



SURVEY RESULTS

ALTERNATE ENERGY IN THE BACKCOUNTRY

December 2009

BACKGROUND

The purpose of the survey was to obtain backcountry users' opinions on the visual, ecological and cultural impacts of alternate energy systems at huts, lodges and teahouses in Canada's mountainous regions.

Increased environmental protection standards and recent technological advances for managing grey water and sewage are driving backcountry facilities into a higher energy environment. This can mean larger diesel generators, more propane use, or a shift to alternative energy systems (solar, wind, micro-hydro).

One of BEES's missions is to promote functional, economical and environmentally appropriate energy solutions at recreational facilities in the backcountry. This includes a reduction in the amount of fossil fuels used in construction, transportation, and maintenance. Alternate energy technologies represent a positive move away from fossil fuel use. However, solar panels, wind turbines and micro-hydro systems have other drawbacks.

Are solar panels considered visually acceptable for use in the backcountry or the National Parks? What about a wind turbine and its associated tower? Are the alterations to a stream and the noise from a micro-hydro system acceptable trade-offs to using a diesel generator? Are the visual impacts from alternate energy systems considered less important than the ecological and environmental benefits? Do alternate energy systems significantly alter the wilderness experience and the rustic appearance of the building? Is there a backcountry users culture that supports alternate energy systems?

The survey was posted on the BEES website. The Alpine Club of Canada's (ACC) NewsNet carried a link to the survey in mid-October. The survey was also distributed to Backcountry Lodges of British Columbia Association (BLBCA).

The survey was short, consisting of six questions. Two of the questions were open ended. There were 85 responses to the survey, which is enough to make the survey statistically valid. All responses were received anonymously.



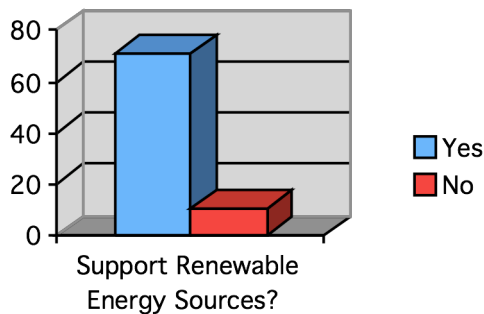
SURVEY RESULTS

Question 1

In the backcountry, energy is required for heating, cooking, lighting and ventilation. Currently most backcountry sites in the Canadian Rocky Mountains rely upon sources of energy such as wood and propane. Would you support renewable sources such as solar, micro-hydro and wind power if it meant changing the appearance and basic facilities at existing sites?

Results:

Yes: 71 No: 10



Common Themes:

In order of most mentioned to least mentioned:

1. Alternate energy systems considered OK as long as they were cost effective and reliable.
2. Some negative responses cited a concern for keeping the experience rustic: simple structure, no electric lights, no noise, and in keeping with the wilderness experience.
3. Solar was generally perceived as having less environmental impact than wind or micro-hydro.
4. There was concern for ecological impact of wind turbines and micro-hydro systems (noise, birds, bats, fish).
5. Sustainability was perceived to be more important than the visual appearance.
6. Wood and propane were perceived as being expensive and wasteful.
7. Alternate energy systems will likely lower operation costs over the long term.
8. Methods to reduce energy needs with architectural technology (insulation, windows, etc.) should be a priority.
9. Solutions are site specific.



Question 2

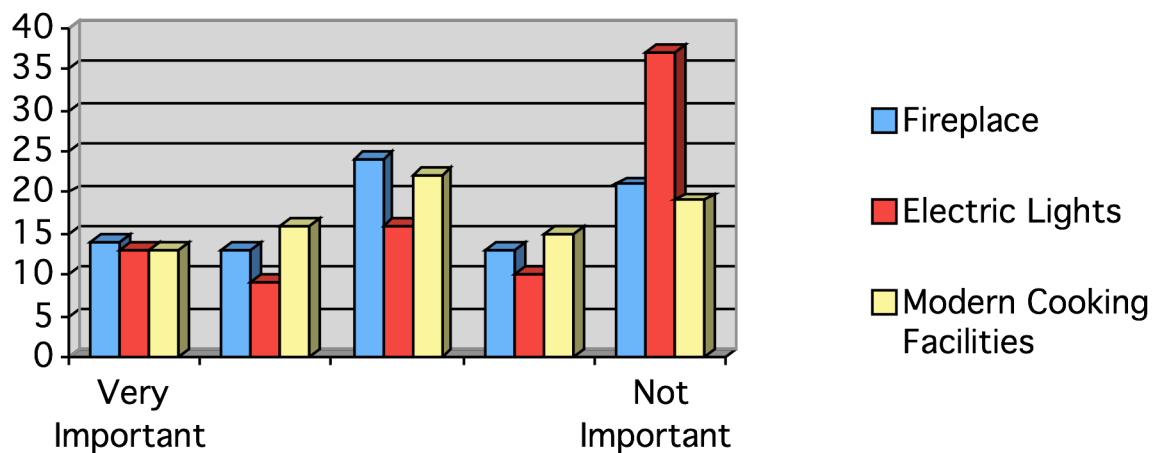
Tell us what is important to you when you are staying at a backcountry facility. On a scale of 1-5 where 1 is very important and 5 is not at all important:

How important is it to have a wood-burning fireplace? _____

How important is it to have electric lights? _____

How important is it to have modern cooking facilities? _____

Results:



1. More people considered electric lights to be not important.
2. The importance of a fireplace was considered equally important and not important.
3. The importance of modern cooking facilities was considered equally important and not important.

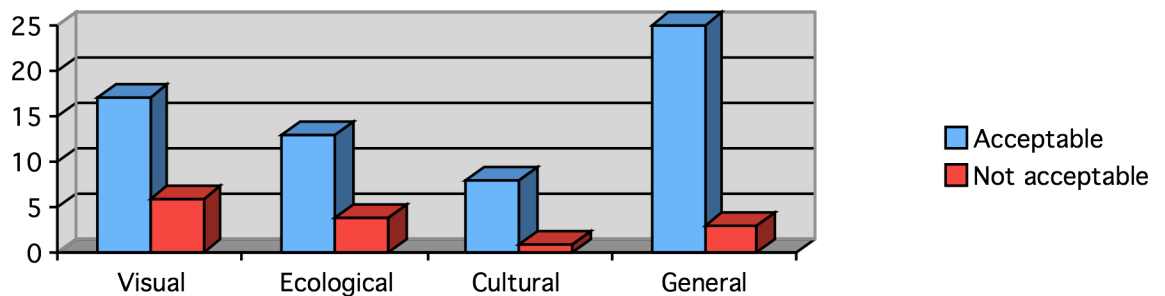


Question 3



The photos above provide some examples of alternate energy sources at backcountry facilities. What are your views on the visual, ecological and cultural impacts?

Results:

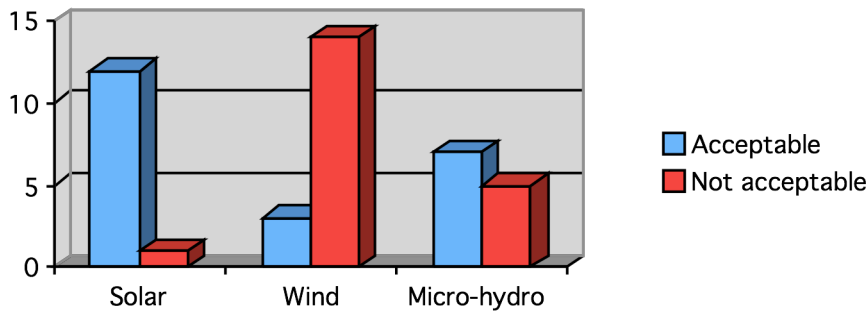


Notes:

Comments that were not specific about visual, ecological or cultural impacts were grouped into a “general” category. These included comments such as “I have no problem with any of these” and “all seem fine to me”.



Some responses wrote specifically about the visual, ecological and cultural impacts of solar, wind and micro-hydro.



Notes:

Solar was visually acceptable to all but one responder.

The negative impacts for wind turbine were mainly due to possible noise and bird issues.

The negative impacts for micro-hydro were mainly due to stream flow and aquatic life disturbances.

Common Themes:

In order of most mentioned to least mentioned:

1. Any chosen energy system is acceptable as long as it is the best choice in terms of sustainability, minimal footprint, and reduced environmental impacts.
2. Alternate energy systems were acceptable if they blended into the surroundings and installed tastefully.
3. Ecological impacts are more important than visual or cultural impacts.
4. Concern about bird/bat/fish/noise impacts from wind turbine and micro-hydro.
5. Concern about the visual impacts of large towers for wind turbine.
6. No light is required on or in an outhouse.
7. Culturally renewable energy sources are a “leap forward”, “one of hope and encouragement”, “progressive and necessary”, and “we should embrace the visual changes”.
8. A building in the backcountry is manmade, not natural to the surroundings, and shouldn’t be there.
9. Alternate energy systems would reduce helicopter traffic and save costs in the long term.

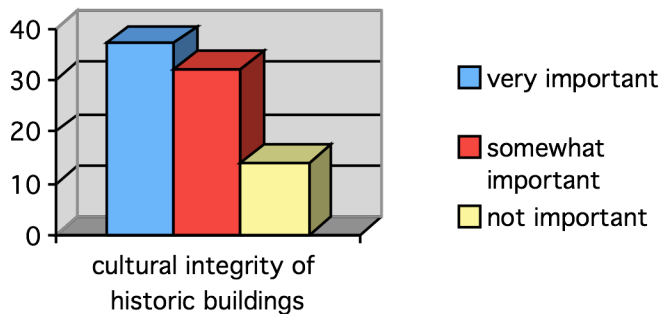


10. Need to consider life cycle costs.
11. There is a need to consider good construction and efficient buildings to reduce energy requirements.
12. Huts in the backcountry increase safety.

Question 4

How important is it to maintain the cultural integrity of historic lodges, huts and teahouses? Very important ____ Somewhat important ____ Not important ____

Results:

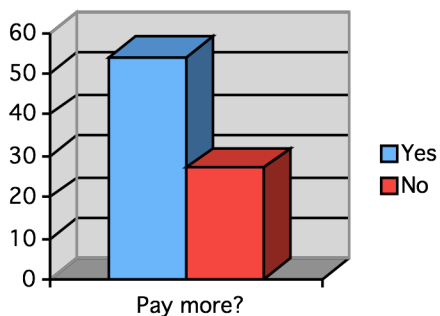


Question 5

Would you be willing to pay more to stay at a backcountry facility if it meant that facility could utilize an alternate energy source?

Results:

Yes: 54 No: 27

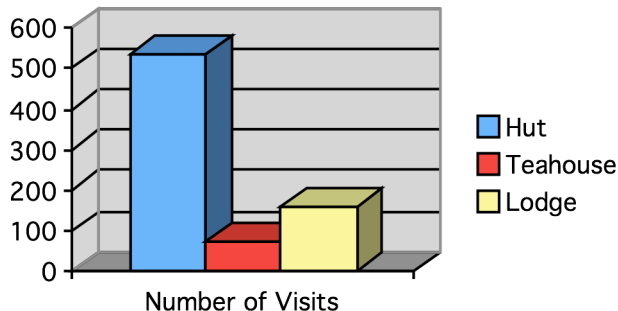




Question 6

How often in the past 3 years have you visited a Rocky Mountain backcountry hut _____ teahouse _____ lodge _____.

Results:



SURVEY EVALUATION

Weaknesses in the survey include:

1. Some of the pictures were considered too small by some respondents on which to make comments.
2. Two respondents complained that the survey converted their responses to gobbledygook. The Webmaster insisted it worked fine.
3. Some respondents did not understand what the survey meant by “cultural impacts.”

AREAS FOR FURTHER RESEARCH

1. Many responses in this survey were not in favour of electric lights. It would be interesting to see the responses if one had to choose from all available types of lighting technologies such as kerosene lamp, propane lights, candle, electric lights (LED), and headlamps. The choice would have to be an informed one with information provided about costs, environmental impacts, user friendliness, and cultural attributes.
2. The negative bird and bat effects by wind turbines are based on research from wind farms (multiple wind turbines). It would be interesting to find out if there are similar effects from just one turbine.