



Market Progress Evaluation Report
Energy Ideas Clearinghouse

prepared by
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Energy Ideas Clearinghouse Market Progress Evaluation Report

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Executive Summary

Since 1990, the Energy Ideas Clearinghouse (EIC or Clearinghouse) has served energy professionals in the Pacific Northwest by providing fast, centralized access to comprehensive and objective information and technical assistance on energy-related topics.

The Clearinghouse was originally funded by Bonneville Power Administration (Bonneville), which saw the need for a centralized source of energy-related information as it entered the commercial and industrial demand-side management arena.

In 1997 the Northwest Energy Efficiency Alliance (the Alliance) began funding the program in support of its market transformation efforts. The Alliance hoped that the Clearinghouse could target its informational services to decrease at least two market barriers that limit the adoption of energy-efficient practices:

- Lack of awareness of how energy is used and the associated energy/non-energy benefits
- Search and acquisition costs of energy efficiency information.

In our first Market Progress Report (September 1999), *quantec* completed a comprehensive analysis of the EIC, including interviews with program staff, an examination and analysis of the program database, surveys with current, prior, and nonusers of the Clearinghouse, and a Web site analysis. In the second Market Progress Report, completed in May 2000, *quantec* examined the EIC tiered service structure (or the “inverted pyramid approach”) to information dissemination.

This evaluation examines a number of additional topics concerning the Clearinghouse, including updated statistics about services, use, staffing, and funding for the Clearinghouse; a benchmarking study that compares the Clearinghouse Web site (EnergyIdeas.org) to other energy Web sites; a survey of listserv participants to examine the use and interest in the various energy listservs; and additional analysis of the Web site online survey.

Program Characterization

The Clearinghouse currently offers three primary services: a telephone hotline, a Web site, and a number of energy listservs.

Telephone Hotline

The EIC received a total of 763 inquiries, from 539 clients, in 2000. This was a 16% increase in the number of cases and a 14% increase in the number of clients from 1999 to 2000, and was the highest number of cases since 1995. In addition, 83% of the callers were from the Northwest, and approximately 79% of the phone calls were from first-time callers.

Table ES-1
Number of EIC Hotline Cases and Clients

Year	Cases			Clients (Callers)		
	Total	Total Northwest	Percent Northwest	Total	Total Northwest	Percent Northwest
1995	971	906	93%	682	624	92%
1996	708	682	96%	488	463	95%
1997	440	429	98%	309	299	97%
1998	422	417	98%	297	292	98%
1999*	657	614	93%	473	432	91%
2000**	763	663	87%	539	446	83%

* Approximately 85 cases concerning a cooperative project with the Consortium for Energy Efficiency on the procurement tool kit are not included in this table or in the analysis.

** Includes 24 inquiries from Energy User News and Home Energy ads (reader response cards) and 24 EREC inquiries that were reviewed and responded to by EIC.

The majority of the callers were from utilities (19%), government (17%), engineering/architectural/consulting firms (16%), and research/educational facilities (14%). Residential customers were down in 2000 (13%) compared to previous years. More than half of the calls in 2000 (54%) were regarding the commercial sector.

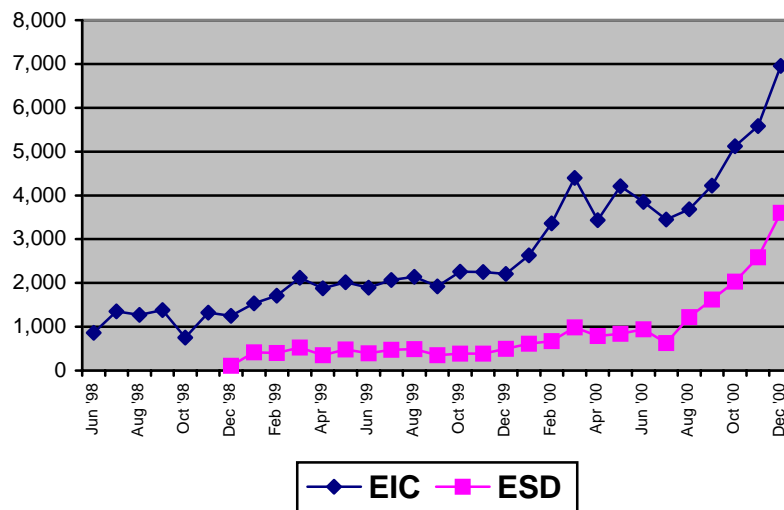
EnergyIdeas.org Web Site

The EnergyIdeas.org Web site has incorporated many of the services that were previously on the Bulletin Board System (BBS) and some new services as well, including energy-related job listings, a calendar to search for energy conferences, meetings, or upcoming events, links to energy software, publications, tools for energy professionals, links to newsgroups and current news about energy efficiency nationwide, links to other Web sites with energy information, and an Energy Solutions Database (ESD).

The Web site also underwent a major redesign in July 2000. The new site incorporated a “tab” layout where the major features of the page (Energy Solutions, Jobs, Events, and Library) were presented in “tabs” at the top of each page.

As shown in Figure ES-1, the Web site user sessions increased dramatically over the past three years, rising steadily each year. In 1998, for example, the site averaged about 1,170 user sessions per month; in 1999 user sessions nearly doubled to 2,000 per month, and in 2000 user sessions more than doubled to 4,241 per month. The user sessions were increasing dramatically throughout the second half of 2000, reaching nearly 7,000 users by December 2000. The number of unique users per month also had a substantial increase from 1999 to 2000 (309 to 843 per month).

Figure ES-1
Total Web Site User Sessions



Listservs

The EIC currently manages nine listservs:

- ***EnergyAg*** –Highlights selected articles just received in the WSU Energy Library (74 subscribers)
- ***LGEnergy*** – Shares news and information on energy efficiency of interest to local governments in the Pacific Northwest (65 subscribers)
- ***Energy Newsbriefs*** – Weekly profiles of new information that the WSU Energy Library received in energy-related professional journals (423 subscribers)
- ***Alliance*** – This listserv, with three sets of members, provides Northwest utility staff, Northwest Energy Efficiency Alliance partners, and other interested parties with timely information about Alliance-sponsored activities. (699, 149, and 59 subscribers)

- ***AIACOTE*** –Serves the American Institute of Architects and Committee on the Environment, and functions mostly as a communication resource for committee members as opposed to a public listserv (17 subscribers)
- ***AIA Council*** – A private e-mail list for the Puget Sound American Institute of Architects General Counsel (30 subscribers)
- ***BuiltGreen*** – A private listserv for the members of the King and Snohomish County Master Builders to discuss green building techniques and practices (75 subscribers)
- ***PHV*** – For staff working on the Public Housing venture for the Alliance, Alliance staff, and public housing administrators in the region to talk about activities in the Public Housing venture (53 subscribers)
- ***WASustain*** –For Washington State agencies interested in discussing sustainability issues (27 subscribers)

Subscriptions to most of the listservs increased dramatically from 1999 to 2000. For example, Energy Newsbriefs experienced a 98% increase in the number of subscribers, Alliance 1 subscribers increased 66%, and EnergyAg subscribers increased 363%.

Other Activities

The EIC staff also supports a number of other Clearinghouse information services. This allows synergies in terms of staffing and resources. These other programs include Western Area Power Administration (WAPA) and the Southeastern Power Administration (SEPA) Powerline program, and the Department of Energy (DOE) Office of Industrial Technologies (OIT) Clearinghouse

Marketing

EIC conducted a number of marketing activities during the past year, including direct marketing using various low cost techniques to promote the EIC and the EnergyIdeas.org Web site, published articles by EIC staff, presentations at conferences/events, posting EIC information on Listservs, reciprocal Web linking/coordination, and advertising. The EIC marketing activities, combined with the energy crisis, led to the substantial increase in hotline calls and activity on the Web site.

Web Site Benchmarking

In an effort to assist the EIC in evaluating the EnergyIdeas.org Web site, quantec investigated “competitive” energy information sites. Comparisons were made along a number of parameters, including target audience, revenue

streams, comprehensiveness, organization (interface), crosslinks, and search engine rankings.

A total of 38 other sites were investigated. The majority of the sites examined (34 of the 38) were associated with energy. Approximately half of the energy sites targeted energy professionals; the other half aimed for the general public. Some of the findings included:

- Almost half of the sites examined (44%) received funding from either the U.S., foreign, or state governments. Other sources of site funding included sales (16%), member organizations/sponsors (16%), and grants (13%). Only four of the 38 sites (11%) charged membership fees to access information.
- Very few of the sites we examined offered searchable job databases in the energy industry (most pages were for jobs at the site or sponsoring company).
- Most sites that listed energy events tended to focus on their own events.
- Most sites with news activities tended to focus on news within their organization, not general energy. Other sites tended to have more general energy news but very little on energy efficiency.
- Many of the sites we examined offered fact sheets, articles, or reports that could be useful links for the Energy Solutions Database.
- Only two sites – WAPA Energy Services and EREN – offered an “Ask an Expert/Technical Question” feature that was open to the public.

Web Master Interviews

In an effort to further understand how the EIC site compares with other energy information sites, quantec contacted a number of energy site Web Masters. The interview included 12 questions to evaluate operations strategies. We attempted to contact 16 sites, successfully completing interviews with eight Web Masters. Some of the findings included:

- All but one of the sites reported that they are frequently updating their sites – daily, weekly, or “continuously.” Major upgrades, however, happen far less frequently, usually every one to two years.
- Most of the sites had just a few people – often just part-time – working on them.
- The tasks were typically delegated between developers and content providers, and normally there were more content providers than developers.

- All of the sites except one generated content from internal staff. A number of the sites, however, did find it necessary to contract out some of the programming work.
- All of the Web Masters said that they use fairly standard marketing techniques to promote their pages, including registration with the search engines, reciprocal links from other pages, and direct e-mail (maintaining a mailing list). Web Masters also tried to promote their sites through any print materials associated with the organization maintaining the site.
- Most of the Web Masters reported two primary challenges in the future: keeping both the content and technology current. These challenges reflect both the emphasis of the Web on current, up-to-date information and the rapidly changing field of Web technology.

Survey of Listserv Recipients

In order to better understand recipient satisfaction and use of the various EIC listservs, quantec conducted a survey of listserv participants. The surveys were conducted over the Internet using a Web form, and a number of efforts were made to increase the response rate of the surveys, including offering five gift certificates as prizes, with values of \$100 each.

There was a total sample (listserv subscribers) of 648 people. We received 187 responses to the survey for an overall response rate of 29%. The response rate was highest for Energy Newsbriefs, the largest listserv (31%), and lowest for EnergyAG (21%). The findings from these surveys included:

- Most of the respondents receive the listserv at work (79.7%) or at home and work (9.1%).
- Most of the recipients (approximately 69%) live in the Pacific Northwest. Washington was the most common state represented (36%), followed by Oregon (23%).
- The recipients of the listservs also indicated that they actively use the other EIC services: more than half of the respondents called the hotline (55%), used the Energy Solutions Database (50%) or used other services from EnergyIdeas.org (55%).
- Word of mouth (46% of the respondents) and the EnergyIdeas.org Web site (30% of respondents) were the most common ways that people learned about the listservs.
- Similar to the hotline and online survey, recipients of the listservs tended to work for utilities (18%), research institutes/universities (12%), or federal/state/local government (24%).
- The recipients of the listservs indicated that they actively follow the links to the energy stories: more than half of the respondents (57%)

reported that they “often” or “always” follow the links (three or more stories a month).

**Table ES-2
Frequency Follow Links to the Featured Articles**

Source	Frequency	Percent
I have never followed a link to a story	7	4%
I rarely follow the links (< 1 story/month)	5	3%
I sometimes follow the links (1-2 stories/month)	68	36%
I often follow the links (3-5 stories/month)	19	10%
I always follow the links (6 or more)	88	47%
Total Respondents	187	100%

- In addition to actively following the links to the stories, nearly half of the respondents (49%) reported that they have used the technical data from the listserv stories to support a decision.
- Listserv recipients generally found the information valuable: 80% of the listserv recipients found the listservs either valuable (71%) or very valuable (9%).

Online Survey

A subset of questions from the telephone surveys in the first two Market Progress reports was developed as an online questionnaire. There were a total of 387 valid responses as of January 2001. There were a number of interesting findings from the survey, including the following.

- Almost half of the respondents (48%) lived in either the Pacific Northwest or California.
- The majority of the respondents worked for either utilities (20%), engineering/building design/construction firms (16%), government (15%), or research/education (12%). The breakdown by business type generally matched the hotline database.
- Many of the respondents also had decision-making responsibilities within their companies, as 9% indicated that they were organization executives and 28% reported that they were program or department managers.
- More than half of the survey respondents (54%) reported that they were accessing the page for the first time when taking the survey. There was, however, a loyal group of Web site users (18%) that access the page at least once a week.

- The most popular sites accessed remained the links page (74%) and the ESD (72%), and both of these pages were also reported as the most useful pages.
- Overall satisfaction with the EIC Web site was quite high: 71% of the respondents gave the site a score of “4” or “5”, with an average score of 3.9 (out of “5”, with “5” being “extremely satisfied”).
- Respondents reported that they were slightly more satisfied with the appearance of the site after the relaunch (3.9 vs. 3.8), although the speed and overall satisfaction of the page generally remained unchanged.
- Users of the site also indicated that they make good use of the information: 40% of the respondents lent/copied materials for others, and 46% used technical data to support a decision.

Conclusions

Marketing efforts, in conjunction with the California Energy Crisis, have led to an increase in hotline inquiries and Web site traffic. Hotline inquiries increased from 657 in 1999 to 763 in 2000 (a 16% increase), while user sessions increased from 1,170 per month in 1998, to 2,000 in 1999 to 4,241 in 2,000.

The EIC Web site, when compared to the others, shines as a comprehensive source of energy efficiency news, jobs, events, and information. No other site offered the range of energy efficiency information that the EIC site offers.

The EIC is effectively reaching its target audience with low cost methods of information distribution. As indicated by the surveys of Web site users and listserv recipients, the EIC continues to reach energy decision makers, many of whom live in the Northwest. The popularity of the Web site and listservs also indicate that these relatively low cost methods of information dissemination are successfully working as the “frontline” to more expensive methods of technical assistance.

The EIC is developing and maintaining the EnergyIdeas.org Web site using an appropriate level of resources. Based on interviews with other Webmasters the EIC seems to be using a similar number of staff members and resources to develop the content and programming of the EnergyIdeas.org Web site.

The recipients of the listservs actively follow the links to the articles and make use of the information. Based on a survey of 187 EIC listserv participants (29% of the population), the respondents found the information extremely valuable: more than half (57%) reported that they “often” or “always” follow the links (three or more stories a month) while almost half

(49%) reported that they have used the technical data from the listserv stories to support a decision.

Overall satisfaction with the EIC Web site was quite high. 71% of the online survey respondents gave the site a score of “4” or “5”, with an average score of 3.9 (out of “5,” with “5” being “extremely satisfied”).

Web site visitors reported that they use the information. Users of the site also indicated that they make good use of the information; for example, 40% of the respondents lent/copied materials for others, and 46% used technical data to support a decision.

Recommendations

Model features/layout from the most professional sites. The EIC could strive to be the energy efficiency hub, modeling the page after the well founded and highly regarded for-profit Energy Central Web page.

Consider partnering with other Web pages. The EIC should consider partnering with other energy Web pages to exchange not only links, but content.

Update all Web link resources. The EIC should consider either having staff periodically check these links or only place links to other resources that are least likely to be moved or removed from the Web.

Promote Energy Newsbriefs and the other Listservs. The EIC should consider having a “sign up to receive our newsletters” box on the home page and should make sure that all callers to the hotline are signed up to receive an appropriate listserv.

Attempt to populate the database based on queried topics. The EIC may want to consider a quantitative analysis to compare the number of inquiries compared to the number of ESD database cases per area.

Attempt to evaluate user satisfaction with the ESD. The EIC should consider a simple pop-up question that appears with the responses to evaluate how users are finding the information.

Make it easy to submit cases (queries) from the Web page. Users should be able to check “have EIC do a custom search” either from the Home page or after an ESD query.

Continue to set up reciprocal links. There were a number of important energy Web sites that were still not linked to EIC.

I. Introduction

Since 1990, the Energy Ideas Clearinghouse (EIC or Clearinghouse) has served energy professionals in the Pacific Northwest by providing fast, centralized access to comprehensive and objective information and technical assistance on energy-related topics.

The Clearinghouse was originally funded by Bonneville Power Administration (Bonneville), which saw the need for a centralized source of energy-related information as it entered the commercial and industrial demand-side management arena.

In 1997 the Northwest Energy Efficiency Alliance (the Alliance) began funding the program in support of its market transformation efforts. The Alliance hoped that the Clearinghouse could target its informational services to decrease at least two market barriers that limit the adoption of energy-efficient practices:

- Lack of awareness of how energy is used and the associated energy/non-energy benefits
- Search and acquisition costs of energy efficiency information

The Clearinghouse currently offers three primary services: a telephone hotline, a Web site, and a number of energy listservs.¹

Customers served by utilities in the Pacific Northwest can call (toll free), e-mail, or fax questions concerning energy use into the Clearinghouse hotline. Topics include (but are not limited to) motor systems, HVAC, industrial electrotechnologies, life cycle cost analysis, computer simulation, energy policy, agricultural energy issues, and cogeneration. Responses to questions, usually within eight hours, can take a number of forms, including:

- A literature search
- Publication or fact sheet
- Product or pricing information
- Engineering assistance or analysis
- Referrals to other energy programs, services, or resources

¹ The EIC staff has initiated a number of other projects, including a Targeted Intervention Program (TIP) to provide facility managers and residence hall administrators with effective information about the safety and energy efficiency of halogen torchieres. This project, however, is not evaluated in this report.

In our first Market Progress Report (completed in September 1999) quantec completed a comprehensive analysis of the EIC, including:

- Interviews with program staff
- An examination and analysis of the program database
- Surveys with 150 current users, 100 prior users, and 100 nonusers of the Clearinghouse
- A Web site benchmarking analysis
- An analysis of Web site statistics (Web trends reports)
- Three Web page focus groups

In the second Market Progress Report, completed in May 2000, quantec examined the EIC tiered service structure (or the “inverted pyramid approach”) to information dissemination. As part of the evaluation quantec conducted a number of tasks, including:

- Interviews with program staff
- An examination and analysis of the program database
- Surveys with 150 current users and 101 nonusers of the Clearinghouse services
- An analysis of Web site statistics (Web trends reports)
- An online survey for Web site users

This evaluation examines a number of additional topics concerning the Clearinghouse, including:

- Updated statistics about services, use, staffing, and funding for the Clearinghouse, noting changes that have occurred at the Clearinghouse since the last Market Progress Report (Chapter II: Project Characterization)
- A benchmarking study that compares the Clearinghouse Web site (EnergyIdeas.org) to other energy Web sites, plus interviews conducted with other energy Web Masters (Chapter III: Web site benchmarking)
- A survey of listserv participants to examine the use and interest in the various energy listservs (Chapter IV: Survey of Listserv Participants)
- Further analysis of the Web site online survey, noting changes since the relaunch of the Web site (Chapter V: Online Survey)

II. Project Characterization

As mentioned above, the Energy Ideas Clearinghouse currently offers three primary services: a telephone hotline, a Web site, and a number of energy listservs. In addition, the Energy Ideas Clearinghouse continues to support a number of other energy information services.

Telephone Hotline

Customers served by utilities in the Pacific Northwest can call (toll-free), e-mail, or fax questions concerning energy use to the Clearinghouse hotline.² Topics include (but are not limited to) motor systems, HVAC, industrial electrotechnologies, life cycle cost analysis, computer simulation, energy policy, agricultural energy issues, and cogeneration. Responses to questions, usually within eight hours, can take a number of forms, including:

- ***A literature search:*** The Clearinghouse library is the largest energy library in the Northwest when combined with WSU resources, and includes product literature, articles, product reviews, reports, and energy-related publications.
- ***Publication or fact sheet:*** The Clearinghouse has prepared 54 fact sheets on a range of energy topics, including building commissioning, energy-efficient motors, and geothermal heat pumps.
- ***Product or pricing information:*** The Clearinghouse will sometimes provide specific product or pricing information to callers.
- ***Engineering assistance or analysis:*** The Clearinghouse has nine engineers prepared to answer technical questions that cannot be answered by the Energy Solutions database, customer service representatives, the librarian, or the fact sheets.
- ***Referrals to other energy programs, services, or resources:*** The Clearinghouse maintains a comprehensive collection of information on other programs, services, and resources. In addition, the Clearinghouse is also now answering inquiries and referring callers to other Alliance programs.

As shown in Table II-1, the EIC received a total of 763 inquiries, from 539 clients, in 2000. This was a 16% increase in the number of cases and a 14% increase in the number of clients from 1999 to 2000, and was the highest

² Inquiries from other states were sometimes responded to if they were related to the Pacific Northwest or came in from the Web site.

number of cases since 1995. In addition, approximately 79% of the phone calls were from first time callers (Table II-2).

**Table II-1
Number of EIC Hotline Cases and Clients**

Year	Cases			Clients (Callers)		
	Total	Total Northwest	Percent Northwest	Total	Total Northwest	Percent Northwest
1990	765	674	88%	546	464	85%
1991	1,690	1,337	79%	1,191	893	75%
1992	3,347	2,478	74%	2,385	1,660	70%
1993	2,217	1,683	76%	1,537	1,069	70%
1994	1,706	1,464	86%	1,260	1,045	83%
1995	971	906	93%	682	624	92%
1996	708	682	96%	488	463	95%
1997	440	429	98%	309	299	97%
1998	422	417	98%	297	292	98%
1999*	657	614	93%	473	432	91%
2000**	763	663	87%	539	446	83%

* Approximately 85 cases concerning a cooperative project with the Consortium for Energy Efficiency on the procurement tool kit are not included in this table or in the analysis.

** Includes 24 inquiries from Energy User News and Home Energy ads (reader response cards) and 24 EREC inquiries that were reviewed and responded to by EIC.

**Table II-2
Percentage of First Time EIC Hotline Clients**

Year	Total Callers	Repeat Callers	First Time Callers	First Time Callers (%)
1990	546	0	546	100%
1991	1,191	119	1,072	90%
1992	2,385	254	2,131	89%
1993	1,537	320	1,217	79%
1994	1,260	299	961	76%
1995	682	220	462	68%
1996	488	173	315	65%
1997	309	84	225	73%
1998	297	77	220	74%
1999*	473	83	390	82%
2000**	539	113	426	79%

* Approximately 85 cases concerning a cooperative project with the Consortium for Energy Efficiency on the procurement tool kit are not included in this table or in the analysis.

** Includes 24 inquiries from Energy User News and Home Energy ads (reader response cards) and 24 EREC inquiries that were reviewed and responded to by EIC.

As in past years, the majority of the callers were from utilities (19%), government (17%), engineering/architectural/consulting firms (16%), and research/educational facilities (14%). Residential customers were down in 2000 (13%) compared to previous years, as EIC made an effort to focus marketing efforts on the business and government sectors.

**Table II-3
Type of Company Using Hotline Services**

Company Type	1998 (n=422)	1999 (n=657)	2000 (n=763)
Utility	24%	18%	19%
Government (State/National)	17%	14%	17%
Engineer/Architect/Consulting	11%	12%	16%
Research/Education	5%	8%	14%
Residential Customers	16%	21%	13%
Commercial Business	2%	3%	7%
NEEA (General or Venture)	1%	4%	4%
Industrial/Manufacturing	5%	1%	4%
Building Professional	3%	6%	3%
Other	16%	12%	4%
Total	100%	100%	100%

More than half of the calls in 2000 (54%) were regarding the commercial sector (Table II-4). There was also a sharp drop from 1999 to 2000 (34% to 20%) concerning the residential sector. This may be partially due to policy changes that required referring residential calls from individuals (not business related) to the EnergyIdeas.org Web site. This change was a joint decision of the Alliance and the EIC based on budget allowances and the idea that residential support was more of a customer service function rather than directly supporting market transformation.

Callers contacted the Clearinghouse hotline for information on many different topics relating to energy use. As shown in Table II-5, the most common questions concerned the Energy Ideas Clearinghouse services (17%), lighting (11%), HVAC/Water (11%), general energy use (10%) and codes/standards/laws (9%). This broad range of topics reflects the ability of EIC staff to respond to a wide range of inquiries.

**Table II-4
Requests by Sector**

Company Type	1998 (n=422)	1999 (n=657)	2000 (n=763)
Commercial	73%	53%	54%
Residential	20%	34%	20%
Industrial	7%	4%	7%
Institutional*		8%	16%
Agricultural		1%	2%
Total	100.0%	100%	100%

* Institutional was added in 1999, and included schools, government, and research institutions.

**Table II-5
General Topic of Hotline Inquiry**

Program	1998		1999		2000	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Energy Ideas Clearinghouse	42	10%	49	7%	129	17%
Lighting	27	6%	36	5%	84	11%
HVAC/Water	60	14%	119	18%	83	11%
Energy Use*	38	9%	48	7%	77	10%
Codes/Standard/Laws	23	5%	74	11%	66	9%
Renewable Resources	25	6%	35	5%	51	7%
Buildings	23	5%	58	9%	46	6%
Appliances	21	5%	30	5%	29	4%
Economics	5	1%	15	2%	23	3%
Indus Equipment	25	6%	21	3%	22	3%
Utility	18	4%	28	4%	18	2%
Other	115	27%	144	22%	135	18%
Total	422	100%	657	100%	763	100%

* Energy Use includes: auditing, accounting, fuel switching, peak load management, and plug load.

EnergyIdeas.org Web Site

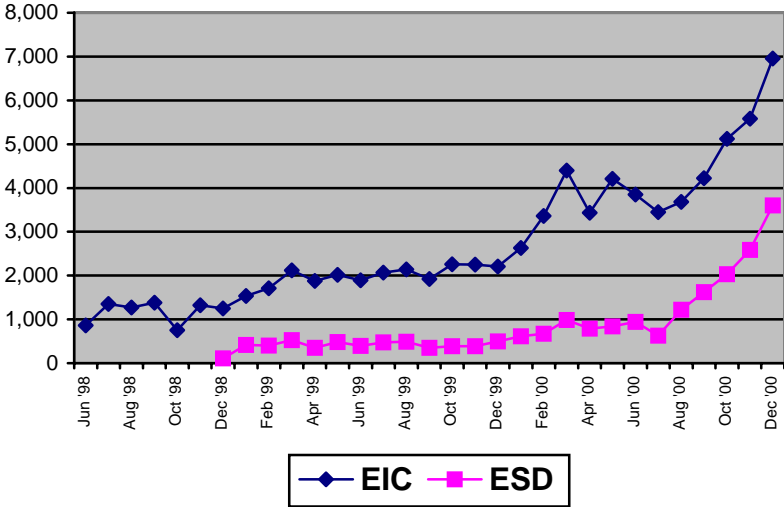
The Web site has incorporated many of the services that were previously on the Bulletin Board System (BBS) and some new services as well:

- Energy-related job listings
- A calendar to search for energy conferences, meetings, or upcoming events
- Links to energy software, publications, and tools for energy professionals
- Links to newsgroups and current news about energy efficiency nationwide
- Links to other Web sites with energy information
- An Energy Solutions Database (ESD)

The Web site also underwent a major redesign in July 2000. The new site incorporated a “tab” layout where the major features of the page (Energy Solutions, Jobs, Events, and Library) were presented in “tabs” at the top of each page (Appendix F). The left column of the page then offered quick links to additional information such as the “tip of the day,” news, utility resources, links, and program information.

As shown in Figure II-1, the Web site user sessions increased dramatically over the past three years, rising steadily each year. In 1998, for example, the site averaged about 1,170 user sessions per month; in 1999 user sessions nearly doubled to 2,000 per month, and in 2000 user sessions more than doubled to 4,241 per month (Table II-6). The user sessions were increasing dramatically throughout the second half of 2000, reaching nearly 7000 users by December 2000. The number of unique users per month also had a substantial increase from 1999 (309 per month) to 2000 (843 per month). And, on average, about 14-17% of the unique users per month accessed the page more than once.

**Figure II-1
Total Web Site User Sessions³**



**Table II-1
Additional Web Site Statistics**

	1998	1999	2000
Average Number of Monthly User Sessions	1,170	2,000	4,241
Average Number of Unique Users per month	NA	309	843
Average Unique Users/month Accessing Page More Than Once	NA	17%	14%

³ Provided by EIC. Includes all user and international sessions. It may differ slightly from the previous market progress reports.

Listservs

The EIC currently manages nine listservs:

- **EnergyAg** – EnergyAg highlights selected articles just received in the WSU Energy Library and describes what is new and interesting in the fields related to energy efficiency and agriculture. The list includes links to each resource.
- **LGEnergy** – This listserv shares news and information on energy efficiency of interest to local governments in the Pacific Northwest. The EIC provides references to current articles, Web sites, and publications that relate to local government and energy efficiency. Messages are sent about twice a month.
- **Energy Newsbriefs** – Energy Newsbriefs are weekly profiles of new information that the WSU Energy Library received in energy-related professional journals. The Newsbriefs promote awareness of emerging trends of potential interest to energy professionals.
- **Alliance** – This listserv provides Northwest utility staff, Northwest Energy Efficiency Alliance partners, and other interested parties with timely information about Alliance-sponsored activities. It is organized into three categories:
 - Alliance1 – general news about the Alliance, including information about new reports, evaluations, and publications
 - Alliance2 – venture activity news, information about events
 - Alliance3 – a specialized list for communicators of market transformation organizations nationwide
- **AIACOTE** – This listserv serves the American Institute of Architects and Committee on the Environment, and functions mostly as a communication resource for committee members as opposed to a public listserv.
- **AIA Council** – A private e-mail list for the Puget Sound American Institute of Architects General Counsel.
- **BuiltGreen** – A private listserv for the members of the King and Snohomish County Master Builders to discuss green building techniques and practices
- **PHV** – For staff working on the Public Housing venture for the Alliance, Alliance staff, and public housing administrators in the region to talk about activities in the Public Housing venture.
- **WASustain** –For Washington State agencies interested in discussing sustainability issues. There is a working group that meets on this topic, and they decided to have a listserv to continue discussions and information sharing.

As shown in Table II-7 subscriptions to most of the listservs increased dramatically from 1999 to 2000. For example, Energy Newsbriefs experienced a 98% increase in the number of subscribers, Alliance 1 subscribers increased 66%, and EnergyAg subscribers increased 363%.

**Table II-1
Number of Listserv Subscribers**

Listsers	December 1999	December 2000	Percent Change
Energy Newsbriefs	214	423	98%
Alliance1	422	699	66%
Alliance2	135	149	10%
Alliance3	37	59	59%
LGEnergy	50	65	30%
EnergyAg	16	74	363%
AIAcote	18	17	-6%
BuiltGreen	NA	75	NA
PHV	NA	53	NA
WASustain	NA	27	NA
AIA Council	NA	30	NA

Support for Additional Clearinghouse Services

The EIC staff also supports a number of other Clearinghouse information services. This allows synergies in terms of staffing and resources. These other programs include:

- ***Western Area Power Administration (WAPA) and the Southeastern Power Administration (SEPA) Powerline program.*** Utilities in the states served by WAPA and SEPA can use this service for direct access to professional engineers for fast technical assistance regarding planning, implementing, or evaluating the efficient use of energy in customer buildings, operations, or processes.⁴
- ***Department of Energy (DOE) Office of Industrial Technologies (OIT) Clearinghouse (formerly the Motor Challenge, Compressed Air Challenge, and Steam Challenge).*** In June 1999 the OIT expanded the Motor, Compressed Air, and Steam Challenge hotlines to include any energy related question concerning the nine energy-

⁴ DOE funding for the SEPA Powerline was dropped as of January 1, 2001 (WAPA funding was continued).

intensive “Industries of the Future:” agriculture, aluminum, chemicals, forest products, glass, metalcasting, mining, petroleum, and steel. OIT partners with industry and government, and non-governmental organizations, with the goal of significantly improving the resource efficiency and competitiveness of materials and process industries. OIT is part of the Department of Energy’s Office of Energy Efficiency and Renewable Energy.

As shown in Table II-8, the WSU Clearinghouse services answered 7,685 inquiries in 2000, down slightly from the 8,254 inquiries in answered in 1999. The EIC, by comparison, experienced a 16% increase in hotline inquiries during the same period. Only 10% of all the WSU inquiries came from the Energy Ideas Clearinghouse; the rest of the inquiries were classified under the other WSU programs.⁵ In addition, there is no way to tell whether the popularity of the other programs may have led to “cannibalization” of potential EIC customers.

**Table II-1
Number of 1998-2000 Hotline Inquiries for all
Clearinghouse Information Services**

Program	1998		1999		2000	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Energy Ideas Clearinghouse	422	7%	657	8%	763	10%
Western Area Power Administration	300	5%	219	3%	177	2%
Southeastern Power Administration	36	1%	12	0.1%	25	0.3%
WSU Energy Program Software*	537	9%	344	4%	245	3%
Total Efficiency Network**	85	1%	15	0.2%	10	0.1%
Department of Energy (Net)***	4,464	76%	7,007	85%	6,331	84%
Total	5,844	100%	8,254	100%	7,551	100%

* Includes inquiries for energy efficiency software packages such as HEATMAP® and WATTSUN®.

** Provides information, training, and support to public and private facilities to help them save money and resources through efficient resource management

*** DOE Hotlines included the Motor Challenge, Steam Challenge, and Compressed Air Challenge. In June 1999 these were incorporated into the DOE Office of Industrial Technologies Hotline (OIT)

Staffing and Funding

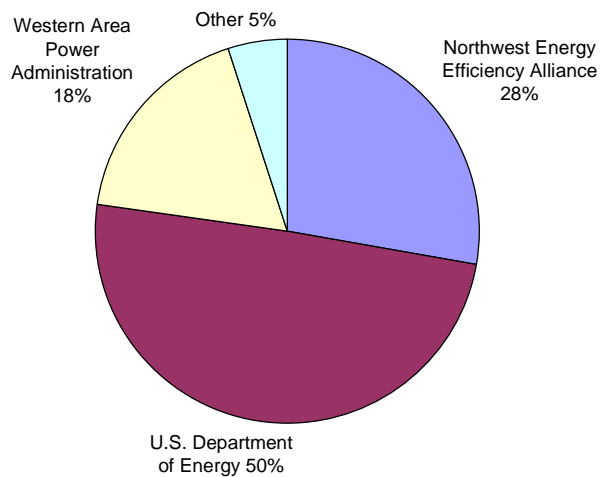
The Pacific Northwest regional Energy Ideas Clearinghouse comprises 28% (\$476,000) of the WSU Clearinghouse Services annual funding (Figure II-2). More than half of this funding (approximately \$350,000) is applied to staff

⁵ Some calls that came in on the EIC hotline, however, may remain in the EIC database, even though callers may have been referred to other programs.

positions (for 3.7 full-time equivalents).⁶ There is no one staff member at the WSU Energy Program who spends 100% of their time working on the Energy Ideas Clearinghouse. Linda Witham, the EIC program manager, spends 65% of her time on the Clearinghouse, more than any other staff member.⁷ There is a total of five staff departments: Technical team (about fifteen people), library (four people), customer service (five people), Web Masters (two people), and management (two people).

The Northwest Energy Efficiency Alliance Board of Directors, meeting on February 2, 2001, approved funding for 2001-2004 for a total of \$1,692,000, or an average of \$564,000 a year (actual funding may vary by year). The additional funds will be used to pay for additional staff support.

Figure II-2
WSU Clearinghouse Services Funding, Fiscal Year 2000



⁶ The EIC was able to increase FTEs without a substantial increase in budget by employing part-time temporary employees. The remaining budget after salaries was used to fund a procurement market research project and EIC marketing activities.

⁷ Because of higher than predicted costs on the Web site redesign, Linda Witham's hours on EIC were substantially reduced beginning in November 2000. Normal hours were expected to resume in April 2001. Technical assistance was also limited to two hours (maximum) per call.

Marketing Activities During 2000

EIC conducted a number of marketing activities during the past year, including:

1. **Direct marketing.** EIC staff developed an aggressive direct marketing campaign in 2000, using various low cost techniques to promote the EIC and the EnergyIdeas.org Web site. For example, the EIC sent targeted e-mail announcements and press releases announcing the EIC Web site and technical assistance services to professional associations, utilities, energy organizations, cooperative extension, and other organizations. The WSU Graphic design staff developed postcards to announce EIC Web site redesign launch, and 10,000 postcards were printed and delivered (including 800 cards to previous EIC users in the commercial and industrial sectors). Finally, the Editors of about 40 energy related publications (journals, newsletters, Web sites) in the Northwest received an email announcement titled “Energy Efficiency for Business, Industry” with an attached press-release and a reference to the EIC Media Packet. To coordinate these mailings the EIC developed a marketing mailing list with over 1000 contacts.
2. **Articles by EIC staff or mentioning the EIC.** Cindy Wills co-authored a technical article with the Lighting Design Lab on daylighting and windows that appeared in *HomeEnergy* in September. An EIC article was posted in the July Puget Sound Chapter of the Master Builders magazine. The regional ASHRAE printed an article about EIC services in their newsletter, *The PunchList*. Washington State Parks Commission featured an article about the EIC in their newsletter, *Connections*, that reached all state park maintenance and operations staff. *High Country News* printed an announcement for the AgEnergy listserv in March. EIC was listed as a resource on the *Idaho Press-Tribune* Web page titled “Science and Technology.” EnergyIdeas.org was mentioned in *Solar Today* as a resource for software on Building Integrated Photovoltaic Systems.
3. **Presentations at conferences/events.** Rob Penney participated in a number of conferences and events, including a panel discussion in the Tacoma Power conference entitled “Powerful Business,” a Fluorescent Tube Meeting at the Lighting Design Lab in August, and a presentation on information resources at Renton’s Powerful Businesses Conference. EIC also shared a booth at the BPA Electric Revolution Conference, the BuildEx conference, and the Central Oregon Industrial Exposition.
4. **Posting EIC information on Listservs.** EIC posted a message about the new EnergyIdeas.org Web site on their listservs.

5. ***Reciprocal Web Linking/Coordination.*** The EIC continued to market the Web site to other Web sites, by sending tailored e-mail requests asking for reciprocal Web links. EIC Management worked with the USDOE Office of Industrial Technologies to provide a link to EnergyIdeas.org and other Alliance ventures within the links section of the Software Tools they develop and disseminate. EIC also subscribed as an Affiliate Member of the Environmental News Network Web resource to provide press releases on the front page of ENN.com and access their Web services.
6. ***Advertising:*** EIC purchased a classified and display ad in *Energy User News* and a display ad in two issues of *Home Energy* magazine. Funding for these ads was also made possible by the Alliance, which provided \$10,000 for additional marketing activities. EIC also developed an ad for the Salem Statesman insert, organized by the Alliance.

General Effectiveness of Marketing Activities

The aggressive use of e-mail/postal mail announcements, press releases, paid advertising, published articles, and appearances at conferences led to increased press coverage of EIC activities, as noted above.

In 2000 there was also a more intensive focus on energy issues due to the energy crisis in California and the spillover effect of this crisis in the northwest. The EIC marketing activities, combined with the energy crisis, led to a substantial increase in hotline calls and the increased activity on the Web site (user sessions more than doubled).

III. Benchmarking

In an effort to assist the EIC in evaluating the EnergyIdeas.org Web site, quantec investigated “competitive” energy information sites. Comparisons were made along a number of parameters, including:

- **Target Audience.** What type of energy users are the other sites targeting? (i.e., commercial, industrial, residential or some other type?) Are they specifically targeting energy professionals?
- **Revenue Streams.** What are the funding sources? Do they charge users to access the site? What type of fee schedule? Are there other types of co-branding/revenue sharing arrangements?
- **Comprehensiveness.** What type of information is available? What specific types of technologies or end uses?
- **Organization (Interface).** How is the information presented? Is the information in a searchable database, listed by specific category, or both? What are the specific categories?
- **Crosslinks.** Do the other sites provide energy links? What type of reciprocal links do they have available?
- **Search engine rankings.** What sites top the rankings when searching for certain energy “keywords”? How does the EIC site do in the rankings? What differences are there by search engines?

Findings

As shown in Table III-1, a total of 38 other sites were investigated.⁸ Comparisons of the sites along a number of different parameters are presented in Appendix A. A discussion of the findings is presented here.

⁸ The sites were selected by Northwest Energy Efficiency Alliance and EIC staff.

**Table III-1
Examined Sites**

Primary Sites	
Energy User News (http://www.energyusernews.com/)	Information and back issues of EUN
Tata energy research institute (http://www.teriin.org/)	India research institute in the fields of energy, environment, and sustainable development
Appropriate Technology Transfer for Rural Areas (http://www.attra.org/)	Info for Ag professionals on sustainable farming production practices, alternative crop and livestock enterprises
NCAT sustainable ag. and development (http://www.sustainable.doe.gov/)	Sustainable development information for city planners
Energy center of Wisconsin (http://www.ecw.org/)	Information about the ECW, reports, and energy efficiency information
The Energy Information Agency (http://www.eia.doe.gov/)	Provides policy-independent data, forecasts, and analyses.
Center for the Analysis and Dissemination of Demonstrated Energy Technologies (http://www.caddettee.org/)	Collects, analyses and enhances the international exchange of impartial information on new, cost-effective, energy-saving technologies.
Energy Efficiency and Renewable Energy Network http://www.eren.doe.gov/)	Comprehensive resource for the DOE's energy efficiency and renewable energy information.
Advanced Buildings.org (http://www.advancedbuildings.org/)	Building professional's guide to more than 90 environmentally-appropriate technologies and practices.
Solstice (http://www.crest.org/)	News and information about renewable energy and energy efficiency
American Council for an Energy-Efficient Economy (http://www.aceee.org/)	Information about ACEEE conferences and publications
Office of Industrial Technologies (http://www.oit.doe.gov/)	Develops and delivers advanced energy efficiency, renewable energy and pollution prevention technologies for application in the U.S. industrial sector
E Source (http://www.esource.com/)	Information about E Source consulting and publication services
Edison Electric Institute (http://www.eei.org/)	EI news, information, products and services
Electric Power Research Institute (http://www.epri.com/)	EPRI news, information, products and services
Association of Energy Services Professionals International (http://www.aesp.org/)	AESP news, information, products, and services
Energy Central.com (http://www.energycentral.com/)	Energy portal site with news, jobs, events, data, and RFPs.
LBL Energy Crossroads (http://eande.lbl.gov/CBS/eXroads/Ener)	A list of links to other energy sources

gyXroads.html)	
Consortium for Energy efficiency (http://www.ceeformt.org/)	CEE energy efficiency information, plus CEE news and calendar
Alliance to Save Energy (http://www.ase.org/)	Energy efficiency news and information for consumers, educators, the media, and the energy industry.
Lighting Design lab (http://www.northwestlighting.com/)	Information about the LDL, lighting workshops, and efficient lighting
Lighting Research Center (http://www.lrc.rpi.edu/)	An objective source of manufacturer-specific performance information on efficient lighting products
Energy, Environment and Sustainable Development (http://www.cordis.lu/eesd/home.html)	EESD news, information, projects, events, and library.
International Association for Energy-Efficient Lighting (http://www.iaeel.org/)	A global contact network and an information resource for energy-efficient lighting: newsletters, resource index, meetings and events
Energy Conservation and Renewables (http://www.ecoiq.com/energy/)	Provides media products and services to promote community, business, and personal decisions that are at the same time economically and ecologically beneficial.
California Energy Commission (http://www.energy.ca.gov/index.html)	CEC news, information, and publications
Energy Federation Incorporated (http://www.efi.org/)	Offers information and sales of energy efficient home products
Pew Charitable Trusts/Environmental Media Services (http://www.ems.org/lighten_the_load/)	A non-profit effort operating in conjunction with leading utility, technology, and environmental experts to assist journalists covering reliability and restructuring issues.
Pacific Energy Center at PGE (http://www.pge.com/003_save_energy/003c_edu_train/pec/003c1_pac_energy.shtml)	Information about the PEC and PG&E efficiency programs
Western Energy Services (http://www.es.wapa.gov)	Energy efficiency news and information from WAPA
Energy Information Source (http://www.energyinfosource.com)	Energy portal site with news, jobs, events, data, and professional directory.
EPA Energy Star (http://www.energystar.gov/)	Energy Star news and information, plus info on energy efficiency
Minnesotans for an Energy Efficient Economy (http://www.me3.org/)	Energy efficiency news and information, much of it focused on Minnesota
Canadian Association for Renewable Energies (http://www.renewables.ca/main.html)	Publishes a daily electronic newsletter on renewable energy, with solaraccess.com, called Trends in Renewable Energies.
Related Information Providers:	
Medical (http://www.medscape.com/)	Medscape offers specialists, primary care physicians, and other health professionals an integrated multi-specialty medical information and education tool

Manufacturing (http://www.manufacturing.net/)	News, information, and marketplace for manufacturing professionals
Facilities (http://www.facilitiesnet.com/fn/index.shtml)	News, information, marketplace, career development, and peer networking for facilities managers
Hydraulic Institute (http://www.pumps.org/)	Information about the Hydraulic Institute (HI), plus news and information about pumps

Type of Sites Visited

The majority of the sites examined (34 of the 38) were associated with energy. Approximately half of the energy sites targeted energy professionals; the other half aimed for the general public.

Funding

Almost half of the sites examined (44%) received funding from either the U.S., foreign, or state governments (Table III-2). Of the 13 sites funded by the U.S. government, seven (54%) received funding from the Department of Energy (Table III-3). Other sources of site funding included sales (16%), member organizations/sponsors (16%), and grants (13%). Only four of the 38 sites (11%) charged membership fees to access information.

Table III-2
Source of Web Site Funding

Source	Frequency*	Percent of Sites
U.S. Government	12	31%
Sales	6	16%
Member organizations/sponsors	6	16%
Grants	6	16%
Advertising	4	11%
Memberships	4	11%
Parent organizations	3	8%
Foreign Government	2	5%
US State Governments	2	5%
Magazine subscriptions	1	3%
Unknown	1	3%

* Some sites had multiple sources of funding

**Table III-3
Source of U.S. Government Funding**

Agency	Frequency	Percent of Sites
DOE	7	54%
EPA	2	15%
USDA	1	8%
NREL	1	8%
Other US Government	1	8%

Organization of Information

Energy articles were the most common form of content delivery (30 of the 34 sites or 79%). Papers (13%) and reports (13%) were also important formats for delivering information on the Web (Table III-4). Most of the delivery was in HTML format. Other than HTML, the most common format for documents was PDF, which allows for cross-platform viewing of the original document.

**Table III-4
Content Delivery Format**

Information type	Frequency*	Percent of Sites
Articles	30	79%
Papers	5	13%
Reports	5	13%
Datasets	2	5%
Abstracts	2	5%

* Some sites had multiple information types

Site Features

The single most common feature on sites was a search engine of some type (68% of the sites) (Table III-5). For those that have the search engine company's name listed, the most common search engine is Infoseek. The next popular are Google and AltaVista. Specific site features that complement the EIC services are discussed below.

**Table III-5
Site Features**

Site Feature	Frequency	Percent
Search	26	68%
News	23	61%
Info sources	19	50%
Publications	15	39%
Events listing	11	29%
Site map	9	24%
Project reports	6	16%
Research papers	5	13%
Jobs – industry	4	11%
Email updates	4	11%
Product info	4	11%
Buyers guide	3	8%
Statistics/trends	2	5%
Bulletin board	1	3%
Chat area	1	3%
Other languages	1	3%

Sites with Jobs Information

Very few of the sites we examined offered searchable job databases in the energy industry (most pages were for jobs at the site or sponsoring company). ACEEE had a few jobs posted on its page, while Energy Central and Energy Info Source had more comprehensive job search pages. The Energy Central layout was quite simple and easy to use, and might be a model for the EIC to replicate. The EIC might also want to rename its jobs page “energy jobs” to clarify that the page is for industry jobs, not just jobs at the EIC.

Sites with Updated Event Information

Like the jobs page, most sites that listed energy events tended to focus on their own events (e.g., E-Source, CEE, ACEEE, and the CEC). One site, the International Association for Energy Efficient Lighting, had comprehensive listings for events within the lighting industry. Only a few other sites, in addition to the EIC, offered extensive lists of energy events: EIA, CADDET, Energy Central, and WAPA Energy Services. Once again, the Energy Central site had an excellent, easy-to-use layout that the EIC might wish to replicate.

Sites with Energy News

Most sites with news activities tended to focus on news within their organization, not general energy news (e.g., EREN, OIT, and Energy Star).

Other sites tended to have more general energy news, but very little on energy efficiency (e.g., Energy User news, Energy Central, and Energy Info Source). Just a few sites offered news on energy-efficiency topics: Environmental Media Service, WAPA, and CARE.

The EIC might consider following the format of many sites by placing a “teaser” introduction to the news stories and then having a link to the full story. Currently, the EIC is using one or two words from the story, which might not effectively “draw” people into the full article (e.g., Internet: Energy Hungry). Other sites, such as Energy Info Source and CADDET, also offer a nice feature that allow users to customize the news on the page when they log in.

The EIC might also consider partnering with other sites in energy news. For example, the EIC might be able to supply additional energy-efficiency soundbites (“factoids”) to the Alliance to Save Energy’s press section. The EIC might even be able to team with other sites like Energy Central and be their news provider for energy efficiency information.

One way to do this would be to use a format similar to the Environmental News Network (ENN) that offers a nice “tie-in” called Eco-Bytes. This feature, which can be viewed on the Solstice Web, provides daily environmental news updates for subscribing sites (like Solstice) and prominent recognition for ENN. EIC could set up something similar for energy efficiency news.

Sites with Fact Sheets/Info for ESD

Many of the sites we examined offered fact sheets, articles, or reports that could be useful links for the Energy Solutions Database. A few of the highlights include:

- Interesting case studies (Teri)
- Reports online (Energy Center of Wisconsin)
- Searchable database of reports, brochures, and newsletter articles (CADDET)
- Enormous amounts of information (EREN)
- Excellent information on technologies (Advanced Buildings)
- “Mini-reports” and other info (ACEEE)
- Technical reports (also has nicely laid out search page that also has outline for Web page) (OIT)
- A few databases available (Energy Central)
- Good papers on lighting and manufacturers information (Lighting Research Center)

- Some of their reports online (California Energy Commission)
- Fact sheets that they are currently converting to PDF and will be available soon (PG&E)
- Fact sheets and technical briefs (WAPA Energy Services)
- Good information/links to reports/information (ME3)

The most common format was HTML, followed by PDF. Only one other site – CADDET – offered a formal “database” search such as the Energy Solutions Database. Instead, most of the sites (Table III-5) simply offered a search feature of the entire site.

“Ask the Expert” Features

Only two sites – WAPA Energy Services and EREN– offered an “Ask an Expert/Technical Question” feature that was open to the public. This feature was prominently displayed on their Web pages and, when clicked, brought up an HTML form. One other site – Edison Electric Institute – offered a personalized search for information, but this was only open to EEI members.

A few sites, however, did offer alternative ways of finding the right energy “expert.”

- The Energy Center of Wisconsin offers a “FindExperts” directory that contains contact information and a summary of services offered by energy experts throughout Wisconsin.
- The EIA has a way to search for staff experts on specific topics.
- EREN has excellent form for requests for info.
- OIT provides contact information for the “expert” in a specific area following a search.

Sites with Links Pages that Still Aren’t Linked to EIC

While most of the sites had energy links, there were still many sites that did not have links (or optimally classified links) to EIC. A list was provided to the EIC.

Homepage/Layout of Information

A few of the sites we examined offered clear, concise layouts for enormous amounts of information. For example, the EIA site uses drop down menus to allow users quick access to data. In addition, Advancedbuildings.org offers a nice menu where you hold the cursor over an end-use and the associated technologies appear (each of which can then be selected).

Conclusions

The EIC Web site, when compared to the other Web sites, shines as a comprehensive source of energy efficiency news, jobs, events, and information. No other site offered the range of energy efficiency information that the EIC site offers. The EIC site even has some features – like the software links – that make it quite unique.

Many of the other energy sites, in fact, tend only to provide information about the sponsoring site; the news, jobs, and events features, in other words, may only represent the host organization. EIC may, therefore, want to emphasize that the information on their site is industry-wide. The jobs and events pages, for example, could be relabeled “energy jobs” and “energy events.”

Other than EIC, the Energy Central site offered the same services as EIC, and even more (although not focused on energy efficiency). EIC could strive to be the Energy Central for energy efficiency information. EIC might also want to consider meeting with Energy Central and seeing if they would be interested in sharing some of the EIC content on their site in return for promoting the EIC.

Web Master Interviews

In an effort to further understand how the EIC site compares with other energy information sites, quantec contacted a number of energy site Web Masters. The interview included 12 questions to evaluate operations strategies:⁹

- How many years has the Web site been published?
- What is the site update cycle?
- Has the site had any major upgrades? When?
- Do you contract any of the Web site programming or content management to an outside firm?
- How many total in-house staff members work on the Web page?
- How many in-house developers and how many content providers (staff devoted to content management) do you have?
- How is the Web site marketed?
- How much traffic does the site get (How many hits)?
- What search software do you use?
- Can you provide us with an estimate of the costs to maintain the site (and a breakdown of these costs by in-house/outsourcing and programming/content management)?

⁹ The final interview instrument is included in Appendix B.

- Would you be interested in setting up a reciprocal link with EIC?
- What do you see as the challenges and trends that will effect you in the next year and in the next five years?

We focused on the sites that were most similar to EnergyIdeas.org in terms of either content, design, or focus; in total, we attempted to contact 16 sites, successfully completing interviews with eight Web Masters. The findings from the interviews is summarized in Table III-6 and discussed below.

**Table III-6
Web Master Interview Summary**

	Site 1	Site 2	Site 3
Years published	6	7	5
Update cycle	Weekly	Daily	Continuously
Time of major upgrades	Continuously	1996, 1998, 2000	February 2000
Outside programming/management	No	All in house	Contractors help with programming
In-house staff members on Web site	1 librarian/developer manages page part-time (can't say percent of time on page) 6 content people help part-time	4 FTE	Slightly less than 20 FTE
Staff devoted to content vs. programming	1 developer; 6 content people that help, all part time	2 developers; 2 content	7 developers, 8 content, 1 customer support, 1 overall manager, 1 manager of contractors, and 2 PT who help with applications (coordinate developers and content)
How Web site marketed?	E-mail and promoted in quarterly newsletter	Online – links from other sites, search engines	Focus on existing EPRI customers
Amount of traffic to site	13,000 hits/month	8,000,000 hits/month	2,500 – 3,000 user sessions/month
Search software used	None	Infoseek, Ultraseek	InfoSeek
Estimated maintenance costs			
In house	Site hosting \$1,200/yr; content \$17,600/yr; programming \$3,000/yr	Refused	Refused
Outsourced			
Challenges/trends next 5 years			
Next year	Do more w/low budget	Keeping content current and relevant	New technologies for delivering reports, ensuring customer service, licensing, marketing
Next five years	Coping with DSM/conservation challenges	Keeping content current and relevant	Marketing, usability studies

	Site 4	Site 5	Site 6
Years published	1.5	5	4
Update cycle	Daily	Weekly (at least)	Sporadic process, done only when the site administrators (Enermodal) decide that some new technology needs to be included.
Time of major upgrades	June 2000	1997	1997
Outside programming/management	All tech work contracted; content in house	Doing another redesign now, contracting out back end (e.g. database searches). Front-end (e.g., page layout) and content stay in-house.	The original programming was done by Enermodal employees and outside consultants (site also owned by Canadian Govt). Since that was completed, full-time maintenance is done by one Enermodal employee and the content is submitted by outside experts.
In-house staff members on Web site	0.5 FTE working on content, programming is contracted out	1.2 FTE	One
Staff devoted to content vs. programming	0.5 FTE	1 developer, 3 content (total 1.2 FTE)	One developer plus some content providers as needed.
How Web site marketed?	Direct email (people sign up), links from other sites, search engines	Print materials	Search engine registration, links from related industry/govt. pages
Amount of traffic to site	529,180 hits/month and 14,338 user sessions/month	2000 hits/month	4000 – 6,000 <i>unique</i> visitors/month
Search software used	None	Atomz and custom (Perl) engine	Front Page extensions
Estimated maintenance costs	\$50,000/year (no breakdown)		\$37,000 USD/Year:
In house		\$18,000/year in-house	\$30,000 for FTE developer, \$1400 for maintenance, \$300 for hosting
Outsourced		One-time-only \$50,000 outsource	
Challenges/trends next 5 years			
Next year	Gain users, new content	Keeping content current	Keeping site current
Next five years	Not looking that far ahead	Keeping up with trends/technologies, and keeping under budget	Keeping site current

	Site 7	Site 8	EIC
Years published	8 Years	Not sure, but in current format since 1998	About 3.5 years
Update cycle	About once a week	1-2 times a day	Daily/Weekly
Time of major upgrades	3 so far, but now doing about a "facelift" every 1-2 years	Next upgrade is this year, so it's been three years.	One in 1999, one in 2000
Outside programming/management	No, all done in-house	No, all done in-house	No, all done in-house
In-house staff members on Web site	5 staff members total, or about 2 FTE.	3 staff members total, about .6 FTE	4-5 staff members, .75 FTE
Staff devoted to content vs. programming	There are 2 programmers (1 FTE) and 3 content people (1 FTE).	1 person works 50% on programming and content, plus 2 assistants help for about 10% (total) on content	One programmer (.4 FTE), one manager (.1 FTE), and 2-3 people to help with data entry and content (.25 FTE)
How Web site marketed?	Not actively marketed. They do an e-mail newsletter from their contact database.	Not much money for marketing, mostly through all their news releases and press information	Press (display ads), direct mail, listserv announcements, search engine registration
Amount of traffic to site	About 15,000 user sessions/month	901,000 hits/month, 57,000 user sessions/month, 21,000 users/month	Average of about 4,241 user sessions/month
Search software used	Not sure what they will be using in relaunch in two months: maybe altvista or google	Not sure.	
Estimated maintenance costs		Could not provide costs of site.	
In house	\$50,000/year for routine maintainence, \$300,000/year with all salaries and costs factored in		\$85,000
Outsourced	None		
Challenges/trends next 5 years			
Next year	Keeping up with the technology. Users have more expectations from the site, want to get information quickly.	Relaunching site, will be a huge challenge. Switching from html pages to active server pages. Plus need to keep content current.	Content management and marketing
Next five years	Same as in the next year, plus trying to get education courses offered online.	Doesn't know what the Web will look like in the next five years, hard to say.	Content management and marketing

Year Published

Most of the sites had been “live” for a long number of years (five years or more) considering the lifetime of the Web. Only one site was relatively new (1.5 years).

Updates and Upgrades

All but one of the sites reported that they are frequently updating their sites – daily, weekly, or “continuously.” Major upgrades, however, happen far less frequently, usually every one to two years at most and more likely to be every two to three years.

Staffing and Costs

Most of the sites had just a few people – often just part-time – working on the site. For example, one had a total of five people working part-time on the site, or a total of two full-time equivalents (FTE), while another had four people but only 1.2 FTEs. The tasks were normally delegated between developers and content providers, and normally there were more content providers than developers. One site had just one person working 50% doing both programming and content maintenance.

One well funded site, however, had a far greater number of staff than the others, as they reported to have a staff of nearly 20 FTEs and some contractors working on the site: seven developers, eight content specialists, one customer support, one manager, one manager of contractors, and two part-time to help with applications.

All of the sites except one generated content from internal staff. A number of the sites, however, did find it necessary to contract out some of the programming work. One site only contracted out the database search feature of their Web site and did the rest of the programming in-house.

Unfortunately it was difficult to get accurate cost information, as many of the sites either didn’t carefully track Web site costs (or thus gave us rough estimates) or wouldn’t provide the figures. Costs thus ranged from estimates of \$18,000/year to \$300,000/year, and it was difficult for us to equate the number of employees (FTEs) with the cost figures that were provided.

Site Marketing

All of the Web Masters said that they use fairly standard marketing techniques to promote their pages, including registration with the search engines, reciprocal links from other pages, and direct e-mail (maintaining a mailing list). Web Masters also tried to promote their sites through any print materials associated with the organization maintaining the site.

Site Traffic

While we tried to collect user sessions per month, some Web Masters were only able to provide hits (which will normally be greater than the number of user sessions, since a single user will “hit”, or open, more than one page per session), making it difficult to compare all the sites. However, the site that appeared to have the greatest resources had only 2,500-3,000 user sessions/month, trailing behind many of the other sites that were far less funded.

Challenges and Trends

Most of the Web Masters reported two primary challenges in the future: keeping both the content and technology current. These challenges reflect both the emphasis of the Web on current, up-to-date information and the rapidly changing field of Web technology. These challenges, of course, can also be viewed as opportunities for firms that can assist in maintaining content or technology.

Search Engine Rankings

quantec also entered in certain energy “keywords” in a number of different search engines to see how well the EnergyIdeas.org site ranked. A total of four searches were done (using four sets of keywords):

- Energy efficiency, energy conservation, building efficiency (all together)
- Energy efficiency
- Energy conservation
- Building efficiency

The search results were a bit random, identifying individual pages within many of the energy sites (most of which we examined) (Table III-7). The EIC site came up in the top 10 listings for Lycos for all four of the searches, but was not in the top 10 listing in any other search engine (Infoseek, Altavista, Excite, and Google). In addition, the search engines identified thousands of pages for most of these searches (sometimes over 300,000 pages for energy efficiency). So, given the “noise” in current search engine rankings EIC might want to continue to focus efforts on gaining reciprocal links from other energy information pages.

**Table III-7
Example of Search Engine Rankings**

Search terms: 1)Energy efficiency 2)Energy conservation 3)building efficiency

Search Infoseek	Lycos	Altavista
1 http://www.ies.wisc.edu/eap/asia.htm	http://www.sciencemag.org/feature/data/energy/energy-1974.shl	http://www.energy.ca.gov/commission/programs/index.html
2 http://www.eren.doe.gov/buildings/codes_standards/aboffmsn.htm	http://www.energy.com/eBID	http://www.ase.org/media/newsrel/press.htm
3 http://www.state.vt.us/psd/1997SAP.htm	http://www.pwi-energy.com	http://aceee.org/pubs/proceed.htm
4 http://www.energy.ca.gov/efficiency/consumer_eff.html	http://swhite.me.washington.edu/~malte	http://eande.lbl.gov/CBS/eXroads/pubs.html
5 http://www.energy.wsu.edu/buildings/ncsbec/NCEBC.html	http://www.energymatters.com	http://rebuild2000.drintl.com/news/partnershipupdates.asp
6 http://www.socalgas.com/candi/eep/eep_home.shtml	http://www.webdirectory.com/Science/Energy/	http://www.mnisose.org/links.html
7 http://solstice.crest.org/efficiency/irt/104.htm	http://hometown.aol.com/oexalt/	http://ase.org/media/newsrel/press.htm
8 http://www.cfda.gov/static/81119.asp	http://www.energy.wsu.edu/eic	http://www.sustainable.doe.gov/welcome.htm
9	http://www.subtle-energy.com	http://www.rii.org/envatlas/asia/japan/jp-conc.html
10	http://www.iea.org/homechoi.htm	http://buildings.nrcan.gc.ca/bulletins/Headsup_v15.htm

Search terms: Energy efficiency

Search Infoseek	Lycos	Altavista
1 http://www.ies.wisc.edu/eap/asia.htm	http://www.sciencemag.org/feature/data/energy/energy-1974.shl	http://www.energy.ca.gov/commission/programs/index.html
2 http://www.eren.doe.gov/buildings/codes_standards/aboffmsn.htm	http://www.energy.com/eBID	http://www.ase.org/media/newsrel/press.htm
3 http://www.state.vt.us/psd/1997SAP.htm	http://www.pwi-energy.com	http://aceee.org/pubs/proceed.htm
4 http://www.energy.ca.gov/efficiency/consumer_eff.html	http://swhite.me.washington.edu/~malte	http://eande.lbl.gov/CBS/eXroads/pubs.html
5 http://www.energy.wsu.edu/buildings/ncsbec/NCEBC.html	http://www.energymatters.com	http://rebuild2000.drintl.com/news/partnershipupdates.asp
6 http://www.socalgas.com/candi/eep/eep_home.shtml	http://www.webdirectory.com/Science/Energy/	http://www.mnisose.org/links.html
7 http://solstice.crest.org/efficiency/irt/104.htm	http://hometown.aol.com/oexalt/	http://ase.org/media/newsrel/press.htm
8 http://www.cfda.gov/static/81119.asp	http://www.energy.wsu.edu/eic	http://www.sustainable.doe.gov/welcome.htm
9	http://www.subtle-energy.com	http://www.rii.org/envatlas/asia/japan/jp-conc.html
10	http://www.iea.org/homechoi.htm	http://buildings.nrcan.gc.ca/bulletins/Headsup_v15.htm

Search terms: Energy conservation

Search Infoseek	Lycos	Altavista
1 http://www.ies.wisc.edu/eap/asia.htm	http://www.sciencemag.org/feature/data/energy/energy-1974.shl	http://www.energy.ca.gov/commission/programs/index.html
2 http://www.eren.doe.gov/buildings/codes_standards/aboffmsn.htm	http://www.energy.com/eBID	http://www.ase.org/media/newsrel/press.htm
3 http://www.state.vt.us/psd/1997SAP.htm	http://www.pwi-energy.com	http://aceee.org/pubs/proceed.htm
4 http://www.energy.ca.gov/efficiency/consumer_eff.html	http://swhite.me.washington.edu/~malte	http://eande.lbl.gov/CBS/eXroads/pubs.html
5 http://www.energy.wsu.edu/buildings/ncsbec/NCEBC.html	http://www.energymatters.com	http://rebuild2000.drintl.com/news/partnershipupdates.asp
6 http://www.socalgas.com/candi/eep/eep_home.shtml	http://www.webdirectory.com/Science/Energy/	http://www.mnisose.org/links.html
7 http://solstice.crest.org/efficiency/irt/104.htm	http://hometown.aol.com/oexalt/	http://ase.org/media/newsrel/press.htm
8 http://www.cfda.gov/static/81119.asp	http://www.energy.wsu.edu/eic	http://www.sustainable.doe.gov/welcome.htm
9	http://www.subtle-energy.com	http://www.rii.org/envatlas/asia/japan/jp-conc.html
10	http://www.iea.org/homechoi.htm	http://buildings.nrcan.gc.ca/bulletins/Headsup_v15.htm

Search terms: Building efficiency

Search	Infoseek	Lycos	Altavista
1	http://www.ies.wisc.edu/eap/asia.htm	http://www.sciencemag.org/feature/data/energy/energy-1974.shl	http://www.energy.ca.gov/commission/programs/index.html
2	http://www.eren.doe.gov/buildings/codes_standards/aboffmsn.htm	http://www.energy.com/eBID	http://www.ase.org/media/newsrel/press.htm
3	http://www.state.vt.us/psd/1997SAP.htm	http://www.pwi-energy.com	http://aceee.org/pubs/proceed.htm
4	http://www.energy.ca.gov/efficiency/consumer_eff.html	http://swhite.me.washington.edu/~malte	http://eande.lbl.gov/CBS/eXroads/pubs.html
5	http://www.energy.wsu.edu/buildings/ncsbec/NCEBC.html	http://www.energymatters.com	http://rebuild2000.drintl.com/news/partnershipupdates.asp
6	http://www.socalgas.com/candi/eep/eep_home.shtml	http://www.webdirectory.com/Science/Energy/	http://www.mnisose.org/links.html
7	http://solstice.crest.org/efficiency/irt/104.htm	http://hometown.aol.com/oexalt/	http://ase.org/media/newsrel/press.htm
8	http://www.cfda.gov/static/81119.asp	http://www.energy.wsu.edu/eic	http://www.sustainable.doe.gov/welcome.htm
9		http://www.subtle-energy.com	http://www.rri.org/envatlas/asia/japan/jp-conc.html
10		http://www.iea.org/homechoi.htm	http://buildings.nrcan.gc.ca/bulletins/Headsup_v15.htm

IV. Survey of Listserv Recipients

In order to better understand recipient satisfaction and use of the various EIC listservs, quantec conducted a survey of listserv participants.¹⁰

The surveys were conducted over the Internet using a Web form. A number of efforts were made to increase the response rate of the surveys, including:

- Offering five gift certificates as prizes, with values of \$100 each
- Stating that the survey contained 15 questions and would only take five minutes
- Wording the link to say “Provide your feedback” instead of using the word “survey”
- Using a short, concise introduction to the survey
- Keeping the first few questions to the survey simple and easy to answer
- Highlighting in the introduction and conclusion, in bold, that the answers “are confidential, and will be used for research purposes only”
- Sending out two reminders to those that did not initially complete the survey

The initial announcement – an e-mail with a link to the survey – was sent out on January 26, 2001. The first reminder was sent out February 1, 2001, and a final reminder was mailed on February 12, 2001. The survey was removed from the Web page on February 26, 2001.

As shown in Table IV-1, there was a total sample (listserv subscribers) of 648 people. We received 187 responses to the survey for an overall response rate of 29%. The response rate was highest for Energy Newsbriefs, the largest listserv (31%), and lowest for EnergyAG (21%).

As would be expected, most of the respondents receive the listserv at work (79.7%) or at home and work (9.1%) (Table IV -2). A higher percentage (30.4%) of BuiltGreen recipients, however, received the listserv at home versus the other listservs.

¹⁰ Only recipients of the four energy information listservs – BuiltGreen, Energy Newsbriefs, EnergyAg, and LGEnergy – were included. The final instrument is included in Appendix C.

**Table IV-1
Response Rate for Surveys**

Listserv	Sample Size*	Number of Responses	Response Rate
Builtgreen	86	23	27%
Energy Newsbriefs	422	130	31%
EnergyAg	75	16	21%
LGEnergy	65	18	28%
Total*	648	187	29%

* This is the number of subscribers as of January 26, 2001.

**Table IV-2
Location Subscriber Receives Listserv**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
At home	7	11	2	1	21
	30.4%	8.5%	12.5%	5.6%	11.2%
At home and at work	1	14	2		17
	4.3%	10.8%	12.5%		9.1%
At work	15	105	12	17	149
	65.2%	80.8%	75.0%	94.4%	79.7%
Total	23	130	16	18	187
	100.0%	100.0%	100.0%	100.0%	100.0%

Most of the recipients (approximately 69%) live in the Pacific Northwest (Table IV -3). Washington was the most common state represented (35.8%), followed by Oregon (23.0%). The range by state varied sharply based on the listserv. Overall, however, only 6.4% of the recipients live outside the United States.

**Table IV-3
Subscriber State**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
California	1	5	1	1	8
	4.3%	3.8%	6.3%	5.6%	4.3%
Idaho		6	1	2	9
		4.6%	6.3%	11.1%	4.8%
Montana	1	9			10
	4.3%	6.9%			5.3%
Oregon		41		2	43
		31.5%		11.1%	23.0%
Other U.S. State	9	14	10	5	38
	39.1%	10.8%	62.5%	27.8%	20.3%
Outside the United States	3	6	2	1	12
	13.0%	4.6%	12.5%	5.6%	6.4%
Washington	9	49	2	7	67
	39.1%	37.7%	12.5%	38.9%	35.8%
Total	23	130	16	18	187
	100.0%	100.0%	100.0%	100.0%	100.0%

The recipients of the listservs also indicated that they actively use the other EIC services. For example, over half of the respondents called the hotline (55%), used the Energy Solutions Database (50%) or used other services from EnergyIdeas.org (55%) (Table IV -4).

**Table IV-4
Use of Other EIC Services**

	Frequency*	% of Responses	% of Respondents
Called the Hotline	68	35%	55%
Used the ESD	62	31%	50%
Used other services	67	34%	55%
Total Respondents	187	100%	NA

* Respondents can provide more than one answer

Word of mouth (46% of the respondents) and the EnergyIdeas.org Web site (30% of respondents) were the most common ways that people learned about the listservs (Table IV -5). The hotline (16%) was also an important source of informing people about the listservs.

**Table IV-5
First Learn about Listserv**

Source	Frequency*	% of Responses	% of Respondents
EnergyIdeas.org Web site	55	26%	30%
While calling Hotline	29	14%	16%
Friend/Colleague/Word of Mouth	84	40%	46%
Advertisement	4	2%	2%
Article	3	1%	2%
Other	35	17%	19%
Total Respondents	187	100%	NA

* Respondents can provide more than one answer

Similar to the hotline and online survey, recipients of the listservs tended to work for utilities (18.2%), research institutes/universities (12.3%), or federal/state/local government (24.0%) (Table IV-6). This breakout, of course, varied by the listserv, as some of the listservs were clearly focused on specific sectors (e.g., EnergyAg focuses on agriculture, LGEnergy on government, etc.). In addition, the respondents reported that they tended to be engineers/designers/analysts (34.2%) or program/department managers (18.7%) (Table IV-7).

**Table IV-6
Type of Organization**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
Architecture	3 13.0%	4 3.1%			7 3.7%
Builder/Contractor	3 13.0%	2 1.5%			5 2.7%
Commercial business		1 .8%			1 .5%
Consulting firm (economics/program)	2 8.7%	14 10.8%	2 12.5%	3 16.7%	21 11.2%
ESCO		4 3.1%			4 2.1%
Engineering/Building design or construction		9 6.9%			9 4.8%
Farming			2 12.5%		2 1.1%
Federal	1 4.3%	6 4.6%	1 6.3%	1 5.6%	9 4.8%
Local	1 4.3%	9 6.9%		8 44.4%	18 9.6%
Manufacturing/Productio n/Industrial	1 4.3%	4 3.1%			5 2.7%
Other	5 21.7%	19 14.6%		2 11.1%	26 13.9%
Product supplier/vendor [What kind of product?]	1 4.3%	2 1.5%	1 6.3%		4 2.1%
Research institute/University	5 21.7%	9 6.9%	8 50.0%	1 5.6%	23 12.3%
State	1 4.3%	12 9.2%	2 12.5%	3 16.7%	18 9.6%
Utility		34 26.2%			34 18.2%
[unanswered]		1 .8%			1 .5%
Total	23 100.0%	130 100.0%	16 100.0%	18 100.0%	187 100.0%

**Table IV-7
Position in Company**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
Building operator/manager		3 2.3%			3 1.6%
Customer service	1 4.3%	8 6.2%			9 4.8%
Engineer/Designer/Analyst	5 21.7%	54 41.5%	2 12.5%	3 16.7%	64 34.2%
Organization executive	1 4.3%	5 3.8%	4 25.0%		10 5.3%
Other	3 13.0%	19 14.6%	2 12.5%	4 22.2%	28 15.0%
Program or department manager	4 17.4%	23 17.7%		8 44.4%	35 18.7%
Public relations/outreach	2 8.7%	7 5.4%		2 11.1%	11 5.9%
Self employed	3 13.0%	8 6.2%			11 5.9%
Student	3 13.0%				3 1.6%
Teacher/professor	1 4.3%	2 1.5%	4 25.0%		7 3.7%
[unanswered]		1 .8%	4 25.0%	1 5.6%	6 3.2%
Total	23 100.0%	130 100.0%	16 100.0%	18 100.0%	187 100.0%

The recipients of the listservs indicated that they actively follow the links to the energy stories: more than half of the respondents (57%) reported that they “often” or “always” follow the links (3 or more stories a month) (Table IV-8). Another 36% of the sample indicated that they follow at least one or two stories a month.

**Table IV-8
Frequency Follow Links to the Featured Articles**

Source	BuiltGreen	Energy Newsbriefs	EnergyAg	LGEnergy	Total
I have never followed a link to a story		7 (5%)			7 (4%)
I rarely follow the links (< 1 story/month)	2 (9%)	2 (1%)	1 (6%)		5 (3%)
I sometimes follow the links (1-2 stories/month)	10 (44%)	51 (40%)	4 (25%)	3 (17%)	68 (36%)
I often follow the links (3-5 stories/month)	2 (9%)	3 (10%)	2 (13%)	2 (11%)	19 (10%)
I always follow the links (6 or more)	9 (39%)	57 (44%)	9 (56%)	13 (72%)	88 (47%)
Total Respondents	23 (100%)	130 (100%)	16 (100%)	18 (100%)	187 (100%)

In addition to actively following the links to the stories, almost half of the respondents (48.6%) reported that they have used the technical data from the listserv stories to support a decision (Table IV-9). The percentage that used technical data was highest for Energy Newsbriefs, where 54.6% had used technical data from the listserv to support a decision. LGEnergy stories, however, proved to be less crucial for decision-making, as two-thirds of the recipients (66.7%) reported that they never had used technical data from the listserv to support a decision (although a very high percentage of LGEnergy recipients – 83% – follow the links for three or more stories a month, Table IV-8).

**Table IV-9
Used Technical Data to Support a Decision**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
Never	13 56.5%	59 45.4%	11 68.8%	12 66.7%	95 50.8%
Once or twice	7 30.4%	54 41.5%	3 18.8%	6 33.3%	70 37.4%
Several times	2 8.7%	17 13.1%	2 12.5%		21 11.2%
Don't Know	1 4.3%				1 .5%
Total	23 100.0%	130 100.0%	16 100.0%	18 100.0%	187 100.0%

As expected by the way respondents actively follow the links and made use of the information, they generally found the information valuable: 79.7% of the listserv recipients found the listservs either valuable (70.6%) or very valuable (9.1%) (Table IV-10). The ratings for EnergyAg trailed slightly behind the other listservs (only 62.6% rated the listserv as “valuable” or “very valuable”).

In addition, a remarkably high number of respondents (79.1%) had recommended the listserv to others (Table IV-11).

Answers to the open-ended questions – use of the technical data, recommended changes, additional topics to cover, and favorite Web site – are included in Appendix G.

**Table IV-10
Overall Value of Listserv Information**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
Not at all Valuable		3 2.3%	1 6.3%	1 5.6%	5 2.7%
Neutral	5 21.7%	21 16.2%	5 31.3%	1 5.6%	32 17.1%
Valuable	12 52.2%	95 73.1%	9 56.3%	16 88.9%	132 70.6%
Very Valuable	6 26.1%	10 7.7%	1 6.3%		17 9.1%
Don't Know		1 .8%			1 .5%
Total	23 100.0%	130 100.0%	16 100.0%	18 100.0%	187 100.0%

**Table IV-11
Recommended Listserv to Others**

	Listserv name				Total
	BuiltGreen	Energy Newsbriefs	EnergyAG	LGEnergy	
Never	6 26.1%	27 20.8%	4 25.0%	2 11.1%	39 20.9%
Once or twice	9 39.1%	65 50.0%	10 62.5%	11 61.1%	95 50.8%
Several times	8 34.8%	38 29.2%	2 12.5%	5 27.8%	53 28.3%
Total	23 100.0%	130 100.0%	16 100.0%	18 100.0%	187 100.0%

V. Online Survey

A subset of questions from the telephone surveys in the first two Market Progress reports was developed as an online questionnaire and placed on the EIC Web page on March 30, 1999. The survey was removed from the page from July 1999 through October 1999 while revisions were being made to the Web page; otherwise, it has remained online since October 1999. The survey instrument is presented in Appendix D.

In order to encourage users to complete the survey, a number of incentives have been offered. First, survey participants were entered into a drawing for a free airline ticket, with the winner being selected in August 1999. Two additional prizes – a digital camera and a palm pilot – were awarded in August 2000. Since then, winners have been selected each month to win a compact fluorescent light bulb or halogen torchiere. There were a total of 387 valid responses as of January 2001.

In addition to the prizes, efforts were made to optimize the response rate in the following ways:

- Posting a notice about the survey to the Alliance listserv
- Wording the link to say “Tell us how this Web site can be improved” instead of using the word “survey”
- Stating that there were only 12 questions and that it should only take five minutes
- Highlighting in the introduction and conclusion, in bold, that the answers “are confidential, and will be used for research purposes only”
- Adding an animated image of an airplane to the Home page (for the first prize)
- Linking to the survey from the Energy Solutions Database page
- Using a larger font size and brighter color to draw attention to the survey prizes

Findings

Almost half of the respondents (48%) lived in either the Pacific Northwest or California (Table V-1). The majority of the respondents worked for either utilities (20%), engineering/building design/construction firms (16%), government (15%), or research/education (12%) (Table V-2). The breakdown by business type generally matched the hotline database.

Many of the respondents also had decision-making responsibilities within their companies, as 9% indicated that they were organization executives and 28% reported that they were program or department managers (Table V-3).

**Table V-1
Respondent Home State**

Business Type	Frequency	Percent	Valid Percent
Idaho	23	6%	6%
Montana	12	3%	3%
Oregon	43	11%	12%
Washington	79	20%	21%
California	22	6%	6%
Other state	164	42%	44%
Canada	12	3%	3%
Other International	15	4%	4%
Unknown	17	4%	NA
Total	387	100%	100%

**Table V-2
Predominant Business Types**

Business Type	Online Survey		Hotline Database
	Frequency	Percent	Percent
Utilities	76	20%	19%
Consulting	33	9%	NA
Engineering, building design, or construction	62	16%	16%
Commercial Building Operators	20	5%	3%
Industrial	24	6%	4%
Government	57	15%	17%
Research institute/school/education	47	12%	14%
Individual	7	2%	13%
Other	61	16%	14%
Total	387	100%	100%

**Table V-3
Position in Company**

Position	Frequency	Percent
Organization executive	36	9%
Program/Department manager	108	28%
Line staff/Other	107	28%
Analyst	69	18%
Self-employed	47	12%
Student/Teacher	20	5%
Total	387	100%

More than half of the survey respondents (54%) reported that they were accessing the page for the first time when taking the survey (Table V-4). There was, however, a loyal group of Web site users (18%) that access the page at least once a week.

**Table V-4
Frequency of Web Page Accessed**

Frequency	Before Relaunch (n=276)	After Relaunch (n=111)	Total (n=387)
Once/First time	54%	55%	54%
Less than a few times/month	17%	16%	17%
2-3 times/month	12%	9%	11%
Once a week or more	17%	20%	18%
Total	100%	100%	100%

The most popular sites accessed remained the links page (74%) and the ESD (72%), and both of these pages were also reported as the most useful pages (Table V-5 and V-6). The rated usefulness of the ESD and the links page increased slightly after the relaunch, although the events and jobs listing were reported as less useful.¹¹

¹¹ Small sample sizes – only those accessing the page report on the usefulness – make these results less reliable, however.

**Table V-5
Web Pages Accessed**

Web Page	Before Relaunch (n=276)	After Relaunch (n=111)	Total (n=387)
Energy Solutions Database	68%	72%	70%
Events Calendar	45%	51%	47%
Jobs listing	37%	43%	39%
Links to Energy Sites	75%	74%	74%

**Table V-6
Percent Reporting Web Page as “Somewhat or Extremely” Useful
Base: Those Accessing Each Page**

Web Page	Before Relaunch	After Relaunch	Total
Energy Solutions Database	59%	64%	60%
Events Calendar	46%	41%	44%
Jobs listing	41%	21%	34%
Links to Energy Sites	66%	73%	68%

As demonstrated in Table V-7, overall satisfaction with the EIC Web site was quite high: 71% of the respondents gave the site a score of “4” or “5”, with an average score of 3.9 (out of “5”, with “5” being “extremely satisfied”). Respondents were also pleased with the speed of the site (average score of 4.0) and the appearance of the site (average score of 3.8). Respondents reported that they were slightly more satisfied with the appearance of the site after the relaunch (3.9 vs. 3.8), although the speed and overall satisfaction of the page generally remained unchanged.¹²

The page remained popular with users, as 68% of the respondents reported bookmarking the page (Table V-8). The site was even quite popular with first time users, as 58% of the first time users reported bookmarking the page.

Users of the site also indicated that they make good use of the information. For example, 40% of the respondents lent/copied materials for others, and 46% used technical data to support a decision (Table V-9). Almost half of the respondents (48%) even recommended the site to others.

¹² Differences from before and after the relaunch are not statistically significant for all three measures of satisfaction.

**Table V-7
Overall Ratings of EIC Web Page**

	Before Relaunch (n=276)	After Relaunch (n=111)	Total (n=387)
Speed of Web page			
• Top-Two box (Satisfied)	74%	72%	74%
• Average Score	4.0	4.0	4.0
Appearance of Web page			
• Top-Two box (Satisfied)	67%	69%	68%
• Average Score	3.8	3.9	3.8
Overall Satisfaction			
• Top-Two box (Satisfied)	71%	70%	71%
• Average Score	3.9	3.9	3.9

**Table V-8
Bookmarked EIC Web Page**

	Before Relaunch (n=276)	After Relaunch (n=111)	Total (n=387)
First time users	55%	67%	58%
Repeat users	82%	72%	79%
All respondents	67%	69%	68%

**Table V-9
Used EIC Information Once or More**

Have you ever...	Before Relaunch (n=276)	After Relaunch (n=111)	Total (n=387)
Recommended to others	48%	48%	48%
Lent/Copied materials for others	39%	41%	40%
Used technical data to support decision	48%	42%	46%
Demonstrated technique to client	35%	36%	35%
Promoted changes to internal policies	25%	32%	27%
Suggested others incorporate ideas	25%	22%	24%
Discuss with manufacturer for changes	22%	19%	21%
Included technical data in report/proposal	32%	30%	32%
Called the Clearinghouse hotline*	NA	14%	14%
E-mailed a question to the Clearinghouse*	NA	14%	14%

* These two questions were added after the relaunch

A number of respondents also reported that there were additional items they would like to see offered on the EnergyIdeas.org Web site (Appendix E). Many of these items are specific requests for information, highlighting the demand for an “ask the expert” type feature on the Web page.

VI. Conclusions & Recommendations

Conclusions

Marketing efforts, in conjunction with the California Energy Crisis, have led to an increase in hotline inquiries and Web site traffic. The effective use of e-mail and hard copy press releases, published articles, appearances at conferences and events, and paid advertising has led to a substantial increase in hotline inquiries and a dramatic increase in Web site traffic. For example:

- Hotline inquiries increased from 657 in 1999 to 763 in 2000 (a 16% increase).
- The number of hotline callers increased from 473 in 1999 to 539 in 2000 (a 14% increase).
- User sessions increase from 1,170 per month in 1998, to 2,000 in 1999 to 4,241 in 2,000. The user sessions were increasing dramatically throughout the second half of 2000, reaching nearly 7000 users by December 2000.

The EIC Web site, when compared to the others, shines as a comprehensive source of energy efficiency news, jobs, events, and information. No other site offered the range of energy efficiency information that the EIC site offers. Furthermore, some EIC features, such as the software links, makes it stand out among the other energy sites.

The EIC is effectively reaching its target audience with low cost methods of information distribution. As indicated by the surveys of Web site users and listserv recipients, the EIC continues to reach energy decision makers, many of whom live in the Northwest. The popularity of the Web site and listservs also indicate that these relatively low cost methods of information dissemination are successfully working as the “frontline” to more expensive methods of technical assistance.¹³

The EIC is developing and maintaining the EnergyIdeas.org Web site using an appropriate level of resources. Based on interviews with other Webmasters the EIC seems to be using a similar number of staff members and resources to develop the content and programming of the EnergyIdeas.org Web site.

The EnergyIdeas.org Web site does not rank highly in the search engines, although the search engines were a bit “noisy” and somewhat random.

¹³ A more detailed discussion of this “inverted pyramid” approach is discussed in the second Market Progress Report.

Based on searches for four sets of energy efficiency “keywords” the EIC site only came up in the top 10 listings for Lycos, and was not in the top 10 listings for any other search engine investigated (Infoseek, Altavista, Excite, and Google). However, the rankings from the search engines appeared somewhat random and identified hundreds of thousands of pages for some categories.

The recipients of the listservs actively follow the links to the articles and make use of the information. Based on a survey of 187 EIC listserv participants (29% of the population) the respondents found the information extremely valuable:

- More than half (57%) reported that they “often” or “always” follow the links (3 or more stories a month).
- Almost half (48.6%) reported that they have used the technical data from the listserv stories to support a decision.
- 79.7% found the listservs either valuable (70.6%) or very valuable (9.1%)

Overall satisfaction with the EIC Web site was quite high. Based on an ongoing online survey (n=387 to date), 71% of the respondents gave the site a score of “4” or “5”, with an average score of 3.9 (out of “5,” with “5” being “extremely satisfied”). Respondents were also pleased with the speed of the site (average score of 4.0) and the appearance of the site (average score of 3.8). Respondents reported that they were only slightly more satisfied with the appearance of the site after the relaunch (3.9 vs. 3.8), although the speed and overall satisfaction of the page generally remained unchanged from before the relaunch.

Web site visitors reported that they use the information. Users of the site also indicated that they make good use of the information; for example, 40% of the respondents lent/copied materials for others, and 46% used technical data to support a decision.

Recommendations

Model features/layout from the most professional sites. The EIC could strive to be the energy efficiency hub, modeling the page after the well founded and highly regarded for-profit Energy Central Web page. The EIC already offers many features of Energy Central (industry job, events, etc.), and should continue to monitor the site for ideas for content and layout.

Consider partnering with other Web pages. The EIC Web page contains a great deal of content that is valuable for users: the ESD, the jobs database, events list, and current events all reinforce the “stickiness” (return rate) of users. Some of these pages – particularly the current events – can be quite labor intensive, requiring staff time each week (as was reinforced by the

Webmaster interviews, where updating content was a major concern). The EIC should consider partnering with other energy Web pages to exchange not only links, but content. One possibly scenario is a “co-branded” page where another energy Web site is responsible for current events, and in return the EIC allows them to post jobs from the EIC jobs database.

Update all Web link resources. While the inclusion of links to Web resources has made the ESD far more comprehensive and useful, a check revealed a number of either broken or active links to publications that no longer carried the article of interest (and this was mentioned by some online survey respondents). The EIC should consider either having staff periodically check these links or only place links to other resources that are least likely to be moved or removed from the Web.

Promote Energy Newsbriefs and the other Listservs. The recipients of the listservs found them extremely valuable, yet the information and signups for are still not prominently featured on the EIC home page. The EIC should consider having a “sign up to receive our newsletters” box on the home page and should make sure that all callers to the hotline are signed up to receive an appropriate listserv.

Attempt to populate the database based on queried topics. Now that the EIC has developed a system for capturing queries in the ESD, it is important to periodically summarize these into topic areas and to make efforts to adequately populate each area. The EIC may want to consider a quantitative analysis to compare the number of inquiries compared to the number of ESD database cases per area (i.e., the amount of information on this specific topic contained in the database).

Attempt to evaluate user satisfaction with the ESD. While the number of cases may measure the *quantity* of responses to user inquiries, it does not capture the *quality* of these responses in the opinion of the user. In addition, the EIC has no formal system in place to determine how useful the ESD users are finding the answers to their queries; there is no feedback mechanism to capture value of the search information to the user. The EIC should consider a simple pop-pop question that appears with the responses to evaluate how users are finding the information. Possibly a simple 5-point scale would work with something like:

Help us improve the database by telling us how useful you found the information:

1	2	3	4	5
Not at all Useful				Extremely Useful

Make it easy to submit cases (queries) from the Web page. Few energy Web sites offer users an “ask the expert” or customized search feature, providing an important opportunity for EIC to promote its personal attention to clients. Users should be able to check “have EIC do a custom search” either from the Home page or after an ESD query. This button could bring up a form for the user to fill out and ask a specific question. The option of submitting cases (queries) from the ESD is most important, of course, for instances where the user finds “no matches” for the query. Another benefit of this capability is that it gives some indication of what percent of submissions to the ESD are providing adequate answers to client’s questions (e.g., more satisfied clients are less likely to also submit their queries as an EIC case). If inquiries increase too quickly this process can be modified so that a northwest clients get priority and/or the form only appears after users submit an ESD query.

Continue to set up reciprocal links. There were a number of important energy Web sites that were still not linked to EIC. In addition, due to the “noise” (or randomness) in current search engine rankings EIC might want to continue to focus efforts on reciprocal links.

Appendix A. Summary Results of Benchmarking Analysis

See AppA.xls

Appendix B.

Webmaster Interview Instrument

Introduction: Hello, my name is _____ and I am calling on behalf of the Energy Ideas Clearinghouse, a nonprofit organization funded by Washington State University and the Northwest Energy Efficiency Alliance. We are considering making changes to the Clearinghouse Web page and are conducting a benchmarking study of other energy-related Websites. Note that any information you provide is confidential and will only be published in an aggregate form. Would you be able to help me with a few questions about the operations and management of the **[Organization name]** Website?

1. How many years has the Website been published?
2. What is the site update cycle?
3. Has the site had any major upgrades? When?
4. Do you contract any of the Website programming or content management to an outside firm? [EXPLAIN]
5. How many total in-house staff members work on the Web page? (Probe for full-time equivalents or FTEs).
6. How many in-house developers and how many content providers (staff devoted to content management) do you have? (Probe for full-time equivalents or FTEs).
7. How is the Web site marketed?
8. How much traffic does the site get (How many hits)?
9. What search software do you use?
10. Can you provide us with an estimate of the costs to maintain the site (and a breakdown of these costs by in-house/outourcing and programming/content management)?
11. [FOR SITES WITH LINKS THAT ARE NOT LINKED TO EIC ASK] Would you be interested in setting up a reciprocal link with EIC?
12. What do you see as the challenges and trends that will effect you in the next year and in the next five years?

Appendix C.

Listserv Survey Instrument

1. Are you receiving Energy Newsbriefs at work or home?
 - Work
 - Home
 - Both work and home
2. What state do you live in?
 - [DROP DOWN BOX: OR, WA, ID, MT, OUTSIDE PACIFIC NW, OUTSIDE U.S.]
3. Have you ever used any other Energy Ideas Clearinghouse (EIC) services (Check all that apply):
 - Called EIC telephone hotline
 - Used the Energy Solutions database on the Energyideas.org Website
 - Used other services on the Energyideas.org Website
4. How did you learn about Energy Newsbriefs? (Check all that apply)
 - EnergyIdeas.org Website
 - While calling the Energy Ideas Clearinghouse
 - Friend/Colleague/word of mouth
 - Advertisement [SPECIFY WHERE]
 - Article about Energy Ideas [SPECIFY WHERE]
 - Other [SPECIFY]
5. What sort of work does your organization do? (Please select one only)
 - Architecture
 - Builder/Contractor
 - Consulting firm (economics/program planning/evaluation)
 - Engineering/Building design or construction
 - Manufacturing/Production/Industrial
 - Utility
 - ESCO
 - Property owner/manager
 - Government [Specify State, Federal, or Local Government.]
 - Research institute/University
 - Commercial business
 - Product supplier/vendor [WHAT KIND OF PRODUCT?]
 - Farming
 - Other:

6. Would you describe your position as... (Please select one only)
- Engineer/Designer/Analyst
 - Organization executive
 - Program or department manager
 - Building operator/manager
 - Public relations/outreach
 - Customer service
 - Self employed
 - Student
 - Teacher/professor
 - Other:
7. How often do you follow the Energy Newsbriefs links to the featured articles?
- I have never followed a link to a story
 - I rarely follow the links (less than one story a month)
 - I sometimes follow the links (about 1-2 stories a month)
 - I often follow the links (about 3-5 stories a month)
 - I always follow the links (6 or more stories a month)
8. Have you ever recommended Energy Newsbriefs to others?
- Never
 - Once or twice
 - Several times
9. Have you ever used technical data from Energy Newsbriefs to support a decision?
- Never
 - Once or twice
 - Several times
 -
 -
 - [IF YOU USED TECHNICAL DATA...]
10. How did you use the technical data? Did the technical data result in energy savings?
11. Are you willing to share more details about how you used the technical data with the EIC?
- Yes [CONTACT INFO:_____]
 - No, please do not contact me

12. How would you rate the overall value of the information you receive from Energy Newsbriefs?

1	2	3	4	5
Not at all				Extremely
Valuable				Valuable

13. Are there any changes you'd like to see concerning Energy Newsbriefs?
Are there any additional topics you'd like to see covered?

14. Are there any additional topics you'd like to see covered?

15. What is your favorite Web site?

And finally, to contact you if you have won your prize, can you please provide us with your name, e-mail, and daytime phone number? (These fields are **not** required. However, all answers are **confidential** and will be used for **research purposes only**).

— Name:

— e-mail:

— Phone:

Appendix D.

Online Survey Instrument

Thank you providing feedback on the EnergyIdeas.org Web site. By participating you can help us improve our Web page! The survey has 12 questions and should only take about five minutes.

1. About how often do you access the EnergyIdeas.org Web site? Would you say...
 - a. Daily or more often
 - b. 2-4 times a week
 - c. Once a week
 - d. 2-3 times a month
 - e. Less often, or
 - f. This is my first time

2. Which Clearinghouse Web pages have you accessed? Have you accessed the...?

	Have you accessed the . . .	Never	Rarely	Occasion-ally	Somewhat Often	Very Often
a	Energy solutions database					
b	Events calendar					
c	Jobs listing					
d	Software/files links					
e	Publications links					
f	Energy sites links					
g	Newsgroups page					

[FOR EACH CLEARINGHOUSE WEB PAGE ACCESSED ASK]

3. How useful did you consider the Clearinghouse Web page to be? Using a scale of 1 to 5, where 1 means “not at all useful” and 5 means “extremely useful”, how useful was the information on the...

		1 Not at all Useful	2	3	4	5 Extremely Useful
a	Energy solutions database					
b	Events calendar					
c	Jobs listing page					
d	Software/files links					
e	Publications links					
f	Energy sites links					
g	Newsgroups page					

4. On a scale of 1 to 5, where 1 means “extremely dissatisfied” and 5 means “extremely satisfied,” how satisfied were you with the...

	1 Extremely dissatisfied	2	3	4	5 Extremely Satisfied
a. Speed of the Clearinghouse Web page					
b. Appearance of the Clearinghouse Web page					
c. Overall value of the information on the Clearinghouse Web page					

5. Do you have the EIC Web paged bookmarked?
- a. 1. Yes
 - b. 2. No

6. Is there anything that you would like to see offered at the EnergyIdeas.org site that is not currently offered?

7. What Web sites other than the EIC EnergyIdeas.org Web Site do you use to get energy information?

- a. Alliance to Save Energy [<http://www.ase.org>]
- b. CREST [<http://www.crest.org>]
- c. EIA (Energy Information Administration) [[http:// www.eia.doe.gov/](http://www.eia.doe.gov/)]
- d. Energy Star Home Page [<http://www.energystar.org>]
- e. EREN/EREC (Energy Efficiency and Renewable Energy Network) <http://www.eren.doe.gov>]
- f. LBL (Lawrence Berkeley Labs) [<http://www.lbl.gov>]
- g. ORNL (Oak Ridge National Laboratory) [<http://www.ornl.gov>]
- h. Specific product and/or vendor Web Sites
- i. Wisconsin Energy Center [<http://www.ecw.org>]
- j. Other [SPECIFY: _____]
- k. No other site

8. How do you share or use energy information from the Clearinghouse?

	Have you ever . . .	1. Never	2. Once or twice	3. Several times	7. Not Applic able
a.	Recommended the Clearinghouse to others?				
b.	Lent or copied materials obtained from the Clearinghouse to others?				
c.	Used technical data from the Clearinghouse to support a decision?				
d.	Demonstrated or explained to a colleague a technique(s) or strategy that was presented by the Clearinghouse?				
e.	Promoted or implemented changes to internal policies or practices in response to something				

	presented by the Clearinghouse?				
f.	Suggested or insisted that an in-house colleague or subcontractor incorporate ideas learned from the Clearinghouse?				
g.	Discussed ideas presented from the Clearinghouse with a manufacturer or manufacturers representatives to encourage product changes?				
h.	Included the technical data provided by the Clearinghouse in a report or proposal for a client?				
i.	Called the Clearinghouse hotline?				
j.	E-mailed a question to the Clearinghouse?				

9. What are the three main places you get energy and energy efficiency information? Please select only three.

- a. Advertising
- b. Books
- c. Colleagues/Peers
- d. College/university
- e. Community college
- f. Conferences
- g. Consultants
- h. Consumer Reports
- i. Contractors
- j. Dealers/distributors
- k. Electric Utility
- l. Federal Government Agency
- m. Gas Utility
- n. Internet
- o. Library
- p. Local Government Agency
- q. Manufacturers

- r. Newspaper/Magazine/Trade Journal
- s. On-going education
- t. Other departments in firm/organization
- u. Retailer
- v. Seminars
- w. Staff members
- x. State Government Agency
- y. Trade or professional association
- z. Other _____

10. What sort of work does your organization do? [PLEASE SELECT ONE RESPONSE ONLY]

- a. Architects
- b. Contractor
- c. Consulting firm (economics/program planning/evaluation)
- d. Engineering/Building design or construction
- e. Building management and operation
- f. Public Utility
- g. Private Utility
- h. Professional organization
- i. Property owner/manager
- j. Government
- k. Research institute/University
- l. Manufacturing/Production
- m. Other [Specify: _____]

11. Would you describe your position as... [PLEASE SELECT ONE RESPONSE ONLY]

- a. Organization executive
- b. Program or department manager
- c. Line staff
- d. Analyst
- e. Self employed
- f. Other [Specify: _____]

12. And finally, so that we may contact you for additional feedback or if you've won the prize can you please provide us with your name, e-mail, and daytime phone number?

Name: _____

e-mail: _____

Phone: _____

Appendix E. Additional Information from Online Survey

6. Is there anything that you would like to see offered at the EnergyIdeas.org site that is not currently offered? (*Note: These are only the new additions since the second Market Progress report*)
- Residential cutting edge technology in real time, installations. Home heating and water heating combination systems
 - Some technological advances about energy
 - Better explanation of individual programs for residential solar energy options.
 - A lot more hard data and international trend in RER facts.
 - I am particularly interested in "hands-on" details, always looking for solutions to infield problems.....areas of interest are low-income weatherization (i.e., retrofit insulation practices and procedures; heating and duct work; grey water recovery).
Free energy and perpetual motion links
 - I was looking for information on the HEATMAP@CHP program by Dr. Gordon Bloomquist. Perhaps I will find it yet.
 - Places to leave your own ideas for potential alternative energy sources.
 - Things like info on grants on other energy sources
 - I was looking for information on estimated savings for adding ventilation to attics. With the hot summers and the solar gain on residential and commercial buildings in the northwest, there must be some studies on estimated savings.
 - I found your links did not work from some of your pages (e.g., the software page) so I was not able to access the software sites.
 - Do you have any information on the heat dissipation of roof ventilation?
 - Consulting opportunities, utility company request for proposals
 - References for energy education for children
 - List of national information resources on renewables

- *I'm looking for a power inverter for a third world country please EM me any thing you may have on that subject. Basically it's a backup power .*
- *Ergonomics information, alternative energy source information.*
- *Skylights vs light bulbs and its cost efficiency*
- *Average appliance/equipment wattage--it may be that this information is on the site but I was unable to locate it.*
- *I am sure there must be. How about more motor data on "huge" motors than most of the motor manufacturers even have themselves.*
- *I'm always checking this site every chance I get!*
- *Add a list of PV sources that are surplus, damaged but usable, very low cost for us do it yourselves.*
- *Energy efficient Incandescent Lighting*
- *More information and links to other regions.*
- *I didn't look too hard but...I'd like to see more information and examples of energy efficient homes. For example...collecting rain water for household use which is maybe powered by PV cells or something along that nature. 100% efficient homes, offices
An energy calculator, for both business and residential users!*
- *A link to academic journals that provide new and old (1965+) sources of info about energy that are FREE to access.*
- *Effective solutions for lighting energy conservation*
- *Energy saving Programs*
- *Energy-efficient ideas for home lighting--we're building our own house & want ideas to incorporate*

Appendix F. Webpage after Redesign



Appendix G. Listserv Survey Open-Ended Responses

Q10. How did you use the technical data? Did the technical data result in energy savings?

- Analysis of options for energy efficiency decisions or to keep abreast of current technologies or testimonials for Energy efficiency projects. Yes energy savings happened.
- Analyzing the feasibility of several products and services.
- As a teacher and an extensions specialist, I refer students and others to articles for information.
- As an info source for future possibilities.
- As background information for reports.
- As discussion information
- building techniques, water conservation, toxic offgassing
- Can't remember off hand
- Development of a green building program--energy measures. Not known
- Didn't have to do with energy savings
- Don't remember if it was used directly but there have been some good informative leads.
- Downloaded a DOE / Energy plus program. Plan on trying it on building envelopes. Hopefully it will help in the energy analysis.
- Education and idea support, no direct application or energy savings
- Evaluating replacing incandescent lamps with compact fluorescents and T12, magnetic ballast systems with T8 and electronic systems. The decision to change resulted in energy savings.
- For design / build project ideas.
- For designing marketing collateral for our client -- in the end it will result in energy savings.
- For planning study, no results yet
- General technical info to determine whether or not to use certain products
- Have read the technical data and recommended information learned to customers seeking to save kWh. Probably, don't know for sure.

- Help in Green Building Ideas. Yes
- Helping customers answer energy related questions. Many having to do with Energy Conservation and alternative energy.
- Helping customers with specific questions and in the design of new service offerings.
- I'm sure that the technical information that we passed on to our customers has resulted in energy savings, but we haven't tracked it or devised a procedure to measure it.
- I've used it to make policy decisions or to support policy work.
- I've used the technical data to help shape Energy Code proposals. I also use the data to get an idea of what future energy efficient design, construction, and equipment will look like so that the code doesn't inadvertently prohibit a good idea.
- I am also enrolled in grad school, and use the information as a reference for class work (Environmental Management Program).
- I am thinking to use technical data especially for Renewable energy sources or may be further like micro-generation, Superconductivity related R & D, and software involved.
- I conduct pollution prevention assessments for small businesses and contractor on Government facilities. The web site has aided many of these P2 assessments. Most of the P2 assessments have resulted in energy savings.
- I mainly use it for reference collecting on topics of expected future importance.
- I passed it on to people who call the Research Center for information on green building.
- I passed on technical data to decision makers within the industry
- I provide technical support to firms operating large ammonia refrigeration systems. I have used information on motors, controls, etc. An yes a lot of energy has been saved. Specifically I do not know whether the idea came completely from energy ideas
- I typically use the data for articles.
- I used tech data for corroboration when lobbying a group of local legislators.
- I used technical data to make product recommendations on a project
- I used technical data to support various recommendations and proposals.
- I used the data to pass along to contacts that had asked me about the issue.

- I used the technical data to illustrate a point in an internal communications piece.
- I wish I could remember. I know I talked to someone who looked up further information for me that was helpful.
- Impossible to separate from total work flow.
- In evaluating design options. Possible savings.
- In researching options there was a potential for energy savings
- Information regarding biogeneration with byproducts from agricultural operation was useful in determining the practicality of construction.
- Information was used as reference material in the review of different concepts/alternatives.
- Listed links as resources in various technical documents that addressed similar subjects. No documented cost savings.
- main interest is in keeping up with the deregulation. However, I have found things on fuel cells, solar power, and wind power that helps in my customer contacts
- May have forwarded to architect/engineer -don't know that anything has resulted in energy savings.
- mostly as reference
- Mostly just to learn what is going on in the new development areas of fuel cells and lighting. It has been some help in our programs.
- N/A
- New ideas and technologies for energy savings
- Not to my knowledge.
- Our BIAS power supply is created specifically to reduce energy consumption in electronic products during their "turned off" mode. Your information reinforces our efforts to promote energy savings.
- Research for looking at pellet stoves. Information about compact fluorescent lights. Information about alternative fuels and electric vehicles.
- Rob Penney (my best remembrance) at the State Of Washington Energy Office helped me with selection of lighting for a new 25,000SF industrial building addition. I believe that State office, or its functions, were moved to the present Energy Ideas Clearing
- Solving a small commercial bldg insulation and lighting problem.
- Technical data supported conclusions of our staff in field experiences. The third party verification supported a proposal we

made to a regional entity for funding of ductwork research and the value of sealing training.

- Technical information is often used for future reference, or in support of an energy efficiency study. These studies recommend projects that do result in energy savings.
- The only time I requested data was for a generic drawing of a heat exchanger for gas furnaces. I did not receive anything that was of use.
- To confirm calculations of my own.
- to develop a marketing plan for a conservation program
- To make recommendations to current and/or future clients
- To support a position regarding energy usage and energy conservation projects
- To support recommendations and calculations.
- Too Soon to tell, but probably
- Use in presentations.
- Used motor data and this resulted in energy savings for the customer.
- used technical data to do an feasibility study on solar energy.
- Used the data to educate others in supporting Energy Star Buildings and Green Lights partners. I can't confirm if the data resulted in savings, but my feeling is that it did.
- We us it to help guide our product development

Q11. Are you willing to share more details about how you used the technical data with the EIC?

- As soon as my article completes, I would share some of data. It should be on Restructuring, new ideas, innovations of energy saving and clean energy production/generation.
- Can't cite specific details.
- Greg Wiegand 360-697-2118
- Have not yet used it.
- Helping a customer decide on options for a micro-hydro site. I received several valuable resource I could then share with the customer to help them make their decision. (probably won't go ahead with project due to a number of factors.)
- I am involved in a goal of cutting 50% of the energy consumption from a new 85,000 square food supermarket regardless of the first

cost. The building is not yet under construction, but all simulations and calculations appear that we will be successful.

- I can't remember what the issue was, I'm sorry.
- I don't remember the details
- I have forwarded the e-mail newsletter to several of my fellow workers, and I have used numerous articles to educate myself on energy savings that I can apply to my work facility. I am a Facilities Engineer and am involved with energy conservation at our
- I have no further details.
- I would, but I pull data from many sources and frankly don't remember what data I got from what source. Al Bandazy PUD #1 of Snohomish County (Washington State) ajbandazy@snopud.com 425-783-1739
- I would, if I remembered one. But, as of right now I cannot think of a specific example. Sorry.
- Info from EIC was just once piece or a corroborating piece in the decision.
- Jonathan White 253-857-1514
- Michael Aoki-Kramer (206) 684-7932
- N/A
- Not much else to say, but I did not know anyone could sign up for the newsbriefs, so now I will tell some people about it.
- PNL CFL program information distributed in DEQ statewide press release.
- Rob Gray Avista Utilities 509.495.4735 rob.gray@avistacorp.com
- Snohomish County has assisted MBA in developing its Built Green Program. As such, it is important to me to see what sorts of information are available and how it is being dispersed. The details are not really pertinent to me. That is why I haven't used t
- Sure.
- WSU staff are involved in the projects and aware of how data was collected supporting the proposal.
- Yes
- Yes 360-650-7676
- Yes, although it was just the general/overall ideas presented by articles (not a particular article). Please email.. Or call (510) 749-5898 (work)
- Yes. Gene Troy gtroy@cadmusgroup.com

- Yes. Kalman Zsamboky BIAS Power Technology, Inc.
www.biascompany.com zsamboky@aol.com 941-379-4053

Q13. Are there any changes you would like to see concerning the listserv?

- A small point - getting the URLs on a single line would be a convenience. Perhaps categorizing articles into technical and policy subcategories - allow the user to select which to view
- A better description of what is presented so I can tell faster if the information is useful
- add more graphics and pictures
- At my work station I do not have internet access so it would be more helpful if the EnergyNews email would include more of the information/text from the link.
- At times I have trouble with the links since they are so long that they wrap around at the end of the line and part of the address is not included in the link. Then I have to cut and paste the remaining portion to bring up the Web site.
- Better access to the article, and case studies to back up the information. Too much of it seem superficial.
- Can't think of any.
- Comes too frequently - once a month is more than enough. Headings should be consistent and not designed to simply restate what is in the article title. Maybe keep on line archive of articles for people to do easy search by topics or key words.
- Even more bulletized summaries for even faster reading.
- Even though I know that there is valuable information in the newsletter, I never feel that it's quite important enough to me to take the time to read it. So I keep getting it, and keeping the e-mails, although I never look at it. I'm not sure if anything
- For my purposes, I don't see any changes needed.
- I am still a new subscriber and just getting into the site.
- I enjoy the information on a variety of topics and technologies.
- I enjoy the links to additional information.
- I find it very helpful as is.
- I had a question about the life of LED traffic signals and didn't get a real answer. I'd like to be able to have access to the local government experts around the NW. I think your organization can help make that link, but I'm not sure you have yet.
- I like it like it is.

- I think it is fine the way it is, but as anything, I think it could be improved. To me, the most important thing is that it is easy to scroll through. Time is limited, so I do not read the entire newsletter, but scroll through to find interesting topic
- I think it is good but would like to have some more software info to use to analyze particular data.
- I would like to see more case studies on successful sustainable buildings that are designed and constructed within typical first cost constraints.
- I would like to see more on process. Many of the clients we work with are very new to these ideas and they have no framework for making these decisions (EMS, ISO14000, Natural Step). It would be helpful to provide diagrams, schematics and recommendations
- I would like to see online presentations, via real time video announced for energy saving ideas at conferences. Announcements of training and conferences that can save energy or are green in nature.
- It would be very helpful to have a way to know that the articles have been read by an “expert” - maybe such a person could give an opinion as the practical and/or theoretical validity of the claims/research etc.
- Keep up the variety. More attention on transportation efficiency. Transportation is more than half the energy use in the Northwest. Information on intelligent vehicle highway systems, trends in vehicle efficiency in Europe, emerging vehicle technologies
- Make sure the links all work
- Maybe grouping of topics, i.e. solar, duct seal, etc.
- Maybe make it more attractive and easier/more exciting to read by improving the graphics
- More articles, the better
- More clarity with the interface -- the amount of information, menu items, and links can be a little overwhelming
- More convergence with all of the other green bldg. sites, etc.
- More emphasis on economics of new energy saving technology.
- more exposing the debacle of deregulation
- More information on drives and motors, especially for the commercial field - HVAC
- More information regarding wasted energy of electronics during sleep mode

- My personal segment of interest is in the Industrial Segment and it would be nice to see the information indexed by segment in order to be able to have a focused search.
- No changes recommended. Please continue to provide the service.
- No suggestions.
- No, I like electronic medium used...saves trees, and saves me time....we can print the articles we want and “toss” the rest.
- No, it’s good.
- No, it is all good information
- None come to mind.
- None that I can think of at the moment.
- Occasionally the links are not valid.
- Oftentimes the links don’t work as they should. I’ve noticed that the links get cut off in the email and continue on the next line, so in order to get the link to work, one has to cut and paste each line from the email into the web browser to form one c
- Perhaps a bit more attention to policy issues, programs, project case studies (efficiency and renewables), marketplace issues and other subjects not entirely oriented to technologies. That’s a self-interested reply, since our newsletter, Con.WEB, covers
- Possibly put one or two links to interesting topics on your web site in the news briefs. Going out to websites and finding items takes time that may or may not budget since it could just wind up a waste. That which comes automatically like a newspaper
- Rate articles for depth of coverage. I.e. Expert, advanced, intermediate, beginner. Or possibly by audience type: architect, owner, contractor, energy consultant, power industry...
- re: questions 13 & 14. My practice is very small, basically residential and small commercial. I enjoy looking through the topics covered and those that interest me will follow the links and read more about it. Obviously, the ones most practical to me
- The grouping into categories is helpful. Perhaps an additional level of grouping would make it even easier to zoom in. Deregulation/Current Events (pun intended), Renewables, Programs, Education Opportunities, etc.
- This site provides a very brief synopsis of information and that’s all I need to know if it’s worth pursuing or not. I always share the site with my fellow energy folks here. Thanks for the service.
- You need a head-line on the subject line. I open less than half of my e-mails. You get one shot at getting my attention. I need a hook.

Appeal to different people by headlining a different type of topics each issue.

- You seem to have an industrial - institutional focus. I would like to see more widespread practical application information for small to medium residential - business including sources for unusual, not mainstream product availability.

Q14. Are there any additional topics you would like to see covered?

- 1. Measurement software 2. Databases that help to organize savings 3. case studies 4. ROI and cost-benefit analysis for companies that have actually installed programs 5. information on how to report to investors (since many companies are constrained by
- A wide range of topics is best.
- Affordable housing programs. PV systems
- As a student in interior design, I would like to see more articles relating to recycled, recyclable, or sustainable products such as building materials, furniture, or anything else. I also am interested in what firms around the country are doing with g
- As the manager of a number of building managers, everything and anything to help with energy conservation and cutting edge technology as it relates to building systems
- Co generation; wind power
- Conservation Voltage Reduction
- Current/emerging efficiency/program activities by West Coast utilities responding to run up in prices.
- Cutting edge sustainable design and construction. Leading lighting and mechanical installations.
- Deregulation strategies -- in Oregon, should local governments band together to delay the implementation of SB 1149? If so, should we still push for implementation of the “public purposes” funds to assist with energy efficiency efforts on the original s
- Details about lighting replacement and other general topics about existing, easy to apply techniques for heating, appliance modification or upgrades that would increase the application of small improvements across a wider market. Also: solar, fuel cell,
- Distributed Generation gets periodic coverage.
- Does not concern this question - the e-mail box at the bottom is not large enough to take my entire e-address.
- Energy Management
- Fuel Cells

- Geothermal heat exchangers/heat pumps
- Green Buildings & the LEEDS process. Governmental updates on RCWs, changes to energy code
- Heat recovery to power generation. More on compressed air systems.
- Highly energy efficient windows.
- I'll keep that in mind and email you accordingly if some thing comes to mind.
- I am a mechanical engineer and would like to review more steam/compressed air topics.
- I am interested in energy conservation
- I am specially interested in renewables as a tool to promote sustainable development
- I believe issues presented are quite valuable as is...
- I especially like the links to other resources. Places I may not have been to before.
- I have seen plenty of case studies to show were an HVAC change saved a company money. What I would like to see is how all the various HVAC methods (fan coil, electric baseboard, steam, heat pump, etc.)compare in efficiency and what is the common system
- I have used the site primarily to try to keep up on what is happening in the NW energy scene and with some technological improvements such as fuel cells.
- I like the topic selection you have. I particularly like the one-sentence summary of the article in brackets. That is exactly the right level of information I need 95% of the time.
- I would like to see articles on ice storage for chilled water systems. I would like to also see articles that deal with ways to save energy in compressed air and vacuum systems.
- I would like to see coverage of designing for deconstruction.
- I would like to see some information on savings estimates for typical low cost/no cost residential and commercial energy savings ideas. For example how much energy is lost by leaving a fireplace damper open in winter? There are many more.
- Industrial heating, particularly gas-fired. Applications of the above for drying discrete objects.
- Is there recent research on residential building science?
- Just keep doing what you are doing.

- Keep it to projects that could be done to reduce consumption. There are quite a few where the technology is still way out there.
- Landfill gas to energy production
- Legislative action, including links to current and proposed code.
- more alternative energy info
- More analyses of Green Power cost effectiveness would be nice given the current swing in power costs.
- More articles concerning how local governments are coping with the recent rate increases in utilities.
- More consumer orientation at a base level
- More evaluation of new technology. What should we be getting up to speed on and planning for?
- More marketing strategies
- more on the 'externalities' which are seldom accounted for in our energy priorities
- More on deregulation and M&V for energy projects.
- Most of the topics you cover. please cover some on Superconductors
- None at this time.
- Not necessarily
- Recycled wood-plastic, composite lumber, recycled rubber, imitation slate roofing, fiber cement siding etc.
- Refrigeration uses about 8% of the electrical energy consumed in the United States and does not get much interest from any one. It is quite easy to reduce the first cost and at the same time reduce the energy consumed with commercial refrigeration system
- renewable energy
- See above. It's really great how it is. Just keep on going and keep on growing.
- Sources of education in use of solar energy, which is poorly covered.
- Utility and Federal Weatherization Programs. Deregulation. Natural Gas industry information.
- Water Efficiency
- You are doing an excellent job of presenting a variety of topics and information. I can't think of an energy issue you haven't touched.