

#### New Jersey Shore Opinions About Off-Shore Wind Turbines

#### Background and Objectives

The State of New Jersey is considering the use of off shore Wind Turbines to provide energy through clean, renewable and locally generated sources.

Given the economic importance of tourism at the New Jersey shore, a research study was conducted to measure the opinions of people who live in shore communities (residents) and those who visit the shore (tourists) concerning the placement of Wind Turbines on the New Jersey coastline.

#### <u>Method</u>

A total of 4,026 personal interviews were conducted with adults, 18 years of age or older, in selected shore locations in Monmouth, Ocean, Atlantic and Cape May counties. About 1,000 interviews were conducted in each county.

People were each given a brief description of the potential wind turbine project, along with two pictures of what these wind turbine farms would look like if they were looking out from the shore to the ocean. One picture represented the view on a clear day and the other on a hazy day.

Four different picture representations were included in the research in order to measure people's reactions if the wind turbines were placed at four different distances from the shore—including 3 miles, 6 miles, 12 miles and 20 miles off shore. Each respondent was shown only one set of pictures representing one distance along with the description.

All interviewing for this investigation was conducted from late July to early August of 2006.



#### Summary of Findings

#### Overall, people are in favor of the Wind Turbine project.

 By a margin of better than 2 to 1, people report they are in favor of the Wind Turbine project (47%), as compared to opposed to the project (21%) and this is the case among residents and visitors to the New Jersey Shore.

# The distance that the Wind Turbines are to be located off shore is an important factor in determining the number of people in favor of this project.

- At 3 miles out, the difference between those in favor of the project (38%) versus opposed to the project (28%) is narrow, but favorability toward the project grows at 6 miles (42% in favor versus 25% opposed), 12 miles (51% in favor versus 16% opposed) and at 20 miles (57% in favor versus 14% opposed).
- The increase in the number of people who feel favorable toward this project as distance from the shore increases is true for respondents interviewed in each of the four counties.

# The degree to which people are familiar with the Wind Turbine concept of capturing wind to produce electricity, the more likely they are to be in favor of the New Jersey project.

• While about one-fourth (24%) of respondents claim to be highly familiar with the Wind Turbine concept—an above average number (29%) of those in favor of the project have a high degree of familiarity with the concept.



The vast majority of people (87%) associate a benefit with the Wind Turbine project but the esthetic aspect of the turbines is also at issue (especially closer to shore).

- Respondent's volunteered that the project would provide low cost or cheaper electricity (24%), and be a clean source of energy (15%) and less pollution/clean air (12%).
- Two-thirds of respondent's (66%) did associate a disadvantage with the Wind Turbine project. The major disadvantage cited is that it would be ugly, or an eye sore (20%). However, as Wind Turbines are located farther from shore, the perceived disadvantages diminish.

Among people who are visiting the New Jersey Shore, the vast majority indicate the location of Wind Turbines off the shore would not have an impact on future visits.

 Nearly three-fourths of visitors (72%) report that they are neither more or less likely to visit the shore for vacations or day trips if Wind Turbines were located off the New Jersey Shore. About an equal number of people report they would be more likely (14%) versus less likely (12%) to visit.

# New Jersey Shore Opinion Study About Off Shore Wind Turbines

Prepared for:

#### New Jersey Commerce, Economic Growth & Tourism Commission and Brushfire, Inc.

September 14, 2006

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# **Background and Objectives**

- The state of New Jersey is considering the use of off shore Wind Turbines to provide energy through clean, renewable, locally generated sources.
- The tourism industry in New Jersey is a vital part of the state's economy, particularly the shore communities.
- At issue in this research is the potential impact of an expanded Wind Turbine program on two shore audiences:
  - □ Tourists
  - Residents



# Methodology

- Interviewing was conducted in-person via intercepts at selected shore locations in Monmouth, Ocean, Atlantic and Cape May counties
   a list of 20 interviewing locations in these counties is appended to this report
- 4,026 total interviews were conducted from July 20 through August 9, 2006
- Eligible respondents for this research were:
  - □ U.S. residents
  - □ 18 years of age or older
  - Not employed in tourism related industries, as seasonal business employees, by the state of New Jersey, by a public utility or by an environmental organization



# **Stimulus**

- Respondents were read a description and shown pictures\* representing the Wind Turbine project at <u>one</u> of four distances from the shore
  - □ Description:
    - "Consideration is being given to the use of wind farms with Wind Turbines that will be located X miles off the coast of the New Jersey Shore as part of a program designed to provide electricity through clean, renewable and locally generated sources."
  - □ Distances from the shore used for the monadic design were:
    - 3 miles
    - 6 miles
    - 12 miles
    - 20 miles

\*Each distance was represented by a set of 2 pictures showing the Wind Turbines under clear and hazy conditions.



# Sampling

- The 4,026 interviews were conducted based on a balanced sampling design across the four counties and four distances
  - □ Approximately 1,000 interviews (250 per cell) were conducted for each county and for each distance as shown below.\*

	Wind Turbine Distance from NJ Shore									
	<u>3 miles</u>	3 miles 6 miles 12 miles 20 miles Total								
Monmouth	250	250 250 251 259 1,0 <sup>-</sup>								
Ocean	255 265 263 229 1,01									
Atlantic	238	244	246	255	983					
Cape May	<u>252</u>	<u>261</u>	<u>254</u>	<u>254</u>	1,021					
Total	995	1,020	1,014	997	4,026					

\* The variation in the number of Interviews completed for counties and distances is not statistically different (i.e., 983 interviews in Atlantic County is not statistically different from the 1,021 for Cape May).



# Conclusions

- New Jersey Shore audiences both residents and visitors -- are more in favor of the New Jersey Off Shore Wind Turbine project than opposed to it.
  - □ Overall, 47% are in favor, 21% are opposed, 32% neither favor or oppose Wind Turbines
  - Favorability is highest in Monmouth County (58% favor) and lowest in Atlantic County (36% favor).
  - □ For Ocean and Cape May counties, 49% and 45% favor, respectively.
- Distance from shore is the key variable related to being favorably disposed to the Wind Turbine project.
  - □ As the Wind Turbine's distance from the shore increases, so does favorability toward the project. This is especially true in Atlantic County.
  - The major disadvantage associated with the project (i.e., being ugly / an eye sore) also diminishes as Wind Turbines are placed farther from shore.
- The large majority of visitors to the New Jersey Shore (72%) would <u>not</u> change their future plans for vacations / day trips if Wind Turbines were located off shore.
  - □ As distance from the shore increases, those less likely to return to the NJ Shore for future visits declines.
- Being familiar with Wind Turbines is associated with a greater acceptance of the proposed New Jersey project.
  - □ Therefore, information could increase acceptance of the program.

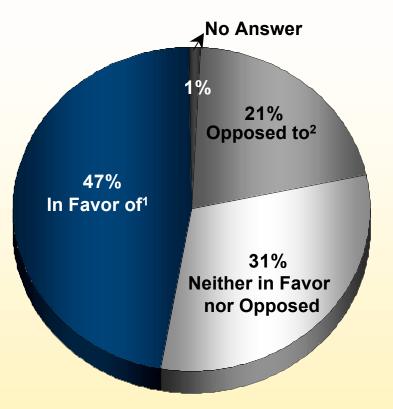


# **Detailed Findings**



## **Reactions Toward Wind Turbines** Total Sample (N=4,026)

 Nearly half are in favor of the New Jersey Off Shore Wind Turbine Project, representing a ratio of better than 2 to 1 (in favor of vs. opposed to).



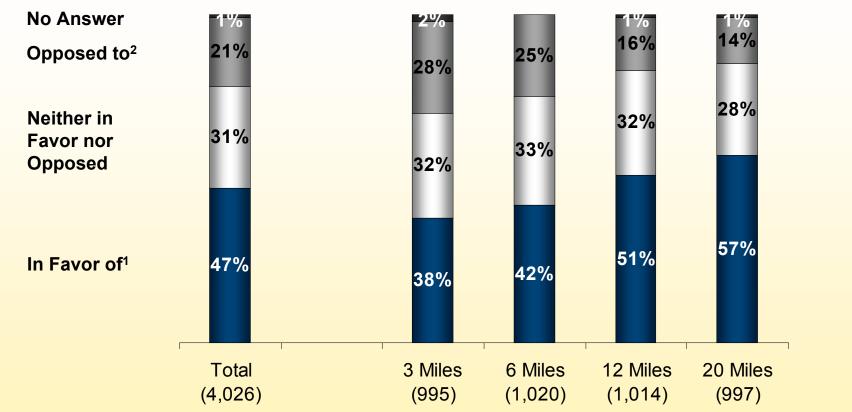
Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

<sup>1</sup>Defined as a ranking of 4 or 5 out of 5. <sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



### **Reactions Toward Wind Turbines** By Distance of Wind Turbines from Shore

 As the Wind Turbines are located further from the shore opposition diminishes and favorability increases.



Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

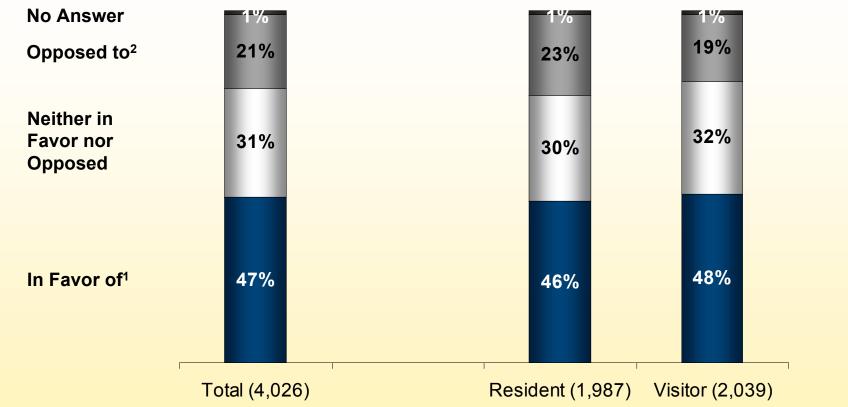
<sup>1</sup>Defined as a ranking of 4 or 5 out of 5.

<sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



## **Reactions Toward Wind Turbines** By Residents vs. Visitors

Residents' and visitors' reactions to Wind Turbines are fairly equal.



Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

<sup>1</sup>Defined as a ranking of 4 or 5 out of 5. <sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



# **Reactions Toward Wind Turbines**

#### By Residents vs. Visitors (Distances of Wind Turbines from Shore)

 Both residents and visitors reactions to the Wind Turbine Project become more favorable as the distance from shore increases.

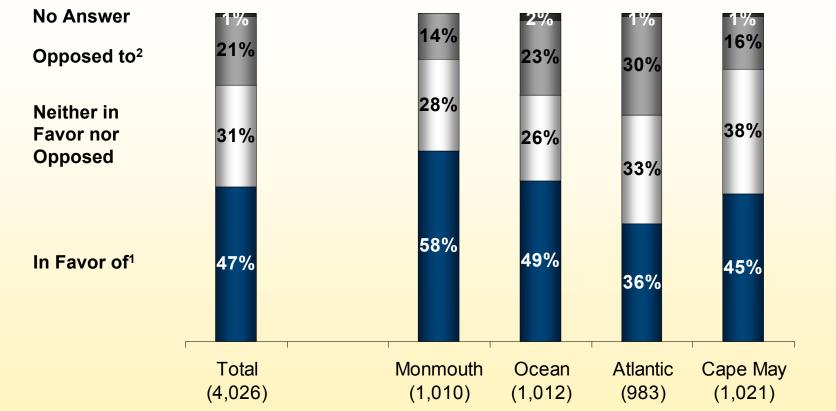
	Completely in Favor	<		$\rightarrow$	Completely Opposed	
	5 %	<u>4</u> %	<u>3</u> %	<u>2</u> %	<u>1</u> %	<u>No Answer</u> %
Total	25 -> 47 <	22	31	11	→ 21 ← 10	1
Residents	26 <b>→ 46 ←</b>	20	30	11	<b>→ 23 ←</b> 12	1
3 miles	21 -> 38 -	17	28	15	<b>→ 33 ←</b> 18	1
6 miles	23 🄶 41 🗲	18	32	14	<b>→ 27 ←</b> 13	-
12 miles	27 —> 51 ←	24	30	9	<b>→ 18 ←</b> 9	1
20 miles	32 <b>—&gt; 55 </b> ←	23	30	7	→ 14 ← 7	1
Visitors	24 -> 48 🔶	24	32	10	<b>→ 19 ←</b> 9	1
3 miles	19 🔶 <b>38 </b> ←	19	36	13	<b>→ 25 ←</b> 12	1
6 miles	22 <b>→ 44 ←</b>	22	33	12	→ 22 ← 10	1
12 miles	25 -> 51	26	33	8	→ 14 ← 6	2
20 miles	31 -> <b>59</b>	28	26	7	→ 14 <b>←</b> 7	1

Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.



## **Reactions Toward Wind Turbines** By County

 Monmouth county respondents are most in favor of Wind Turbines while Atlantic is least in favor.



Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

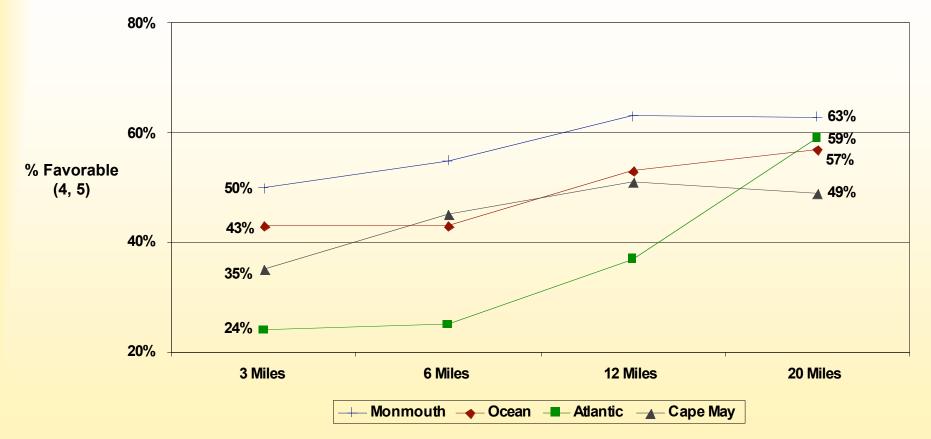
<sup>1</sup>Defined as a ranking of 4 or 5 out of 5.

<sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



## **Favorability Toward Wind Turbines** By County (Distances of Wind Turbines from Shore)

In all counties, favorability toward the Wind Turbine Project increases as the distance from shore increases. This is most dramatic among respondents in Atlantic County.



Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.



#### Impact of Prior Familiarity with Wind Turbine Project on Favorability Toward the NJ Project

 Those who report being highly familiar with Wind Turbines prior to exposure to the New Jersey Project are the most apt to being in favor of the proposed project.

	<u>Total</u>	Neither in Favor In Favor of <sup>1</sup> nor Opposed Opposed 1					
	%	%	%	%			
Among Those Aware of Wind Turbines							
High familiarity (4, 5)	24	29	17	20			
Moderate familiarity (3)	37	37	39	33			
Low familiarity (1, 2)	39	34	43	47			

Q.1 Have you ever heard about producing electricity through the use of Wind Turbines either on or off shore? Wind Turbines are windmill-like structures that capture wind to produce electricity for your home or business.

Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

<sup>1</sup>Defined as a ranking of 4 or 5 out of 5. <sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



#### Impact of Prior Familiarity with Wind Turbine Project on Favorability Toward the NJ Project

 Being favorable toward wind turbines dovetails with having prior familiarity with this concept in all counties -- although this is least apt to be the case in Monmouth.

		Neither in Favor				
	<u>Total</u>	<u>In Favor of<sup>1</sup></u>	<u>nor Opposed</u>	Opposed to <sup>2</sup>		
	%	%	%	%		
Among Those Aware of Wind Turbines						
<u>Monmouth</u>						
High familiarity (4, 5)	24	26	18	23		
Moderate familiarity (3)	36	37	32	32		
Low familiarity (1, 2)	40	37	50	45		
<u>Ocean</u>						
High familiarity (4, 5)	29	34	21	24		
Moderate familiarity (3)	38	39	39	26		
Low familiarity (1, 2)	33	27	40	50		
<u>Atlantic</u>						
High familiarity (4, 5)	26	32	21	21		
Moderate familiarity (3)	44	41	49	42		
Low familiarity (1, 2)	30	27	30	37		
Cape May						
High familiarity (4, 5)	19	25	9	5		
Moderate familiarity (3)	33	32	39	22		
Low familiarity (1, 2)	48	43	52	73		

Q.1 Have you ever heard about producing electricity through the use of Wind Turbines either on or off shore? Wind Turbines are windmill-like structures that capture wind to produce electricity for your home or business.

Q.4 Based on this information, please rate your favorability toward the Wind Turbine project using a scale from 1 to 5 where 1 means you are "completely opposed" to this idea and 5 means you are "completely in favor" of this idea. Use any number from 1 to 5.

<sup>1</sup>Defined as a ranking of 4 or 5 out of 5. <sup>2</sup>Defined as a ranking of 1 or 2 out of 5.



### **Perceived Benefits of the Wind Turbine Project**

 Nearly 9 in 10 people interviewed volunteered a benefit they would associate with this project – most revolving around environmental benefits (clean, less pollution) and being less costly.

Selected Mentions					
	Total				
Base: Total Respondents	(4,026)				
	%				
Mentioned a Benefit	87				
Environmental Issues (Net)	<u>40</u>				
Clean source of energy	15				
Less pollution / clean air	12				
Good / better for the environment	10				
Conserves energy	4				
Energy Source (Net)	<u>33</u>				
Good source of energy	10				
Renewable source of energy	6				
Alternative source of energy	4				
<u>Cost (Net)</u>	<u>28</u>				
Low cost / cheaper electricity	24				
Saves money	4				
<u>Not Fossil Fuel (Net)</u>	<u>7</u>				
Reduces dependence	6				
Not fossil fuel	2				
Nothing / Don't know / No answer	13				

Q.5 What **benefits**, if any, do you think there might be with what you just read and looked at?



#### **Perceived Benefits of the Wind Turbine Project** By County

 Those interviewed in each of the counties do not differ in any marked way as far as perceived benefits of the Wind Turbine Project.

Selected Mentions								
	<u>Total</u>	<u>Monmouth</u>	<u>Ocean</u>	<u>Atlantic</u>	Cape May			
Base: Total Respondents	(4,026)	(1,010)	(1,012)	(983)	(1,021)			
	%	%	%	%	%			
Mentioned a Benefit	87	89	85	83	91			
Environmental Issues (Net)	<u>40</u>	<u>44</u>	<u>40</u>	<u>35</u>	<u>39</u>			
Clean source of energy	15	16	16	16	12			
Less pollution / clean air	12	12	12	12	14			
Good / better for the environment	10	11	10	8	9			
Conserves energy	4	6	4	1	7			
Energy Source (Net)	<u>33</u>	<u>36</u>	<u>34</u>	<u>29</u> 7	<u>31</u>			
Good source of energy	10	12	10	7	11			
Renewable source of energy	6	5	7	6	7			
Alternative source of energy	4	6	4	4	4			
<u>Cost (Net)</u>	<u>28</u>	<u>25</u>	<u>29</u>	<u>32</u>	<u>24</u>			
Low cost / cheaper electricity	24	22	25	28	21			
Saves money	4	3	5	4	4			
<u>Not Fossil Fuel (Net)</u>	<u>7</u>	<u>12</u> 9	<u>6</u> 5	<u>4</u> 3	<u>7</u> 6			
Reduces dependence	6		5	3				
Not fossil fuel	2	3	1	1	2			
Nothing / Don't know / No answer	13	11	15	17	9			

Q.5 What benefits, if any, do you think there might be with what you just read and looked at?



#### **Perceived Disadvantages of the Wind Turbine Project**

 Disadvantages associated with this Wind Turbine Project are mostly related to what they look like, followed by environmental issues and their perceived costs.

Select Mentions						
Base: Total Respondents	<u>Total</u> (4,026)					
	%					
Mentioned a Disadvantage	66					
Esthetics (Net)	<u>32</u>					
Ugly / eye sore	20					
Obstructs ocean view	12					
Environmental Issues (Net)	<u>13</u>					
Harmful to marine / wildlife	10					
Harmful to environment	2					
<u>Cost (net)</u>	<u>11</u>					
Cost of construction	10					
Higher taxes	1					
Disruptive (Net)	<u>8</u> 7					
Interferes with boats / water traffic	7					
Interferes with swimmers	1					
Too close to shore	6					
Nothing / Don't know / No answer	34					

Q.6 What disadvantages, if any, do you think there might be with what you just read and looked at?



#### **Perceived Disadvantages of the Wind Turbine Project** By Distance of Wind Turbines from Shore

 The esthetic problems associated with the Wind Turbine Project diminish as the distance from shore increases.

Selected Mentions								
	<u>Total</u>	<u>3 Miles</u>	<u>6 Miles</u>	<u>12 Miles</u>	20 Miles			
Base: Total Respondents	(4,026)	(995)	(1,020)	(1,014)	(997)			
	%	%	%	%	%			
Mentioned a Disadvantage	66	75	68	64	59			
Ugly / eye sore	20	29	23	17	12			
Obstructs ocean view	12	16	14	12	8			
Harmful to marine / wildlife	10	7	10	11	11			
Cost of construction	10	8	9	12	12			
Nothing / Don't know / No answer	34	25	32	36	41			

Q.6 What disadvantages, if any, do you think there might be with what you just read and looked at?



#### **Perceived Disadvantages of the Wind Turbine Project** By County

 Respondents interviewed in Cape May County are the least likely to feel that there would be disadvantages associated with this project.

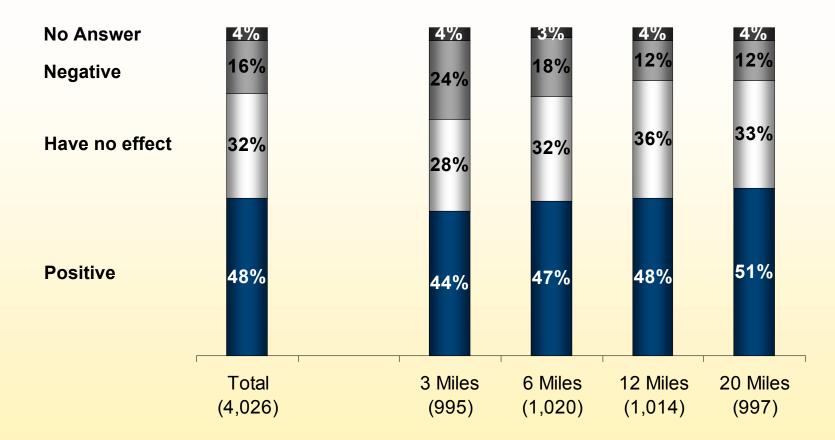
Select Mentions							
	<u>Total</u>	<u>Monmouth</u>	<u>Ocean</u>	<b>Atlantic</b>	Cape May		
Base: Total Respondents	(4,026)	(1,010)	(1,012)	(983)	(1,021)		
	%	%	%	%	%		
Mentioned a Disadvantage	66	70	71	67	58		
Esthetics (Net)	<u>32</u>	<u>38</u>	<u>42</u>	<u>32</u>	<u>16</u>		
Ugly / eye sore	20	22	26	24	9		
Obstructs ocean view	12	16	17	9	8		
Environmental Issues (Net)	<u>13</u>	<u>14</u>	<u>14</u>	<u>9</u> 8	<u>14</u>		
Harmful to marine / wildlife	10	10	11	8	11		
Harmful to environment	2	4	2	1	3		
Cost (net)	<u>11</u>	<u>13</u>	<u>11</u>	<u>14</u>	<u>9</u> 8		
Cost of construction	10	11	10	12	8		
Higher taxes	1	1	1	1	2		
Disruptive (Net)	<u>8</u>	<u>9</u>	<u>6</u> 5	<u>6</u> 5	<u>9</u> 8		
Interferes with boats / water traffic	7	9	5	5	8		
Interferes with swimmers	1	1	1	1	1		
Too close to shore	6	3	4	9	7		
Nothing / Don't know / No answer	34	30	29	33	42		

Q.6 What disadvantages, if any, do you think there might be with what you just read and looked at?



#### Impact of Wind Turbines on NJ Shore Environment By Distance of Wind Turbines from Shore

 Only a minority believe Wind Turbines will have a negative impact and this fades as the Wind Turbines are placed farther from shore.



Q.7 How do you think Wind Turbines would affect the New Jersey Shore environment? What do you think their overall affect on the environment would be?



# Likelihood to Visit NJ Shore if Wind Turbines Located Off NJ Shore Visitors (N=2,039)

 Most Visitors would be neither deterred nor encouraged to visit the NJ Shore in the future if Wind Turbines were located off shore.



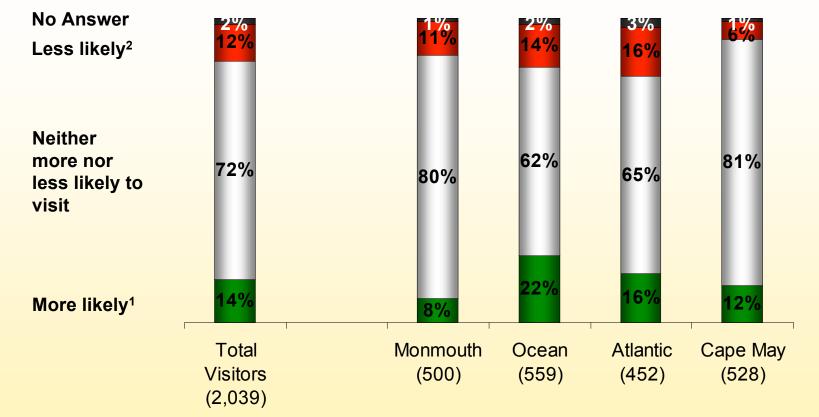
Q.9 If Wind Turbines were located off the New Jersey Shore, please tell me how likely you would be to visit the New Jersey Shore in the future for vacations or day trips? Would you be...?

<sup>1</sup>Defined as a answering a lot more likely / a little more likely. <sup>2</sup>Defined as a answering a little less likely / a lot less likely.



#### Likelihood to Visit NJ Shore if Wind Turbines Located Off NJ Shore By County

The majority of respondents in all counties report that the Wind Turbine Project would not have an impact on future visits to the shore.



Q.9 If Wind Turbines were located off the New Jersey Shore, please tell me how likely you would be to visit the New Jersey Shore in the future for vacations or day trips? Would you be...?

<sup>1</sup>Defined as a answering a lot more likely / a little more likely.

<sup>2</sup>Defined as a answering a little less likely / a lot less likely.



#### Likelihood to Visit NJ Shore if Wind Turbines Located Off NJ Shore By County (Distances of Wind Turbines from Shore)

 In Atlantic and Ocean Counties (where the percent of people less likely to visit the New Jersey Shore in the future is highest), going from 3 to 6 miles out cuts this response by half.

		Neither more nor		
	More likely <sup>1</sup>	less likely to visit	Less likely <sup>2</sup>	No Answer
	%	%	%	%
County				
<u>Monmouth</u>				
3 miles	10	77	12	1
6 miles	8	83	8	1
12 miles	6	80	13	1
20 miles	7	81	12	-
<u>Ocean</u>				
3 miles	20	57	20	3
6 miles	22	64	11	3
12 miles	24	60	14	2
20 miles	21	67	11	1
Atlantic				
3 miles	16	50	30	4
6 miles	16	67	15	2
12 miles	14	73	9	4
20 miles	19	68	12	1
<u>Cape May</u>				
3 miles	12	75	12	1
6 miles	12	84	3	1
12 miles	9	84	3 7	I
				-
20 miles	14	83	3	-

Q.9 If Wind Turbines were located off the New Jersey Shore, please tell me how likely you would be to visit the New Jersey Shore in the future for vacations or day trips? Would you be...?

<sup>1</sup>Defined as a answering a lot more likely / a little more likely.

<sup>2</sup>Defined as a answering a little less likely / a lot less likely.



#### Affect of Wind Turbines on Ability to Rent Property Residents (N=1,987)

 The locating of Wind Turbines off shore is not viewed as having an impact on people's ability to rent properties.

Base: NJ Shore Residents	<u>Total</u> (1,987) %	<u>3 Miles</u> (487) %	<u>6 Miles</u> (503) %	<u>12 Miles</u> (507) %	20 Miles (490) %
Rent Property	10	10	10	10	9
Wind Turbines would make renting property					
Easier	1	1	1	-	1
More Difficult	2	3	2	2	2
Have no Impact	6	6	6	7	6
No Answer	1	-	1	1	-
Don't Rent Property	88	86	90	87	89
No Answer	2	4	-	3	2

Q.12 Do you rent out your property or properties on the New Jersey Shore?

Q.13 If Wind Turbines were located off the New Jersey Shore, how would this influence your ability to rent your property or properties in the future? Would it make it...?





# **Reactions Toward Wind Turbines**

	Completely in Favor			Comple		
			3		· · ·	No Answer
	<u>5</u> %	<u>4</u> %	<u>3</u> %	<u>2</u> %	<u>1</u> %	%
Total	25	22	31	11	10	1
Distances from Shore	9					
3 miles	20	18	32	13	15	2
6 miles	22	20	33	13	12	-
12 miles	26	25	32		7	1
20 miles	31	26	28	9 7	7	1
Gender						
Male	26	22	30	10	11	1
Female	24	23	33	11	9	-
Age						
18-24	28	24	27	9	11	1
25-34	25	23	30	11	10	1
35-44	23	24	32	9	11	1
45-54	25	20	32	10	11	2
55-64	24	22	31	13	9	1
65 or over	25	19	34	11	10	1
Resident	26	20	30	11	12	1
Visitor	24	24	32	10	9	1
County						
Monmouth	33	25	28	8	6	-
Ocean	28	21	26	9	14	2
Atlantic	16	20	33	14	16	1
Cape May	23	22	38	11	5	1



## **Demographic Profile of Survey Respondents**

	Total	3 Miles	6 Miles	12 Miles	20 Miles
	(4,026)	(995)	(1,020)	(1,014)	(997)
	%	%	%	%	%
Gender					
Female	52	50	53	53	53
Male	48	50	47	47	47
Age					
18-24	16	16	17	16	15
25-34	14	14	15	12	14
35-44	20	19	19	20	21
45-54	22	22	22	22	22
55-64	16	17	15	17	16
65 or over	12	12	12	13	12
Marital Status					
Married	53	53	54	52	54
Single	33	34	34	32	31
Widowed, separated or divorced	12	11	11	14	13
Refused / No answer	2	2	1	2	2
Education					
Some college or less	55	54	56	55	54
Completed college or more	42	41	41	42	43
Refused / No answer	3	4	3	3	3
Median Income	\$68.1K	\$70.3K	\$67.9K	\$67.1K	\$67.1K
Ethnicity					
White	84	84	83	85	83
Non white	8	8	10	8	9
Refused / No answer	8	8	7	7	8



#### **Demographic Profile of Survey Respondents** By County

	Total	<u>Monmouth</u>	<u>Ocean</u>	<u>Atlantic</u>	<u>Cape May</u>
	(4,026)	(1,010)	(1,012)	(983)	(1,021)
	%	%	%	%	%
Gender					
Female	52	52	51	47	61
Male	48	48	49	53	39
Age					
18-24	16	17	24	14	9
25-34	14	14	16	16	10
35-44	20	18	21	21	18
45-54	22	25	21	20	22
55-64	16	16	11	16	22
65 or over	12	10	7	13	19
Marital Status					
Married	53	55	40	54	65
Single	33	33	49	28	20
Widowed, separated or divorced	12	12	8	14	15
Refused / No answer	2	-	3	4	-
Education					
Some college or less	55	42	54	52	71
Completed college or more	42	58	42	43	26
Refused / No answer	3	-	4	5	3
Median Income	\$68.1K	\$85.8K	\$67.4K	\$71.2K	\$51.9K
Ethnicity					
White	84	92	74	75	94
Non white	8	6	11	12	5
Refused / No answer	8	2	15	13	1



## **Reactions Toward Wind Turbines** By County (Residents vs. Visitors)

	Completely in Favor <u>5</u> %	<b>4</b> %	<u>3</u> % 2 %	Comple	tely Opposed <u>1</u> %	<u>No Answer</u> %
Total	25 -> 47	22	31 11	→ 21	<b>←</b> 10	1
County						
Monmouth	33 —> <b>58 </b>	25	28 8	→ 14	<b>∢</b> 6	-
Residents	35 🍝 54 🗼		29 9	<b>1</b> 6	<b>∢</b> 7	1
Visitors	32 🍝 <b>62</b> 🔶	30		<b>→</b> 11		1
Ocean	28 <b>→ 49 </b>	21	26 9	→ 23	<b>←</b> 14	2
Residents	28 -> 48	20	24 9	-> 26	<ul> <li>↓ 17</li> <li>↓ 12</li> </ul>	2
Visitors	27 <b>→ 49</b> 🔶	22	28 9	<b>&gt;</b> 21	<b>←</b> 12	2
Atlantic	16	20	33 14	→ 30	<b>4</b> 16	1
Residents	16 🍝 <b>38</b> 🔾	22	30 14	→ 31	<b>→</b> 17	1
Visitors	16 🍝 <b>34</b> 🔶	18		<b>&gt;</b> 29	<b>`</b>	1
Cape May	23 <b>→ 45 </b>	22	38 11	-> 16	← 5	1
Residents	25 🄶 <b>45</b> 🔶	20	37 11	<b>1</b> 7	← 6	1
Visitors	21 🔶 <b>45</b> 🔶	24	39 11	<b>→</b> 15	← 4	1



## **Reactions Toward Wind Turbines** By County (Distances of Wind Turbines from Shore)

	Completely in Favor <u>5</u> %	<b>▲</b> <u>4</u> %	<u>3</u> %	→ 2 %	Completely Opposed $\frac{1}{\%}$	<u>No Answer</u> %
Total	25 -> 47		31		→ <b>21</b> ← 10	1
County						
Monmouth	33 —> <b>58</b> 🗲	25	28	8	<b>→ 14 ←</b> 6	-
3 miles	28 <b>-&gt; 50 &lt;</b>		32	12	<b>→ 18 →</b> 6	-
6 miles	33 -> 55 -		31	7	→ 13 ← 6	1
12 miles	35 🍝 <b>63</b> 🔶	28	25		→ 11 → 4	1
20 miles	37 🍝 <b>63</b> 🔶		24		→ 12 ← 6	1
Ocean	28 <b>→ 49 </b>	21	26	9	<b>→ 23 ←</b> 14	2
3 miles	23 <b>→ 43 ←</b>		32	-	→ 22 ← 15	3
6 miles	24 <b>→ 43</b> <del>♦</del>	19	26		<b>→ 30 →</b> 16	1
12 miles	30 🍝 <b>53</b> 🔶		24		→ 23 → 14	1
20 miles	34 🍝 57 🔶		24		<b>→ 19 →</b> 13	-
Atlantic	16 —> 36 🗲	20	33	14	<b>→ 30 ←</b> 16	1
3 miles	11 — <b>24</b>		23		<b>→ 53 →</b> 34	-
6 miles	10 🔶 25 🔶	15	36	22	<b>→ 39 →</b> 17	-
12 miles	14 🌙 37 🔶	23	46	9	→ 16 ← 7	1
20 miles	30 🔶 <b>59</b> 🔶	29	26	7	→ <b>13</b> ← 6	2
Cape May	23 <b>→ 45 </b>	22	38	11	<b>→ 16 ←</b> 5	1
3 miles	19 <b>→ 35</b>		42		<b>→</b> 22 <b>→</b> 6	1
6 miles	22 🔶 45 🔶		38		→ 17 ← 6	-
12 miles	25 🔶 <b>51</b> 🔶	26	34	10	🔶 14 🔶 4	1
20 miles	24 -> 49	25	38	8	→ 12 ← 4	1



## **Interview Locations**

- Monmouth County
  - Sea Bright
  - □ Long Branch
  - □ Belmar
  - □ Spring Lake
  - □ Manasquan
- Ocean County
  - Point Pleasant
  - □ Seaside Park
  - □ Seaside Heights
  - □ Island Beach SP
  - Beach Haven

- Atlantic County
  - □ Brigantine
  - □ Atlantic City
  - Ventnor
  - □ Margate
- Cape May County
  - Ocean City
  - □ Sea Isle City
  - □ Avalon
  - □ Wildwood
  - □ Cape May

