, 71:24, imported [1] - 50:2 Holy [1] - 42:12 164:15, 173:6 79:12, 134:6 home [7] - 57:3, Hull [2] - 147:8, impact [58] - 3:9, 17:6, imposes [1] - 72:18 impossible [1] - 179:2 147:13 17:7, 17:16, 17:19, 147:14, 158:5, 18:8, 18:11, 19:6, impractical [1] -171:8, 174:14, hulled [1] - 50:7 19:9, 19:14, 22:20, 174:24, 175:5 103:21 hulls [1] - 101:12 in-depth [1] - 65:21 22:24, 27:7, 31:3, Homeland [4] - 90:7, human [1] - 37:7 40:21, 41:7, 54:18, inability [1] - 72:24 90:8, 128:22, 130:21 **humans** [1] - 133:5 55:14, 58:23, 65:15, inaccurate [1] - 53:19 homes [5] - 49:23, humans' [1] - 133:8 49:24, 94:3, 119:24, humble [1] - 174:4 65:24, 66:4, 66:10, inaccurately [1] -153:14 70:2, 76:22, 84:23, 154:20 hundred [4] - 25:5, honorary [1] - 85:21 85:6, 91:15, 92:7, inadequate [1] - 154:9 33:23, 34:16, 97:18 94:17, 95:11, 96:10, inadequately [2] hope [29] - 3:23, hundreds [2] - 132:6, 101:17, 106:15, 124:13, 126:10 29:15, 31:23, 44:5, 174:11 112:8, 113:6, 113:8, 53:4, 61:17, 62:14, inappropriate [1] hunker [1] - 181:14 119:2, 119:3, 119:5, 172:3 86:5, 92:23, 96:16, hunted [1] - 136:9 125:6, 125:21, 110:23, 116:19, inception [1] - 27:22 hunters [1] - 45:16 126:4, 131:4, 139:3, 134:2, 135:13, inches [1] - 90:3 husbands [1] - 161:20 139:11, 145:6, 136:17, 136:21, Hyannis [7] - 30:10, inclement [1] - 144:24 149:23, 150:13, 137:2, 143:8, include [5] - 15:24, 75:17, 141:5, 164:7, 154:7, 154:21, 143:24, 156:19, 45:2, 53:23, 117:6, 166:17, 176:18, 154:22, 155:10, 157:21, 158:15, 147:17 192:23 155:17, 159:12, 158:16, 158:21, included [2] - 15:23, hydro [1] - 104:5 159:13, 163:15 162:19, 174:17, 122:5 hydroelectric [2] impact-producing [2] 175:13, 178:10 includes [2] - 54:9, 99:15, 115:15 - 17:6, 17:7 Hope [1] - 162:21 117:23 hypocrisy [1] - 120:13 impacted [1] - 95:4 hopefully [3] - 95:24, including [6] - 50:16, hysteria [1] - 54:19 Impacts [1] - 41:2 147:7, 169:17 106:16, 122:24, impacts [29] - 12:6, hopes [1] - 185:8 125:10, 143:19, ı 16:18, 17:5, 18:19, horizon [5] - 74:13, 149:13 18:20, 19:4, 19:5, 91:7, 100:3, 184:7 lan [2] - 38:23, 39:6 inclusive [1] - 47:2 33:21, 43:8, 43:9, Horns [1] - 54:16 ice [13] - 31:14, 79:22, incoherent [1] - 75:10 43:10, 45:21, 65:11, horrific [1] - 104:24 89:5, 89:6, 89:13, income [2] - 72:10, 66:17, 67:6, 67:18, Horseshoe [25] - 15:8, 89:16, 90:3, 166:13, 72:14 93:13, 111:23, 15:17, 15:21, 16:12, 170:7, 192:22, incoming [1] - 112:20 122:12, 124:9, 31:8. 46:23. 49:13. 192:24, 193:3, incomplete [1] - 145:4 124:18, 126:2, 52:6, 56:14, 66:8, 193:10 inconsequential [1] -126:9, 126:11, 71:3, 71:9, 71:19, idea [9] - 53:24, 63:10, 45:23 127:5, 127:8, 151:8, 72:9, 72:11, 73:23, 127:21, 129:7, inconsistent [1] -155:16, 155:24 74:2, 74:4, 98:22, 150:23, 161:7, 57:14 imperative [1] -101:2, 111:10, 161:8, 161:9, 193:11 increase [3] - 118:16, 122:19

128:13, 130:3,

identification [1] -

increased [4] - 28:6, 31:9, 46:15, 99:17 increasing [1] - 149:6 increasingly [1] -119:20 incurring [1] - 188:11 indeed [2] - 55:15, 55:17 independence [2] -162:15, 175:17 independent [5] - 2:8, 24:24, 25:10, 67:13, 99:6 Indians [1] - 93:23 indicated [2] - 27:20, 84:9 indication) [1] - 32:12 indicted [1] - 99:9 Individual [1] - 9:13 Industrial [1] - 100:17 industrial [7] - 65:14, 67:17, 79:14, 81:20, 81:22, 82:4, 172:16 industrialization [2] -114:6, 170:2 industry [1] - 140:16 ineffective [1] -140:11 inevitably [1] - 168:16 infancy [1] - 87:22 infeasibility [1] -103:19 inform [1] - 12:2 **information** [18] - 6:6, 6:9, 12:2, 12:13, 15:3, 61:7, 63:24, 82:7, 82:8, 115:17, 116:13, 122:4, 123:7, 131:2, 134:8, 143:16, 143:22, 144:23 ingenuity [1] - 162:15 INGLIS [3] - 100:22, 119:11, 119:15 Inglis [2] - 100:23, 119:12 inhabited [1] - 132:17 inherent [1] - 147:2 inherently [1] - 76:18 initial [2] - 132:13, 183:12 inner [1] - 15:15 inner-array [1] - 15:15 **innovator** [1] - 58:20 innuendo [2] - 52:12, 140:5 innuendos [1] - 53:20 input [7] - 3:3, 3:5, 3:12, 6:3, 6:23,

118:19, 185:22

11:21, 147:4 Inquirer [1] - 46:21 inshore [2] - 71:11, 82:16 inside [1] - 19:13 insignificant [2] -94:7, 94:11 insincere [1] - 177:10 inspections [1] -13:21 instability [1] - 51:22 install [5] - 42:11, 42:14, 75:19, 75:24, installation [2] - 77:5, 132:12 installations [1] -125:24 installed [4] - 34:11, 163:8, 163:10, 185:17 instances [1] - 155:20 Instead [1] - 161:16 instead [2] - 120:23, 161:17 **Institute** [1] - 45:2 **Institution** [1] - 84:19 instrument [1] - 103:7 insuring [1] - 93:2 intelligence [1] -36:23 intelligent [1] - 86:11 intended [3] - 44:5, 57:13, 121:18 intent [1] - 56:4 intention [1] - 42:10 interactions [1] -124:21 interest [5] - 10:13, 35:20, 43:15, 93:4, 185:9 interesting [2] - 182:5 Interestingly [1] -36:13 interference [5] - 67:8, 80:6, 80:18, 81:2, 81:7 Intergovernmental [1] - 41:12 **INTERIOR** [1] - 1:4 Interior [2] - 102:11, 109:6 internal [1] - 104:5 International [1] -124:4 interstate [1] - 159:20 interstates [1] -159:22 intervening [1] - 92:8

intervenor [1] - 108:12 interviewed [1] -73:17 introduce [2] - 11:12, 14:10 introductory [1] - 41:6 intrusion [1] - 93:17 invasive [1] - 76:20 invertebrates [1] -82:17 invested [1] - 181:8 investigate [2] - 23:8, 81:8 investigated [1] -32:22 investigating [1] -32:21 investigation [1] -80:18 investment [2] -50:19, 181:11 invites [1] - 73:12 involved [7] - 11:16, 18:15, 28:22, 75:8, 86:24, 142:18, 188:16 involvement [1] - 2:24 involves [1] - 104:13 involving [1] - 10:18 IPCC's [1] - 41:21 irreplaceable [1] -174:9 irresponsible [2] -150:14, 172:16 irreversible [1] - 174:6 irrevocably [1] - 120:5 Island [14] - 15:11, 17:3, 64:15, 70:22, 81:17, 87:10, 87:18, 100:23, 106:10, 115:23, 116:8. 120:10, 124:22, 130:18 island [30] - 22:20, 37:4, 37:5, 37:8, 37:9, 37:11, 39:10, 40:4, 43:23, 44:3, 44:5, 44:21, 53:21, 78:23, 79:2, 79:3, 79:9, 79:16, 79:17, 87:16, 96:24, 97:4, 113:8, 120:20, 121:7, 139:9, 167:21, 182:17, 190:11, 190:12 Island's [1] - 119:22 Islanders [1] - 175:7

Islands [13] - 69:16,

95:14, 119:3,

134:19, 140:4, 147:3, 147:19, 152:7, 155:24, 163:22, 164:18, 170:4, 174:20 isolation [1] - 105:3 issue [21] - 2:17, 9:5, 65:16, 82:24, 85:10, 85:12, 85:15, 86:4, 110:6, 112:11, 123:5, 132:11, 142:24, 156:19, 168:10, 168:14, 169:2, 169:3, 182:15, 182:16 issued [3] - 66:12, 122:16, 126:24 issues [23] - 12:10, 14:4, 26:15, 26:16, 26:17, 28:22, 33:10, 46:19, 86:2, 86:6, 135:11, 148:13, 148:21, 156:23, 157:5, 157:11, 157:22, 158:3, 162:7, 166:23, 187:5, 194:7 item [2] - 52:13, 180:16 itself [3] - 5:19, 15:6, 162:3 J

jackets [1] - 34:7 Jacqueline [1] - 32:18 **Jakubowski** [1] - 76:5 Jennifer [3] - 2:7, 3:17, 21:16 **Jerome** [1] - 145:24 **Jersey** [1] - 153:10 Jetties [1] - 63:16 **Jim** [2] - 96:3, 189:19 job [2] - 109:6, 165:19 **jobs** [2] - 54:5, 100:9 John [3] - 64:6, 70:21, 75:16 JUDSON [2] - 165:5, 165:8 **Judson** [1] - 165:8

# K

juvenile [1] - 128:11

KAIZER [3] - 167:8, 167:10, 170:10 Kaizer [1] - 167:12 Kate [1] - 148:2 keep [8] - 21:12, 70:11, 97:8, 148:9,

162:2, 181:20, 181:21, 183:16 keeping [1] - 181:3 Kennedy [2] - 75:16, 85:14 Kennedy's [1] - 64:6 key [4] - 11:23, 30:19, 86:6, 86:12 **keyboard** [1] - 109:18 keys [1] - 116:18 kill [1] - 45:17 killed [1] - 81:9 kills [1] - 60:10 kilovolt [2] - 15:15, 15:16 kilowatt [1] - 118:10 kilowatthour [2] -114:19, 115:14 kind [10] - 3:24, 26:4, 61:23, 81:20, 85:6, 129:24, 136:8, 138:10, 138:11, 184:14 kinds [5] - 26:17, 81:22, 159:8, 168:22, 176:2 knocking [1] - 48:15 knot [3] - 99:3, 99:13, 191:14 knots [3] - 98:21, 98:24 known [7] - 6:23, 23:6, 91:3, 136:3, 163:9, 165:17, 169:7 knows [3] - 121:22, 145:2, 164:17 **KOPKO** [1] - 25:22 Kopko [2] - 22:3, 26:5 **KURKER** [1] - 176:16 Kurker [1] - 176:17 Kuwait [1] - 181:7

# L

Lab [3] - 34:5, 56:16, 146:5 LaBelle [3] - 10:5, 10:10, 194:11 labelled [1] - 155:14 lack [3] - 43:13, 116:8, 116:12 ladies [1] - 145:22 Lady [2] - 80:2, 113:9 LaFRANCE [1] -170:23 lamp [2] - 136:5, 136:16 lamps [1] - 136:4 Lamson [1] - 30:15

209 land [16] - 23:3, 23:10, 23:12, 44:22, 45:2, 69:14, 90:23, 95:22, 115:8, 121:24, 140:2, 175:6, 180:6, 180:8, 189:24, 193:12 land-based [5] -23:12, 95:22, 180:6, 180:8, 189:24 landed [1] - 71:17 landfill [2] - 68:3, 149:13 landmark [1] - 182:18 lane [1] - 59:18 lanes [3] - 77:16, 159:7 LANG [2] - 170:20, 171:3 Lang [1] - 171:5 large [10] - 19:8, 34:13, 49:6, 49:8, 67:9, 91:13, 124:16, 129:13, 151:17, 188:5 large-scale [1] - 34:13 largely [2] - 135:7, 154:11 larger [7] - 6:14, 9:12, 118:18, 134:18, 157:22, 166:9, 166:18 largest [2] - 50:22, 169:8 Larry [1] - 81:15 last [21] - 2:13, 3:19, 6:15, 20:4, 32:19, 40:24, 41:22, 44:10, 46:20, 65:7, 70:23, 78:17, 95:23, 98:19, 106:24, 138:5, 153:22, 178:9, 189:17, 190:2 Last [3] - 9:7, 30:13, 42:5 late [4] - 93:16, 128:5, 146:5, 167:11 Latin [1] - 96:13 Lattice [1] - 34:9 launch [1] - 64:7 launched [2] - 44:19, 75:3 launching [1] - 77:3

Laura [1] - 42:21

lawsuit [2] - 73:13,

lawyer [3] - 106:24,

107:6, 107:14

law [1] - 13:10

73:20

lay [1] - 36:17 layer [2] - 101:13, 101:14 lays [1] - 128:6 leader [1] - 58:20 leaders [3] - 97:23, 98:2, 98:3 **leadership** [1] - 58:21 leading [4] - 41:4, 61:13, 61:14 learn [1] - 36:4 lease [5] - 75:18, 92:19, 102:11, 102:15, 102:23 leasing [2] - 10:21, 127:3 least [12] - 20:20, 42:15, 43:15, 44:23, 46:6, 72:21, 90:3, 116:15, 126:21, 171:21, 179:10, 185:22 leave [2] - 14:9, 77:9 leaving [1] - 46:12 **led** [1] - 41:17 **left** [4] - 4:24, 146:10, 174:2, 181:22 legacy [1] - 170:5 legal [2] - 73:6, 107:22 legislation [1] -148:17 legitimate [1] - 120:11 Lehman [1] - 181:8 Len [1] - 135:19 lend[1] - 37:19 length [1] - 112:16 **Leonard** [1] - 6:19 less [4] - 34:19, 45:17, 50:10, 98:19 lessening [1] - 101:24 lesser [2] - 166:9, 180:8 letter [2] - 84:14, 92:3 Level [1] - 125:2 level [8] - 45:4, 107:23, 132:22, 151:14, 151:16, 152:6, 166:20, 191:5 levels [3] - 18:8, 125:3, 151:17 Libya [1] - 181:20 license [1] - 164:22 lie [1] - 141:5 lies [2] - 140:6, 169:23 life [30] - 54:18, 54:21, 55:21, 65:21, 67:23, 74:10, 94:16, 101:6, 102:13, 103:4, 107:19, 127:23,

128:12, 128:15, 130:17, 133:19, 139:18, 146:6, 163:11, 165:14, 170:3, 173:21, 174:15, 175:4, 175:7, 176:11, 180:5, 180:6, 182:22, 187:11 life-sustaining [1] -175:4 lifeboat [1] - 44:19 lifeboats [1] - 44:18 lifelines [1] - 79:15 lifelong [1] - 173:15 lifetime [1] - 39:21 light [14] - 9:15, 36:4, 36:16, 79:6, 112:3, 113:12, 128:17, 136:5, 136:16, 136:17, 156:11, 156:14, 156:22 Light [2] - 33:5, 36:6 lighthouse [1] - 136:2 lighthouses [1] - 89:2 lighting [1] - 145:5 lights [9] - 60:12, 60:15, 60:17, 112:4, 112:9, 113:7, 113:10, 156:12, 194:13 likely [5] - 102:2, 117:11, 118:5, 149:23, 180:7 limit [4] - 9:18, 22:23, 34:5. 34:7 limited [1] - 16:7 limits [2] - 9:10, 9:11 line [8] - 14:9, 16:5, 19:16, 21:5, 23:20, 149:18, 164:11, 176:24 Line [2] - 30:7, 177:2 lines [2] - 78:11, 159:24 link[1] - 105:9 linked [1] - 132:6 links [2] - 105:10, 105:11 **LIPTON** [1] - 130:7 **Lipton** [1] - 130:8 list [1] - 42:9 listed [1] - 11:5 listen [3] - 4:4, 29:24, 41:3 Listen [1] - 8:15

listening [6] - 61:9,

160:22, 171:10

62:16, 65:8, 142:2,

listing [1] - 166:21 live [12] - 56:7, 56:12, 61:3, 79:9, 93:7, 107:8, 112:17, 129:5, 138:8, 144:12, 153:15, 171:5 lived [11] - 37:13. 42:22, 44:7, 51:10, 96:21, 100:14, 119:19, 137:9, 139:16, 142:20, 164:17 livelihood [2] - 55:4, 144:8 livelihoods [1] - 55:24 lives [3] - 51:17, 98:6, 147:13 living [5] - 29:22, 107:9, 129:5, 179:10, 179:13 LNG [2] - 50:4, 126:18 local [9] - 35:21, 36:2, 45:14, 54:4, 92:2, 154:19, 156:2, 158:4 Local [1] - 107:24 locally [1] - 120:24 located [5] - 15:7, 77:15, 93:17, 132:17, 151:2 location [17] - 6:12, 30:16, 31:22, 46:19, 46:24, 55:18, 66:22, 75:20, 84:5, 105:16, 106:11, 130:12, 131:18, 154:23, 172:3, 173:8, 194:5 locations [10] - 4:18, 54:16, 94:20, 130:4, 155:2, 155:4, 155:7, 155:10, 172:11, 173:4 locker [1] - 5:5 logically [1] - 101:18 logistics [2] - 4:10, 5:18 **LOHMANN** [1] - 90:20 Lohmann [2] - 90:21, 185:8 long-term [3] - 91:23, 92:20, 132:14 long-time [1] - 67:23 longevity [1] - 193:12 look [31] - 5:15, 12:16, 16:8, 17:13, 47:18, 65:11, 65:17, 68:9,

68:13, 70:4, 87:12,

92:23, 104:11,

109:8, 134:5,

134:12, 134:17, 134:21, 134:22, 134:24, 135:2, 135:6, 135:9, 147:7, 151:13, 152:6, 166:4, 170:6, 184:9, 184:11, 190:4 looked [8] - 16:15, 16:22, 17:8, 60:16, 68:14, 88:2, 143:11, 163:13 looking [8] - 11:9, 12:8, 12:10, 13:22, 134:13, 135:12, 151:18, 152:19 looks [3] - 51:15, 98:4, 151:14 **looming** [1] - 120:5 loose [1] - 119:21 losing [3] - 44:22, 45:24, 192:18 loss [7] - 45:4, 65:19, 73:7, 103:11, 112:21, 188:22, 189:6 lost [2] - 45:3, 94:3 **Louder** [1] - 39:3 love [4] - 23:24, 97:3, 107:11, 173:16 lovers [1] - 54:24 low [8] - 31:16, 113:9, 113:12, 117:12, 118:5, 118:17, 152:20, 193:5 lower [2] - 33:18, 77:5 LPG [1] - 159:5 lung [1] - 135:3 **Lyman** [1] - 156:8 M

machine [1] - 82:12 Madaket [2] - 23:6, 23:7 magically [1] - 141:8 magnificent [1] -141:24 magnitude [1] - 172:9 mail [4] - 72:2, 72:6, 194:3 mails [1] - 6:21 main [4] - 37:23, 106:14, 120:21, 125:20 Maine [2] - 49:3, 89:2 mainland [4] - 24:16, 24:22, 132:7, 152:9 Maintain [1] - 8:14 maintenance [7] -

48:13, 60:9, 92:15, 103:21, 105:5, 105:12, 130:21 majestic [1] - 174:13 Major [1] - 19:6 major [12] - 5:17, 18:15, 43:10, 50:15, 50:16, 60:10, 64:20, 88:21, 91:22, 143:10, 176:21, 187:3 majority [1] - 106:11 Mall [1] - 23:7 Mammal [2] - 124:12, 125:4 mammal [1] - 19:3 mammals [5] - 125:11, 126:3, 131:24, 142:19, 145:6 man [1] - 41:19 man-made [1] - 41:19 manage [2] - 10:16, 63:17 Management [7] -5:24, 10:12, 43:3, 48:8, 56:23, 102:9, 193:23 MANAGEMENT [1] -1:5 Management's [1] -4:4 Manager [1] - 22:8 manager [5] - 11:13, 11:15, 14:15, 30:14, 74:22 mandated [3] - 43:18, 69:3, 76:6 maneuver [1] - 166:10 manifested [1] - 28:10 manner [1] - 8:18 **Manomet** [1] - 100:6 march [1] - 120:3 March [4] - 1:11, 98:20, 98:23, 195:10 marginal [1] - 63:23 Marina [1] - 176:18 marina [1] - 177:4 marine [12] - 18:24, 55:21, 100:11, 101:6, 103:19, 104:17, 125:10, 126:2, 142:19, 170:3, 176:20, 189:22 Marine [4] - 19:3,

71:16, 124:12, 125:3

mariners [3] - 100:14,

176:22, 177:18

marked [1] - 120:3

market [7] - 48:15, 71:14, 97:13, 117:16, 117:19, 117:20, 117:22 MARKS [2] - 67:22, 68:2 Marks [1] - 67:22 Marlin [1] - 129:18 marred [1] - 151:5 Martha's [7] - 15:10, 36:8, 75:21, 87:17, 131:12, 164:8, 194:4 Martin [1] - 76:4 Mashpee [1] - 114:4 masked [1] - 177:21 **Mass** [5] - 50:21, 147:8, 148:16, 148:21, 178:20 mass [3] - 103:24, 104:2, 104:4 Massachusetts [18] -1:15, 11:8, 54:23, 61:13, 65:22, 69:4, 69:11, 71:2, 71:6, 71:16, 71:18, 77:20, 91:3, 117:20, 131:9, 131:15, 148:19, 195:7 massive [4] - 65:14, 67:17, 80:6, 187:7 Massive [1] - 140:19 math [1] - 95:16 mathematical [1] -42:3 Matt [1] - 106:23 matter [4] - 22:21, 160:6, 178:2, 195:10 Maureen [1] - 11:12 mayor [2] - 55:7, 60:5 McCalley [2] - 137:7, 137:8 McGregor [2] - 96:20, 96:21 McGuire [4] - 160:18, 160:21, 160:22, 162:21 mean [3] - 37:2, 146:21, 184:13 meaning [1] - 100:3 means [12] - 18:13, 20:23, 51:19, 79:19, 79:20, 95:20, 95:24, 103:24, 104:9, 131:23, 164:13, 169:10 meant [1] - 78:17 meantime [1] - 40:20 measurable [1] -18:11

measure [1] - 74:6 measures [4] - 12:12, 92:15, 93:2, 125:14 mecca [3] - 137:18, 137:19 mechanical [2] -134:16, 187:5 media [1] - 118:7 median [3] - 159:22, 160:4, 160:12 medieval [1] - 42:15 meet [2] - 33:3, 69:11 meeting [24] - 2:9, 2:12, 2:15, 3:13, 3:18, 3:24, 4:2, 4:11, 5:18, 5:20, 6:12, 6:15, 7:4, 7:8, 7:10, 7:16, 19:23, 20:4, 68:5, 83:23, 110:23, 149:10, 185:3 meetings [4] - 6:5, 7:7, 11:22, 194:3 meets [1] - 54:11 megawatt [3] - 25:4, 115:8. 186:22 megawatthour [2] -117:18, 117:21 megawatts [8] -15:11, 24:17, 25:5, 33:7, 48:23, 48:24, 149:16, 149:17 melted [2] - 190:20, 191:3 **melting** [1] - 190:9 MEMBER [6] - 7:12, 7:17, 7:21, 7:24, 8:4, 32:4 member [3] - 26:10, 30:3, 165:16 members [3] - 20:10, 65:9, 67:16 Memorial [4] - 84:2, 85:2, 151:3, 185:4 memories [1] - 39:11 men's [1] - 4:22 mention [4] - 6:10, 7:2, 9:6, 21:6 mentioned [6] - 8:11, 8:15, 13:9, 18:9, 19:17, 155:19 mercury [1] - 48:19 mesh [1] - 71:10 message [1] - 41:6 messed [1] - 152:9 met [1] - 75:24 metal [3] - 104:2, 104:4, 105:18 meteorological [1] -

83:10

methane [1] - 149:13 methods [1] - 96:5 Mexico [1] - 10:18 Michael [3] - 22:3, 22:4, 26:4 Mid [2] - 49:2, 49:4 Mid-Atlantic [2] - 49:2. 49:4 middle [4] - 61:5, 188:12, 190:12, 191:12 Middle [1] - 135:7 might [13] - 6:10, 8:9, 19:11, 31:17, 31:18, 40:16, 101:21, 120:17, 144:10, 151:16, 151:24, 153:4, 153:5 migrate [1] - 126:17 migration [1] - 54:17 migratory [3] - 126:13, 126:18, 145:8 mike [5] - 21:2, 39:15, 59:11, 70:19, 119:14 Mike [1] - 158:12 mile [6] - 22:23, 46:6, 63:13, 63:18, 79:13, 178:24 miles [21] - 11:7, 15:9, 15:10, 24:7, 34:15, 34:19, 44:14, 49:11, 59:17, 63:13, 75:21, 99:19, 100:3, 132:6, 154:10, 155:10, 159:20, 179:6, 190:17 million [16] - 25:3, 25:6, 45:8, 45:17, 65:24, 66:2, 66:7, 74:12, 74:18, 80:8, 119:24, 131:13, 131:15, 138:6, 138:7 millions [2] - 81:3, 181:8 **Millions** [1] - 153:17 mind [3] - 8:7, 52:2, 182:23 minds [2] - 36:23, 175:17 mine [2] - 8:7, 134:24 miner [1] - 135:4 Mineral [3] - 4:4, 5:24, 10:11 MINERALS [1] - 1:5 Minerals [5] - 43:3, 48:8, 56:23, 102:9, 193:23 miners [1] - 135:3

mines [1] - 50:6

minimal [3] - 94:17, 95:11, 96:9 minimally [1] - 95:4 minimum [4] - 16:5, 46:8, 179:6, 187:16 mining [1] - 127:3 Ministry [1] - 84:9 minor [8] - 18:12, 18:20, 43:8, 45:21, 65:15, 66:10, 67:6, 124:18 minute [1] - 6:7 minutes [6] - 9:12, 9:14, 20:8, 22:11, 65:7, 109:20 miracle [2] - 65:10, 67:15 Mirror [1] - 46:21 mirror [1] - 189:7 misleading [1] -177:23 misrepresentations [1] - 66:16 misrepresented [1] -124:14 missing [2] - 122:13, 131:2 mission [1] - 44:20 misspelled [1] - 21:20 misstatements [1] -67:12 mistake [1] - 180:3 misunderstood [1] -160:23 MIT [2] - 56:16, 146:5 mitigate [3] - 12:5, 47:17, 120:18 mitigated [1] - 157:6 mitigation [10] -12:12, 18:15, 18:17, 18:22, 122:18, 122:19, 124:19, 125:6, 125:14, 157:6 mix [1] - 166:18 mixed [1] - 15:16 Mixing [1] - 166:19 MMPA[1] - 125:5 MMS [32] - 2:20, 3:14, 6:23, 9:23, 10:2, 10:12, 10:14, 11:14, 14:19, 33:2, 53:16, 59:14, 66:6, 75:6, 75:7, 75:9, 76:6, 77:21, 80:4, 80:24, 93:11, 121:23, 127:4, 141:21, 147:16, 152:16, 153:8, 155:22,

187:19, 188:4,

188:9, 194:9 MMS's [1] - 3:16 mobile [14] - 65:23, 66:3, 71:4, 71:5, 71:22, 72:4, 72:5, 73:5, 73:9, 73:21, 74:2, 74:4, 74:11, 74:17 mobilized [1] - 44:2 model [1] - 147:8 modeling [3] - 42:3, 143:15, 144:15 models [2] - 143:21, 144:4 moderate [5] - 18:13, 18:20, 19:5, 19:13, 43:9 moderator [3] - 7:21, 7:23 modern [1] - 90:7 modest [1] - 189:3 mollusks [2] - 54:7, 55:20 moment [2] - 12:20, 96:23 money [12] - 13:5, 48:17, 57:16, 57:20, 133:23, 138:4, 139:4, 139:10, 144:8, 144:14, 181:6, 183:9 mongering [1] - 54:4 monitor [2] - 12:6, 165:22 monitored [1] - 16:17 monitoring [2] -12:12, 125:13 monoliths [1] - 112:23 Monomoy [3] - 17:2, 29:23, 100:4 monopile [2] - 17:21, 34:6 monopiles [1] - 15:14 monopole [1] - 89:11 monopoles [2] -50:10, 132:4 month [1] - 171:8 monthly [2] - 119:2, 119:3 months [7] - 60:8, 70:24, 127:24, 128:4, 161:5, 176:5, 187:11 moon [2] - 64:3, 64:8 MOORE [89] - 2:2, 7:14, 7:19, 7:22, 8:2, 8:6, 19:22, 25:19, 29:19, 32:3, 32:6, 34:24, 35:4, 35:7,

38:18, 38:20, 39:4,	Mostly [1] - 167:13	150:
39:14, 48:3, 51:6,	motion [1] - 175:5	153:2
53:7, 56:6, 59:8,	motto [1] - 110:21	156:6
62:21, 62:23, 63:3,	mountains [1] - 38:12	158:
64:24, 67:21, 67:24,	mountaintop [1] -	160:
70:17, 74:15, 74:19,	50:5	160:2
81:12, 81:14, 83:18,	<b>move</b> [7] - 4:2, 24:4,	162:2
88:10, 96:14, 98:13,	39:4, 48:4, 51:6,	165:4
100:21, 106:22,	70:5, 70:7	165:8
109:14, 109:22,	moved [2] - 127:16,	167:9
114:2, 116:22,	190:22	170:8
119:13, 121:4,	movement [3] - 98:3,	170:
123:11, 123:13,	108:6, 188:21	170:
123:21, 133:10,	moves [1] - 54:10	170:2
133:12, 133:15,	moving [7] - 64:21,	170:2
135:18, 137:5,	97:21, 190:23,	171:3
139:14, 142:4,	191:14, 192:10,	173:
142:8, 142:11,	192:15, 193:10	176:8
142:13, 142:16,	<b>MR</b> [157] - 2:2, 7:14,	176:
145:14, 145:20,	7:19, 7:22, 8:2, 8:6,	179:
147:22, 147:24,	10:5, 19:22, 22:14,	189:
150:18, 153:21,	25:19, 25:22, 29:19,	189:
156:6, 158:10,	29:21, 32:3, 32:6,	193:8
160:19, 162:22,	34:24, 35:4, 35:7,	194:
165:4, 165:6, 167:7,	35:8, 38:18, 38:20,	MS [28]
167:9, 170:8,	38:23, 39:4, 39:6,	42:20
170:13, 170:16,	39:14, 39:17, 48:3,	53:13
170:19, 170:21,	48:7, 51:6, 53:7,	65:4,
170:24, 173:11,	56:6, 59:8, 59:12,	106:
176:8, 176:15,	61:2, 62:21, 62:22,	119:
179:16, 189:11,	62:23, 62:24, 63:3,	123:2
189:14, 193:7,	63:4, 64:24, 67:21,	137:7
193:15, 194:12	67:22, 67:24, 68:2,	142:
<b>Moore</b> [1] - 2:6	70:17, 70:20, 74:15,	142:
moored [1] - 53:2	74:16, 74:19, 74:21,	148:2
moral [2] - 35:16,	78:3, 81:12, 81:13,	182:2
108:22	81:14, 81:15, 83:18,	multip
MORIARTY [4] -	83:22, 85:18, 88:10,	munic
170:18, 173:13,	88:11, 90:20, 96:14,	36:16
175:16, 176:9	96:20, 98:13, 98:15,	MURP
Moriarty [1] - 173:15	100:21, 100:22,	Murph
morning [1] - 182:24	106:22, 106:23,	Museu
mortal [1] - 42:9	109:14, 109:22,	173:2
most [29] - 7:7, 8:10,	110:2, 111:14,	must [
11:16, 14:24, 15:8,	114:2, 114:3,	92:19 110:2
45:9, 46:4, 50:22,	116:22, 116:23,	110.2
57:18, 67:3, 71:21, 79:4, 88:24, 95:12,	119:13, 121:4,	myria
100:5, 100:10,	121:5, 123:11,	Illylla
119:15, 137:24,	123:13, 123:20, 123:21, 127:13,	
143:8, 148:22,	133:10, 133:12,	
149:23, 152:15,	133:14, 133:15,	<b>NA</b> [1]
155:12, 165:13,	133:16, 135:18,	nacell
171:13, 171:14,	135:19, 137:5,	76:10
173:17, 173:21,	139:14, 139:15,	nacell
178:12	142:4, 142:7, 142:8,	name
<b>Most</b> [4] - 18:19,	142:11, 142:13,	21:14
90:23, 102:17,	142:16, 145:14,	26:4,
165:16	145:20, 145:22,	32:18
mostly [1] - 156:20	147:22, 147:24,	42:20
	· · · · · · · · · · · · · · · · · · ·	

18, 150:19, :21, 153:22, :6, 156:8, 10, 158:12, 18, 160:19, :21, 162:21, :22, 163:2, 4, 165:5, 165:6, :8, 167:7, 167:8, :9, 167:10, :8, 170:10, :13, 170:16, :18, 170:19, :20, 170:21, :23, 170:24, :3, 173:11, :13, 175:16, :8, 176:9, :15, 176:16, 16, 189:11, 13, 189:14, :19, 193:7, :8, 193:15, :11, 194:12 8] - 32:17, 35:3, 20, 51:5, 51:8, 3, 56:7, 56:11, , 93:6, 96:15, :5, 119:11, :15, 123:12, :23, 130:7, :7, 142:10, :12, 142:14, :17, 145:16, :2, 179:19, :2, 184:20, 186:8 ple [1] - 6:3 cipal [2] - 36:4, **PHY** [1] - 179:19 **hy** [1] - 179:20 eum [2] - 75:17, :20 [8] - 8:6, 76:17, 9, 110:19, :21, 111:4, :5, 187:17 **d** [1] - 64:10 Ν

NA [1] - 126:16 nacelle [2] - 60:16, 76:10 nacelles [1] - 60:13 name [63] - 2:5, 11:11, 21:14, 21:18, 22:14, 26:4, 29:21, 32:16, 32:18, 38:23, 39:6, 42:20, 53:13, 56:11,

59:12, 61:2, 65:4, 70:21, 74:21, 78:14, 80:2, 81:15, 85:18, 88:12, 90:20, 93:6, 96:21, 100:22, 106:6, 106:23, 106:24, 110:2, 111:14, 114:3, 116:23, 119:11, 121:5, 123:24, 127:13, 130:7, 135:19, 137:7, 139:15, 142:17, 143:18, 145:24, 148:2, 150:14, 150:19, 154:5, 156:8, 158:12, 160:21, 165:8, 167:11, 171:5, 173:14, 176:16, 179:19, 182:2, 184:20, 186:9, 189:19 names [1] - 20:8 Nancy [1] - 56:11 Nantucket [186] - 1:13, 1:15, 2:14, 15:7, 22:7, 22:12, 22:16, 22:18, 22:22, 23:3, 24:15, 24:23, 24:24, 29:22, 29:24, 30:3, 30:6, 30:10, 30:17, 31:2, 31:16, 32:19, 32:21, 34:22, 35:11, 36:14, 37:16, 39:2, 39:8, 39:24, 42:17, 42:22, 44:8, 44:22, 47:23, 51:10, 51:11, 51:13, 53:15, 54:14, 54:21, 55:4, 56:12, 56:21, 58:19, 59:13, 61:3, 62:5, 62:8, 62:9, 63:5, 63:8, 65:6, 67:10, 67:23, 68:3, 68:19, 69:18, 71:9, 71:18, 71:21, 72:9, 72:14, 78:23, 79:5, 79:18, 79:24, 80:2, 82:5, 82:11, 82:24, 83:3, 83:5, 83:10, 83:15, 84:2, 84:24, 85:19, 88:13, 90:21, 91:8, 93:7, 93:18, 96:22, 98:18, 100:5, 100:16, 100:23, 101:11, 102:6, 106:8, 106:10, 106:12, 106:18, 107:12, 111:15, 111:18,

113:13, 114:7, 116:18, 117:2, 119:12, 119:19, 120:15, 122:7, 122:10, 124:2, 127:16, 127:19, 130:9, 130:11, 130:18, 131:11, 131:18, 133:18, 134:14, 134:18, 134:21, 135:20, 135:23, 136:3, 136:8, 136:15, 137:18, 137:20, 137:21, 137:23, 139:17, 139:19, 140:9, 140:17, 142:21, 143:5, 144:12, 144:18, 146:2, 146:8, 148:4, 150:12, 150:20, 151:3, 151:11, 151:21, 153:3, 153:12, 155:16, 158:13, 160:6, 160:9, 161:2, 163:10, 163:15, 164:7, 165:12, 165:14, 166:6, 166:14, 166:16, 167:24, 168:3, 169:7, 169:11, 169:13, 171:6, 171:7, 171:9, 172:2, 172:8, 172:17, 173:16, 175:5, 182:3, 182:8, 182:21, 184:22, 185:4, 186:11, 187:8, 188:13, 190:6, 190:8, 190:9, 191:8 Nantucketer [1] -110:3 Nantucketers [2] -38:16, 91:5 NASA [1] - 64:13 nation [4] - 35:15, 37:14, 37:20, 47:13 National [4] - 34:4,

153:9, 173:22,

national [7] - 38:6,

78:24, 107:16,

111:18, 160:7,

174:13, 186:19

nations [2] - 162:5,

natural [5] - 50:3,

110:18, 134:15,

174:20

181:7

154:14, 175:20 nature [2] - 39:24, 40:19 navigable [2] - 31:2, 166:16 navigate [2] - 24:3, 58:13 navigating [2] - 60:2, 79:21 Navigation [1] -177:14 navigation [13] - 27:9, 30:17, 40:16, 46:5, 54:8, 67:5, 67:9, 79:15, 80:19, 112:20, 122:6, 172:14, 176:24 navigational [5] -26:16, 28:9, 33:19, 54:12, 178:6 near [7] - 31:18, 49:12, 112:17, 132:2, 141:10, 160:3, 160:13 nearby [1] - 115:16 Nearly [1] - 33:23 nearly [3] - 40:2, 71:17, 112:8 necessary [7] - 40:5, 50:8, 54:12, 61:20, 92:18, 152:8, 157:15 necessities [2] -130:17, 151:10 need [48] - 3:7, 4:15, 4:17, 5:8, 5:15, 5:17, 9:4. 28:23. 28:24. 29:7, 35:2, 36:3, 36:6, 36:20, 36:24, 39:4, 39:14, 47:4, 47:15, 51:6, 62:5, 62:11, 64:15, 70:10, 87:12, 98:3, 103:16, 110:13, 110:14, 118:20, 120:23, 135:8, 136:10, 136:11, 136:13, 145:14, 153:16, 157:5, 157:19, 158:4, 160:7, 170:8, 171:24, 174:15, 177:18, 179:5, 179:11, 187:18 needed [5] - 37:10, 66:14, 115:2, 150:5, 179:22 needless [1] - 62:8 needs [17] - 33:3, 48:11, 64:17, 64:18, 70:9, 77:22, 88:2,

99:5, 113:24, 115:23, 117:6, 126:7, 133:3, 187:10, 187:19, 187:21, 188:9 negative [6] - 22:24, 24:12, 54:18, 91:15, 93:13, 95:8 neglected [2] - 80:16, 132:11 **negligence** [1] - 81:6 negligent [2] - 78:21, negligible [5] - 18:11, 18:20, 43:8, 65:15, 189:3 neighborhoods [1] -159:23 neighbors [2] - 78:11, 142:23 Neil [1] - 64:2 nesting [1] - 112:7 net [2] - 74:8, 74:12 Network [1] - 124:6 Neumann's [1] - 87:17 never [6] - 71:23, 87:22, 132:16, 146:10, 153:8, 186:23 Nevertheless [1] -57:9 New [10] - 33:9, 40:24, 50:23, 75:22, 99:16, 107:7, 117:16, 124:23, 153:10, 172:4 new [15] - 33:10, 43:17, 82:6, 82:8, 84:10, 87:19, 95:21, 108:17, 149:16, 149:22, 181:11, 181:19, 186:22, 187:14, 194:5 Newark [1] - 153:10 newspaper [1] - 140:6 next [9] - 31:9, 48:6, 114:15, 123:12, 135:15, 136:18, 149:7, 171:8 Next [16] - 11:2, 11:10, 11:18, 12:7, 12:19, 13:15, 14:5, 15:12, 15:19, 17:4, 18:7, 18:18, 19:15, 158:11, 170:16, 180:10 nice [2] - 25:7, 25:8 Nick [1] - 165:8

night [14] - 2:13, 3:19,

6:15, 9:7, 20:4, 30:13, 44:11, 60:16, 78:17, 95:23, 99:14, 143:13, 168:7, 182:11 NIMBY [2] - 143:5, 150:24 **NIMBYism** [1] - 53:24 **nine** [4] - 15:10, 46:11, 115:13, 176:5 no-brainer [1] -167:20 Nobel [1] - 41:13 **nobody** [1] - 90:11 noise [8] - 17:16, 17:17, 124:24, 127:6, 128:17, 132:20, 132:21, 133:2 nomination [1] - 75:18 Non [2] - 17:18, 17:21 non [8] - 17:8, 18:6, 53:17, 76:8, 76:20, 91:4, 124:8, 154:2 non-fossil-fuelgenerated [1] - 124:8 non-invasive [1] -76:20 non-operational [1] -76:8 non-partisan [1] -53:17 non-profit [1] - 91:4 non-renewable [1] -154:2 non-routine [2] - 17:8, 18:6 Non-routine [2] -17:18, 17:21 none [2] - 33:10, 115:20 nor'easter [1] - 94:4 north [1] - 83:13 North [4] - 49:3, 52:21, 125:19, 126:6 northeast [1] - 192:12 northern [1] - 73:5 northwest [2] - 98:24, 192:15 not-in-my-backyard [1] - 119:17 notable [1] - 102:17 note [3] - 20:13, 41:11, 188:15 **noted** [1] - 79:9 notes [2] - 171:4,

195:9

176:3

nothing [2] - 60:21,

notice [2] - 23:17, 143:14 nourishment [1] -10:22 Nourishment [1] -23:19 November [1] - 128:5 nowhere [1] - 83:12 nuclear [1] - 29:10 number [12] - 20:21, 81:12, 86:2, 107:16, 123:11, 142:6, 142:9, 142:11, 166:3, 170:17, 181:2 Number [23] - 20:21, 20:22, 32:15, 35:5, 35:7, 38:20, 45:6, 45:15, 48:4, 48:6, 53:8, 59:9, 64:24, 70:17, 98:13, 98:14, 109:22, 109:23, 121:4, 160:18 numbering [1] -125:22 numbers [4] - 20:14, 32:11, 140:20 nursery [2] - 82:15, 169:22 nutrients [1] - 82:13 Nysted [10] - 49:15, 54:15, 55:3, 55:9, 59:14, 59:17, 59:23, 60:4, 60:5, 60:11 0

oared [1] - 52:23 objection [2] - 119:18, 120:22 objections [1] - 40:15 objective [1] - 40:18 **obligations** [1] - 149:6 observations [1] -81:19 observed [3] - 42:2, 89:18, 98:19 obtaining [1] - 164:22 obvious [4] - 61:11, 61:19, 153:11, 161:17 Obviously [1] - 174:23 obviously [4] -137:14, 157:8, 158:8, 182:14 occur [5] - 19:4, 122:10, 124:22, 140:20, 168:17 occurs [2] - 124:21, 166:18

ocean [8] - 11:9, 68:18, 69:22, 91:6, 93:21, 94:15, 104:14 Oceanographic [1] -44:24 OCS [1] - 127:4 odd [1] - 20:13 **OER** [1] - 149:8 **OF** [1] - 1:4 off-island [3] - 43:23, 44:3, 53:21 offer [5] - 33:16, 71:14, 101:2, 103:11, 103:21 offered [1] - 31:13 offers [3] - 51:19, 91:7, 124:18 officer [2] - 76:5, 88:14 officers [1] - 159:2 official [2] - 26:7, 27:18 officials [6] - 9:11, 20:7, 21:22, 32:9, 43:12, 83:20 offset [1] - 183:12 offshore [30] - 10:17, 10:22, 11:6, 33:24, 34:16, 48:23, 49:5, 49:14, 51:24, 59:15, 72:16, 82:16, 82:18, 90:15, 99:19, 118:6, 121:15, 121:24, 125:24, 126:18, 129:10, 130:5, 131:16, 151:15, 180:5, 180:7, 186:17, 186:24, 187:3, 188:3 Offshore [1] - 10:11 often [6] - 96:16, 166:19, 168:8, 168:9, 169:22, 186:4 oil [36] - 10:17, 17:18, 50:2, 50:7, 50:9, 51:21, 58:6, 58:8, 58:10, 97:12, 97:15, 101:5, 101:7, 101:8, 101:18, 101:20, 101:23, 102:2, 104:14, 105:9, 105:22, 127:3, 129:12, 134:22, 136:10, 140:24, 152:16, 159:8, 161:13, 161:24, 175:23, 180:13, 180:19, 180:20, 181:17

oiled [1] - 82:12 okayed [1] - 80:12 old [5] - 39:11, 80:13, 96:13, 146:15, 183:23 omega [1] - 25:15 Omega [1] - 25:23 on-line [1] - 14:9 once [8] - 37:17, 38:16, 50:13, 58:5, 96:16, 113:2, 186:5, 191:21 one [65] - 3:5, 3:19, 5:23, 6:4, 8:22, 9:6, 9:8, 11:16, 14:23, 17:18, 20:15, 21:6, 21:16, 22:5, 22:6, 35:12, 38:3, 45:8, 46:6, 46:19, 50:11, 50:16, 53:2, 56:22, 56:23, 58:4, 60:7, 63:13, 66:18, 68:4, 78:15, 79:3, 83:10, 83:19, 87:8, 87:10, 96:11, 97:10, 101:13, 101:14, 101:21, 105:9, 110:13, 110:17, 118:23, 120:13, 130:5, 135:15, 137:13, 152:13, 159:2, 162:11, 165:19, 172:4, 173:20, 177:11, 178:24, 179:6, 180:2, 181:2, 187:6, 191:19, 192:20 One [10] - 3:20, 4:19, 5:13, 30:21, 86:8, 119:15, 125:20, 130:15, 143:2, 193:17 one-sixth [1] - 191:19 one-way-street [1] -110:17 ongoing [1] - 43:13 open [11] - 14:22, 50:11, 66:2, 71:14, 73:21, 74:2, 74:11, 93:21, 138:13, 153:15, 154:10 operate [2] - 30:8, 104:15 operated [1] - 139:21 operates [2] - 104:16, 105:2 operating [3] - 34:10, 187:4, 187:24 operation [12] - 13:19,

17:14, 17:19, 19:5, 19:12, 31:4, 60:8, 85:7, 102:5, 125:15, 125:21, 126:5 operational [4] -59:20, 60:18, 76:8, 128:23 operations [4] - 13:12, 19:12, 84:24, 88:13 operator [2] - 13:5, 115:12 operators [2] - 60:14, 177:4 opinings [1] - 161:18 opinion [8] - 60:20, 86:24, 91:24, 94:24, 121:10, 145:5, 157:3, 174:4 opinions [4] - 10:9, 30:2, 143:2, 156:16 opponents [6] - 39:23, 40:15, 44:3, 78:6, 141:6, 141:7 opportunity [13] -20:11, 36:3, 43:5, 51:9, 61:12, 81:17, 91:22, 97:23, 98:7, 141:15, 156:9, 165:9, 185:3 oppose [4] - 31:21, 52:7, 134:9, 158:20 opposed [8] - 16:14, 26:14, 26:18, 106:11, 107:22, 114:6, 178:19, 178:22 opposing [1] - 84:5 opposite [1] - 55:16 **opposition** [6] - 12:23, 26:12, 43:24, 58:16, 119:16, 174:5 optimum [1] - 55:18 option [2] - 152:8, 185:15 **Options** [1] - 23:6 orange [1] - 17:2 order [3] - 15:20, 17:5, 181:20 ordered [1] - 49:18 organization [5] -35:23, 91:4, 99:7, 148:7, 165:16 organizations [2] -38:4, 178:22 oriented [1] - 146:13 originates [1] - 128:13 Otis [1] - 185:19 ourselves [5] - 47:19,

55:6, 108:19,

136:14, 183:15 output [1] - 115:5 outside [4] - 9:4, 81:24, 151:20, 153:10 outwash [2] - 190:13, 192:16 outweigh [2] - 92:2, 183:5 outweighs [1] - 96:8 overall [3] - 10:3, 92:6, 118:15 overdue [1] - 91:17 overheard [1] - 146:16 oversee [1] - 95:6 overseeing [1] - 92:5 overwhelming [2] -41:16, 155:20 owes [1] - 169:5 own [6] - 7:9, 47:19, 56:4, 56:8, 157:3, 174:24 owned [2] - 90:22, 185:18 owner/operator [1] -176:17 Ρ

P-a-w-a [1] - 106:24

**p.m** [2] - 1:12, 194:14 Pachauri [1] - 41:11 package [2] - 105:7, 105:11 Page [2] - 177:15, 180:2 pagers [1] - 8:14 Pages [1] - 1:1 paid [1] - 135:5 panacea [1] - 29:10 Panel [1] - 41:12 panels [2] - 42:11, 42:14 paper [1] - 11:23 Paragraph [2] -177:16, 180:3 paraphrase [1] -146:18 Pardon [1] - 189:14 park [10] - 19:13, 59:15, 59:17, 59:20, 60:3, 60:16, 111:18, 111:19, 115:12, 177:18 Park [1] - 153:10 **PARKER** [1] - 65:4 **Parker** [1] - 65:5 parks [6] - 49:14, 49:17. 60:20.

114:16, 187:2, 187:3 part [11] - 2:24, 18:3, 38:17, 41:6, 73:19, 107:9, 107:15, 135:8, 139:18, 184:24, 190:13 part-time [1] - 107:9 participate [2] - 43:5, 137:24 participating [1] -109:8 particular [8] - 11:17, 12:3, 35:23, 57:17, 157:13, 157:16, 158:7, 183:10 particularly [7] - 31:5, 58:8, 65:8, 86:24, 89:7, 124:11, 126:6 partisan [1] - 53:17 Partnership [2] -65:23, 178:21 parts [3] - 14:24, 41:19, 163:5 pass [3] - 5:2, 59:19, 111:12 passenger [1] - 30:9 passengers [1] - 80:8 past [5] - 5:4, 47:8, 55:6, 184:2, 187:2 Pat [2] - 21:7, 109:17 pathogens [1] - 82:4 paths [1] - 168:4 Patricia [2] - 195:5, 195:15 patronize [1] - 139:8 pattern [1] - 35:16 Paul [1] - 189:6 Paul's [1] - 35:10 PAWA[1] - 106:23 Pawa [1] - 106:23 pay [6] - 97:17, 97:18, 140:13, 147:16, 182:12, 189:6 pea [1] - 86:13 **Peace** [1] - 41:14 peace [1] - 182:23 peak [1] - 49:22 pearl [1] - 175:3 peering [1] - 39:12 Peninsula [1] - 115:9 penny[1] - 50:20 People [3] - 89:20, 174:10, 182:19 people [62] - 4:5, 4:14, 6:14, 9:13, 13:18, 13:21, 15:3, 20:12, 20:20, 22:17, 24:11, 25:7. 26:2. 28:7.

28:13, 30:12, 35:22,

36:13, 36:15, 36:20, 37:7, 37:13, 37:14, 37:15, 56:3, 56:4, 61:22, 65:8, 68:16, 70:4, 70:8, 77:18, 77:20, 78:24, 79:17, 86:20, 90:10, 113:3, 113:14, 113:15, 113:22, 122:21, 122:24, 137:17, 138:16, 139:5, 139:6, 150:22, 153:13, 153:17, 156:23, 158:18, 158:22, 160:13, 161:19, 165:20, 174:16, 180:14, 182:21, 183:3, 183:7 pepper [1] - 94:21 per [11] - 24:7, 25:3, 44:23, 59:19, 114:19, 115:14, 117:17, 117:21, 118:10, 131:16, 164:10 perceives [1] - 149:8 percent [15] - 13:10, 23:22, 33:24, 63:21, 69:13, 69:15, 72:13, 114:18, 115:10, 115:22, 140:8, 149:7, 149:19, 180:18, 180:19 percentage [2] - 69:5, 148:20 percentages [1] -69:12 perched [1] - 44:14 percolate [1] - 83:6 perfect [2] - 55:19, 164:8 **perfection** [1] - 175:5 performance [1] -92:14 Perhaps [3] - 94:16, 95:10, 96:9 perhaps [3] - 95:17, 96:16, 136:6 period [6] - 14:22, 76:23, 76:24, 107:16, 115:11, 144:20 periodic [1] - 13:20 periodically [1] - 21:3 periods [1] - 19:17 perjury [2] - 99:9, 110:7 permanent [3] - 35:20, 37:24, 103:11

permanently [1] -104:18 permit [3] - 70:15, 116:12, 135:13 permits [2] - 71:7, 125:4 **permitted** [1] - 104:15 permitting [5] - 43:6, 96:7, 102:8, 103:8, 123:4 perseverance [1] -156:18 persist [1] - 159:13 person [2] - 27:17 personal [6] - 35:20, 40:19, 47:19, 148:6, 157:2, 188:14 personally [2] - 40:6, 60:20 Pete [2] - 63:2, 167:12 **Peter** [1] - 189:6 PETERSON[1] -83:22 Peterson [2] - 22:7, 185:4 petty [1] - 64:9 Ph.D [3] - 70:21, 85:21, 127:20 Phase [4] - 16:15, 16:16, 16:20, 16:21 phase [2] - 16:22, 17:14 phased [1] - 16:15 phases [1] - 19:2 Phillip [1] - 67:22 phone [2] - 72:6, 146:16 phones [2] - 8:5, 8:13 phonetic) [1] - 139:16 phony [1] - 99:8 Photos [1] - 52:17 pick [1] - 55:9 picked [3] - 68:15, 68:19, 166:8 PICKWICK [2] - 53:13, 56:7 Pickwick [1] - 53:14 picture [2] - 145:17, 184:11 piece [2] - 183:10, 188:23 pieces [1] - 131:2 **Pilgrims** [1] - 100:13 piling [2] - 191:18, 193:3 pilings [3] - 192:24, 193:6, 193:9 pilot [2] - 34:12, 167:14

pipeline [1] - 149:5 piping [1] - 45:21 place [27] - 6:17, 53:24, 55:19, 55:22, 58:18, 62:9, 68:15, 68:19, 76:20, 79:6, 87:9, 91:8, 100:11, 111:17, 113:16, 129:11, 129:20, 134:15, 136:3, 150:24, 152:19, 152:21, 152:22, 157:19, 168:8, 169:22, 172:8 placed [2] - 46:10, 131:17 placement [3] -119:23, 125:8, 125:17 **Placement** [1] - 31:6 places [4] - 119:22, 131:6, 138:2, 159:7 **plains** [1] - 54:9 plan [6] - 13:13, 13:18, 54:11, 116:2, 122:19, 188:9 planes [2] - 58:12, 139:21 planet [5] - 47:16, 133:19, 134:3, 137:2, 158:5 planks [1] - 39:13 plankton [1] - 82:14 planned [2] - 6:16, 173:5 Planned [1] - 116:7 planning [1] - 64:5 plant [21] - 36:4, 36:16, 52:14, 58:11, 58:23, 61:11, 67:7, 79:14, 99:16, 115:16, 128:24, 131:16, 139:24, 151:4, 186:17, 186:18, 186:19, 187:7, 187:10, 187:21, 187:24 plants [5] - 29:10, 33:12, 126:21, 149:14 plate [1] - 36:21 platform [3] - 75:4, 76:9, 129:11 platforms [2] - 129:13, 129:19 play [1] - 165:20 pleased [1] - 43:7

pleasure [5] - 46:12,

33:11

108:5, 172:5,

172:18, 177:3 plethora [1] - 115:17 plovers [1] - 45:21 **plume** [1] - 139:24 **plummet** [1] - 140:16 Plymouth [1] - 191:11 point [16] - 12:21. 21:10, 25:14, 35:17, 39:21, 47:5, 58:16, 63:15, 77:6, 89:24, 102:23, 128:22, 137:14, 163:6, 169:16, 184:6 Point [6] - 90:23, 91:7, 91:10, 91:16, 128:8, 139:23 pointed [1] - 172:12 points [4] - 30:19, 52:9, 53:23, 122:18 poison [1] - 48:20 policy [6] - 38:6, 74:5, 135:6, 146:13, 146:22, 147:17 **Policy** [2] - 11:3, 56:18 policy-oriented [1] -146:13 political [4] - 28:21, 40:10, 40:19, 88:4 politics [1] - 110:5 pollutants [1] - 82:5 polluted [1] - 141:13 polluting [1] - 103:16 pollution [7] - 64:19, 91:20, 127:5, 140:3, 141:3, 162:4, 162:9 pollution-free [1] -162:9 Pond [1] - 93:17 pond [2] - 93:21, 93:24 poor [1] - 146:23 Pope [2] - 42:5, 42:14 popular [1] - 66:17 popularity [1] - 154:16 population [4] - 45:24, 47:14, 51:17, 159:24 populations [1] -45:14 port [1] - 153:11 Portfolio [1] - 148:17 portions [1] - 62:7 portrayed [1] - 67:15 pose [4] - 33:18, 40:16, 105:12, 172:13 posed [2] - 57:10, 57:11 poses [2] - 31:23,

position [5] - 22:19, 26:7, 84:4, 108:19, 158:18 positioned [1] - 46:6 positive [2] - 22:21, 108:9 possibility [3] - 24:19, 149:9, 188:5 possible [11] - 3:18, 8:19, 9:3, 38:7, 53:5, 53:12, 73:13, 109:11, 118:23, 162:17, 162:18 possibly [7] - 4:3, 9:20, 17:10, 157:19, 170:4, 172:21, 185:18 post [2] - 47:9, 187:19 postcard [2] - 135:24 posted [3] - 98:22, 99:2, 99:4 potential [16] - 12:23, 30:17, 31:9, 33:8, 33:17, 33:22, 33:24, 48:24, 58:6, 91:23, 92:16, 101:21, 122:9, 124:9, 126:11, 132:19 potentially [3] -104:17, 105:2, 149:7 power [53] - 24:15, 27:16, 27:17, 28:15, 29:10, 31:6, 36:3, 36:5, 36:14, 36:18, 37:18, 37:19, 47:3, 48:13, 49:7, 49:20, 49:23, 52:8, 52:9, 52:14, 53:5, 58:11, 58:23, 92:22, 95:22, 99:11, 99:17, 99:23, 101:12, 101:19, 101:22, 103:16, 103:19, 103:22, 104:6, 105:10, 111:16, 112:21, 114:24, 115:19, 117:5, 117:10, 128:23, 130:11, 131:16, 148:20, 150:13, 159:6, 159:24, 160:8, 163:6, 187:9 Power [7] - 35:13, 65:9, 67:16, 78:12, 107:2, 108:11, 108:24 powerboat [2] -137:16, 139:19 practical [1] - 105:20 practically [1] - 34:8

practice [1] - 110:17 predators [1] - 128:11 predatory [1] - 140:13 predominant [1] -69:9 prefer [1] - 130:13 premature [1] - 130:23 prematurely [1] -80:20 preparation [1] -78:20 prepare [1] - 171:3 prepared [3] - 116:17, 137:12. 188:4 preparing [1] - 53:16 presence [1] - 46:14 present [4] - 8:17, 74:9, 74:13, 81:3 presentation [1] -27:10 presented [4] - 67:2, 117:8, 122:20, 155:12 presents [2] - 79:14, 91:22 preservation [1] -185:7 Preservation [1] -124:3 preserve [1] - 79:2 preserved [1] - 153:19 preserving [1] -111:20 president [1] - 116:24 pressure [1] - 88:4 prestige [1] - 37:18 presumed [3] - 44:4, 66:12, 80:15 pretty [9] - 2:16, 24:4, 27:2, 69:17, 127:21, 137:11, 156:12, 161:3, 164:10 Previous [1] - 125:24 price [4] - 36:19, 48:13, 58:3, 117:22 prices [1] - 92:22 pride [3] - 162:12, 162:15, 182:19 priest [1] - 35:10 primarily [3] - 5:21, 84:8, 126:3 primary [1] - 165:19 pristine [10] - 39:24, 88:19, 106:17, 113:17, 119:24, 120:20, 153:19, 174:12, 185:7, 188:23 private [8] - 2:6,

50:18, 56:4, 57:16, 57:18, 92:12, 102:16, 186:14 privilege [2] - 107:9, 108:5 **privileged** [1] - 41:3 privileges [1] - 102:22 Prize [1] - 41:14 pro [2] - 111:16, 136:23 probability [1] -132:13 problem [15] - 23:9, 23:23, 53:3, 60:14, 61:18, 62:4, 83:2, 92:11, 111:2, 111:3, 151:6, 153:5, 153:6, 169:23 problems [18] - 36:21, 36:22, 50:16, 59:20, 60:2. 60:6. 60:11. 60:18, 64:14, 81:23, 111:22, 130:16, 151:12, 152:24, 157:12, 162:4, 187:2, 187:4 Problems [1] - 104:21 proceed [2] - 70:15, 159:15 proceedings [2] -108:13, 108:14 process [25] - 3:2, 3:11, 4:11, 10:3, 11:19, 11:20, 11:21, 12:22, 14:21, 26:2, 43:6, 57:4, 64:5, 102:8, 103:9, 104:7, 105:20, 108:2, 109:7, 109:9, 122:12, 122:21, 123:4, 157:7, 180:22 produce [9] - 49:7, 49:22, 69:15, 76:11, 99:23, 109:9, 143:22, 144:5, 144:15 produced [3] - 143:18, 147:6, 147:12 produces [1] - 82:14 producing [5] - 17:6, 17:7, 60:23, 95:21, 117:14 product [3] - 76:3, 105:14, 109:9 production [5] -28:24, 49:24, 50:19, 131:7, 158:20 productive [1] -169:21

Professional [1] -195:6 professional [1] -176:22 profit [4] - 91:4, 102:5, 102:15, 102:17 profits [1] - 92:21 program [6] - 10:17, 11:13, 129:7, 147:10, 150:5, 150:6 programs [2] - 16:9, 33:5 Programs [1] - 11:14 prohibit [1] - 85:5 **PROJECT** [1] - 1:6 Project [22] - 2:22, 11:15, 14:12, 14:15, 23:19, 25:11, 26:8, 48:9, 50:17, 56:21, 59:3, 101:2, 103:2, 115:21, 124:10, 135:10, 154:8, 154:22, 173:5, 186:13, 186:16, 186:21 project [132] - 3:15, 12:23, 13:3, 13:12, 13:19, 13:22, 15:6, 15:7, 26:12, 26:14, 27:3, 27:8, 27:21, 28:2, 28:19, 29:15, 30:23, 34:17, 34:21, 35:19, 38:5, 40:7, 42:24, 43:7, 43:13, 44:2, 44:9, 46:22, 47:2, 47:11, 47:21, 48:11, 50:8, 50:18, 50:24, 52:6, 55:17, 56:24, 57:11, 57:22, 57:24, 58:17, 58:20, 59:3, 63:20, 64:6, 64:20, 65:10, 65:21, 66:22, 67:15, 68:2, 68:7, 68:11, 69:10, 70:7, 74:10, 80:12, 80:15, 81:20, 81:22, 88:20, 91:14, 92:5, 95:8, 95:17, 96:8, 100:18, 101:8, 102:13, 102:22, 103:5, 103:6, 103:14, 105:24, 106:3, 109:2, 109:5, 109:11, 114:10, 115:24, 116:14, 117:15, 118:6, 118:18, 118:21, 118:22, 127:22. 128:20, 129:10,

130:16, 131:21,

132:22, 134:17, 135:14, 136:21, 136:23, 136:24, 137:2, 137:11, 138:11, 140:15, 140:21, 140:23, 141:2, 141:20, 141:24, 144:2, 144:7, 144:18, 150:9, 150:14, 154:11, 154:19, 154:23, 155:2, 155:3, 156:21, 157:4, 157:9, 157:11, 158:20, 167:3, 167:23, 172:4, 172:9, 183:9, 185:11, 188:7, 188:8, 188:12, 189:8 project's [1] - 101:5 projected [2] - 19:19, 149:20 projects [16] - 11:5, 12:3, 13:17, 17:13, 34:14, 43:21, 52:4, 82:2, 110:8, 127:10, 149:3, 149:4, 150:2, 150:11, 176:3, 188:4 promulgated [2] -53:20, 54:19 **propeller** [1] - 104:6 proper [4] - 92:14, 92:15, 95:10 properties [1] - 122:13 property [6] - 55:14, 60:5, 71:13, 90:22, 113:19, 155:5 proponent [1] - 38:4 proponents [1] -144:7 proposal [1] - 99:18 propose [1] - 159:14 proposed [35] - 3:3, 3:15, 15:21, 16:12, 26:13, 30:16, 34:6, 54:11, 66:22, 91:9, 91:14, 91:21, 92:24, 105:23, 106:13, 114:10, 117:15, 119:17, 120:9, 120:12, 120:17, 125:7, 125:8, 125:17, 126:14, 126:15, 126:20, 126:22, 127:10, 154:7, 154:11, 154:18, 167:23, 185:24, 186:13

pros [1] - 176:19

Protect [4] - 65:6,

117:2, 124:2, 148:4 protect [11] - 47:21, 54:20, 70:5, 93:3, 141:11, 158:5, 163:18, 174:24, 185:9, 188:10, 188:11 protected [2] - 125:9, 174:21 Protection [2] -124:12, 125:4 protection [3] - 13:24, 47:3, 106:17 proud [5] - 38:17, 62:13, 65:5, 114:5, 148:3 **proudly** [1] - 59:5 prove [1] - 76:13 proven [1] - 49:13 provide [4] - 3:14, 57:2, 70:14, 189:3 provided [2] - 115:23, 116:4 providers [4] - 57:20, 69:4, 69:11, 148:18 provides [1] - 99:16 providing [2] - 51:20, 175:6 Provincetown [1] -100:14 provisions [2] - 13:2, 187:16 proximity [4] - 19:7, 122:2, 125:18, 159:24 prudent [2] - 93:21, 161:17 prudently [1] - 141:22 Public [4] - 1:10, 19:18, 56:17, 94:18 public [35] - 2:24, 7:3, 11:20, 11:22, 14:23, 20:11, 21:22, 32:8, 34:23, 44:4, 62:16, 86:8, 86:12, 92:13, 92:20, 93:4, 93:13, 102:5, 102:12, 102:14, 103:11, 103:12, 104:16, 121:22, 121:24, 122:20, 123:8, 129:9, 130:24, 171:15, 173:3, 173:6, 185:9, 186:15, 188:10 public's [1] - 43:14 publicly [2] - 20:7,

129:9

pull [1] - 193:9

pulls [1] - 193:6 pump[1] - 101:15 purchase [3] - 36:5, 36:9, 48:14 purchased [1] -115:15 purportedly [1] -53:22 purpose [2] - 11:19, 105:13 purposes [1] - 130:21 pursue [2] - 124:8, 150:10 pursuit [2] - 107:20, 169:15 **pushed** [1] - 175:24 put [28] - 6:6, 9:14. 15:4, 17:11, 17:17, 23:17, 32:7, 42:13, 58:17, 64:2, 68:5, 68:9, 68:17, 68:22, 70:12, 80:16, 84:10, 99:11, 106:2, 111:24, 118:7, 129:10, 141:23, 144:15, 153:9, 164:4, 172:22, 191:17 putting [4] - 16:4, 70:11, 76:13, 165:21 pylons [2] - 55:19, 55:21

# Q

qualified [2] - 92:6, 158:22 quality [3] - 51:17, 154:14, 182:22 Quebec [2] - 99:16, 115:9 questionable [1] -118:12 questions [9] - 27:5, 27:6, 57:5, 57:8, 148:23, 159:11, 164:19, 165:24 quick [2] - 10:13, 177:11 quickly [6] - 4:2, 5:9, 20:24, 123:14, 143:11, 188:15 Quidnet [1] - 93:18 quiet [2] - 49:16, 52:24 quietly [1] - 60:22 quite [4] - 10:17, 23:21, 27:13, 130:13

quo [1] - 105:22

quote [9] - 53:23, 96:12, 96:13, 177:13, 177:16, 177:22, 178:23, 179:2, 186:3

#### R

**R.C** [1] - 85:18 Race [1] - 137:23 race [2] - 138:15, 138:22 races [1] - 19:11 Rachel [1] - 182:3 radar [26] - 31:12, 54:17, 67:7, 80:6, 80:18, 80:20, 81:2, 81:6, 84:8, 84:12, 84:18, 84:23, 85:10, 85:12, 94:22, 140:11, 163:9, 166:8, 168:9, 169:2, 177:13, 177:19, 177:21, 177:24, 178:3, 185:5 radars [1] - 166:5 radio [1] - 140:7 radioactive [1] - 50:6 Rahendra [1] - 41:11 rainy [1] - 79:21 raise [2] - 57:23, 144:14 Raise [1] - 7:5 raised [2] - 40:15, 139:4 raises [1] - 148:23 raising [1] - 21:17 ran [1] - 18:5 randomly [1] - 60:13 Randy [1] - 59:12 range [1] - 126:13 rank [1] - 120:13 **RANNEY** [1] - 29:21 Ranney [2] - 22:5, 29:22 rapidly [1] - 34:21 rare [1] - 188:23 Rare [1] - 112:6 rate [2] - 44:23, 109:9 ratepayers [2] - 48:17, 147:19 rates [2] - 57:23, 114:20 Rather [1] - 158:16 rather [4] - 110:4, 150:2, 161:19, 168:8 ratio [2] - 118:14, 118:17

RAY [4] - 142:10,

142:14, 142:17, 145:16 Ray [2] - 74:21, 142:17 reached [1] - 177:7 reaching [1] - 149:7 read [10] - 8:6, 22:8, 41:6, 98:21, 98:24, 173:24, 177:11, 180:4, 182:11, 187:3 reading [1] - 134:7 ready [4] - 59:11, 65:3, 137:6, 181:9 real [9] - 3:19, 22:21, 28:10, 46:13, 58:5, 58:23, 81:7, 130:16 Real [1] - 140:16 realities [1] - 42:2 reality [2] - 136:21, 148:24 realization [1] -131:21 realize [4] - 96:7, 143:8, 144:6, 144:22 realizing [1] - 132:13 really [33] - 3:20, 3:22, 3:23, 22:20, 27:4, 27:9, 61:6, 86:5, 86:15, 87:12, 88:2, 89:6, 112:23, 135:12, 138:12, 142:22, 142:24, 143:2, 143:24, 144:3, 145:10, 158:2, 163:5, 164:21, 178:16, 182:4. 183:10. 183:14, 184:5, 184:9, 184:10, 184:15, 184:18 reason [5] - 5:9, 83:4, 134:8, 153:23, 174:24 reasonable [1] - 12:5 reasoning [1] - 124:17 reasons [2] - 108:24, 153:11 receded [1] - 190:21 receding [1] - 190:24 receive [1] - 149:21 received [1] - 177:19 receiving [1] - 11:21 recent [3] - 65:21, 118:7, 148:23 recently [2] - 57:21, 66:12 recognize [1] - 2:11 recognized [2] -72:22, 101:20

recommendation [1] -

70:14 recommends [1] -154:12 Record [1] - 19:20 record [2] - 21:9, 195:8 records [1] - 89:19 recover [4] - 18:12, 18:14, 18:16, 153:4 recovered [1] - 60:7 recreation [1] - 154:13 recreational [6] -50:12, 54:6, 55:24, 140:19, 151:9, 154:16 red [6] - 9:17, 16:12, 79:5, 135:24, 140:6, 156:11 redirected [1] - 136:24 reduce [7] - 91:19, 91:20, 95:13, 101:23, 140:23, 141:2 reducing [1] - 110:15 **Reducing** [1] - 30:24 reduction [1] - 166:15 reductions [1] - 43:18 reef [1] - 77:11 reefs [1] - 166:11 referenced [1] -144:24 references [1] - 39:23 referred [1] - 94:22 refinement [1] -105:15 reflect [3] - 162:16, 162:17, 170:3 Refrain [1] - 8:21 regarding [4] - 32:23, 52:5, 110:11, 115:21 **Regarding** [1] - 46:9 regardless [1] - 73:20 regattas [1] - 19:10 region [2] - 35:22, 45:11 region's [1] - 48:10 regional [3] - 101:23, 117:15, 117:18 **Registered** [1] - 195:5 regulating [1] - 11:4 regulation [2] - 104:7, 146:24 regulations [4] -56:17, 77:23, 121:15, 121:21 **Regulatory** [1] - 56:18 reiterate [1] - 61:20

reiterated [1] - 61:21

reject [1] - 150:14

related [2] - 45:5, 106:16 relationship [1] -76:19 relative [1] - 177:12 relatively [2] - 58:8, 103:23 release [1] - 80:21 released [3] - 41:22, 121:14, 123:7 relevance [1] - 102:18 relevant [2] - 16:8, 74:5 relief [1] - 64:18 relies [2] - 34:18, 186:21 relocated [2] - 88:20, 159:17 rely [1] - 168:9 remain [1] - 179:12 remained [3] - 73:21, 74:11, 93:24 remaining [3] - 64:13, 155:6, 180:11 remains [1] - 66:2 remarks [1] - 9:2 remember [4] - 56:19, 168:13, 173:17, 184:3 **Remember** [1] - 12:16 reminded [1] - 37:4 remote [1] - 104:17 removal [1] - 50:5 remove [2] - 118:20, 118:22 removed [4] - 13:7, 38:10, 38:11, 187:10 removes [1] - 104:18 rendered [1] - 140:11 Renewable [2] - 34:4, 148:16 renewable [18] -26:23, 28:23, 43:17, 43:21, 64:16, 69:6, 69:7, 69:9, 91:18, 97:24, 136:12, 148:20, 149:12, 150:10, 154:2, 161:11, 180:12, 183:24 renewal [1] - 88:22 renewed [1] - 157:14 renowned [1] - 131:10 rent [1] - 54:5 rentals [1] - 13:2 repairs [3] - 187:12, 187:13, 187:17 repeat [3] - 30:18,

99:6, 186:3

repeatedly [1] - 52:10 replace [2] - 29:9, 163:14 replacement [1] -92:17 report [32] - 30:24, 41:22, 42:4, 43:5, 43:10, 45:20, 53:9, 59:17, 66:18, 66:21, 67:2, 71:20, 80:16, 87:4, 93:10, 93:11, 95:2, 121:12, 121:14, 131:20, 132:11, 132:23, 143:12, 143:15, 148:22, 148:23, 149:3, 149:11, 151:13, 154:24, 155:12, 177:16 reported [2] - 55:14, 114:20 **Reporter** [1] - 195:6 reporter [1] - 21:7 reports [6] - 50:15, 60:10, 86:21, 95:5, 154:20, 171:20 represent [5] - 9:12, 97:4, 107:2, 108:11, 116:13 representations [1] -65:18 Representative [2] -84:13, 85:14 representative [1] -171:19 representatives [1] -27:11 represented [3] -107:16, 107:20, 178:17 representing [3] -150:21, 158:23, 178:21 represents [1] - 72:13 request [3] - 32:24, 116:11, 155:22 requested [1] - 67:7 require [6] - 13:4, 13:17, 13:24, 50:2, 105:11, 188:9 required [5] - 30:22, 69:16, 103:8, 122:11, 186:15 requirements [2] -46:9, 92:17 requires [7] - 9:9, 94:16, 95:10, 96:9, 104:7, 121:11,

148:18

requiring [2] - 47:10, 125:4 rescue [8] - 44:20, 85:5, 85:6, 86:16, 86:19, 113:2, 140:22, 168:18 rescues [1] - 80:7 research [4] - 4:7, 46:22, 146:4, 157:3 Reservations [1] -91:3 resident [23] - 29:22, 32:18, 38:24, 39:7, 53:14, 59:13, 67:23, 85:19, 90:21, 100:23, 111:16, 119:12, 130:9, 133:17, 137:10, 146:2, 158:13, 161:2, 163:3, 173:15, 182:3, 184:21, 186:11 residents [7] - 22:12, 36:8, 111:7, 130:18, 140:3, 147:3, 147:11 resolution [1] - 156:19 resolve [1] - 156:20 resolved [2] - 85:12, 157:12 resonance [1] - 108:7 resort [1] - 27:20 resource [23] - 18:10, 18:12, 18:16, 48:22, 68:20, 69:6, 69:7, 69:9, 102:6, 102:12, 102:18, 102:24, 103:11, 103:12, 103:15, 104:16, 104:19, 104:24, 105:15, 154:2, 159:16, 160:5, 160:11 resources [13] -10:22, 29:12, 42:7, 47:15, 102:15, 110:18, 152:15, 154:9, 154:15, 161:11, 171:24, 175:18, 185:21 Resources [1] -148:21 Respect [1] - 7:24 respect [2] - 8:2, 142:24 respected [1] - 50:22 respectful [1] - 8:14 respectfully [1] -155:22 respects [1] - 121:11

respond [1] - 122:21 responded [2] - 123:8, 177:8 responding [1] -177:9 response [1] - 13:13 responsibility [1] -47:15 responsible [5] -10:21, 10:23, 78:20, 99:6, 99:7 rest [1] - 109:18 restaurants [1] - 139:8 restricted [1] - 90:12 restrictions [1] - 84:10 restrooms [5] - 4:15, 4:18, 4:19, 4:22, 109:17 restructure [1] -147:17 result [6] - 73:8, 94:7, 94:9, 94:11, 104:23, 114:23 results [7] - 63:21, 67:2, 74:8, 114:14, 115:19, 144:5, 155:11 retail [1] - 148:18 retired [1] - 88:14 return [5] - 13:2, 169:9, 169:11, 169:24, 176:10 Rev [1] - 54:16 revenue [1] - 13:9 revenue-sharing [1] -13:9 Reverend [2] - 35:9, 37:3 reverse [1] - 141:16 reversed [6] - 67:4, 155:13, 155:18, 155:21, 180:4, 180:9 review [8] - 50:15, 63:21, 64:5, 102:8, 102:23, 109:7, 121:19, 141:22 reviewed [2] - 123:8, 167:4 reviewing [3] - 23:4, 127:9, 144:2 reviews [1] - 66:20 Revised [1] - 177:14 Revolution [1] -100:17 revolution [1] - 38:16 RFP [1] - 23:7 rhetoric [1] - 68:23

**Rhode** [2] - 70:22,

124:22

181:10

153:13 ridiculous [1] - 63:11 rig [4] - 104:14, 104:15, 105:9, 105:22 rig's [1] - 105:13 **rights** [2] - 73:14, 92:12 rise [3] - 45:4, 100:2, 100:24 Risk [1] - 177:14 risk [17] - 81:2, 118:17, 151:15, 151:17, 151:21, 152:3, 152:20, 172:24, 173:3, 176:10, 178:6, 183:4, 183:6, 185:12, 187:14 risks [12] - 31:23, 33:19, 57:10, 57:12, 92:2, 151:14, 151:19, 153:3, 186:13, 186:20, 188:16 RMR [1] - 195:15 road [2] - 61:6, 152:10 Road [1] - 1:14 roads [1] - 159:21 robbing [1] - 189:5 Robert [3] - 100:22, 114:4, 171:5 Roberta [1] - 179:20 rock [1] - 51:7 rocks [3] - 55:22, 190:14, 191:4 ROCKWELL[1] -123:23 Rockwell [1] - 123:24 Rodney [4] - 11:14, 11:15, 12:17, 14:14 role [4] - 3:16, 3:24, 4:4, 148:16 roles [1] - 165:19 roof [1] - 42:11 room [7] - 26:20, 26:22, 46:12, 56:19, 88:16, 174:17, 179:23 rooms [1] - 5:5 roseate [1] - 45:23 roughly [1] - 72:12 round [7] - 24:7, 51:10, 53:14, 137:10, 142:21, 171:7, 186:11 route [2] - 126:18,

rich [2] - 125:9,

routes [2] - 31:8, 46:7 routine [8] - 17:7, 17:8, 17:16, 17:18, 17:19, 17:21, 18:3, **ROWLAND** [1] - 110:2 **Rowland** [1] - 110:3 royalties [1] - 10:24 **RPS** [5] - 148:17, 148:22, 148:24, 149:6, 150:5 ruin [1] - 175:20 ruined [1] - 154:3 rule [1] - 130:22 rules [1] - 7:10 run [5] - 11:7, 87:22, 138:21, 183:9, 183:14 rundown [1] - 15:6 running [4] - 15:17, 28:3, 119:21, 161:11 runs [1] - 168:6 S

sacred [1] - 119:22 **sacrifice** [1] - 111:8 **sacrifices** [3] - 111:5, 162:16, 162:18 **saddle** [1] - 37:6 Sadly [1] - 52:7 safe [4] - 55:22, 67:9, 86:18, 122:6 safely [2] - 179:7, 194:12 safer [1] - 51:2 Safety [1] - 94:23 safety [28] - 13:11, 13:23, 26:16, 31:22, 33:19, 54:12, 84:6, 85:3, 85:9, 86:8, 86:12, 92:14, 93:14, 94:18, 95:3, 95:8, 106:15, 112:20, 159:3, 159:11, 165:20, 171:16, 173:3, 173:6, 176:20, 185:6, 185:16 Sail [1] - 137:20 sail [5] - 24:3, 55:6, 63:17, 137:16, 139:19 Sailing [1] - 165:13 sailing [10] - 19:13, 46:10, 63:8, 63:11, 69:22, 98:18, 107:12, 137:22, 138:9, 138:17

sailors [3] - 55:6, 59:22, 139:6 Sailors [1] - 138:11 salmon [1] - 128:2 salt [1] - 83:6 saltwater [1] - 93:16 salvage [1] - 167:14 sand [9] - 10:22, 127:3, 190:13, 191:3, 191:13, 191:14, 191:18, 191:19, 192:17 **SANDERS** [1] - 133:16 Sanders [1] - 133:17 sandwich [1] - 141:8 **Sandy** [2] - 93:6, 186:4 satisfaction [1] - 27:7 Saul's [1] - 190:11 save [5] - 47:22, 53:22, 98:10, 160:5, 185:20 **Save** [1] - 98:9 saves [1] - 48:17 saving [1] - 183:14 **SAWYER** [3] - 62:22, 62:24, 63:4 Sawyer [1] - 63:2 scale [7] - 27:13, 34:13, 41:10, 43:20, 51:23, 150:7, 186:23 scared [1] - 133:21 scenario [3] - 73:11, 74:7, 74:14 scenarios [1] - 73:24 scenic [2] - 40:3, 154:18 school [1] - 4:21 School [1] - 1:13 science [2] - 40:21, 110:10 scientific [1] - 41:16 scientist [1] - 146:4 scientists [1] - 41:4 Scotland [1] - 34:11 Scott [1] - 110:2 scour [1] - 17:20 screen [4] - 6:7, 15:22, 94:22, 178:3 scripted [1] - 78:4 scrutinize [2] -177:19, 178:3 scupper [1] - 169:12 Sea [2] - 52:21, 59:18 sea [27] - 45:4, 60:22, 76:21, 77:4, 77:10, 80:7, 81:3, 94:3, 94:8, 94:19, 104:20,

104:22, 125:10,

131:23, 132:5, 132:8, 140:2, 142:19, 144:11, 145:7, 159:7, 163:16, 169:13, 182:23, 184:14 seabed [3] - 16:3, 17:22, 18:2 Seaboard [2] - 49:8, 175:4 seals [1] - 125:10 search [5] - 85:6, 86:16, 86:19, 113:2, 168:17 **Seashore** [1] - 173:22 season [4] - 30:12, 71:11, 127:18 seasons [2] - 89:5, 144:21 seats [2] - 2:3, 20:17 second [5] - 58:2, 71:21, 74:14, 85:3, 127:14 Second [3] - 53:18, 90:6, 122:3 Secondly [2] - 163:21, 186:24 seconds [2] - 9:17, 181:22 Secretary [1] - 41:5 Secretary-General's [1] - 41:5 secure [5] - 35:21, 36:3, 36:5, 36:18, **secured** [1] - 174:20 Security [4] - 90:7, 90:8, 128:22, 130:21 **security** [3] - 108:20, 129:3, 160:7 See [2] - 42:12, 76:24 see [45] - 2:13, 4:21, 11:5, 11:8, 19:6, 20:21, 23:24, 25:9, 28:7, 28:19, 35:24, 38:6, 38:8, 43:7, 43:22, 49:16, 52:15, 56:8, 59:15, 60:17, 61:16, 65:12, 70:4, 75:7, 86:14, 119:5, 130:13, 134:10, 135:13, 139:22, 141:4, 141:10, 156:11, 156:15, 157:13, 166:12, 166:13, 174:11, 174:12, 178:4, 183:8, 184:10, 184:15, 189:23,

191:11 seeing [1] - 143:7 seek [1] - 73:6 seem [3] - 62:2, 62:3, 156:12 seemingly [2] - 94:10, 144:18 segment [1] - 65:23 segments [1] - 66:4 selectmen [2] - 22:2, 78:9 Selectmen [4] - 22:16, 22:18, 25:16, 26:5 sell [2] - 114:23, 164:22 selling [2] - 37:6, 37:7 Senator [1] - 85:13 senators [1] - 78:8 send [5] - 6:5, 6:8, 6:21, 24:21, 168:22 sense [6] - 13:23, 13:24, 71:12, 112:11, 159:15 sensitive [1] - 132:18 sensitivities [1] -133:7 separate [2] - 187:20, 187:23 September [1] - 40:24 series [1] - 17:6 serious 181 - 57:4. 67:8, 67:18, 83:2, 91:18, 99:10, 148:23, 187:4 seriously [2] - 131:4, 162:7 serve [2] - 120:17, 161:21 served [1] - 51:11 Service [5] - 43:3, 48:8, 56:24, 102:9, 193:24 service [1] - 160:14 **SERVICE** [1] - 1:5 Sesachacha [1] -93:17 session [1] - 5:22 set [4] - 17:6, 48:13, 49:19, 175:17 sets [1] - 168:6 settle [1] - 128:21 settled [1] - 168:15 seven [5] - 15:9, 42:9, 47:9, 50:14, 88:5 Several [2] - 89:3, 89:14 several [4] - 68:8,

89:3, 121:11, 122:3

severe [4] - 89:24,

90:2, 113:5, 155:9 shadows [1] - 178:5 shallow [8] - 24:9, 49:12, 55:17, 68:20, 76:18, 76:19, 82:20, 178:17 **shallows** [1] - 178:15 shame [1] - 56:3 **share** [5] - 62:10, 92:20, 147:4, 149:6, 184:23 shared [2] - 41:13, 186:3 **sharing** [1] - 13:9 **sharks** [1] - 129:18 Shelf [2] - 99:12, 190:18 shellfish [2] - 23:22, 54:7 shift [1] - 97:10 shine [1] - 136:18 ship [1] - 79:15 **shipboard** [1] - 31:12 **shipping** [4] - 59:18, 59:21, 77:16, 80:19 ships [3] - 59:19, 69:22, 80:7 Shoal [12] - 15:8, 15:17, 16:12, 46:23, 49:13, 63:19, 66:8, 71:3, 98:22, 101:2, 128:13, 130:3 shoal [2] - 55:18, 170:2 **Shoals** [15] - 15:21, 17:2, 31:8, 52:6, 56:14, 71:9, 71:19, 72:9, 72:11, 73:23, 74:2, 74:4, 111:10, 140:10, 169:19 **shone** [1] - 136:5 shop [1] - 139:7 shore [11] - 34:19, 49:11, 49:12, 52:18, 52:22, 77:3, 93:18, 94:9, 99:21, 113:19, 185:23 shoreline [2] - 94:2, 154:10 short [7] - 23:10, 92:2, 106:7, 144:20, 154:3, 188:17 short-sighted [1] -188:17 **short-term** [3] - 92:2, 154:3, 188:17 shortchanges [1] -122:17

shortcomings [2] -

121:9, 121:13 **shortly** [1] - 32:5 Show [1] - 115:24 show [3] - 9:16, 74:8, 115:19 showed [1] - 43:8 **showing** [1] - 54:17 shown [1] - 45:20 shows [3] - 34:5, 117:17, 155:9 shroud [1] - 80:3 Shut [1] - 8:4 Siasconset [3] -23:15, 23:19, 94:3 side [7] - 8:18, 20:13, 20:14, 22:9, 61:24, 89:13, 191:11 sides [5] - 112:10, 142:23, 144:2, 148:9, 168:11 sighted [1] - 188:17 sign [1] - 184:16 signed [1] - 32:11 significance [1] -155:23 significant [7] - 45:10, 67:18, 69:17, 117:23, 121:11, 122:3, 124:16 significantly [4] -12:14, 33:18, 91:15, 133:7 Significantly [1] -44:13 signs [1] - 5:12 silos [1] - 178:5 silt [1] - 190:14 similar [5] - 27:15, 46:16, 82:23, 89:11, 104:7 **similarities** [1] - 54:15 simple [1] - 103:23 simpler [1] - 105:20 simply [6] - 28:7, 84:5, 126:13, 127:9, 178:3, 188:18 simulate [1] - 76:10 Singapore [1] - 181:7 single [3] - 50:7, 132:21, 134:8 single-hulled [1] -50:7 sins [1] - 42:9 sisters [1] - 161:21 sit [1] - 20:19 site [16] - 13:18, 17:23, 18:3, 23:5, 23:6, 23:17, 23:18, 23:24, 25:12, 77:15,

78:24, 117:3, 126:15, 157:16, 169:10, 175:20 sites [18] - 15:23, 23:4, 32:22, 32:24, 33:16, 33:22, 49:12, 87:13, 102:19, 115:18, 116:7, 117:4, 117:6, 119:24, 126:24, 155:4, 157:17, 157:18 siting [2] - 33:10, 46:22 sitting [1] - 188:12 situation [7] - 68:12, 82:23, 83:9, 83:14, 86:15, 86:16, 136:8 situations [2] - 83:16, 92:16 six [15] - 15:9, 20:12, 20:15, 34:19, 44:23, 46:11, 68:3, 126:18, 146:15, 157:10, 177:6, 177:7, 178:10, 192:20, 192:21 six-year-old [1] -146:15 sixth [1] - 191:19 sixths [1] - 191:20 size [2] - 49:19, 85:4 sky [1] - 184:13 slash [1] - 167:15 slated [1] - 34:14 sleep [1] - 75:12 slew [1] - 148:6 slightly [2] - 35:16, 125:2 slogan [1] - 98:9 slow [1] - 21:10 **slowdown** [1] - 185:23 slowly [1] - 39:15 small [15] - 10:16, 31:7, 58:8, 67:10, 71:10, 78:6, 94:6, 94:10, 128:2, 129:16, 147:15, 151:16, 158:3, 166:7, 176:11 smaller [3] - 16:13, 16:23, 166:17 smart [1] - 181:13 smog [1] - 139:22 smooth [1] - 52:24 **snail** [1] - 194:3 snapshot [2] - 144:17 snowstorms [1] -79:22

snowy [1] - 89:6 so-called [1] - 99:5 social [4] - 28:20, 72:18, 108:22, 157:24 Society [4] - 50:21, 54:23, 54:24, 124:4 **soil** [2] - 161:21, 162:2 solar [3] - 42:11, 42:14, 181:15 sold [1] - 97:12 sole [1] - 152:7 **solution** [5] - 90:15, 112:13, 162:9, 177:12 solutions [1] - 177:10 solve [2] - 36:21, 64:13 Someone [2] - 144:24, 147:7 someone [1] - 81:8 someplace [4] - 68:9, 68:13, 68:14, 152:13 sometimes [2] -104:23, 107:9 Sometimes [1] - 108:4 Somewhat [1] - 56:12 somewhere [4] -152:11, 152:23, 153:6, 175:21 son [1] - 146:16 sons [1] - 161:19 soon [5] - 5:2, 20:10, 38:7, 53:5, 109:11 sooner [1] - 168:16 sorry [2] - 66:23, 167:2 sort [3] - 150:24, 184:10, 184:12 SOS [1] - 56:3 Sound [118] - 15:7, 30:6, 30:18, 31:2, 31:16, 31:19, 32:21, 34:22, 39:24, 42:17, 47:12, 47:23, 53:22, 56:21, 58:7, 58:10, 63:9, 63:11, 65:6, 67:10, 68:6, 68:19, 71:10, 71:21, 72:9, 72:14, 79:18, 79:24, 81:19, 81:21, 82:3, 82:5, 82:11, 82:14, 82:20, 83:3, 83:5, 83:7, 83:11, 86:13, 89:7, 98:9, 98:18, 101:12, 101:14, 101:20, 102:6, 102:7, 103:3, 106:12, 106:18,

107:12, 111:18, 114:7, 116:18, 117:2, 122:7, 122:10, 124:2, 127:20, 127:24, 128:4, 128:10, 130:12, 131:18, 133:5, 134:14, 134:18, 134:21, 138:3, 139:19, 140:9, 144:13, 144:18, 145:17, 148:4, 151:11, 151:21, 152:4, 152:7, 152:9, 153:3, 153:13, 153:18, 155:16, 160:6, 160:9, 163:15, 164:8, 165:12, 165:15, 166:6, 166:14, 166:16, 167:16, 167:24, 168:3, 169:7, 169:12, 169:13, 169:18, 171:6, 172:3, 172:8, 172:18, 174:9, 174:16, 174:19, 175:3, 178:13, 182:8, 187:8, 187:15, 188:13, 190:5, 191:4, 191:13 sound [4] - 13:11, 47:21, 132:18, 133:7 **Sound's** [1] - 101:6 sound-sensitive [1] -132:18 Sounds [1] - 71:19 sounds [1] - 53:24 soup [1] - 86:14 source [5] - 36:14, 102:2, 103:16, 104:12, 129:15 sources [9] - 33:13, 47:4, 91:19, 145:12, 148:20, 149:13, 165:18, 172:19, 183:24 south [9] - 17:2, 75:21, 83:13, 98:20. 99:19, 190:10, 190:12, 190:15, 190:16 southeast [1] - 131:9 southeaster [1] -117:20 southeastern [2] -

117:19, 131:14

southern [1] - 10:20

southwest [1] - 192:6

SSA [1] - 95:7

space [2] - 23:11, 164:15 spaced [3] - 132:24, 178:24, 179:5 spacing [2] - 63:12, 179:11 **spawn** [1] - 169:13 **spawning** [1] - 169:8 **speaker** [5] - 4:6, 37:10, 41:11, 170:16, 193:17 speakers [3] - 9:8, 20:2, 20:6 speaking [6] - 26:8, 83:24, 85:24, 140:2, 142:23, 165:15 Species [1] - 124:11 species [11] - 46:2, 110:20, 112:6, 122:9, 125:9, 125:12, 126:12, 131:23, 132:18, 140:13 specific [5] - 14:12, 144:19, 145:11, 148:12, 188:9 Specifically [2] -132:22, 149:3 specifically [1] - 72:11 specious [1] - 40:18 speech [1] - 137:12 **speed** [2] - 16:6, 99:3 spend [3] - 2:15, 127:19, 163:22 spent [1] - 165:13 **spill** [2] - 50:9, 134:22 spills [4] - 17:19, 101:18, 102:2, 104:24 spinning [3] - 103:24, 104:4, 191:22 spins [1] - 105:17 spite [1] - 159:13 **sponsor** [1] - 137:19 spot [4] - 48:15, 55:10, 152:17, 167:23 spots [1] - 131:12 spread [1] - 31:19 **spring** [3] - 71:10, 79:19, 112:19 squander [1] - 42:6 squashed [1] - 68:7 **Squid** [1] - 128:2 squid [7] - 71:7, 71:10, 71:17, 128:6, 169:8, 169:16, 169:23

St [1] - 35:10 stack [1] - 48:16 staff [1] - 56:16 stake [1] - 144:8 stakes [1] - 110:20 **stamp** [1] - 141:23 stamped [1] - 80:14 stand [6] - 32:15, 46:8, 61:16, 62:12, 97:5, 110:23 Standard [1] - 148:17 standards [2] - 43:17, 54:12 standing [1] - 146:10 **standpoint** [1] - 84:6 stands [2] - 52:13, 108:7 star [1] - 51:7 start [12] - 21:21, 21:23, 22:3, 31:18, 32:10, 32:14, 55:22, 70:10, 127:18, 141:16, 179:24, 192:18 started [7] - 2:4, 27:6, 127:16, 162:8, 190:9, 190:22, 190:23 starting [1] - 93:23 State [1] - 69:4 state [12] - 3:22, 13:9, 32:16, 43:19, 57:17, 66:20, 69:2, 89:20, 95:3, 107:24, 108:12, 174:5 Statement [7] - 3:4, 10:10, 12:10, 14:19, 71:24, 79:12, 134:6 statement [10] - 3:9, 30:14, 30:18, 78:17, 106:7, 166:3, 169:4, 171:4, 173:24, 189:2 statements [4] -43:11, 52:5, 53:19, 57:12 **States** [7] - 61:14, 64:2, 75:20, 76:15, 149:15, 162:8, 186:18 states [6] - 54:11, 66:9, 80:11, 117:13, 124:24, 149:11 **STATES** [1] - 1:4 stationary [1] - 101:17 status [1] - 105:21 stay [1] - 164:14 staying [1] - 9:10 steal [1] - 69:18

stealing [1] - 37:12

steam [1] - 104:6 steamship [1] -176:24 **Steamship** [9] - 29:20, 30:4, 30:8, 30:11, 30:20, 31:20, 146:9, 158:24, 171:18 steel [3] - 79:7, 89:9, 89:14 Stellwagen [1] - 82:22 stem [1] - 45:10 stenographic [1] -195:9 step [2] - 36:20, 64:20 Stephen [1] - 37:3 **Steven** [2] - 139:15, 150:19 still [7] - 72:22, 89:18, 94:5, 149:22, 161:8, 161:9, 183:17 stock [1] - 97:13 stood [2] - 161:14, 183:18 **stop** [9] - 9:17, 9:18, 41:20, 45:19, 156:13, 181:18, 183:20, 184:16 Stop [1] - 114:5 stopped [3] - 60:3, 87:10, 190:8 storage [1] - 24:20 stored [1] - 38:11 stories [1] - 61:23 **storing** [1] - 24:18 storm [1] - 45:3 storms [2] - 79:22, 94:4 story [2] - 44:10, 173:23 straight [2] - 138:17, 164:11 strand [1] - 15:16 **Stranding** [1] - 124:5 **strategies** [1] - 125:6 street [1] - 110:17 Street [1] - 181:3 strength [1] - 141:22 strict [2] - 92:14, 92:16 **strike** [1] - 124:21 strikers [1] - 169:15 strikes [1] - 124:16 **strip** [1] - 134:24 strips [3] - 159:22, 160:4, 160:12 strong [4] - 40:6, 78:7, 93:2. 94:4 **stronger** [1] - 33:16 strongly [5] - 42:23,

44:8, 109:4, 126:11, 166:22 structure [3] - 37:24, 129:15, 145:5 structures [9] - 13:4, 34:9, 55:23, 89:9, 89:11, 89:14, 120:8, 166:14 stuck [1] - 141:7 studied [3] - 143:13, 157:8. 182:9 studies [18] - 54:17, 66:14, 80:5, 80:22, 84:7, 84:18, 84:21, 86:10, 92:9, 125:6, 126:2, 144:10, 144:15, 144:19, 157:9, 159:14, 167:3 **Study** [2] - 11:17, 57:7 study [15] - 30:22, 31:11, 31:13, 34:3, 65:22, 67:7, 71:16, 85:11, 86:5, 87:6, 112:2, 112:15, 112:24, 154:22 stuff [3] - 28:16, 69:23, 191:4 stunned [1] - 49:16 Sturgell [1] - 84:14 subject [1] - 41:4 subjected [1] - 140:4 submission [1] -75:18 submit [3] - 53:10, 194:2, 194:6 **submitted** [2] - 87:5, 178:9 subsidies [2] - 95:17, 117:23 substantial [3] - 45:4, 122:15, 152:4 **substrate** [1] - 16:3 succeed [1] - 150:5 successful [2] -49:17, 91:24 successfully [3] -104:16, 150:6, 157:6 suddenly [1] - 108:7 suffer [1] - 141:19 sufficient [1] - 187:22 suggest [1] - 95:16 suggestions [1] - 20:3 suggests [1] - 30:5 summarizing [1] -41:15 **Summary** [2] - 40:13, 177:15 summary [2] - 65:11, 77:14

summed [1] - 135:23 summer [13] - 30:7, 59:24, 71:11, 79:19, 112:19, 127:17, 127:23, 128:4, 138:7, 146:2, 175:7, 175:8, 192:2 summers [1] - 63:6 summertime [1] -164:17 sunny [1] - 79:21 sunrise [1] - 182:24 supplemental [2] -121:12, 123:6 supplied [1] - 144:4 supplies [1] - 149:9 supply [9] - 24:23, 33:10, 83:2, 83:4, 83:7, 99:13, 148:19, 149:5, 149:12 supplying [1] - 48:10 support [11] - 8:23, 37:19, 42:23, 43:13, 44:9, 47:20, 92:6, 115:20. 141:20. 158:8, 158:19 supported [1] -150:11 **supporter** [1] - 40:6 supporting [3] -109:2, 109:4, 115:24 supposed [1] - 69:7 surface [3] - 102:20, 104:22, 132:7 Surfside [1] - 1:14 surging [1] - 39:18 surplus [1] - 74:6 surrounding [2] -106:19, 167:18 survey [1] - 72:2 **survive** [2] - 110:19, 132:3 susceptible [1] -128:16 suspend [1] - 123:4 suspended [1] -121:20 sustain [1] - 174:15 sustainability [1] -110:22 sustaining [2] - 175:4, 175:7 sweeping [1] - 120:2 symbol [2] - 162:13, 162:14 symbolizing [1] -162:19 synopsis [1] - 10:14 system [4] - 11:24,

40:11, 49:9, 82:21 systems [1] - 80:20

table [3] - 65:11, 82:6, 82:9 tactics [1] - 53:20 tales [1] - 140:5 tall [3] - 140:4, 190:7, 191:16 tank [2] - 101:14, 101:15 tanker [1] - 159:5 tankers [2] - 50:4, 159:8 target [1] - 90:9 task [1] - 158:7 tax [2] - 50:19, 113:23 taxpayer [2] - 50:20, 188:5 **TAYLOR** [4] - 85:18, 93:6, 96:15, 158:12 **Taylor** [5] - 85:19, 93:7, 158:13, 185:10, 186:4 team [2] - 67:13, 78:20 tearing [1] - 132:8 technical [4] - 66:18, 146:12, 148:13, 154:21 techniques [1] - 50:5 technologies [1] -152:2 Technologies [1] -75:2 Technology [2] -163:5, 169:5 technology [18] -16:2, 16:6, 34:20, 49:11, 68:17, 68:18, 68:21, 76:5, 76:17, 76:18, 76:19, 87:20, 131:8, 163:5, 163:7, 163:20, 186:22, 187:14 Ted [1] - 185:10 Telecommunication s [1] - 84:20 telephone [1] - 72:2 telephoto [1] - 52:20 temperatures [1] -31:15 temporarily [2] -72:21, 177:20 ten [7] - 23:4, 76:3,

98:19, 117:4, 138:5,

159:20

180:7, 182:4

tenders [1] - 88:24

tending [1] - 92:10 tens [1] - 78:7 term [8] - 91:23, 92:2, 92:20, 132:14, 143:20, 154:3, 160:3, 188:17 terminal [1] - 39:17 Terminal [1] - 146:9 terminated [1] -138:10 terms [10] - 55:4, 76:22, 84:10, 84:11, 92:19, 102:8, 110:22, 111:4, 122:6, 158:3 tern [1] - 45:23 terns [1] - 144:11 terrible [1] - 151:8 terrorist [1] - 90:9 testimony [2] - 43:23, 148:10 THE [1] - 1:4 theme [1] - 122:22 themselves [4] -28:10, 60:4, 121:16, 149:19 Therefore [1] - 79:6 therefore [2] - 61:6, 76:11 they've [1] - 3:7 thieves [1] - 37:12 thinking [2] - 44:11, 55:21 third [3] - 33:9, 66:15, 178:24 Third [1] - 122:17 thirds [1] - 100:7 Thirty [2] - 72:7, 73:16 thirty [1] - 73:16 Thirty-four [1] - 72:7 thirty-four [1] - 73:16 Thirty-two [1] - 73:16 Thompson [1] -162:24 THOMPSON [1] -163:2 thorough [1] - 53:17 thoroughly [2] -157:7, 166:23 thoughts [5] - 10:8, 21:12, 93:8, 95:21, 184:23 thousand [2] - 84:24, 163:24 thousand-foot [1] -163:24 thousands [5] - 78:7, 139:10, 159:19,

threat [4] - 45:13, 45:15, 108:23, 124:16 threatened [3] - 28:8, 94:5, 110:7 threats [2] - 108:20, 125:11 Three [1] - 155:4 three [17] - 9:14, 11:7, 20:15, 20:20, 22:23, 25:3, 87:4, 113:11, 114:10, 114:16, 126:21, 128:14, 155:4, 159:4, 161:5, 168:12, 191:14 three-mile [1] - 22:23 throughout [2] -126:13, 160:12 thrown [1] - 64:11 tidal [2] - 87:21, 95:22 tide [10] - 27:10, 112:21, 168:6, 185:21, 192:19, 192:20, 193:4, 193:5 tides [1] - 87:23 tips [1] - 99:24 Titanic [2] - 44:17, 44:21 today [16] - 34:3, 40:12, 43:24, 44:12, 68:17, 70:11, 75:12, 75:14, 77:18, 79:5, 94:5, 114:13, 129:8, 130:24, 161:9, 191:6 today's [2] - 68:18, 90:7 Todd [1] - 98:15 Together [1] - 150:9 together [2] - 15:4, tomorrow [2] - 41:21, 194:3 Tonight [3] - 165:15, 185:14, 193:19 tonight [26] - 3:12, 3:16, 3:24, 4:5, 9:9, 9:20, 20:5, 32:9, 78:4, 87:20, 88:22, 97:4, 110:4, 112:14, 121:8, 123:3, 130:8, 143:6, 148:11, 150:21, 158:22, 160:23, 165:10, 183:18, 186:4, 186:12 tons [1] - 45:8 took [4] - 18:8, 64:5,

69:14, 84:4

toothed [1] - 126:3

**top** [3] - 48:16, 60:12, 138:6 topic [2] - 96:24, 97:2 topics [1] - 166:4 tops [1] - 164:3 total [6] - 50:9, 65:19, 73:22, 74:8, 74:12, 119:5 totally [3] - 138:22, 154:9, 155:13 tough [2] - 86:15, 182:15 **Tourism** [1] - 28:6 tourism [11] - 27:19, 33:20, 46:14, 46:16, 54:5, 55:5, 55:14, 100:9, 106:16, 131:9, 140:15 tourist [2] - 79:4, 131:17 tourist-dependent [1] - 131:17 tourists [3] - 113:14, 131:13, 131:15 tow [1] - 73:2 toward [4] - 92:10, 101:19, 136:24, 162:9 towards [4] - 64:21, 97:21, 138:19, 156:18 tower [5] - 36:10, 75:24, 98:22, 99:2, 116:6 towers [9] - 31:14, 31:19, 58:13, 63:12, 94:14, 111:24, 145:4, 159:17, 160:4 Town [1] - 147:8 town [7] - 7:4, 7:6, 7:8, 7:10, 7:16, 55:3, 147:10 track [1] - 64:22 Tracy [1] - 106:6 trade [1] - 100:16 traded [1] - 71:13 trading [1] - 100:15 traditional [1] - 72:17 traffic [13] - 9:15, 46:7, 77:17, 102:3, 127:6, 129:2, 159:9, 163:4, 163:21, 163:24, 172:7, 172:14, 194:13 tragic [1] - 94:12 train [1] - 39:20 training [1] - 5:14 **trains** [1] - 54:9 transcend [1] - 158:2

transcript [3] - 21:11, 53:11, 195:9 transfer [1] - 20:24 transformation [1] -97:11 transformer [4] - 58:7, 101:5, 101:7, 101:16 transit [1] - 124:22 transiting [1] - 124:20 transmission [1] -49:9 Transmission [1] -16:5 transport [1] - 151:10 transportation [8] -105:14, 105:16, 106:15, 130:20, 172:5, 172:19, 180:20, 185:16 trash [1] - 44:15 travel [1] - 139:19 traveled [1] - 51:23 traveling [2] - 101:19, 139:23 travels [1] - 133:6 traverse [2] - 79:18, 81:4 travesty [1] - 100:8 trawled [1] - 71:21 trawlers [2] - 72:19, 73:2 trawling [2] - 72:21, 178:23 TRC [1] - 14:20 treasure [2] - 174:13, 186:19 treatment [1] - 154:8 tremendous [1] -86:23 triangle [2] - 164:9, 178:14 trickle [1] - 113:20 trickle-down [1] -113:20 tried [1] - 70:13 trip [1] - 173:19 triple [2] - 95:17, 101:9 tripods [1] - 34:7 trips [1] - 173:21 trivial [1] - 64:10 troubled [1] - 124:9 true [5] - 52:10, 62:3, 177:21, 189:4, 195:8 True [1] - 44:10

truly [2] - 47:22,

trusses [1] - 34:8

trust [2] - 57:6, 141:21

175:17

Trustees [1] - 91:2 trusts [1] - 122:2 try [9] - 9:9, 15:22, 20:4, 61:7, 75:13, 108:2, 160:3, 171:13, 184:12 trying [5] - 45:18, 132:2, 160:14, 182:12 Tuckernuck [9] -15:11, 17:3, 24:2, 24:11, 24:23, 25:12, 29:4, 112:18 Tuesday [1] - 1:11 turbine [15] - 16:16, 35:14, 60:15, 90:16, 104:6, 105:2, 105:4, 105:6, 126:4, 130:14, 130:20, 132:21, 141:9, 155:8, 177:22 turbines [54] - 15:13, 16:14, 23:3, 23:12, 23:14, 31:12, 34:11, 46:7, 46:10, 49:24, 52:22, 68:4, 69:20, 70:2, 85:8, 91:11, 91:13, 94:21, 95:23, 99:12, 99:19, 99:21, 101:23, 105:23, 111:9, 112:14, 113:18, 115:5, 115:8, 120:9, 120:16, 126:2, 132:6, 132:12, 132:16, 132:23, 134:21, 138:14, 140:12, 141:4, 153:9, 162:12, 162:14, 174:12, 178:5, 178:23, 179:5, 179:11, 180:5, 180:6, 180:16, 184:12, 186:22 turn [10] - 2:20, 4:7, 4:24, 8:7, 8:9, 9:23, 36:7, 99:22, 116:18, 179:7 Turn [1] - 8:13 turned [1] - 27:9 turtles [5] - 125:10, 131:24, 142:19, 144:11, 145:7 tweetie [1] - 145:8 twice [1] - 93:22

twin [1] - 108:20

two [37] - 4:14, 4:18,

15:16, 18:4, 20:15,

21:16, 24:16, 28:2,

34:10, 34:13, 49:17, 56:22, 73:16, 73:23, 74:3, 80:13, 87:4, 88:23, 89:4, 92:8, 99:22, 100:7, 109:15, 109:19, 128:14, 131:5, 131:13, 149:8, 159:4, 159:21, 164:11, 168:12, 171:6, 180:18, 187:3, 191:14, 192:11 two-thirds [1] - 100:7 type [3] - 29:13, 68:23, 71:24 types [3] - 16:18, 57:2, 105:4

U **U.S** [6] - 34:2, 80:17, 80:21, 94:24, 130:22, 185:19 ultimately [1] - 141:23 UN's [1] - 40:23 unacceptable [1] -122:24 unanticipated [1] -41:24 unassessed [1] -154:11 unconscionable [1] -177:24 undecided [1] - 52:2 under [7] - 69:2, 73:23, 81:4, 102:7, 160:11, 167:13, 168:10 under-utilized [1] -160:11 underfunded [1] -144:9 underneath [1] -191:8 understandable [1] -182:20 understates [1] -93:12 understood [2] -125:23, 126:7 underwater [1] - 133:6 underway [1] - 122:14 Unfortunately [2] -65:16, 167:22 unfounded [1] - 55:11 unhappy [1] - 137:11 unheard [1] - 131:12 unheard-of [1] -

131:12 uninterrupted [1] -8:18 unique [8] - 82:5, 82:12, 82:21, 106:17, 111:20, 166:6, 174:13, 182:18 unit [5] - 75:19, 76:2, 76:7, 76:12, 77:12 United [7] - 61:14, 64:2, 75:20, 76:15, 149:15, 162:8, 186:17 **UNITED** [1] - 1:4 units [1] - 77:8 **University** [1] - 70:22 unknowns [1] -188:19 unless [1] - 181:9 unlimited [1] - 34:8 unrealistic [2] - 131:6, 177:10 unsafe [2] - 176:23, 177:5 unspoiled [2] - 160:5, 185:20 unstable [1] - 50:3 unsurpassed [1] -48:22 untapped [1] - 33:8 untold [1] - 112:5 untrue [1] - 52:13 unused [1] - 160:2 unusual [1] - 101:10 **unusually** [1] - 103:20 unwillingness [1] -72:24 **up** [64] - 5:24, 6:6, 8:12, 9:14, 9:15, 16:11, 20:16, 20:20, 21:5, 21:13, 21:19, 24:6, 28:3, 32:11, 32:13, 32:23, 34:24, 35:2, 36:20, 47:6, 51:6, 53:19, 59:10, 60:6, 61:22, 68:24, 69:21, 74:15, 77:11, 84:23, 89:22, 90:10, 96:14, 100:6, 107:7, 113:12, 118:21, 119:8, 123:14, 127:21, 127:24,

128:18, 129:5,

131:13, 135:23,

139:23, 145:14,

152:9, 153:21,

159:22, 162:5,

165:22, 166:8,

168:23, 170:8, 180:12, 183:18, 184:11, 187:19, 191:5, 191:20, 191:21, 193:4, 193:6 upgrade [1] - 33:11 **upper** [1] - 38:12 **Upper** [1] - 137:22 **ups** [1] - 31:18 upstate [1] - 107:7 **uranium** [1] - 50:5 urge [5] - 120:21, 145:10, 157:7, 158:7, 160:15 urged [1] - 42:5 urgent [1] - 120:23 **US** [1] - 48:24 USA [4] - 74:23, 74:24, 75:17, 185:14 useful [3] - 102:12, 103:4, 187:11 useless [1] - 178:18 users [1] - 176:21 uses [3] - 19:10, 47:14, 180:18 usual [1] - 41:9 utility [4] - 27:16, 27:17, 43:20, 146:7 **Utility** [1] - 56:17 utility-scale [1] -43:20 utilize [1] - 157:20 utilized [1] - 160:11 utmost [1] - 185:17 utterly [1] - 119:22

#### V

vacuum [1] - 116:15 vagaries [2] - 28:14, 40:10 valid [2] - 54:15, 134:9 valuable [2] - 3:5, 6:24 valuation [3] - 71:3, 72:2, 73:11 value [4] - 55:15, 73:22, 74:9, 74:13 valued [1] - 91:6 values [4] - 54:5, 60:5, 113:19, 140:16 **variable** [1] - 87:3 variety [3] - 144:11, 145:12, 149:13 various [2] - 105:12, 142:18 vast [3] - 33:23, 82:15, 160:10 vastly [1] - 144:9 Vatican [2] - 42:7,

42:10 Vatican's [1] - 42:15 vehemently [3] -26:13, 26:18, 27:21 vehicles [1] - 140:19 **velocities** [1] - 24:6 Venice [1] - 100:14 **venue** [2] - 6:14, 6:15 verge [1] - 181:5 verified [1] - 99:5 vertebrates [1] - 82:16 vessel [3] - 19:12, 124:15, 127:6 vessels [12] - 18:4, 30:8, 31:4, 67:10, 71:6, 72:12, 101:12, 101:17, 101:19, 124:19, 177:17, 177:20 viability [2] - 116:9, 185:11 viable [5] - 48:12, 87:8, 117:10, 118:20, 185:12 vibration [2] - 17:16, 17:17 vice [1] - 25:13 vicinity [2] - 124:20, 126:15 Victoria [1] - 53:14 view [9] - 25:14,

25:21, 35:17, 51:24, 66:22, 121:20, 141:11, 162:11, 184:6 viewpoint [2] - 40:3, 85:9 views [15] - 3:14, 3:22, 8:17, 8:24, 44:14, 62:16, 91:6, 91:16, 151:4, 154:10, 155:2, 155:3, 155:6, 193:22, 194:6 VIGIL [2] - 142:7, 145:22

Vikings [1] - 100:13 Vineyard [14] - 15:10, 36:8, 71:19, 75:21, 82:20, 87:17, 99:20, 100:5, 127:24,

Vigil [1] - 145:24

131:12, 164:8, 169:18, 191:9, 194:4 violation [1] - 125:5

Virginia [1] - 134:24 virtually [1] - 178:14 **visibility** [1] - 24:10 visible [4] - 52:22,

91:9, 120:8, 120:16

visionary [1] - 47:20 visited [2] - 49:14, 60:19 visitor [1] - 121:6

vistas [3] - 120:2, 122:13, 153:15 visual [10] - 19:5,

19:9, 33:21, 66:16, 70:2, 154:7, 154:8, 154:21, 154:22,

Visual [1] - 66:19 visualize [2] - 183:8, 184:12

155:23

vital [4] - 82:14, 109:10, 130:24, 174:8

**voice** [1] - 6:23 voices [1] - 44:5 **VOICES** [1] - 39:3

**VOLLANS** [2] - 51:5, 51:8

Vollans [1] - 51:5 Volume [1] - 1:1 votes [1] - 106:11

# W

waged [1] - 135:7 wait [3] - 85:11, 86:21, 123:17 waiting [4] - 20:23, 39:18, 83:23, 97:22 Wales [1] - 73:5 **Wall** [1] - 181:2 walls [1] - 42:15 Wampanoag [1] -100:11 Wampanoags [1] -175:6 wants [3] - 53:22, 181:23, 194:9 warmer [1] - 89:21 warming [14] - 40:21, 41:17, 45:5, 45:6, 45:11, 45:12, 48:20, 61:18, 89:22, 91:21, 107:18, 108:21, 110:11, 162:4 warn [1] - 37:8 warriors [1] - 166:21 wars [1] - 135:7 washed [2] - 135:20, 137:8 WASSERMAN [1] -42:20 Wasserman [1] -

42:21

Waste [1] - 23:5

water [52] - 15:14, 15:24, 23:14, 31:2, 33:16, 33:22, 34:2, 34:18, 34:20, 38:14, 49:12, 55:18, 68:20, 75:14, 75:19, 76:2, 76:9, 76:15, 76:16, 76:18, 76:19, 77:22, 82:13, 82:19, 82:20, 83:2, 83:4, 83:6, 90:15, 95:23, 104:19, 112:13, 117:7, 129:5, 132:15, 132:17, 137:15, 137:19, 138:13, 141:9, 162:2, 165:21, 166:16, 167:13, 168:2, 168:14, 168:24, 185:13, 191:5 Water [1] - 185:14

water's [1] - 104:22 waters [13] - 11:6, 11:7, 32:21, 39:18, 48:21, 52:21, 81:4, 92:13, 127:2, 132:3, 143:7, 165:14, 167:18

waterway [4] - 176:22, 176:23, 185:8, 185:12

waterways [2] - 88:19, 172:5 watt [1] - 29:11

**WATTLEY** [1] - 116:23 Wattley [1] - 116:24 wave [3] - 11:9, 15:24,

24:8 waves [1] - 94:4

waving [1] - 140:2 Wayne [2] - 30:15, 176:16

ways [2] - 6:22, 12:5 wealth [1] - 36:23

weary [1] - 161:4 weather [4] - 31:5,

81:5, 144:24, 168:22 website [1] - 99:4

Week [1] - 137:23 week [1] - 139:20

week's [1] - 46:20 weekend [1] - 166:21

weeks [1] - 159:4 weighing [1] - 44:7 weight [1] - 76:10

Welcome [1] - 22:14 welcome [3] - 2:10, 14:8, 22:16

welfare [1] - 74:6 well-known [2] - 91:3, 163:9

well-oiled [1] - 82:12 West [1] - 134:24 west [1] - 192:2

Westinghouse [1] -163:12 wetland [1] - 40:3

whack [2] - 143:17, 145:3

whale [1] - 125:20 whalers [1] - 175:6 whales [8] - 124:17, 124:20, 126:4, 126:5, 126:6, 126:17, 136:9, 144:11

whaling [2] - 69:23, 100:15

Whaling [1] - 173:19 what-ifs [1] - 64:11 WHEATLEY [1] -

56:11 Wheatley [1] - 56:12 **whichever** [1] - 104:9 whirling [1] - 94:20 white [2] - 135:24,

141:8

White [1] - 175:24 Whitey [4] - 21:24, 22:15, 26:6, 172:12 whole [15] - 11:24, 17:9, 43:9, 44:15, 46:2, 61:4, 67:23, 69:14, 113:8, 137:11, 143:5, 147:14, 170:4,

173:21, 193:8 wholesale [3] - 114:9, 117:19, 117:20

wide [4] - 63:18, 91:6,

145:12, 149:12 wife [1] - 171:6 wild [1] - 94:16 wildlife [2] - 40:17,

124:10 Willauer [3] - 21:24, 22:15, 172:12

**WILLAUER** [1] - 22:14 William [1] - 160:21 willing [1] - 111:5 WIND [1] - 1:6 wind [184] - 11:9, 16:4,

16:5, 19:13, 23:2, 24:5, 27:12, 28:8, 30:16, 31:6, 31:21, 33:15, 33:24, 34:20, 35:13, 36:11, 37:19,

37:23, 38:9, 38:14, 39:23, 40:5, 40:15, 42:16, 42:24, 44:18, 45:8, 45:13, 45:22, 46:5, 46:14, 47:2, 48:21, 48:23, 49:5, 49:10, 49:14, 49:17, 49:21, 50:11, 51:24, 52:8, 52:9, 52:18, 55:11, 59:15, 59:17, 59:20, 60:3, 60:16, 60:20, 63:10, 63:19, 67:7, 68:3, 68:6, 68:17, 68:20, 69:8, 69:14, 69:19, 69:20, 70:2, 70:4, 70:6, 72:16, 72:17, 72:20, 73:3, 73:8, 73:14, 73:20, 73:24, 74:3, 74:10, 74:16, 75:4, 75:14, 75:19, 76:2, 76:15, 76:16, 77:19, 84:5, 84:11, 84:22, 90:8, 90:15, 91:9, 91:21, 92:7, 92:13, 92:24, 94:14, 94:20, 95:22, 98:7, 98:16, 98:17, 98:19, 98:20, 98:23, 99:3, 99:11, 99:13, 99:20, 101:8, 102:13, 102:21, 103:5, 103:14, 104:24, 105:4, 105:6, 105:23, 106:12, 111:9, 111:16, 111:19, 114:14, 114:16, 114:18, 115:8, 115:12, 115:19, 116:3, 117:15, 119:17, 120:9, 120:12, 120:17, 120:22, 121:15, 126:2, 126:4, 126:21, 129:21, 130:10, 130:13, 132:16, 133:23, 134:12, 134:15, 138:18, 138:19, 138:21, 138:23, 149:22, 150:7, 150:13, 152:17, 152:24, 155:8, 160:4, 162:11, 162:13, 163:6, 163:7, 163:20, 164:20, 168:7, 172:12, 173:2, 174:11, 177:18, 177:22, 178:19,

179:4, 179:8, 180:16, 181:15, 183:17, 183:19, 185:16, 185:24, 186:17, 186:18, 186:19, 186:24, 187:3, 187:9, 188:3, 192:3, 192:4 Wind [111] - 2:21, 11:15, 14:12, 14:15, 22:19, 25:11, 26:7, 29:6, 33:3, 33:6, 33:11, 34:7, 34:22, 43:6, 43:21, 44:9, 47:9, 48:9, 49:22, 50:17, 51:2, 51:9, 51:19, 52:5, 56:21, 59:3, 64:4, 64:13, 65:10, 66:13, 67:14, 70:15, 73:4, 73:13, 80:13, 81:6, 89:12, 93:10, 93:11, 95:13, 98:21, 99:4, 99:24, 100:18, 100:24, 101:22, 102:4, 102:11, 103:2, 104:12, 105:24, 106:3, 106:13, 111:9, 111:22, 114:5, 115:21, 116:4, 116:17, 117:5, 117:9, 117:21, 117:24, 118:19, 119:6, 119:7, 121:14, 121:23, 123:5, 124:10, 125:8, 125:15, 125:17, 126:8, 131:4, 134:9, 135:10, 135:11, 140:14, 141:15, 146:23, 149:2, 149:4, 149:20, 149:23, 150:4, 150:8, 150:13, 151:6, 153:8, 154:7, 154:22, 161:7, 161:16, 162:3, 162:10, 164:21, 173:5, 176:23, 177:7, 177:8, 181:11, 185:15, 185:17, 186:2, 186:13, 186:16, 186:21, 187:18, 188:17 Wind's [9] - 34:17, 71:23, 102:7, 118:7, 148:16, 177:12,

177:14, 177:16,

178:6 wind-generated [2] -99:11, 102:13 windings [2] - 104:3, 105:18 windmills [7] - 55:7, 159:7, 163:16, 164:3, 166:5, 166:17, 191:15 windows [1] - 45:16 winds [5] - 33:17, 83:12, 166:7, 166:20, 191:24 windstop.org [1] -78:15 winning [1] - 111:19 winter [3] - 35:11, 79:19, 192:3 winters [4] - 31:15, 89:20, 90:2 wish [3] - 93:8, 170:5, 186:3 woe [1] - 140:5 women's [1] - 4:22 wonder [2] - 32:20, 87:7 wonderful [2] - 25:23, 62:15 wooden [1] - 39:12 Woods [2] - 39:19, 44:24 word [1] - 189:18 words [1] - 54:3 works [1] - 108:4 workshop [1] - 110:4 world [24] - 23:16, 28:23, 37:16, 37:18, 41:19, 46:17, 47:14, 51:3, 59:4, 62:17, 64:18, 72:16, 89:23, 97:15, 108:23, 115:18, 131:10, 136:4, 136:6, 136:16, 157:23, 162:6, 188:2, 189:2 world's [4] - 41:3, 42:6, 75:3, 110:18 world-renowned [1] -131:10 worried [2] - 133:21, 143:5 worries [1] - 46:5 worry [4] - 37:5, 37:6, 60:21, 176:4 worrying [1] - 44:12 worse [1] - 52:13 worth [1] - 100:18 **wow** [1] - 87:6 wreak [1] - 110:15

write [1] - 21:14 writing [2] - 11:23, 87:5 written [2] - 6:22, 53:9 wrought [1] - 120:19

## X

XVI[1] - 42:5

#### Υ

Yacht [1] - 120:7 yard [1] - 52:15 Yarmouth [2] - 2:12, 30:13 year [28] - 24:7, 27:5, 27:24, 34:15, 39:11, 42:5, 44:23, 51:10, 53:14, 59:19, 79:19, 80:9, 81:4, 99:14, 101:24, 111:15, 115:10, 118:23, 127:19, 131:16, 137:10, 142:21, 146:15, 171:7, 175:8, 186:11 year-long [1] - 111:15 year-round [5] -53:14, 137:10, 142:21, 171:7, 186:11 yearly [1] - 93:22 years [78] - 28:2, 32:19, 32:20, 36:19, 38:9, 39:2, 39:8, 42:23, 44:8, 47:9, 50:14, 56:13, 61:22, 63:9, 63:20, 70:12, 76:3, 77:7, 80:13, 81:18, 82:7, 87:4, 88:5. 89:3. 89:4. 90:23, 92:8, 93:23, 96:23, 98:18, 107:15, 116:6, 118:21, 119:20, 128:14, 133:18, 135:21, 136:18, 136:19, 137:10, 138:5, 139:17, 142:20, 146:3, 149:8, 153:5, 157:10, 159:13, 161:3, 161:5, 161:14, 163:3, 163:11, 163:12, 167:12, 168:12, 171:8, 172:24, 173:2, 174:11, 176:18, 177:6,

177:8, 178:10, 180:8, 182:4, 182:6, 182:8, 183:23, 184:2, 184:21, 186:11, 189:20, 190:6, 190:21, 193:12 yell [1] - 142:14 yellow [2] - 9:16, 139:22 Yellowstone [2] -111:21, 153:9 yesterday [2] - 75:11, 97:13 Yesterday [1] - 75:16 York [2] - 40:24, 107:7 Yosemite [1] - 111:21 young [2] - 128:6, 128:10 yourself [1] - 8:11 yourselves [1] -

# Ζ

143:20

Zack [1] - 146:15
zag [1] - 138:20
zealous [1] - 107:3
zero [1] - 48:14
zig [1] - 138:20
zone [3] - 90:12,
101:17, 163:17
zones [1] - 50:3
Zoning [1] - 51:11
zooplankton [1] 82:15