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Research Report

The Mount Redington Wind Farm Visual Analysis Survey

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Prepared for

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Methodology

The Sample

The Mount Redington Wind Farm Visual Analysis Survey is based on in-person interviews conducted from October 3-13, 2003, with 93 hikers at the Saddleback Mountain, Crocker Mountain, and Sugarloaf Mountain trailheads.

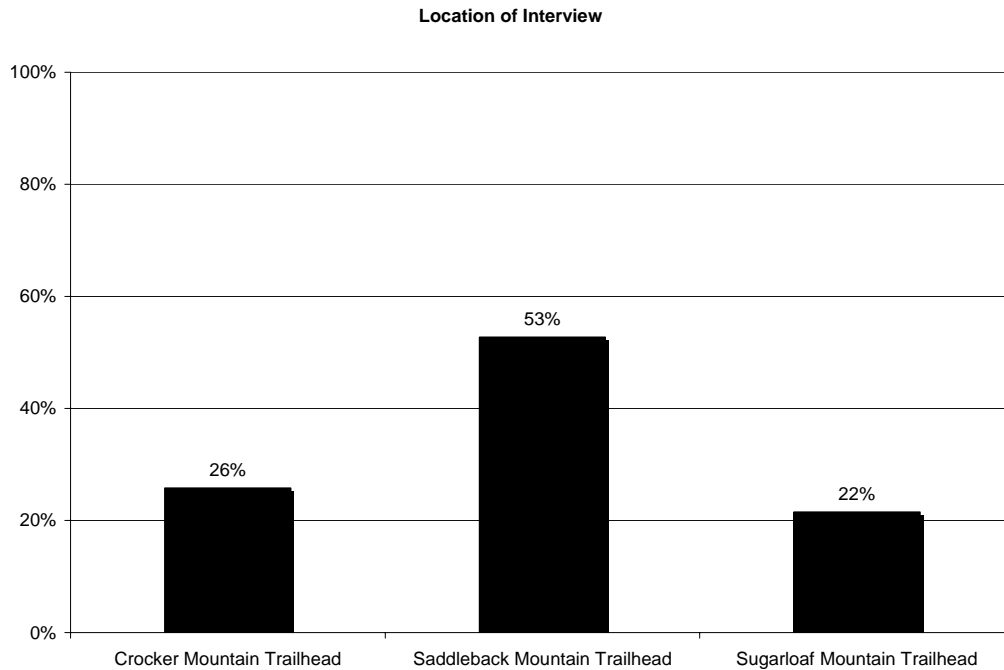
The sampling approach used during the course of this research was designed to target only those hiking along the trails and to exclude those using the areas for other purposes (such as picnics). Interviewers were positioned so they could intercept those hiking along the trail as well as those who parked at the trailhead and then began their hike. Interviewers identified hikers and approached them to conduct the interview.

In order to minimize the burden on hikers (since the survey took approximately 12-15 minutes to administer) and to maintain a sampling process to insure a representative sample, interviewers did not approach every hiker. Instead, the interviewers identified "groups" of hikers. A group was defined as hikers that were traveling together. The interviewer would determine the number of hikers in a group and then randomly select respondents to participate. Up to two hikers per group, depending on group size, were approached and asked to participate in the research. If the person selected refused to participate, a replacement was not selected from the same group. Rather, the interviewers noted this contact as a non-participant, then waited for the next group of hikers. When the person selected agreed to participate, the interviewer administered the survey at a table set apart, so only the respondent would provide answers, and other group members would be prevented from adding their input. The interview was administered in full to every respondent.

Over the course of data collection, a total of 327 hikers passed interviewers at the trailheads in a total of 102 groups. Group size varied from 1 to 9 hikers. The average group consisted of 3.2 hikers. Among those approached to complete the survey, 45 respondents refused to be interviewed, and 12 respondents were in groups that had been previously interviewed at another trailhead. Ninety-three respondents completed the interview. The table below provides a summary of the target population and outcome of the interviewing process:

	Hikers
Total Population	327 (in 102 groups)
<i>Previously Participated in the Research</i>	12
Eligible Population	315
Refused to participate	45
Completed surveys	93

Of the 93 completed interviews, 53% were completed at the Saddleback Mountain trailhead, 26% at the Crocker Mountain trailhead and 22% at the Sugarloaf Mountain trailhead. The interviewers were positioned directly at the trailhead, to allow them to intercept through-hikers as well as those parking in the lot and doing a day hike.



Response Rate

A total of 138 hikers were approached and asked to participate in the research. Forty-five of those approached refused to participate, and 93 completed the survey, a response rate of 67%.

The Survey

The survey instrument was designed to assess hikers' attitudes about the visual impact of the proposed wind farm and their views of wind power as a source of energy. The questions included in the survey covered the following topics:

- Respondent characteristics
- Participation in outdoor activities in the Carrabassett Valley/Rangeley area
- Factors that contribute to the quality of the hiking experience
- Impacts of human activity on the hiking experience
- Assessment of the appropriateness of wind power for Maine
- Assessment of the visual impact of the proposed Redington wind farm
- Impact of the Redington wind farm on the hiking experience
- Assessment of the appropriateness of the Redington wind farm

The Visualizations

To gauge hikers' reactions to the scenic impact of the wind farm, respondents were shown a series of actual and simulated views and asked to evaluate their scenic value on a 7-point numeric scale, from very low scenic value to very high scenic value. These visualizations represented "before" views without, and "after" views with, the proposed Redington wind farm from selected points within the wind farm's viewshed for hikers. The visualizations, prepared by Terrance J. DeWan and Associates, were 30" by 9", a size large enough to realistically represent viewing conditions.

The locations chosen for the visualizations (viewpoints on Mount Abraham, Saddleback and North Crocker mountains, and from the Sugarloaf ski area) ranged from approximately 6 miles to 1.5 miles away from the proposed wind farm. From these points, respondents rated the view without and with the proposed Redington wind farm.

Sampling error

The percentages reported for the entire sample are within plus or minus 8.5% that would be found if all 327 hikers in the area during the period of data collection were interviewed. For example, if our survey showed that 50% of the sample favored the development of wind power, then the comparable figure for the population would be somewhere between 41.5% and 58.5% with a confidence level of 95%.

Key Findings

Respondent Characteristics

- Two in three respondents were male. (p.7)
- The ages of respondents varied. (p.8)
- Nearly six in ten respondents (59%) live in Maine. (p.9)
- Sixteen percent of respondents belonged to a club that helps to maintain the Appalachian Trail. (p.10)
- Only 8% of respondents, or half of the trail maintenance club members, belonged to the Appalachian Trail Conference. (p.11)

Participation in Outdoor Activities

- Respondents had participated in a variety of outdoor activities during the previous 12 months in the Carrabassett Valley/Rangeley area. (p.12)
- Respondents on average had participated in outdoor activities in the Carrabassett Valley/Rangeley area 14.5 times during the past year. The median number of times respondents participated in these activities was 5. (p.13)

The Hiking Experience

- Many hikers had hiked in the area previously. (p.14)
- Respondents rated natural sights and sounds and long distance views of mountain scenery as very important to the quality of their hiking experience. The physical challenge and meeting other hikers were rated as significantly less important. (p.15)
- Respondents indicated that human activity had a negative impact on the quality of their hiking experience. (p.16)

Assessment of Visual Impact of the Proposed Redington Wind Farm

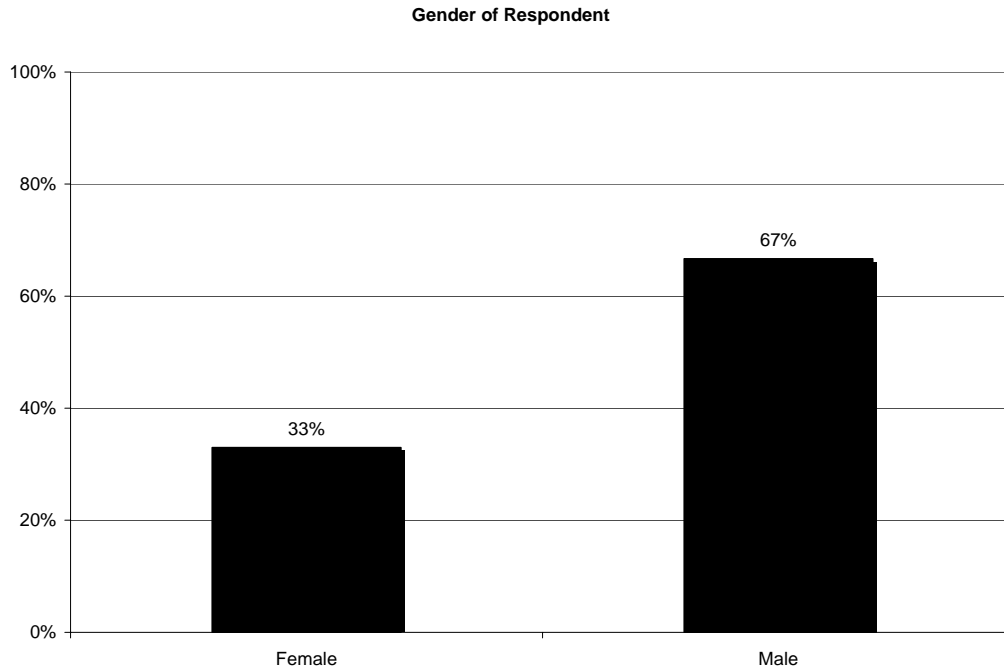
- The scenic value of the existing view from Saddleback Mountain was rated very high. The scenic value of this view with the proposed wind farm was rated fairly high. (p.18)
- The scenic value of the existing view from Mount Abraham was rated very high. The scenic value of the view with the proposed wind farm was rated neither low nor high. (p.20)
- The scenic value of the existing view from North Crocker Mountain was rated very high. The scenic value of the view with the proposed wind farm was rated neither low nor high with or without black blades. (p.22)
- The scenic value of the existing view from North Crocker Mountain in cloudy conditions was rated high to very high. The scenic value of this view with the proposed wind farm was rated neither low nor high in cloudy conditions. (p.25)
- The scenic value of the existing view from Sugarloaf was rated fairly high; with the proposed wind farm included, it was rated slightly lower. (p.27)
- The impact on the scenic value of views with the proposed wind farm was moderated by distance and by the presence of other man made features. (p.29)
- The real threshold distance (within which there was no further decline in the ratings of scenic value) is perhaps four miles. (p.30)
- Overall, respondents assessed the visual impact of the Redington wind farm as slightly negative. (p.31)
- Overall, respondents indicated that the proposed wind farm would have only a slightly negative to no impact on the quality of their hiking experience. (p.32)
- Compared to other evidence of human activity, the impact of the proposed Redington wind farm on the quality of the hiking experience was not as negative. (p.34)

Opinions about Wind Power in General and about the Proposed Redington Wind Farm

- Respondents considered wind power somewhat appropriate for Maine. (p.35)
- After examining simulated views of the proposed Redington wind farm, , respondents felt that it was somewhat appropriate. (p.37)
- When they were informed about its potential benefits, respondents were more likely to consider the Redington wind farm appropriate. (p.39)

Respondent Characteristics

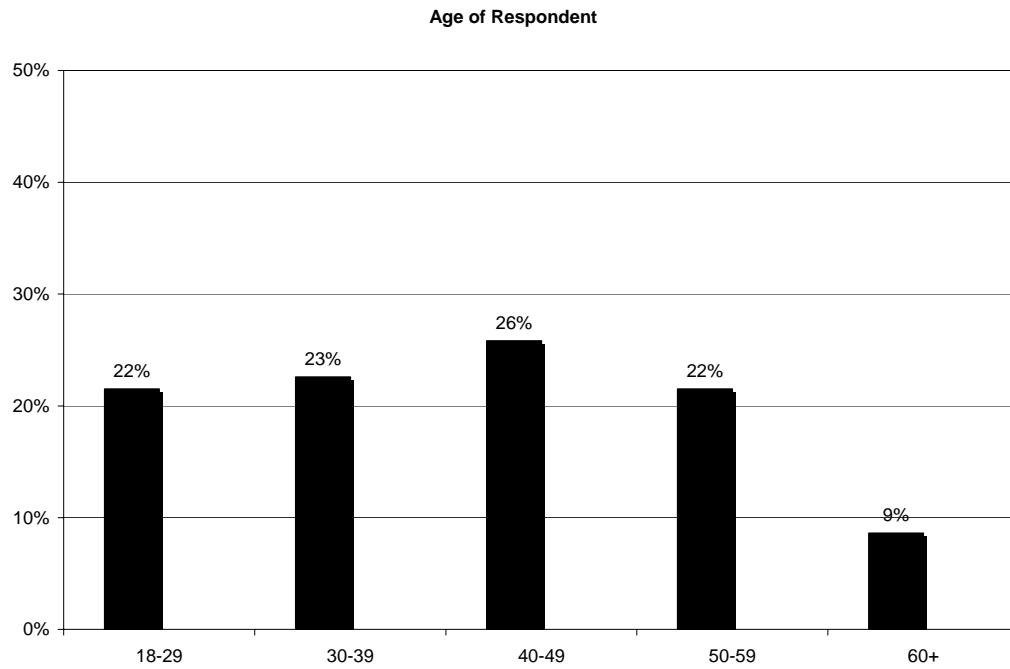
Two in three respondents were male.



Comments:

Sixty-seven percent of respondents were male while 33% were female.

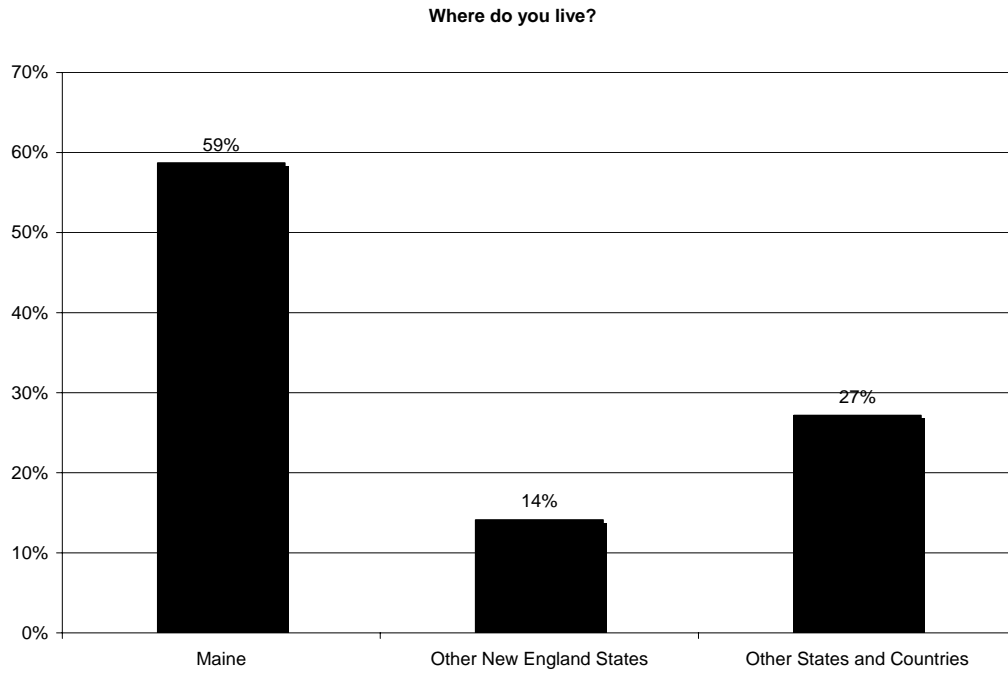
The ages of respondents varied.



Comments:

Among respondents, 22% were between the ages of 18-29, 23% were between 30 and 39, 26% between 40 and 49, 22% between the ages of 50 and 59 and 9% of respondents were 60 or older.

Nearly six in ten respondents (59%) lived in Maine.

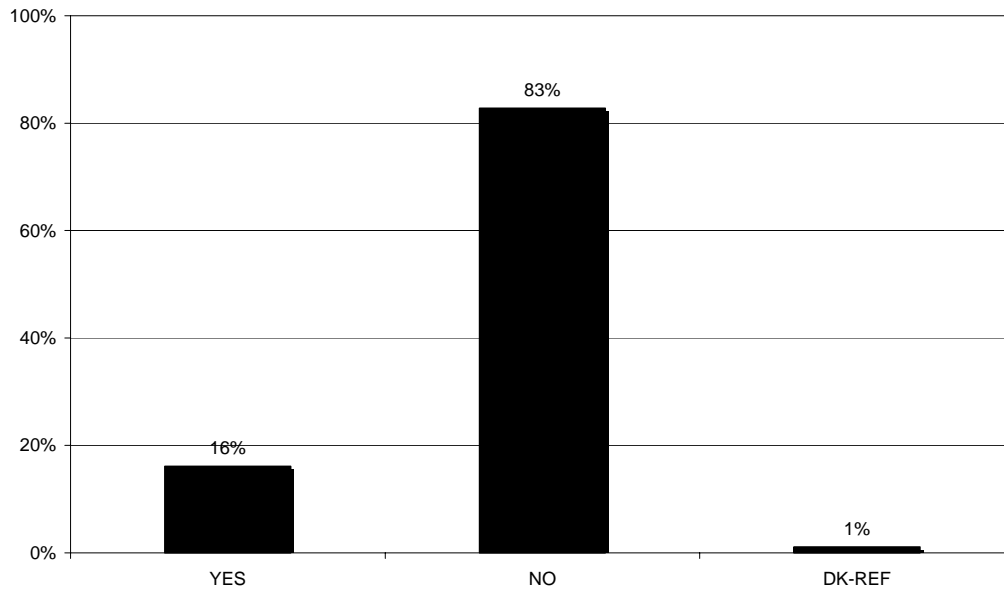


Comments:

Fifty-nine percent of respondents live in Maine communities throughout the state. Fourteen percent live in other New England states (Massachusetts, New Hampshire, and Vermont). Twenty-seven percent live in states outside New England or in another country (England, Germany, France, or Canada).

Sixteen percent of respondents belonged to a club that helps maintain the Appalachian Trail.

Q43 Are you a member of club that maintains the Appalachian Trail
(such as the Maine Appalachian Trail Club)?



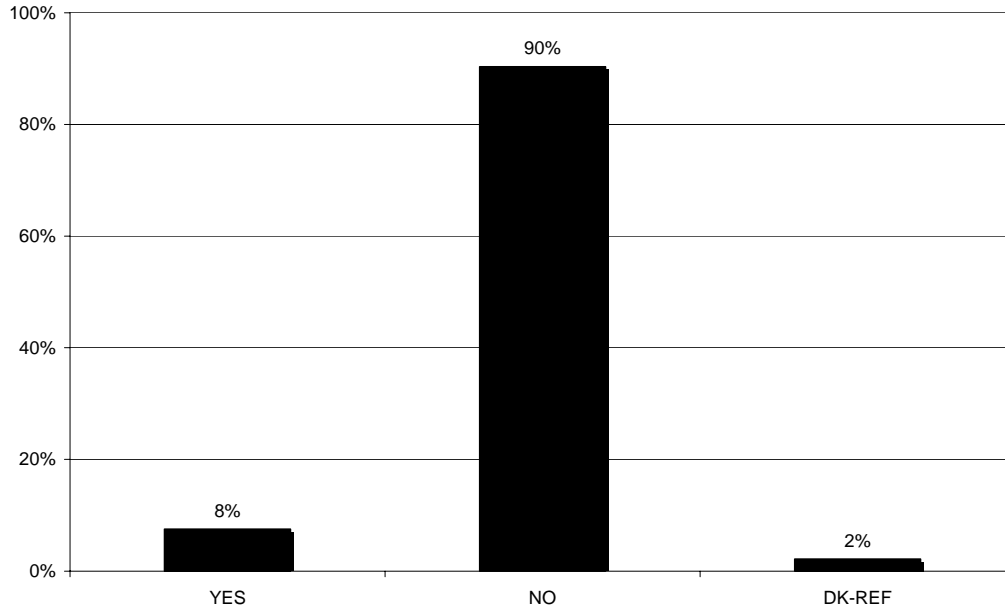
Comments:¹

Sixteen percent of respondents indicated that they belong to a club that helps maintain the Appalachian Trail. Eighty-three percent of respondents did not belong to such a club. Among those belonging to a club that helps maintain the Appalachian Trail, most belonged either to the Maine Appalachian Trail Club or to the Boston Chapter of the Appalachian Mountain Club.

¹ In the charts and tables in this report, the category "DK-REF" represents respondents who were unsure or who refused to answer the specific question.

Only 8% of respondents were members of the Appalachian Trail Conference.

Q44 Are you a member of the Appalachian Trail Conference?



Comments:

Eight percent of respondents reported that they belonged to the Appalachian Trial Conference, while 90% reported they were not members.

Participation in Outdoor Activities

Respondents had participated in a variety of outdoor activities during the past 12 months in the Carrabassett Valley/Rangeley area.

Q04 Have you participated in any of the following activities in the Sugarloaf/Carrabassett Valley/ Rangeley area in the past 12 months?

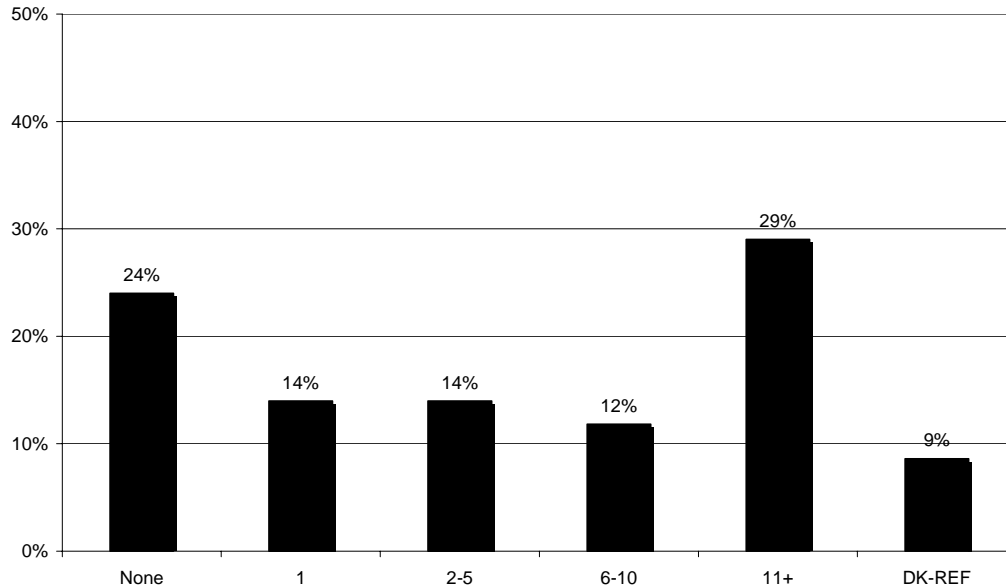
	%
Hiking	71%
Camping	38%
Cross-country skiing	33%
Downhill skiing	32%
Canoeing or kayaking	27%
Bicycling/mountain biking	25%
Bird watching	16%
Fishing	11%
Hunting/Trapping	8%
White water rafting	4%
Snowmobiling	3%
None of these	24%
Total	100%

Comments:

Respondents were asked whether they had participated in several outdoor activities in the Carrabassett Valley/Rangeley area during the past 12 months. Seventy-one percent of respondents indicated that they had participated in hiking. Thirty-eight percent of respondents had camped in this area during the past year, 33% had participated in cross country skiing, 32% downhill skiing, 25% reported that they had been canoeing or kayaking in the area during the past 12 months, and 35% had been bicycling or mountain biking. Other activities mentioned by respondents included bird watching (16%), fishing (11%), hunting or trapping (8%), white water rafting (4%), and snowmobiling (3%). Twenty-four percent of respondents indicated they had not participated in any of these activities in the area during the past 12 months.

Respondents on average had participated in outdoor activities in the Carrabassett Valley/Rangeley area 14.5 times during the past year. The median number of times respondents participated in these activities was 5.

Q05 How many times in the past 12 months have you participated in these kinds of outdoor activities in this area?



Comments:

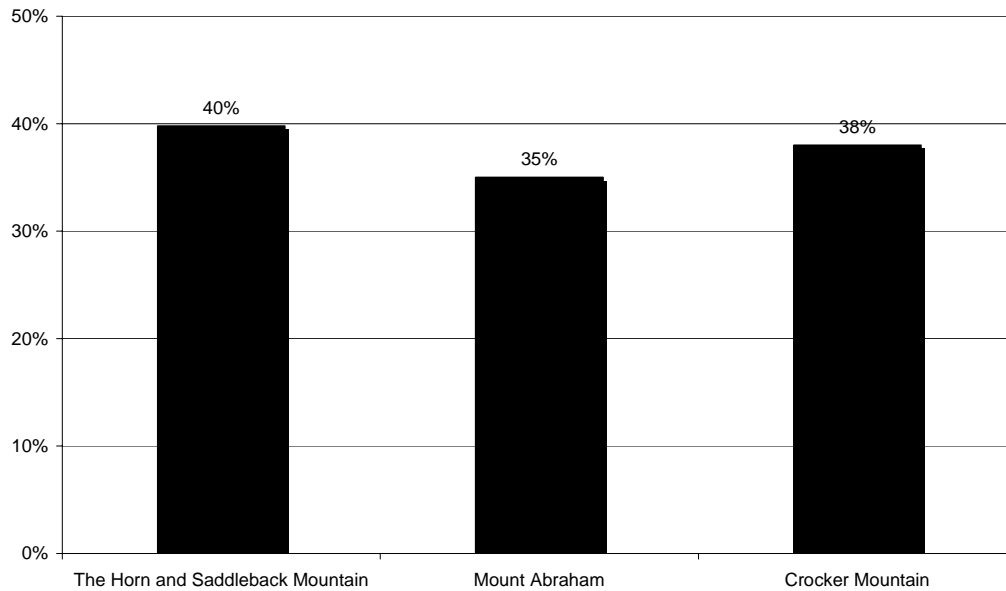
Among all respondents, the average number of times respondents had participated in outdoor activities in the area during the past 12 months was 14.5. This average was quite high due to a few respondents who participated in outdoor activities 40 or more times during that period. The median number of times in which all respondents had participated in outdoor activities in the area was 5.

Leaving out the 24% of respondents who did not participate in outdoor activities in the area during the past year, average participation rises from 14.5 to 19 times, and the median rises from 5 to 9 times.

The Hiking Experience

Many hikers had hiked in the area previously.

Q45 - Q45b During the past couple of years have you ever hiked in the area around...
(% indicating yes)



Comments:

Forty-percent of respondents indicated that they had hiked in the area around the Horn and Saddleback Mountain. Thirty-five percent had hiked Mount Abraham and 38% had hiked in the area around Crocker Mountain during the past couple of years.

Respondents felt that natural sights and sounds and long-distance views of mountain scenery were very important factors in the quality of their hiking experience. The physical challenge of the hike and meeting other hikers were significantly less important.

Q06 – Q14. Now I'd like you to think about what contributes to the quality of your hiking experience. I'm going to read you a list of factors, and I'd like you to rate how important each factor is to your overall recreation experience as a hiker. Please rate each factor on a scale of 1 to 7 where 1 is not at all important and 7 is very important.

	Average
Natural sights and sounds	6.3
Long distance views of mountain scenery	6.1
Spatial separation from development	6.0
Solitude	5.6
A remote, backcountry experience	5.4
A well-maintained trail footpath	5.0
Hiking to the top of a 4,000 foot peak	4.9
Physical challenge	4.7
Meeting other hikers on the trail	3.6

Comments:

Respondents were asked to assess how each of nine characteristics contributed to the quality of their hiking experience. Each characteristic was evaluated on a seven-point scale, with 1 being not at all important and 7 being very important. Natural sights and sounds was rated as the most important of the nine characteristics (average rating: 6.3). Long-distance views of mountain scenery (6.1) and spatial separation from development (6.0) were also very influential factors in the quality of respondents' hiking experience. Solitude (5.6) and having a remote backcountry experience (5.4) were rated from somewhat to very important. A well maintained trail footpath (5.0), hiking to the top of a 4,000 foot peak (4.9), and physical challenge (4.7) were rated somewhat important to the quality of their hiking experience. Meeting other hikers on the trail was rated somewhat unimportant.

Respondents indicated that human activity had a negative impact on the quality of their hiking experience.

Q15 – Q20. Hikers on the Appalachian Trail see evidence of human activity. I'm going to read you a list of things hikers may see from the trail. Please rate the impact of each factor on the quality of your hiking experience. Again, we'll use the 1 to 7 scale where 1 means the factor will have a very negative impact and 7 means a very positive impact on your hiking experience.

	Average
Views of industrial facilities such as a biomass generator, paper mill or landfill	1.7
Views of developed areas	2.5
Views of large clear cuts	2.6
Views of power lines	2.7
Views of roads	3.2
Views of ski trails and facilities	3.5

Comments:

Respondents were asked to assess how each of six types of human activity affected the quality of their hiking experience. Each activity was evaluated on a seven-point scale, with 1 being very negative and 7 being very positive. (Again, a rating of 4 indicates no impact.) Respondents indicated that all six of the activities would have a negative impact. Views of industrial facilities detracted most from quality of hiking, with a very negative average rating of 1.7 on the seven point scale; views of developed areas (2.5), views of large clear cuts (2.6), and views of power lines (2.7) were rated as having a very to somewhat negative impact; and views of roads (3.2) and views of ski trails and facilities (3.5) were considered to have a slightly to somewhat negative impact on the quality of hiking.

Assessment of Visual Impact of the Proposed Redington Wind Farm

Respondents looked at a series of 11 photographs and photo simulations and were asked to evaluate the scenic value of each. The images showed the view of the site for the proposed Redington Wind Farm from several locations at different distances

- The view from Saddleback Mountain
- The view from Mount Abraham
- The view from North Crocker Mountain
- The view from Sugarloaf Ski Resort.

The following charts are presented in the same order that images were shown to survey respondents, from most distant (Saddleback Mountain, which is 5.7 miles away from the proposed location) to closest (North Crocker Mountain, which is 1.5 miles away). The views from Sugarloaf (3.8 miles away) were included to assess the effect of visual evidence of other human activity.

Respondents were asked to rate the scenic value of the actual existing view from each location, then asked to re-rate the scenic value of the same view with the proposed wind farm simulated in place. In most images, the sky was clear. To determine the potential impact of weather, one set of images (from North Crocker Mountain) was presented with a cloudy sky. The view from the Sugarloaf ski area was included to determine how other man made features within the visible area affected how respondents rated scenic value with the proposed wind farm in place. The charts below compare ratings of the actual existing views without the wind farm and ratings of the same views with the simulated wind farm. In general, views that included the wind farm were rated lower than existing views. It is worth noting that the gap between ratings of these before-and-after views increases with proximity. Visible evidence of other man made activities has a strong moderating influence on how much of a negative impact the proposed wind farm is perceived to have on the value of the scenic view.

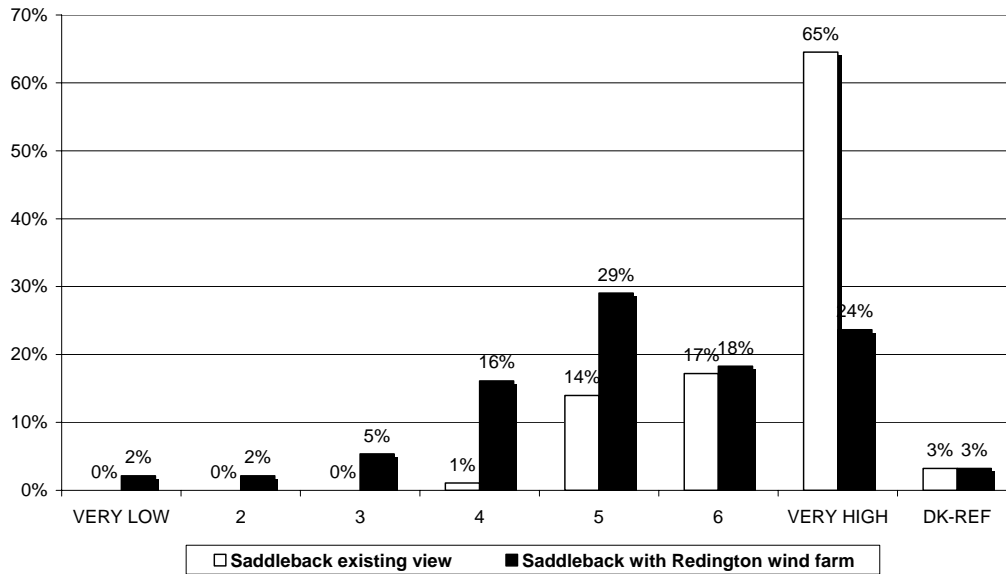
Respondents were asked to evaluate the scenic value of each view from very low to very high on a 7-point scale:

I'd like to have you look at some pictures of views from some locations along the Appalachian Trail and other nearby mountains and get your impressions. I will show you several sets of pictures and ask you to rate the scenic view.

I'd like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.

The scenic value of the existing view from Saddleback Mountain was rated very high. The scenic value of the view with the proposed wind farm was rated fairly high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #1 and view #2)



	Average (1-7)	Difference
Saddleback Mountain Existing View	6.50	
Saddleback Mountain with View of Redington Wind Farm	5.24	-1.26

Comments:

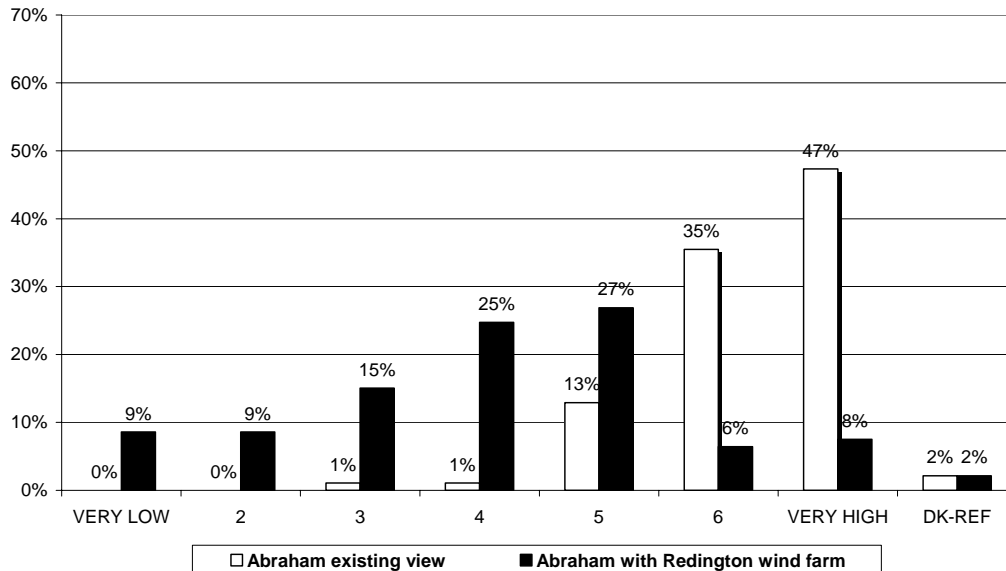
This viewpoint is 5.7 miles from the site of the proposed wind farm.

On average, respondents rated the existing view from Saddleback Mountain as very high (an average of 6.5). Sixty-five percent of respondents rated the view at 7 on the seven-point scale, 17% at 6 on the scale and 14% at 5. In all, 96% rated the view positively (that is, a rating above 4).

The view that included the proposed wind farm was rated, on average, at 5.24 on the seven-point scale, indicating a fairly high scenic value. The average was lower than the average rating for the existing view, though still positive. Twenty-four percent of respondents rated the view with the proposed wind farm at 7 on the seven point scale, 18% at 6 and 29% at 5 on the seven-point scale. In all, 71% rated the view positively and only 9% rated it negatively (a rating below 4). Sixteen percent rated scenic value of the view as neither low nor high (a rating of 4 on the seven-point scale).

The scenic value of the existing view from Mount Abraham was rated very high. The scenic value of the view with the proposed wind farm was rated neither low nor high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #3 and view #4)



	Average (1-7)	Difference
Mount Abraham Existing View	6.30	
Mount Abraham with View of Redington Wind Farm	4.04	-2.26

Comments:

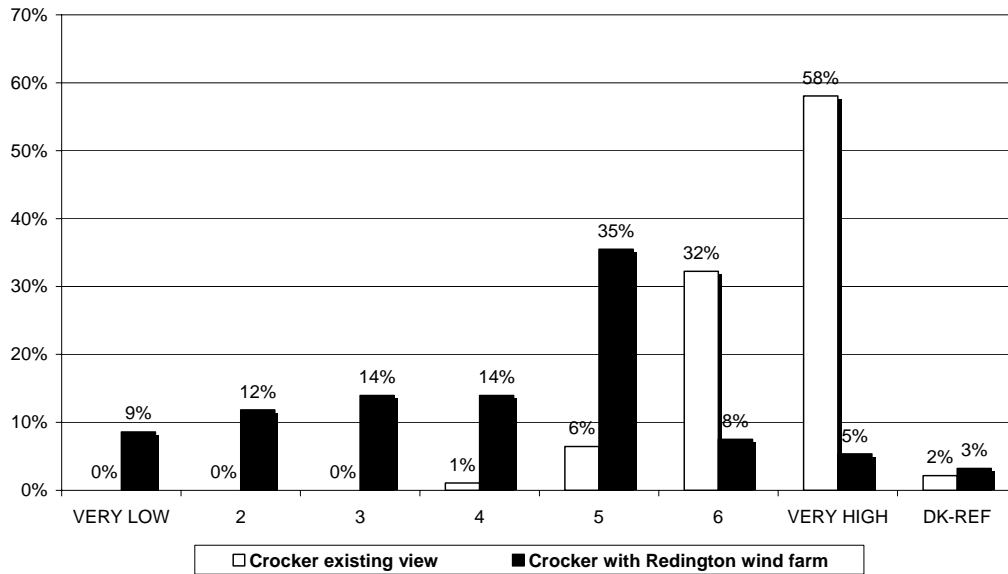
This viewpoint is 4.0 miles from the site of the proposed wind farm.

On average, respondents rated the existing view from Mount Abraham as high to very high (an average of 6.3). Forty-seven percent of respondents rated the view at 7 on the seven-point scale, 35% at 6, and 13% at 5 on the scale. In all, 95% rated the view positively (a rating above 4). One percent rated the view as neither low nor high (rating of 4) and 1% rated the view as being low to some degree (1-3 on the scale).

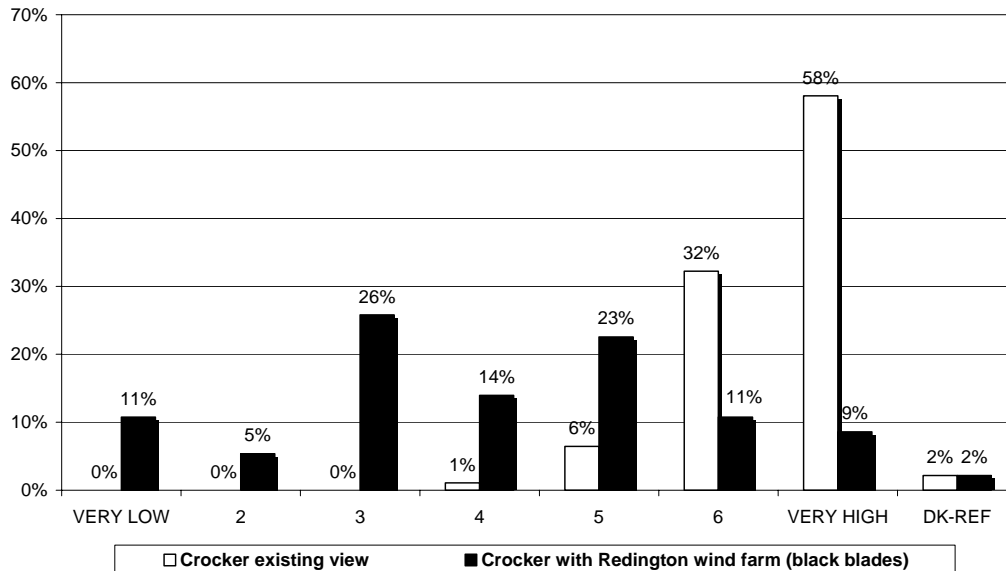
The view that included the proposed wind farm was rated, on average, at 4.04 on the seven-point scale, indicating neither low nor high scenic value. This average was 2.26 points lower than the average rating for the existing view. Eight percent of respondents rated the view with the proposed wind farm at 7 on the seven point scale, 6% at 6 and 27% at 5 on the scale. In all, 41% rated the view positively and only 33% rated it negatively (a rating below 4). Twenty-five percent rated scenic value of the view as neither low nor high (a rating of 4 on the scale).

The scenic value of the existing view from North Crocker Mountain was rated very high. The scenic value of the view with the proposed wind farm was rated neither low nor high, with or without black blades.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #5 and view #6)



I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #5 and view #7)



	Average (1-7)	Difference
Crocker Mountain	6.51	
Crocker Mountain with View of Redington Wind Farm	4.03	-2.48
Crocker Mountain with View of Redington Wind Farm (Black Blades)	4.01	-2.50

Comments:

This viewpoint is 1.5 miles from the site of the proposed wind farm.
Note this not a view from the Appalachian Trail but the view from a clearing near the Appalachian Trail.

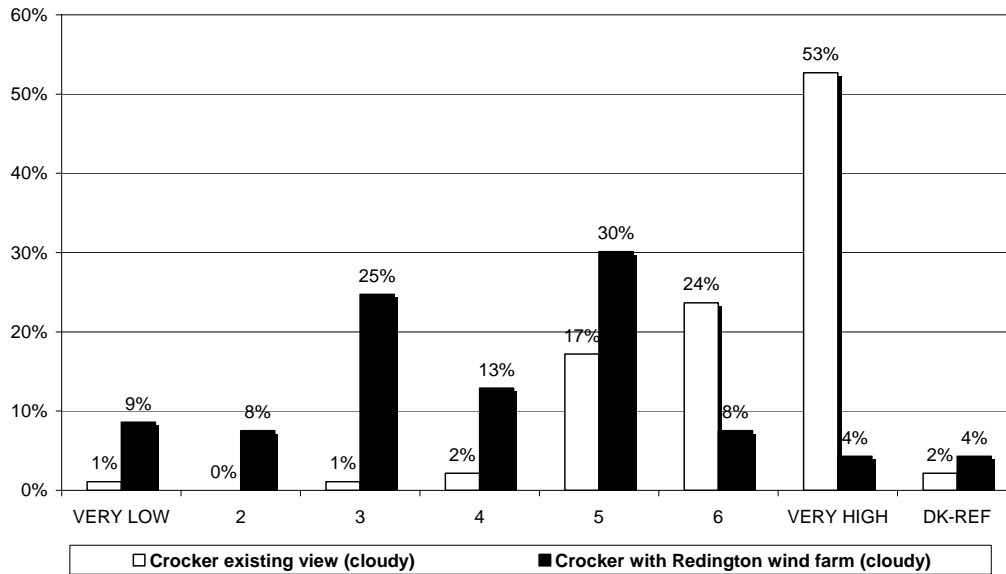
On average, respondents rated the existing view from North Crocker Mountain as very high (an average rating of 6.51). Fifty-eight percent of respondents rated the view at 7 on the seven point scale, 32% at 6, and 5% at 5 on the scale. In all, 96% rated the view positively (a rating above 4). One percent rated the view as neither low nor high (rating of 4).

The view that included the proposed wind farm was rated, on average, 4.03 on this seven-point scale, indicating neither low nor high scenic value. This average was 2.48 points lower than the average rating of the existing view. Five percent of respondents rated the view with the proposed wind farm at 7 on the seven-point scale, 8% at 6, and 35% at 5 on the scale. In all, 48% rated the view positively and only 35% rated it negatively (a rating below 4). Fourteen percent rated scenic value of the view as neither low nor high (a rating of 4).

Respondents were also asked to evaluate the scenic value of the same view of the proposed wind farm from North Crocker Mountain with the turbine blades shown in black. Black blades had no impact on the average rating of scenic value, although the percentage of those who rated the scenic value negatively increased slightly. The view that included the proposed wind farm (with black blades) was rated, on average, at 4.01 on the seven-point scale, indicating neither low nor high scenic value. This average was 2.5 points lower than the average rating for the actual existing view, without the wind farm. Nine percent of respondents rated the view with the proposed (black blade) wind farm at 7 on the seven point scale, 11% at 6, and 23% at 5 on the scale. In all, 43% rated the view positively and 42% rated it negatively (rating below 4). Fourteen percent rated scenic value of the view as neither low nor high (at 4 on the scale).

The scenic value of the existing view from North Crocker Mountain in cloudy conditions was rated high to very high. The scenic value of the view in cloudy conditions with the proposed wind farm was rated neither low nor high.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #8 and view #9)



	Average (1-7)	Difference
Crocker Mountain Existing View (Cloudy Sky)	6.23	
Crocker Mountain with View of Redington Wind Farm (Cloudy Sky)	3.92	-2.31

Comments:

This viewpoint is 1.5 miles from the site of the proposed wind farm.

To assess potential effects of natural environmental factors on the perceived value of the scenic view, respondents were asked to re-rate the scenic value of the existing view from North Crocker Mountain and the view including the proposed wind farm, both represented in cloudy conditions. The average rating for the scenic value of the existing view from North Crocker dropped slightly with the change to cloudy skies, but the view with the proposed wind farm under cloudy skies was rated comparably to the same view in sun.

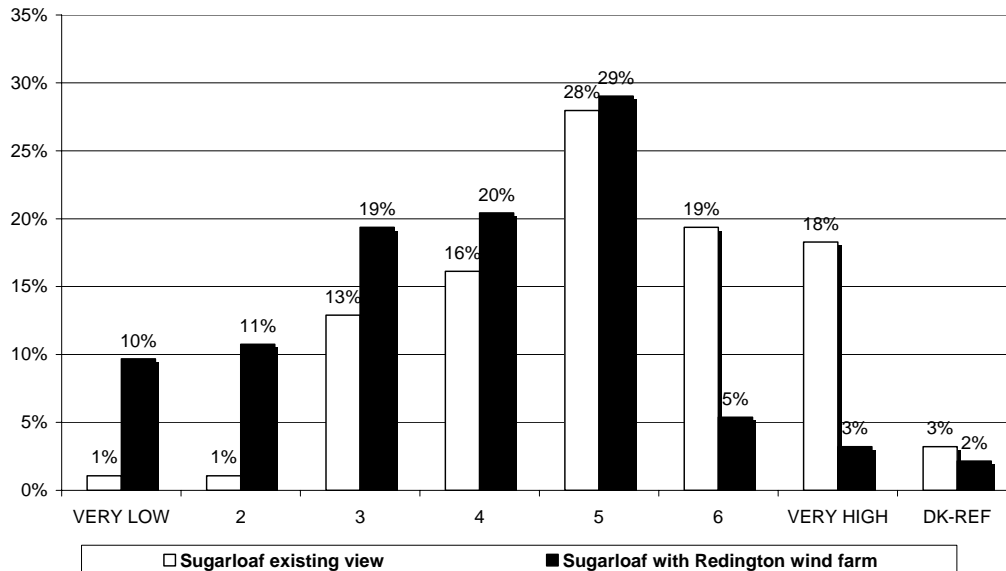
Respondents rated the actual view from North Crocker with no wind farm but with cloudy skies as high to very high (an average rating of 6.23). This was slightly lower than the same view without clouds. Fifty-three percent of respondents rated the view at 7 on the seven-point scale, 24% at 6, and 17% at 5. In all, 94% rated the view positively (a rating above 4). One percent rated the view as neither low nor high (a rating of 4), one percent rated the view at 3, and 1% rated the view at 1 on the seven point scale.

The view that included the proposed wind farm under cloudy skies was rated, on average, at 3.92 on the seven- point scale, indicating neither low nor high scenic value. This average was 2.31 points lower than the average rating for the existing view. The difference between average ratings of the two views under cloudy skies was less than that observed with views showing sunny conditions. Four percent of respondents rated the view with the proposed wind farm under clouds at 7, 8% at 6, and 30% at 5 on the seven-point scale. In all, 43% rated the view positively and 42% rated it negatively (rating below 4). Thirteen percent rated scenic value of the view as neither low nor high (rating of 4).

These results show that natural environmental factors also affect how respondents rate scenic value, although not on the same scale as adding a wind farm to the view. Environmental variables, at least sun versus clouds, appear to have slightly more impact on how respondents rate views with no wind farm (average rating with clouds was nearly three tenths of a point lower than average rating without clouds) than they do on how respondents rate views with the wind farm (average rating with clouds was one tenth of a point lower than average rating without clouds).

The scenic value of the existing view from Sugarloaf was rated fairly high. The scenic value of the view with the proposed wind farm was rated as slightly low.

I would like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.
(comparing view #10 and view #11)



	Average (1-7)	Difference
Sugarloaf Existing View	5.07	
Sugarloaf with View of Redington Wind Farm	3.79	-1.28

Comments:

This viewpoint is 3.8 miles from the site of the proposed wind farm.

To assess how other man made features visible in the landscape affect the perceived value of a scenic view, respondents were asked to rate the actual view of the wind farm site from Sugarloaf Mountain, which includes man made features (chairlift, chairlift tower, small buildings in the foreground). This view (existing conditions) from Sugarloaf was rated significantly lower than views (existing conditions) from other locations. The scenic value of the view from Sugarloaf with the proposed wind farm in place was also rated lower than the scenic value showing the proposed wind farm from other locations.

Respondents rated the existing (no wind farm) view from Sugarloaf Mountain as fairly high (average rating 5.07). Eighteen percent rated it at 7 on the seven-point scale, 19% at 6, and 28% at 5 on the scale. In all, 65% rated the view positively (a rating above 4). Sixteen percent rated the view as neither low nor high (rating of 4). Fifteen percent rated the scenic value negatively (rating below 4).

The view that included the proposed wind farm was rated, on average, at 3.79 on the seven-point scale, indicating a slightly low scenic value, although this was only 1.28 points lower than average rating for the existing view. Three percent of respondents rated the view with the proposed wind farm at 7 on the seven point scale, 5% at 6, and 29% at 5 on the scale. In all, 37% rated the view positively (rating above 4), and 40% rated it negatively (rating below 4). Twenty percent rated scenic value of the view as neither low nor high (rating of 4).

These results show that visible man made features in the existing landscape affect how respondents rate scenic value. It should not be overly surprising that the view from Sugarloaf with the proposed wind farm has the lowest-rated average scenic value of any image shown to respondents, even though other viewpoints are closer to the wind farm. Visible man made features appear to have an additive rather than a linear effect on how respondents perceive scenic value. Visible man made features in the landscape lower average scenic ratings, but how many man made features are visible (i.e., the view from Sugarloaf with the wind farm added) has a less negative influence on how respondents rate scenic value.

The impact on the scenic value of views with the proposed wind farm was moderated by distance and by the presence of other man made features.

I'd like to have you look at some pictures of views from some locations along the Appalachian Trail and other nearby mountains and get your impressions. I will show you several sets of pictures and ask you to rate the scenic view.

I'd like you to rate the scenic value of the view on a scale of 1 to 7 where 1 means the scenic value is VERY LOW and 7 means the scenic value is VERY HIGH.

	Average (1-7)	Difference
Saddleback Mountain Existing View	6.50	
Saddleback Mountain with View of Redington Wind Farm	5.24	-1.26
Mount Abraham Existing View	6.30	
Mount Abraham with View of Redington Wind Farm	4.04	-2.25
Crocker Mountain	6.51	
Crocker Mountain with View of Redington Wind Farm	4.03	-2.47
Crocker Mountain with View of Redington Wind Farm (Black Blades)	4.01	-2.49
Crocker Mountain Existing View (Cloudy Sky)	6.23	
Crocker Mountain with View of Redington Wind Farm (Cloudy Sky)	3.92	-2.31
Sugarloaf Existing View	5.07	
Sugarloaf with View of Redington Wind Farm	3.79	-1.28

Comments:

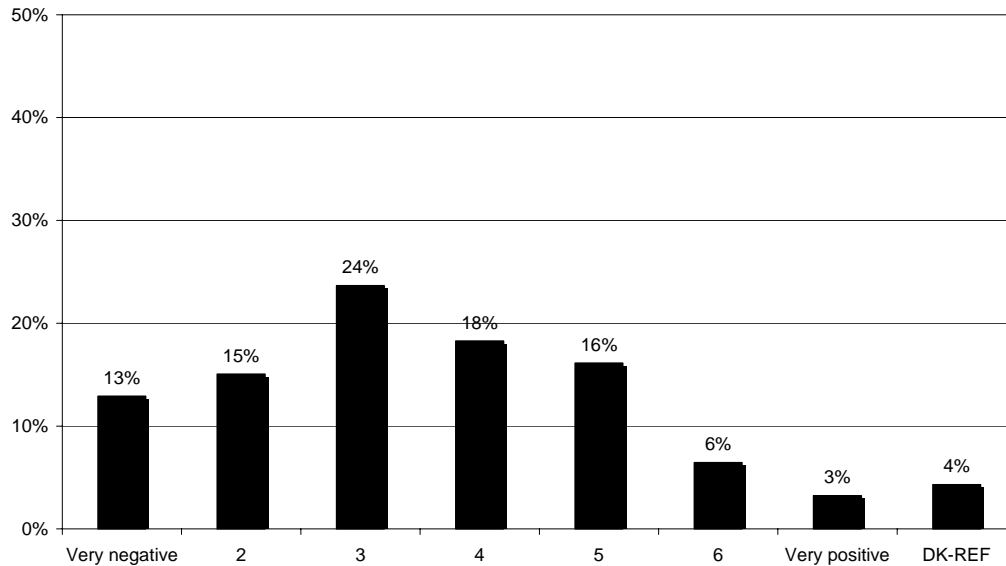
These results suggest that the negative impact of the proposed wind farm on the scenic value of a view is affected by how far the viewpoint is from the wind farm as well as by presence of other man made features in the landscape. Weather also appears to affect how respondents rate the scenic quality of a view, but it has a more negative impact on the existing view than on the view with the proposed wind farm.

The wind farm reduces the value of the scenic view from Saddleback Mountain, but it is important to note that, even with the wind farm, respondents still rated the scenic value of that view as high. The wind farm's perceived effect on views from Mount Abraham (4 miles) and North Crocker Mountain (1.5 miles) is comparable and significantly stronger than what was observed in the Saddleback view. This suggests that there is a "threshold" distance of about 4 miles, after which the wind farm's negative impact on the scenic value of a view remains the about the same, no matter how close the viewpoint is to the wind farm.

As suggested in the comments above on ratings for views from Sugarloaf, man made features affected the perceived scenic value of a view. Adding the wind farm to a landscape that already contained other man made features had less negative impact than adding it to a view without extant man made features. The negative impact of adding the wind farm to the view from Sugarloaf, 3.8 miles away, was equivalent to adding it to the view from Saddleback, 7 miles away.

Overall, respondents assessed the visual impact of the Redington wind farm as slightly negative.

Q33 Comparing these "before" views with their after counterpart(s), and thinking about the overall visual change that will result, please rate the visual impact of the Redington wind farm.



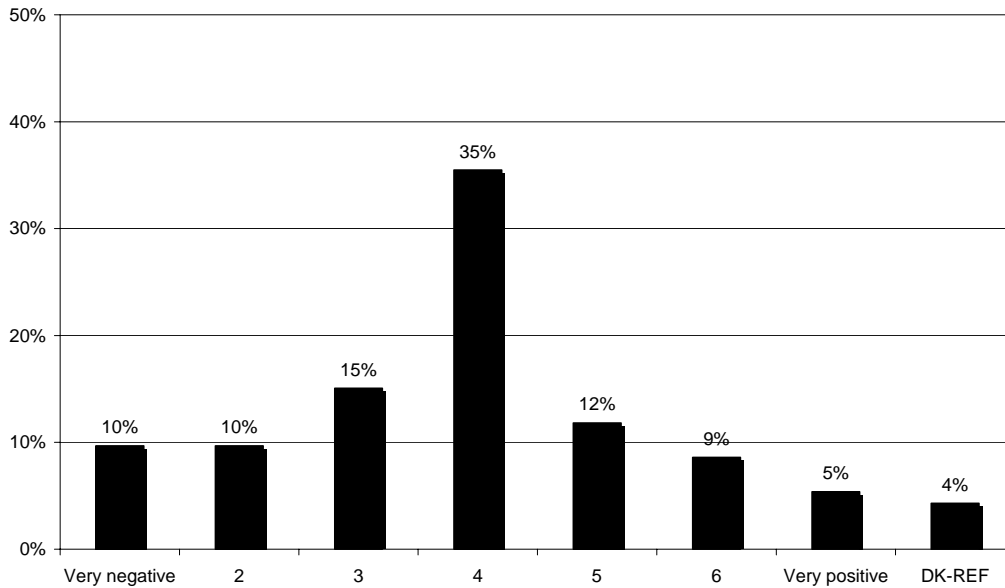
Average (1-7)	
Visual impact of Redington wind farm	3.44

Comments:

Respondents rated the overall visual impact of the proposed Redington wind farm from very negative to very positive on the same seven point scale. Their average rating was 3.44 or slightly negative. Twenty-five percent rated the visual impact as positive (above 4) and 18% rated the visual impact as neither positive nor negative (at 4), so, 43% of respondents felt that the proposed Redington wind farm would not have a negative visual impact. Fifty-two percent of respondents indicated that the proposed Redington wind farm would have a negative visual impact, (rating of less than 4).

Overall, respondents indicated that the proposed wind farm would have only a slightly negative to no impact on the quality of their hiking experience.

Q34 Now, thinking about the quality of your hiking experience here on the Appalachian Trail, how will the Redington wind farm impact on your hiking experience.



Average (1-7)

Impact of Redington wind farm on quality of hiking experience	3.81
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Comments:

Respondents were asked to rate the impact of the proposed Redington wind farm on the overall quality of their hiking experience using the same seven-point scale. On average, they rated impact on overall quality as 3.81, or no to slightly negative impact (again, an average score of 4 indicates no impact). Twenty-six percent responded that the proposed wind farm would have a positive effect on their hiking experience (rating of 5, 6, or 7), and 35% felt that it would have no effect (rating of 4), so 61% of respondents indicated that the proposed Redington wind farm would have either a positive effect or no effect on the overall quality of their hiking experience. Only 35% of respondents indicated the proposed wind farm would have a negative effect (rating of 1, 2, or 3).

Of the 35% of respondents who felt that the wind farm would lower the overall quality of their hiking experience, about six in ten (61%) indicated that it would alter the scenic view, 11% indicated that it would disturb the solitude of the area, 11% indicated that it would cause them to hike elsewhere, 6% indicated it would ruin the natural experience, and 6% indicated it would lessen their enjoyment of the area. Respondents who felt that the wind farm would have a negative impact on the overall quality of their hiking experience were also asked what could be done to reduce its visual impact. Thirty-four percent responded that nothing could be done, 31% mentioned coloring or camouflaging the towers and blades to match the surrounding scenery (green to blend into the forest or blue to match the sky). Other suggestions included moving the towers to another location where they would be less visible (6%), painting the blades (3%), and minimizing blade size (3%).

The impact of the proposed Redington wind farm on the quality of the hiking experience was not as negative as other evidence of human activity.

Q15 – Q20. Hikers on the Appalachian Trail see evidence of human activity. I'm going to read you a list of things hikers may see from the trail. Please rate the impact of each factor on the quality of your hiking experience. Again, we'll use the 1 to 7 scale where 1 means the factor will have a very negative impact and 7 means a very positive impact on your hiking experience.

Compared to impact of proposed Redington wind farm

	Average (1-7)
Views of industrial facilities such as a biomass generator, paper mill or landfill	1.7
Views of developed areas	2.5
Views of large clear cuts	2.6
Views of power lines	2.7
Views of roads	3.2
Views of ski trails and facilities	3.5
<i>Impact of Redington wind farm on quality of hiking experience</i>	3.81

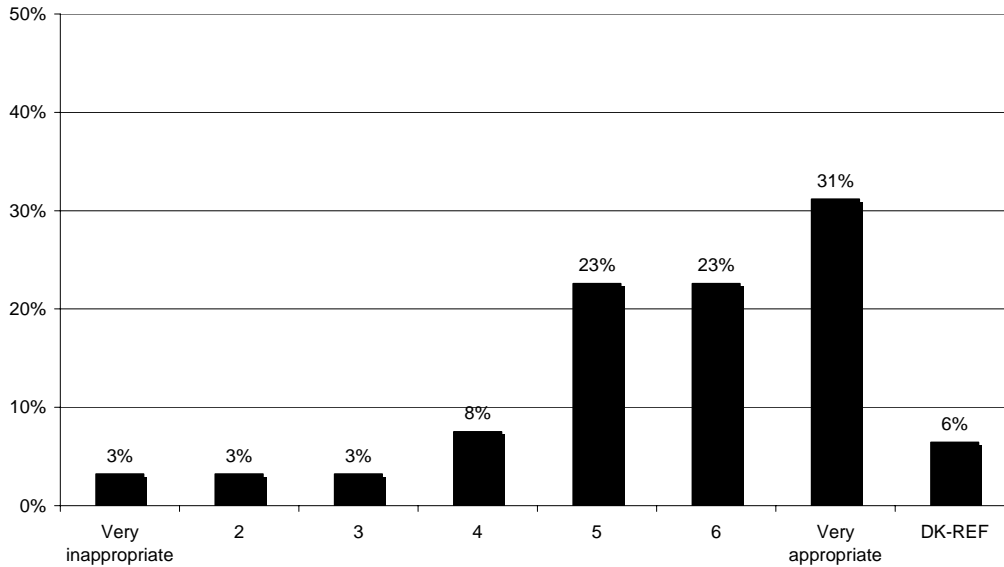
Comments:

As noted, respondents indicated, on average, that the proposed wind farm would have no or only a slightly negative impact on the quality of their hiking experience, other evidence of human activity, including views of industrial facilities, developed areas, clear cuts, and power lines, would have a more negative impact. Although respondents felt that views of roads and ski trail facilities would detract less from the quality of their hiking experience than views that included industrial facilities, developed areas, clear cuts, and power lines, views of roads and ski trail facilities would still have a somewhat more negative impact than views of the proposed Redington wind farm.

Opinions about Wind Power in General and about the Proposed Redington Wind Farm

Respondents believe wind power is somewhat appropriate for Maine.

Q21 Thinking about wind power development in general, please rate how appropriate it is for Maine on a scale of 1 to 7, where 1 means wind power is generally very inappropriate and 7 means it is generally very appropriate.



Average (1-7)

How appropriate is wind power for Maine?	5.52
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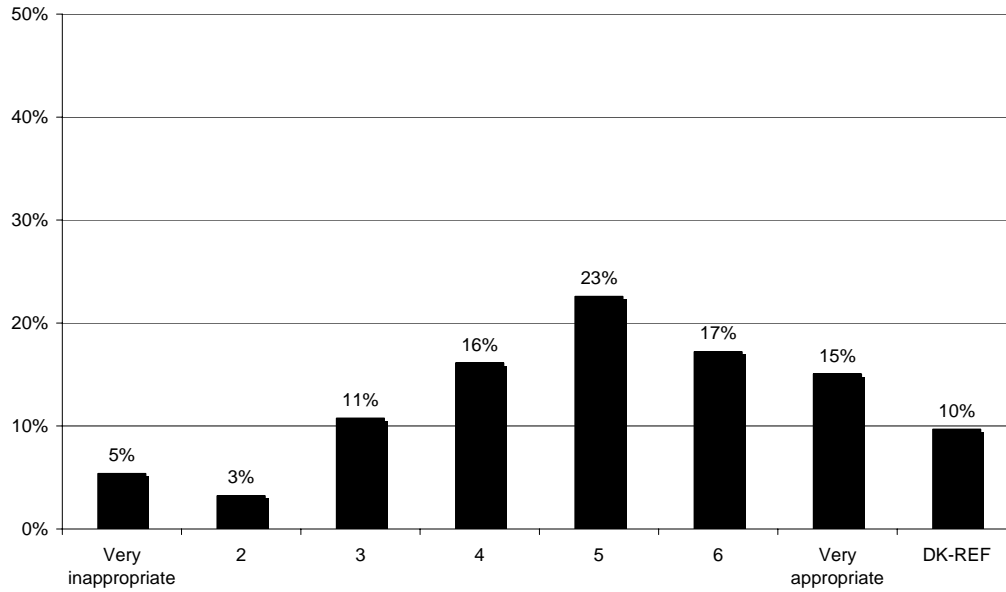
NOTE: this question was asked prior to showing respondents simulated views of the proposed wind farm.

Comments:

Respondents were asked to indicate how appropriate they felt wind power was for the state of Maine using a seven-point scale, 1 being very inappropriate and 7 being very appropriate. The average rating of 5.52 indicates that they felt that wind power was somewhat appropriate for Maine. Thirty-one percent believed that they felt wind power was very appropriate (a rating of 7), 23% rated it at 6 on the scale, and 23% at 5. In all, 77% of respondents felt that wind power was, in some measure, appropriate for the state of Maine. Eight percent were neutral, rating wind power for Maine as neither appropriate nor inappropriate. Only 9% indicated that wind power was to some degree inappropriate for Maine (rating of 1, 2, or 3).

After viewing photo simulations representing the proposed Redington wind farm respondents rated the wind farm as somewhat appropriate for Maine.

Q37 Now thinking specifically about the Redington Wind Farm proposal, how appropriate do you feel it is on a scale where 1 is very inappropriate and 7 is very appropriate.



	Average (1-7)	Difference
How appropriate is wind power for Maine?	5.52	
How appropriate is the proposed Redington wind farm?	4.76	-0.76

NOTE: this question was asked after respondents evaluated visualizations of the proposed wind farm.

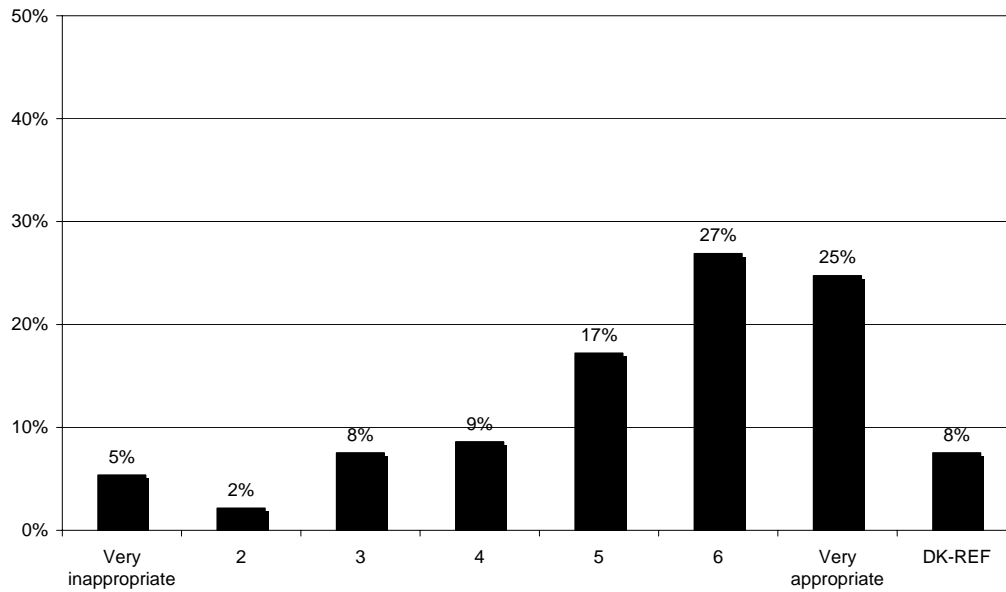
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Comments:

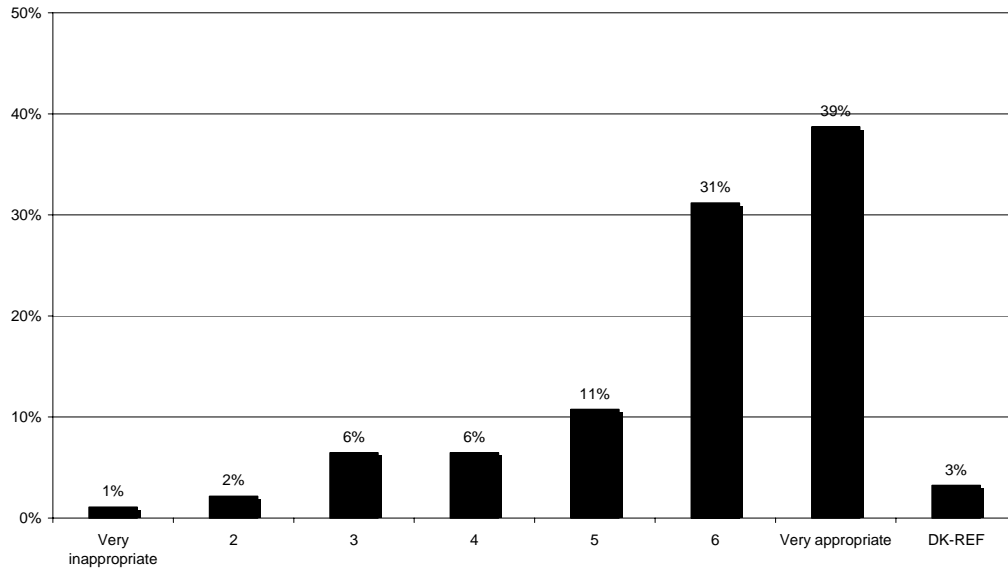
After examining photo simulations of the proposed Redington wind farm from different viewpoints, respondents were asked to evaluate its specific appropriateness on a seven-point scale (1 being very inappropriate and 7 being very appropriate). Their average rating was 4.76, or slightly appropriate. Fifteen percent indicated that they felt the proposed wind farm was very appropriate (rating of 7), 17% rated it at 6, and 23% at 5. In all, 55% of respondents considered the proposed Redington wind farm appropriate to some degree (rating of 5, 6, or 7). Sixteen percent were neutral, rating it as neither appropriate nor inappropriate. Only 19% indicated that the proposed Redington wind farm was inappropriate to some degree (rating of 1, 2, or 3).

Given its potential benefits, respondents were more likely to consider the Redington wind farm appropriate.

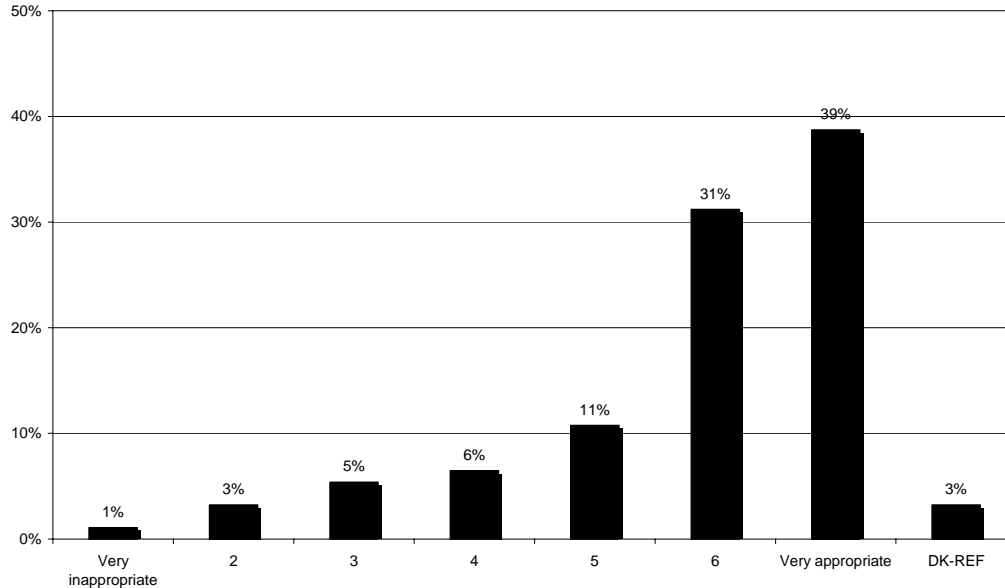
Q38 The Redington wind farm would generate enough power to supply 33,000 households.
Knowing this, how appropriate is the Redington wind farm proposal?



Q39 The Redington wind farm would reduce pollution by 600,000 pounds EVERY DAY since its energy would replace that generated by other sources. Knowing this, how appropriate is the Mount Redington Range wind farm proposal?



Q40 The wind farm could save the equivalent of 39,000 gallons of oil EACH DAY. Knowing this, how appropriate is the Redington wind farm proposal?



**Now I would like you to think about the possible impact, but factoring in some possible benefits to the Redington wind farm. I am going to read a list of factors, after each please rate how appropriate the Redington Wind Farm would be on this same seven point scale where 1 is very Inappropriate and 7 is very appropriate.
(Knowing this, how appropriate is the Redington wind farm?)**

	Average (1-7)	Difference
<i>How appropriate is the proposed Redington wind farm?</i>	4.76	
The Redington wind farm would generate enough power to supply 33,000 households.	5.27	+0.51
The Redington wind farm would reduce pollution by 600,000 pounds every day, the same amount as taking 19,000 cars off the road.	5.81	+1.05
The wind farm could save the equivalent of 39,000 gallons of oil EACH DAY	5.80	+1.04

Comments:

After their initial assessment of the appropriateness of the proposed wind farm, respondents were asked to reassess their ratings, taking into consideration some potential benefits of the wind farm. The benefits tested were that the wind farm would generate enough power for 33,000 households, that it would reduce pollution (since it would replace power generating capacity that uses fossil fuels), and that it would reduce oil consumption by the equivalent of 39,000 gallons each day. Respondents evaluated the appropriateness of the proposed Redington wind farm using the same seven-point scale as they did in their initial evaluation (from 1, very inappropriate, to 7, very appropriate). In each case, there was a significant increase both in the average rating and in the number of respondents who considered the proposed wind farm appropriate. The messages that appeared to influence respondents' opinions the most were reduction in pollution and consumption of fossil fuels.

The average rating after respondents were informed that the wind farm would produce enough electricity to power 33,000 homes, was 5.27, or somewhat appropriate. This was an increase of over half a point from the average pre-benefits assessment, a slightly positive impact. After learning of its power generating capacity, 69% of respondents rated the proposed wind farm as appropriate (a score of 5 or more, 9% rated it neither appropriate nor inappropriate, and only 15% still considered it inappropriate (a score of 3 or less). Knowing that the wind farm would reduce pollution by an equivalent of 600,000 pounds every day had a more positive effect: respondents' average rating of its appropriateness increased by over a point from their initial rating, to 5.82, or appropriate. After learning of its potential to reduce pollution, 81% considered the proposed wind farm appropriate (a score of 5, or more), 6% remained neutral, and only 9% still felt that it was inappropriate (a score of 3 or less). Learning that the wind farm could save the equivalent of 39,000 gallons of oil every day had a similar positive effect on perceptions: average rating of its appropriateness increased by over a point from the initial average rating, to 5.81, or appropriate. With knowledge of its potential to offset oil consumption, 81% now considered the proposed wind farm appropriate (a score of 5, 6, or 7; 6% remained neutral; and only 9% of respondents still thought it was inappropriate (a score of 1, 2, or 3).