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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.

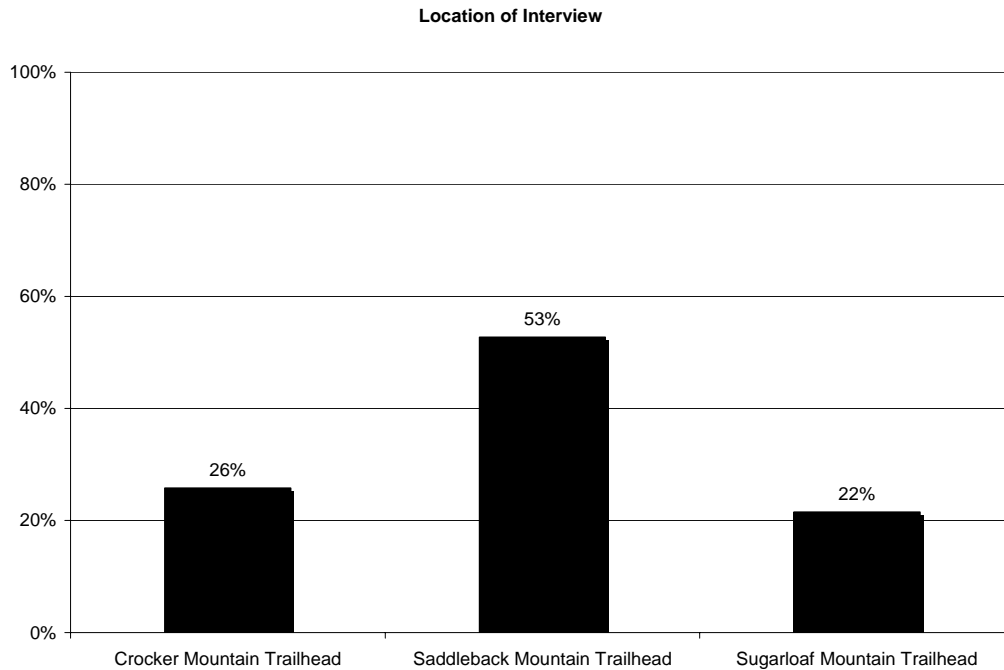
The sampling approach used during the course of this research was designed to target only those hiking along the trails and to exclude those using the areas for other purposes (such as picnics). Interviewers were positioned so they could intercept those hiking along the trail as well as those who parked 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)