



HOW TO CRITICALLY

Evaluate Information

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This document is one of a series of reports and guides that are all part of the NYSERDA Wind Energy Tool Kit. Interested parties can find all the components of the kit at: www.powernaturally.org. All sections are free and downloadable, and we encourage their production in hard copy for distribution to interested parties, for use in public meetings on wind, etc.

Any questions about the tool kit, its use and availability should be directed to: Vicki Colello; vac@nyserda.org; 518-862-1090, ext. 3273.

In addition, other reports and information about Wind Energy can be found at www.powernaturally.org in the on-line library under “Large Wind.”

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How to Critically Evaluate Information

As a town official you are inundated with information. Some of it is valid and helpful in determining what is right for your community, but some of it can be misleading. However, sifting through this material to identify what is fact and what is rumor can be done quickly and efficiently.

Authorship and Funding Sources

When you receive a document in the mail or visit a site on the Internet, ask and answer the following questions:

- 1) Who authored this document? What are his or her credentials, education, reputation, experience? Is this document on a topic in the author's area of expertise? Does he or she belong to reputable organizations? Has he or she been published in reputable journals? Is his or her work cited by other reputable authors in the field?
- 2) Is the information presented current, or out of date?
- 3) Who funded the study/research/document? Does the funder have a vested interest in the topic?
- 4) What is the mission statement of the funding/publishing organization(s)?

Answering these questions will tell you a lot about the purpose of the document and the veracity of the information presented. Though bias and passion about a topic does not necessarily mean the information is faulty, understanding the bias will help you critically evaluate the information presented in the document.

Internet Sources

When reading material on the Internet, you can often find out a lot about the author and sponsors of the website by clicking on "View" and choosing "Source" from the dropdown menu. This allows you to view the source code for the website. Do not be scared off by the code. In the first several lines you will often see words in plain English. This section of code gives information on the author, on organizations that provided funding, and keywords for internet searches. For example, a site on wind energy may include keywords such as "wind" and "technology". If you search on any of these words in an internet search engine, then this website would be listed in the search results. The types of keywords listed may provide a clue as to the desired audience or supporters of the website. You may discover that the author or sponsor for a website is an entity you were not expecting and this knowledge will help inform your evaluation of the site contents. For example, an organization creates a website against new Product X. When viewing the source code, you see that Product Y is a sponsor and you know that Product

Y is a direct competitor of product X. Therefore, you will want to be careful in trusting any claims made against Product X since Product Y has a vested interest in preventing Product X from increasing market share.

Another clue to the validity of information presented on the Internet can be gained by looking at any links provided to other sites. Reputable websites, such as those maintained by universities and government agencies, do not link to websites maintained by amateurs or fringe organizations.

When reading a document on the Internet, you should also look at its Internet address (URL) to help determine whether what you are reading is provided by an official or institutional source, a business, or someone's personal webpage. Information provided by businesses should be viewed as advertising. Documents appearing on personal webpages should be approached with extreme caution. If you do not know how to find or decode the URL, the document *Understanding and Decoding URLs* will be of help. See "Additional Resources" at the end of this document.

Original Source of Quotes

It has become increasingly easier for people and organizations to plagiarize quotes and other information or take a quote out of context and propagate that new context for the quote without proper citation. Every quote should be properly cited in a footnote or endnote/bibliography. If the quote is not properly cited that could indicate the quote is not factual or has been taken out of context. Try to locate the original source either through an Internet search or through your local librarian. Librarians are very adept at locating original sources. If you cannot track down the original source, a red flag should be raised on the veracity of the quote as well as the other information presented in the document. If you find the original source, look up the quote to verify its accuracy and that it has not been taken out of context.

Citations

Reputable publications always include references to support statements of fact, so the reader can check the original sources of information cited. When reading an article, look for a list of references or works cited, and check for a bibliography. The references and bibliography can give you clues as to the quality of the author's research. Does the author cite reputable sources? Can you contact the author or webmaster to ask for, and receive, the sources used?

Anecdotal Evidence

Some of the information presented in a document may be anecdotal. Check to see if the author supports the claims made in the anecdote with evidence from other sources such as a scientific, peer-reviewed study. If not, then the quote should be taken as is, a one-time statement by someone who may be speaking from direct experience or hearsay. Understanding the author's motivation and funding sources plays a role in determining how much credence you give the anecdotal evidence. Be wary of claims that sound either outlandish or too good to be true.

Taking Information with a Grain of Salt

The way information is presented can give you a clue as to how objective and complete it is. Do you detect a political, social or commercial agenda? Does the language try to inform or persuade? Are opposing perspectives presented in a balanced way? What is the tone of language used (angry, sarcastic, balanced, educated)?

Whether a document is for, against, or neutral on a topic, take it with a grain of salt. It may contain a bias or assumptions that form the context of the document. Apply critical thinking skills and common sense:

- How verifiable is the information?
- Are the claims outlandish or too good to be true?
- Underneath the rhetoric, does some actual or perceived risk/reward exist?

By applying these simple skills, and not accepting everything at face value, you can sift through the information to determine what is accurate and what issues are the most important to you and the community you represent.

Additional Resources

The following university websites offer further suggestions on how to critically analyze sources of information:

Ormondroyd, Joan. *Critically Analyzing Information Sources*. Olin & Uris Libraries. Cornell University. October 6, 2004. Updated and edited by Michael Engle and Tony Cosgrave. <http://www.library.cornell.edu/olinuris/ref/research/skill26.htm>

Information Navigator. *Critically Evaluating Information*. Spencer S. Eccles Health Sciences Library. University of Utah. September 2, 2003. <http://medstat.med.utah.edu/navigator/module3/evaluation.htm>

Kirk, Elizabeth E. *Evaluating Information Found on the Internet*. The Sheridan Libraries. Johns Hopkins University. 1996.

<http://www.library.jhu.edu/researchhelp/general/evaluating/>

Kirk, Elizabeth E. *Understanding and Decoding URLs*. The Sheridan Libraries. Johns Hopkins University. 2004.

<http://www.library.jhu.edu/researchhelp/general/evaluating/url.html>