

Narragansett Beaches Clean Energy Survey Results



Forward

In the summer of 2009, DEM and the Town of Narragansett conducted an attitudinal survey at Roger Wheeler, Scarborough and Salty Brine State beaches along with Narragansett Town Beach. The survey was run from early July and was stopped after Labor Day. During the eight weeks of sampling, 262 people were sampled. Of that total, 155 were residents of Rhode Island. This survey will analyze those 155 survey responses.

This survey could not have been completed without the assistance of the following groups of people:

- The many beach patrons who took the time to answer the survey questions.
- The Town of Narragansett, through the efforts of the Acting Town Engineer, Diane Johnson, who provided assistance with both summer personnel at their beach and provided facility support of the DEM Intern.
- It was through the efforts of Nicholas Russell who collected the survey responses that this survey was completed. He was also responsible for the initial data analysis.
- Crystal Glass provided administrative support for data input.
- Thanks are also given to the state beach managers who provided facility support and alerted patrons the survey was being conducted.

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I. Executive Summary

The Town of Narragansett was one of the two land-based areas in Rhode Island that was identified in the RIWINDS Report that had wind speeds that would support the construction of wind turbines. Because of this, DEM conducted an attitudinal survey at Scarborough, Roger Wheeler and Narragansett Town Beach in the summer of 2009 to determine public viewpoints concerning alternative energy topics, especially wind turbines. The survey was the same used in the Town of Narragansett survey.

Some of the important findings from the survey include:

General Questions on Renewable Energy

- 97% thought moving away from fossil fuels and towards the use of clean energy was an important issue.
- 97% said they supported clean energy technology because it was good for the environment.
- 94% responded that clean energy technology was good for the environment, important in reducing foreign oil dependency and to lowering their electric bill.
- 94% were positive concerning the use of wind turbines to generate electricity.
- 89% thought that clean energy would be good for the Rhode Island economy.
- 38% would not support clean energy technology if it is too expensive or not cost-effective.
- 24% said that noise was an issue for not supporting clean energy technology.

General Views on Siting Wind Turbines in Narragansett

- 90% indicated they had seen a modern wind turbine in operation.
- 69% indicated they used the beach more than 10 times a year.
- 81% indicated the presence of a wind turbine would not make a difference in going to the beach and only 7% indicated they would be less likely to visit a beach with a visible wind turbine.
- 50% thought the wind turbines were neither attractive nor non-attractive, with 37% indicating they were at least attractive.
- 83% supported the placement of wind turbines outside of Narragansett.
- There was a support level of between 85-89% for land-based wind farms in Narragansett; wind turbine development limited to one or two structures on a parcel of land; or for three to five wind turbines being located in town.
- 83% supported wind turbines if they could **not** see them from their house, and 5% did not support the proposal.
- If the wind turbines could be seen from the house, the support dropped slightly to 78% of the responders, and 11% did not support the project.
- 89% supported wind turbines if they could **not** hear them.
- 57% supported wind turbines if they could be heard, while 24% did not support wind turbines if they could be heard.

Questions on Siting Wind Turbines at Specific Sites

There is support for all five sites in Narragansett. The range of support was from 83% to 89%, with the Scarborough Treatment Facility having the highest support and Black Point having the lowest. The opposition to the proposal varied from 5% to 10% with the Scarborough Treatment Facility having the smallest opposition (5%) and Black Point having the greatest opposition (10%).

Views on Specific Issues Concerning Wind Turbines

The survey identified the following issues where wind turbine projects in Narragansett would have a positive impact on residents:

- 89% thought the wind turbines would have a positive impact on residents from an overall view of the project.
- Creation of new jobs (79%)
- General environmental considerations (77%)
- Electricity rates (74%)
- Air pollution levels (60%)

The survey identified the following issues where wind turbine projects in Narragansett would have a negative impact on residents:

- Noise levels (24%)
- Property values (22%)
- Impact of the turbines on the landscape (17%), and
- Bird/bat life (15%)

Of the 16 categories, there were five issues that were identified by the majority of the respondents indicating wind turbines would have no impact and included the following issues: public safety (79%); use of public beaches (76%); enjoyment of property (73%); traffic at turbine sites (70%), fishing activities (65%), tourism and related businesses (56%), and affect on the landscape (53%).

Views on Ownership of Turbines

The responses indicated 55% of the people were more likely to support the project if the Town owned it and 50% supported it if the state owned the project. The support dropped to 34% if the developer owned the project.

Survey Respondent's Personal Attributes

- 52% of the responders were male and 48% female.
- 19% of the responders lived close enough to one of the five proposed sites to be able to see the turbines from their property.
- 48% were employed by others, 17% were retired, and 14% were self-employed.
- 63% were older than 45, 28% were in the age range 20 to 44.
- 22% had an average household income greater than \$100,000.
- 54% had at least a Bachelor's degree.

II. Background

The Town of Narragansett was one of the two land-based areas in Rhode Island that was identified in the RIWINDS Report that had wind speeds that would support the construction of wind turbines. Because of this, DEM conducted an attitudinal survey at Scarborough, Roger Wheeler and Narragansett Town Beach in the summer of 2009 to determine public viewpoints concerning alternative energy topics, especially wind turbines. The survey was the same used in the Town of Narragansett survey. The survey results were rounded to two significant figures. Because of this rounding, survey results may not always add up to 100%.

III. Survey Design

In March of 2009, DEM developed a draft attitudinal survey that was designed to assist DEM and the Town to understand the public sentiment concerning the siting of sources of clean green renewable energy. The survey can also be a good tool to educate the public on any issues they may have concerning renewable sources of energy. This draft survey was tested on a voluntary focus group of DEM employees during a lunch hour. Changes were made to the survey in order to clarify ambiguities that were identified by the participants. The Town was also given a copy of the survey and they provided DEM with additional comments. The survey questions were then finalized.

In order to provide the people who would be receiving the survey an idea of the size of the turbines at the locations, DEM hired a company, based on competitive bidding, to depict photo simulations of the five sites. These pictures were then incorporated into the survey and the finished product was copied. (Attachment A is a copy of the final survey that was used for this exercise.)

DEM and the Town were interested in developing a survey that would provide statistically significant results. The following assumptions were used in the development of the survey protocol. According to the referenced book, the survey will achieve a 95% confidence level and a sampling error of +/-10%.

Table 1 DEM Beach Survey Assumptions	
Assumptions *	Number
State Population:	1,000,000
Design Sampling Error:	+/- 10%
Design confidence level	95%
Population is varied, therefore sample size needed is:	96

*"How to Conduct Your Own Survey" by P. Salant and D. Dillman

IV. Survey Process

DEM hired a summer intern to conduct the surveys using a grant provided by the RI Economic Development Corporation's Renewable Energy Fund. The intern was trained in conducting surveys by practicing on DEM employees over lunch time. He also conducted surveys on people entering the DEM headquarters at 235 Promenade Street Providence. The intern was also familiarized with the State/Town Request for Proposal for siting wind turbines in Narragansett and was given material to read concerning the generation of electricity from renewable resources. June was a cold and rainy month so beach sampling began in July.

The intern developed signage and was stationed at Roger Wheeler, Scarborough and Salty Brine State beaches along with Narragansett Town Beach. The Town of Narragansett provided assistance while the intern conducted surveys at its facility. The intern was positioned at the pavilions and engaged people and asked if they would volunteer to participate in the survey. The surveys were not handed out, but people were requested to respond verbally to the questions posed by the interviewer. At the state beaches, the beach manager would often alert patrons at the beach that the survey was being conducted. The survey was stopped after Labor Day and during the eight weeks of sampling, 262 people were sampled. Of that total, 155 were residents of Rhode Island. Table 2 below is the breakdown of the cities/towns where people resided who participated in the survey. The survey results will focus only on the surveys that were from Rhode Island state residents. Based on the survey design, the results of the survey have a 95% confidence level and a sampling error of +/-10%.

Table 2 RI Survey Respondent Residence Distribution			
Town(s)	Number of Surveys	Town(s)	Number of Surveys
Narragansett	53	E. Greenwich, Pawtucket and Smithfield	5
S. Kingstown	13	N. Providence and E. Providence	4
Providence	12	Lincoln and Warwick	3
N. Kingstown	11	Burrillville, Jamestown and Woonsocket	2
Cranston	8	Bristol, Coventry, Foster, Glocester, N. Smithfield, Richmond, Smithfield, Warren and Westerly	1
Cumberland and Warwick	7		

V. Survey Description

The survey used was the same as the Narragansett mail survey with the exception that a question concerning home ownership was dropped from this survey. The survey was broken up into six categories that included:

1. A general section that queried residents on their views of renewable energy;
2. General questions concerning the siting of wind turbines in Narragansett;
3. Specific questions concerning siting of wind turbines on three state owned and two Town owned properties;
4. Questions on specific issues concerning wind turbines;
5. Questions concerning ownership of the wind turbines, and
6. Personal questions concerning educational, age, and gender.

VI. Survey Response

A. General Questions on Renewable Energy

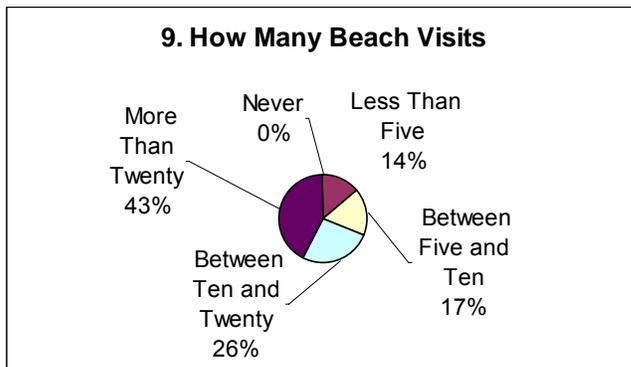
There were 12 questions that queried residents' viewpoints on renewable energy. The majority of the questions in this area required responses to questions that indicated the issues were: very important, important, neither important nor non-important, unimportant or very unimportant. There was clear support for moving away from fossil fuels and to use more clean energy. 97% of those responding thought this was at least an important issue. When asked to rate the importance of being good for the environment, reducing foreign oil dependency, and lowering electric bills, at least 94% of people responded these were key considerations. 79% thought that clean energy would be good for the Rhode Island economy.

Another question asked people about reasons for not supporting clean energy technology. 38% thought that expense was important and 24% that noise was an issue. The issue of turbines being esthetically pleasing indicated that 16% thought this was at least important and 68% thought it was not at least an important issue.

People were asked their thoughts on the state's goal to generate energy from clean renewable resources. 30% thought it was about right, 48% thought it was too low and only 5% thought it was too high. The next question queried people on their general attitudes concerning the use of wind turbines to generate electricity. At least 94% were positive and only 3% had negative views. Table 3 below is a summary of the responses.

Table 3					
General Questions on Renewable Energy					
Questions	Very Important (%)	Important (%)	Neither Important nor non-important (%)	Unimportant (%)	Very Unimportant (%)
How important do you think it is for Rhode Island to move away from fossil fuels like gas, oil and coal and use more clean energy?	82	15	2	0	1
Some people support clean energy technology. How important are the following reasons for using clean energy technology?					
a. Good for the environment.	79	18	1	1	1
b. Reduce dependency on foreign oil	77	17	1	4	1
c. Lower electric bills	62	26	11	0	1
d. Good for Rhode Island's economy	64	25	9	1	1
How important are the following reasons for not supporting clean energy technology?					
a. They are too expensive and not cost-effective.	33	5	20	31	11
b. They are too noisy	8	16	19	42	15
c. They are not esthetically pleasing	7	9	16	42	26

B. General Views on Siting Wind Turbines in Narragansett



The next series of questions dealt with the impact of wind turbines on beach use and placement of turbines in unspecified locations in Narragansett. 90% of the respondents indicated they had seen a modern wind turbine in operation. The survey tried to determine the frequency of beach use by respondents. The chart to the left summarizes the responses to that question. As is indicated, 69% indicated they used the beach more than 10 times a

year.

When asked if the presence of a wind turbine that could be seen from the beach would have an impact of going to the beach, 81% indicated the presence of a wind turbine would not make a difference in going to the beach. 7% of the responses indicated the presence would make them less likely to go to the beach if a wind turbine was visible. People were asked to describe the visual appearance of wind turbines on the landscape. 37% thought they were at least attractive, but 50% thought the wind turbines were neither attractive nor non-attractive. When asked to describe the visual appearance of wind turbines on a landscape after having seen one, 40% thought it was positive and 7% thought it was negative and 53% were neutral.

The next series of questions asked respondents about the placement of wind turbines that would be located in Narragansett. Table 4 is a summary of these responses.

Major findings of these responses included:

- 83% supported the placement of wind turbines outside of Narragansett.
- 89% supported land-based wind farms in Narragansett.
- 87% could support wind turbine development if they were limited to one or two structures on a parcel of land.
- 85% supported a limited number of wind turbines (3-5) being located in Town.
- 83% supported wind turbines if they could not see them from their house, 11% neither supported nor objected and 5% did not support the proposal.
- If the wind turbines could be seen from the house, there was still a support rate of 78% of the responders, 10% neither supported nor objected, and 11% did not support the project.
- 89% of the responders supported wind turbines if they could **not** hear them.
- The support dropped to 57% if they could be heard while 24% did not support them if they were heard.

Table 4 General Question on Siting Wind Turbines						
Questions	Strongly Support (%)	Support (%)	Neither Support nor Object (%)	Do Not Support (%)	Strongly Do Not Support (%)	Don't Know (%)
Generally speaking, how do you feel about the placement of wind turbines at sites that are not located in the Town of Narragansett?	49	34	12	3	1	1
Generally speaking, how do you feel about the placement of multiple wind turbines in a wind farm on appropriately zoned land in Narragansett?	53	36	3	3	4	1
Generally speaking, how do you feel about the placement of wind turbines if they were limited to one or two structures on a parcel of land?	52	35	6	3	3	1
Generally speaking, how do you feel about a limited number (perhaps 3-5) of wind turbines located in the Town of Narragansett?	47	38	9	1	4	1
Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you can not see them from your house?	52	31	11	1	4	1
Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you can see them from your house?	40	38	10	5	6	1
Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you can hear them from your house?	21	36	15	16	8	4
Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you can not hear them from your house?	55	34	5	2	4	0

C. Questions on Siting Wind Turbines at Specific Sites

The next series of questions asked people's responses of siting wind turbines at five sites in Town. Three sites (Camp Cronin, Galilee and Black Point) are on sites controlled by DEM and two of the sites (Scarborough and the Regional Treatment Plants) are controlled by the Town.

As can be seen from Table 5, there is support for all five sites in Narragansett. The range of support was from 83% to 89%, with the Scarborough Treatment Facility site having the highest support and Black Point having the lowest. The opposition to the proposal varied from 5% to 10% with the Scarborough Treatment facility having the smallest opposition (5%) and Black Point having the greatest opposition (10%).

Table 5 Opinions on Wind Turbines at Specific Sites						
Location	Strongly Support (%)	Support (%)	Neither Support nor Object (%)	Do Not Support (%)	Strongly Do Not Support (%)	Don't Know (%)
Camp Cronin	59	28	4	3	4	2
Port of Galilee	58	30	4	4	3	1
Black Point	57	26	6	5	5	1
Scarborough Treatment Plant	56	33	5	1	4	1
Regional Treatment Plant	50	35	5	5	4	1

D. Views on Specific Issues Concerning Wind Turbines

One question asked the residents their views on how they thought the wind turbine project would impact them on 16 specific issues. People were given the opportunity to indicate if wind turbines had a positive or a negative impact in Narragansett. They were also given the choice that the project either had no impact or they were not sure of the impact of the project. Table 6 below summarizes the responses:

Table 6 Impact of Wind Turbines on Issues				
Issues	Positive Impact (%)	No Impact (%)	Negative Impact (%)	Not Sure (%)
1. Tourism and related businesses	29	56	7	8
2. Creation of new jobs	79	9	1	11
3. Property values	18	37	22	23
4. Electricity rates	74	12	4	10
5. Will turbines affect the landscape	18	53	17	12
6. Air Pollution	60	34	1	5
7. Noise Levels	5	43	24	28
8. Bird/Bat life	5	43	15	37
9. Fishing Activities	10	65	4	21
10. Public Safety	9	79	3	9
11. Use of Public Beaches	13	76	6	5
12. Enjoyment of use of your property	12	73	8	7
13. Traffic at turbine sites	6	70	12	12
14. Taxes	46	23	6	25
15. General environmental considerations	77	15	3	5
16. What is your overall view of the project?	89	3	5	3

The responses were reviewed and it would appear that the wind turbines had an impact on people both from a positive and negative standpoint on primarily four or five issues. The siting of wind turbines had a positive impact on the following issues:

- 89% indicated the siting of wind turbines would have a positive impact on residents from an overall view of the project.
- Creation of new jobs (79%)
- General environmental considerations (77%)
- Electricity rates (74%)
- Air pollution levels (60%)

The survey identified the following issues where wind turbine projects would have a negative impact on residents:

- Noise levels (24%)
- Property values (22%)
- Impact of the turbines on the landscape (17%), and
- Bird/bat life (15%)

Of the 16 categories, there were six issues identified by over half the respondents indicating wind turbines would have **no** impact and include the following issues:

- Public safety (79%)
- Use of public beaches (76%)
- Enjoyment of property (73%)
- Traffic at turbine sites (70%)
- Fishing activities (65%)
- Will turbines affect the landscape (53%)
- Tourism and related activities (56%)

The next two questions asked people to rank three issues that had the most positive or negative impacts on Narragansett. These were issues the responders chose from the list of issues in Table 6. The responses closely tracked the results of the responses to table 6. The issues they identified that had the highest positive response rate included:

- General environmental considerations (23%)
- Electricity rates (20%)
- Air pollution (20%), and
- Job creation (17%)

These four issues represented 80% of the positive responses of the 16 issues.

The issues with the highest negative response rate were:

- Noise levels (26%)
- Bird/bat life (17%)
- Property values (13%), and
- Turbine impacts on the landscape (12%)

These four issues accounted for 68% of the negative issues noted in the survey.

E. Views on Ownership of Turbines

The next three questions focused on the ownership of the turbines. The survey was interested in determining people’s opinions on their support of the project if it was owned by the state, a developer or the Town. The responses indicated 55% of the people were more likely to support the project if the Town owned it and 50 % supported it if the state owned the project. The support dropped to 34% if the developer owned the project. Table 7 below summarizes the responses.

Table 7 Ownership of Turbines Questions			
Questions	More Likely to Support (%)	Less Likely to Support (%)	No Impact on Decision (%)
If a wind power project was owned by the state and provided an economic benefit to the state, would that make you more or less likely to support it?	50	11	39
If a wind power project was owned by a developer and provided an economic benefit to the town, would that make you more or less likely to support it?	34	19	47
If a wind power project was owned by the town and provided an economic benefit to the town, would that make you more or less likely to support it?	55	6	39

F. Personal Attributes

The last section of the survey provided personal information of the responders. Approximately 28% of the responders did not provide information concerning household income. The response rate in Table 10 is a summary of the responders who provided this information. Tables 8 through 11 provide detailed information concerning the responses. The major points raised by these tables include the following:

- 52 % of the responders were male and 48% female.
- 19% of the responders lived close enough to one of the five proposed sites to be able to see them from their property.
- 48% were employed by others, 17% of the responders were retired, and 14% were self-employed
- 63% of the responders were older than 45, 36% were in the age range 20 to 44.
- 55% of the responders had an average household income greater than \$75,000.
- 73% of the responders had at least a Bachelor’s degree.

Table 8
Respondent's Employment Status

Category	Response Rate %
Self-employed	14
Employed by others	48
Retired	18
Unemployed	5
Homemaker	6
Student	10

Table 9
Respondent's Age

Age	Response Rate %
Under 20 years	8
20 to 24 years	7
25 to 34 years	8
35 to 44 years	13
45 to 54 years	27
55 to 59 years	13
60 to 64 years	6
65 to 74 years	14
75 to 84 years	3
85 years and over	0

Table 10
Respondent's Approximate Household Income in 2008

Income Level	Response Rate%
Less than \$10,000	2
\$10,000 to \$14,999	2
\$15,000 to \$24,999	4
\$25,000 to \$34,999	7
\$35,000 to \$49,999	11
\$50,000 to \$74,999	20
\$75,000 to \$99,999	26
\$100,000 to \$149,999	19
\$150,000 to \$199,999	6
\$200,000 or more	4

Table 11
Respondent's Educational Background

	Response Rate %
Less than 9th grade	0
9th to 12th grade, no diploma	4
High school graduate (includes equivalency)	7
Some college, no degree	25
Associate's degree	10
Bachelor's degree	26
Graduate or professional degree	27

Attachment A – Narragansett Survey

Town of Narragansett Clean Energy Survey



Sponsored by:
The Rhode Island Department of Environmental Management and the Town of Narragansett

Return survey to:
Ms. Leanne DeCosta
Office of Customer and Technical Assistance
235 Promenade Street
Providence, RO 02908

401- 222-4700 Extension 7218

The Town of Narragansett and Rhode Island Department of Environmental Management would like your input on clean energy issues and your viewpoint on the possible siting of wind turbines in the Town. We greatly appreciate your time in filling out this survey.

At the back of the survey are some photo simulations of what the turbines may look like if they are built in the sites mentioned.

Please look at these photos at the back of the survey before you respond to the survey.

Please check only one box for each question.

Q1. Have you heard of the term clean or renewable energy?

- 1 Yes
- 2 No

Q2. Clean or renewable energy is power that comes from non-polluting sources such as the sun, water, and wind.

How important do you think it is for Rhode Island to move away from fossil fuels like gas, oil and coal and use more clean energy?

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

Q3. Some people support clean energy technology. How important are the following reasons for using clean energy technology?

a. Good for the environment.

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

b. Reduce dependency on foreign oil

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

c. Lower electric bills

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

d. Good for Rhode Island's economy

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

Narragansett Clean Energy Survey

Q4. Some people do not support clean energy technology.

How important are the following reasons for not supporting clean energy technology?

a. They are too expensive and not cost-effective.

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

b. They are too noisy

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

c. They are not esthetically pleasing

- 1 Very important
- 2 Important
- 3 Neither important nor non-important
- 4 Unimportant
- 5 Very unimportant

Q5. What is your opinion of the state's goal to generate 15% of its energy from clean, renewable sources?

- 1 It is too high.
- 2 It is about right.
- 3 It is too low.
- 4 Don't know

Q6. What is your general attitude concerning wind turbines used to generate electricity?

- 1 Very positive
- 2 Positive
- 3 Neutral
- 4 Negative
- 5 Very negative

Q7. Have you ever seen a modern wind turbine in operation?

- 1 Yes
- 2 No

Q8. If you could see a wind turbine from the beach would it make you more or less likely to visit the beach?

- 1 More likely to visit the beach
- 2 Less likely to visit the beach
- 3 Would not make a difference

Q9. How many times a year do you go to the beach in Narragansett?

- 1 Never go to the beach
- 2 Less than five times a year
- 3 More than five times but less than ten times a year
- 4 More than ten times but less than twenty times a year
- 5 More than twenty times a year

Q10. How would you describe the visual appearance of wind turbines on a landscape?

- 1 Very attractive
- 2 Attractive
- 3 Neither attractive nor non-attractive
- 4 Unattractive
- 5 Very unattractive
- 6 Have never seen a real wind turbine.

Q11. If you have seen a wind turbine, how would you describe the visual appearance of wind turbines on a landscape?

- 1 Very positive
- 2 Positive
- 3 Neither attractive nor non-attractive
- 4 Negative
- 5 Very negative

Q12. Generally speaking, how do you feel about the placement of wind turbines at sites that are not located in the Town of Narragansett?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q13. Generally speaking, how do you feel about the placement of multiple wind turbines in a wind farm on appropriately zoned land in Narragansett?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Narragansett Clean Energy Survey

Q14. Generally speaking, how do you feel about the placement of wind turbines if they were limited to one or two structures on a parcel of land?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q15. Generally speaking, how do you feel about a limited number (perhaps 3-5) of wind turbines located in the Town of Narragansett?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q16. Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you **can not** see them from your house?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q17. Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you **can** see them from your house?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q18. Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you **can hear** them from your house?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q19. Generally speaking, how do you feel about the placement of wind turbines in Narragansett if you **can not hear** them from your house?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q20. The state owns a number of parcels of land in Narragansett. Three possible locations of the wind turbines would include (1) the Camp Cronin Fisherman's Access area; (2) near the Port of Galilee, on the south west side of the Galilee Escape Road and (3) the southern portion of Black Point. (Refer to simulations at the back of the survey.)

a. Would you be supportive of a wind turbine being located on the Camp Cronin Fisherman's Access (**Figure 1**) parcel of land?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

b. Would you be supportive of a wind turbine being located near the Port of Galilee on the south west side of the Galilee Escape Road (**Figure 2**) ?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

c. Would you be supportive of a wind turbine being located on the southern portion of Black Point (**Figure 3**) ?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Narragansett Clean Energy Survey

Q21. The Town is considering two possible locations of wind turbines, (1) at the Scarborough Treatment Plant on Ocean Rd, adjacent to the State's Scarborough Beach, and (2) at the Regional Treatment Plant located on Westmoreland St., approximately 1/2 mile east of Mariner Square. (Refer to simulations at the back of the survey.)

a. Would you be supportive of a wind turbine being located at the Scarborough Treatment Plant (**Figure 4**) ?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

b. Would you be supportive of a wind turbine being located at the Regional Treatment Plant (**Figure 5**) located on Westmoreland St.?

- 1 Strongly support
- 2 Support
- 3 Neither support nor object
- 4 Do not support
- 5 Strongly do not support
- 6 Don't know

Q22. Do you think a wind turbine project in Narragansett would have a positive, negative or have no impact on the issues below? (**Circle the one impact that reflects your view on the question.**)

Issues	1	2	3	4
1. Tourism and related businesses	Positive Impact	No Impact	Negative Impact	Not Sure
2. Creation of new jobs	Positive Impact	No Impact	Negative Impact	Not Sure
3. Property values	Positive Impact	No Impact	Negative Impact	Not Sure
4. Electricity rates	Positive Impact	No Impact	Negative Impact	Not Sure
5. Will turbines affect the landscape	Positive Impact	No Impact	Negative Impact	Not Sure
6. Air Pollution	Positive Impact	No Impact	Negative Impact	Not Sure
7. Noise Levels	Positive Impact	No Impact	Negative Impact	Not Sure
8. Bird/Bat life	Positive Impact	No Impact	Negative Impact	Not Sure
9. Fishing Activities	Positive Impact	No Impact	Negative Impact	Not Sure
10. Public Safety	Positive Impact	No Impact	Negative Impact	Not Sure
11. Use of Public Beaches	Positive Impact	No Impact	Negative Impact	Not Sure
12. Enjoyment of use of your property	Positive Impact	No Impact	Negative Impact	Not Sure
13. Traffic at turbine sites	Positive Impact	No Impact	Negative Impact	Not Sure
14. Taxes	Positive Impact	No Impact	Negative Impact	Not Sure
15. General environmental considerations	Positive Impact	No Impact	Negative Impact	Not Sure
16. What is your overall view of the project?	Positive Impact	No Impact	Negative Impact	Not Sure

Q23. Based on your response in number 22 above, rank the three issues you think have the most **positive** impact on Narragansett if the turbines were built.

a. _____

b. _____

c. _____

Narragansett Clean Energy Survey

Q24. Based on your response in question number 22, rank the three issues you think have the most **negative** impact on Narragansett if the turbines were built.

- a. _____
- b. _____
- c. _____

Q25. If a wind power project was owned by the state and provided an economic benefit to the state, would that make you more or less likely to support it?

- 1 More likely to support.
- 2 Less likely to support.
- 3 No impact on my decision.

Q26. If a wind power project was owned by a developer and provided an economic benefit to the town, would that make you more or less likely to support it?

- 1 More likely to support.
- 2 Less likely to support.
- 3 No impact on my decision.

Q27. If a wind power project was owned by the town and provided an economic benefit to the town, would that make you more or less likely to support it?

- 1 More likely to support.
- 2 Less likely to support.
- 3 No impact on my decision.

This next section contains personal questions about you. The information is being collected for statistical purposes. Completion of this section would help in the analysis of this survey. Your assistance in completing this section would be appreciated.

Please check off the box that applies to you.

Q28. Are you?

- 1 Male
- 2 Female

Q29. What is your current employment status?

- 1 Self-employed
- 2 Employed by others
- 3 Retired
- 4 Unemployed
- 5 Homemaker
- 6 Student

Q30. Do you live close enough to one of the sites depicted in the figures at the end of the survey to see one of the turbines from your property?

- 1 Yes
- 2 No
- 3 Not Sure

Q31. What is your age?

- 1 Under 20 years
- 2 20 to 24 years
- 3 25 to 34 years
- 4 35 to 44 years
- 5 45 to 54 years
- 6 55 to 59 years
- 7 60 to 64 years
- 8 65 to 74 years
- 9 75 to 84 years
- 10 85 years and over

Q32. What is your approximate household income in 2008?

- 1 Less than \$10,000
- 2 \$10,000 to \$14,999
- 3 \$15,000 to \$24,999
- 4 \$25,000 to \$34,999
- 5 \$35,000 to \$49,999
- 6 \$50,000 to \$74,999
- 7 \$75,000 to \$99,999
- 8 \$100,000 to \$149,999
- 9 \$150,000 to \$199,999
- 10 \$200,000 or more
- 11 Prefer not to answer

Q33. How would you describe your educational background?

- 1 Less than 9th grade
- 2 9th to 12th grade, no diploma
- 3 High school graduate (includes equivalency)
- 4 Some college, no degree
- 5 Associate's degree
- 6 Bachelor's degree
- 7 Graduate or professional degree

Photo Simulations of Potential Wind Turbine Sites

Photo simulations were produced to give the reader an approximate idea of how a wind turbine would look at each location. If the turbines are to be built, actual heights will be based on the request for proposal to build the turbines. All locations except Galilee used turbines having an 85 meter (279 feet) post and a 77 meter rotor diameter (253 feet). The Galilee photo used a 65 meter (213 feet) post. The heights chosen are typical of commercial applications of wind turbines.

Figure 1 - Camp Cronin Fisherman's Access (From Shore Rd looking south east)



Figure 2 - Galilee Escape Road (From Basin Rd. looking south west)



Figure 3 - Black Point (From Sakonnet Blvd. looking northeast)



Figure 4 - Scarborough Treatment Plant (From the DEM Pavilion looking south)



Figure 5 - Regional Treatment Plant (From Thayer St. looking south)



Narragansett Clean Energy Survey

Thank you for taking the time to complete this survey. This survey is a joint effort of the Rhode Island DEM and the Narragansett Town Council. The survey results are important in determining the Town of Narragansett viewpoints on clean renewable energy.

Please return the survey in the stamped envelope and return it to:

**Ms. Leanne DeCosta
RI DEM
Office of Customer and Technical Service
235 Promenade Street
Providence, RI 02908**

Narragansett Clean Energy Survey

Your comments would be appreciated either on this page, or you can send them in a separate envelope.

Send Comments to:

Ms. Leanne DeCosta
RI DEM
Office of Customer and Technical Service
235 Promenade Street
Providence, RI 02908

Attachment B – Letters to Residents

First Letter



Narragansett
Rhode Island



Department of
Environmental
Management

Date

Name

Address

Narragansett, RI ZIP

Dear Name:

You have been selected to complete a survey. Within the next few days, you will be receiving it. We are mailing it to you in an effort to find out how residents of the Town of Narragansett feel about renewable energy and the possible installation of three to five wind turbines on state and/or Town properties in Narragansett.

This survey is being conducted to collect information from you and others to better inform state and local officials on concerns raised by the possible construction of these wind turbines.

We would appreciate your taking about ten to fifteen minutes to complete and return this survey.

We are thanking you in advance for your participation in this project.

Sincerely,

Jeffery Ceasrine
Narragansett Town Manager

W. Michael Sullivan
Director, DEM

Second Letter



Narragansett
Rhode Island



**Department of
Environmental
Management**

Preliminary studies have identified several land-based sites where wind turbines could be built that would generate cost-effective energy in Narragansett. This survey will help determine how you feel about building three to five wind turbines on state and/or Town property in Narragansett.

The Town of Narragansett and the Rhode Island Department of Environmental Management are conducting the survey to learn your views about clean energy and its impact on the Town. Your household was one of a limited number selected at random from a list of property owners in the town to receive this survey. It is very important that you participate.

You can be assured that your responses will remain completely confidential. The survey does have an identification number that will be used for mailing purposes. Your name will **not** be placed on the survey itself.

Your response to the enclosed survey is extremely important to us. Please complete and return your survey in the enclosed postage-paid envelope addressed to Leanne DeCosta by July 20. Results of the survey will be important factors to consider when determining where best to locate the on-shore wind turbines. Results from the survey will be available in approximately three months on the DEM website: www.dem.ri.gov.

Should you have any questions regarding the survey please feel free to contact Leanne DeCosta at DEM at (401) 222-4700 extension 7218 or e-mail at Leanne.DeCosta@DEM.ri.gov

The survey is a tool that will benefit all Narragansett residents. Take this opportunity to let your voice be heard!

Sincerely,

Jeffery Ceasrine
Narragansett Town Manager

W. Michael Sullivan,
Director, DEM

Narragansett Clean Energy Survey

Third Correspondence (Post Card)

Last week, a survey was sent to you seeking your opinion regarding the installation of wind turbines in Narragansett. Your household was one of a limited number selected at random from a list of property owners in Narragansett.

If you have already completed and returned the survey, please accept our sincere thanks for taking the time and effort to complete it.

If you did not receive the survey or possibly misplaced it, please call me at (401) 222-4700 extension 7218 and I will mail you another one today.

Your response and comments are very important to us. Be assured that your survey is completely confidential.

Sincerely

Leanne DeCosta
DEM Office of Customer
& Technical Service