RENEWABLE ENERGY PROGRAM

CALIFORNIA ENERGY COMMISSION

MARKET RESEARCH FOR EMERGING RENEWABLE TECHNOLOGIES

CONSULTANT REPORT

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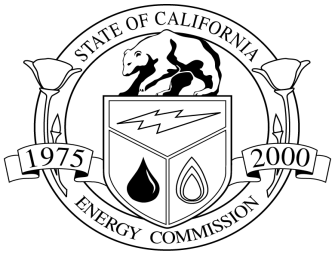

Gray Davis, *Governor*

CALIFORNIA ENERGY COMMISSION

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Table of Contents

Report Summary

RS.1 Survey Overview

This report on emerging on-site renewable energy generation technologies presents the incremental market research findings for the Residential and Commercial sectors in California. The purpose of this project is identified as "completing the necessary market research needed to successfully implement a consumer education campaign for emerging renewable technologies." The overall project objectives were identified as:

- Determine market research requirements and gather data to fill existing gaps on the market and potential for grid-connected emerging renewable technologies.
- Determine promising audiences and target markets (residential and commercial) for the Energy Commission's Emerging Renewables Buydown Program.
- Identify supply-side/distribution channels, their weaknesses to consumers in the emerging technology information process and communication gaps with Emerging Renewables Buydown Program information.
- Recommend a path forward for the Energy Commission's Renewable Energy Consumer Education Program efforts to support the increased effectiveness of the Emerging Renewables Buydown Program and the post-program era consumer-driven market.

RS.1.1 Market Research Gaps Analysis

This research effort acknowledged that in order to develop an effective consumer education program for the emerging renewable technologies market, relevant market information was required. The specific and numerous categories of information that have been collected are a result of an initial compilation and review of existing market research (gaps analysis) on emerging renewable technologies performed and available to date.

The resulting information requirements were grouped under the two separate categories that make up the market for emerging renewable technologies: the Consumer Demand Side and the Supplier Infrastructure Side. Consumer and Supplier Gap Matrices are included in Appendix H of this report.

Dealing with the Consumer Side of the market, this report addresses the identified information needs gathered and analyzed for both the Residential and the Commercial/Contractor segments. Market research information for the Supplier Side of the

market was collected in a previous Energy Commission-sponsored project[1] and specific findings can be found in that project's Final Report. Recommendations for Supply-Side Consumer Education efforts, based on these findings, related to the manufacturers, retailers, installers/ maintenance firms operating within California's emerging on-site renewable technologies marketplace are included within this report.

RS.1.2 Market Research Methods

Both Internet-based and mail-based surveys were implemented to assess the awareness and attitudes of California households towards emerging renewable technologies. There exist notable, and interesting, differences between the two types of survey respondents. For a Comparison of Survey Results by Survey Method, see Appendix I.

RS.2 Survey Results Overview

The purpose of this specific market research project is to obtain current information and data relevant to the California markets (residential and commercial/contractor) for the Emerging Renewable technologies, focusing primarily on grid-connected applications. Through these research efforts, we examine awareness, understanding, interest, and perceptions of renewable energy sources and gain valuable information concerning the characteristics of these different market sectors.

RS.2.1 Residential Market Research – Key Findings

Awareness, Understanding of, and Interest in, Renewable Energy Systems

It is important to understand consumer awareness of renewable energy sources. In gauging this understanding, we are better able to view the current disposition of consumers to capitalize, where possible, on greater levels of pre-existing awareness and knowledge of renewable energy sources, and focus consumer education efforts accordingly. Similarly, identifying areas where knowledge and awareness is low offers efficient direction for raising the profile of emerging renewable technologies over the next few years within these areas.

- Overall, 42% of residential respondents were at least somewhat familiar with one or more of the emerging renewable technologies.
- Ninety percent believe using renewable energy sources helps to improve the environment.
- Thirty-six percent of residents were aware of someone currently using an emerging renewable energy system, most indicating a "friend."

[1] Emerging Technologies Market Research Demand-Side Assessment, May 2000

- Top three purchase considerations by current users of a renewable energy system at their home:
  - "economical/financial," "personal values for saving money," and "availability of support/sales/design/maintenance services."
- Top three purchase considerations by non-users:
  - "economic/financial," "personal values for saving money," and "environmental concerns/conserving environment's resources."
- Seventy-one percent of all respondents stated they would consider installing a renewable energy system sometime in the future, although 64% of these respondents were unsure when that would happen.

Perceptions and Issues Concerning Renewable Energy Sources

From the review of previous market research efforts and resulting "gaps analysis," sufficient information was already available concerning preferred product attributes and the importance of ownership features. It was not clear, however, if there existed residents' issues or perceptions about owning a renewable energy system, or the availability of relevant information.

- Almost 30% of respondents did not believe that information about renewable energy systems was easy to find, or understand.
- Eight-six percent of residential respondents said they were not aware of the Energy Commission's Emerging Renewables Buydown Program.
- A small percentage (3%) currently has some form of a renewable energy system at their home.

Communication/Information Sources, Interests, and Affiliations

What communication channels residents refer to for information allows the Energy Commission, and the industry, to better understand the residential market in California. This, in turn, enables more efficient and cost-effective consumer education plans to be developed for the Energy Commission's Renewable Energy Consumer Education Program.

- More than half of residential respondents watch a major network television station and 50% read the local paper on a regular basis.
- Although clearly biased by the Internet survey component, an overwhelming 90% of respondents say they regularly use the Internet at home with 41% claiming to use the Internet at their place of employment.

- Forty-one percent cited television/radio stations and thirty-nine percent cited the Internet as their main source of information.[2]
- One quarter of respondents said they "always" read their utility bill inserts.
- Direct involvement with environmental organizations was low at just 5%, although financial support via donation of money or goods, totaled 34%.

Personal and General Information

Although the most sensitive of information, the final section of the survey provided invaluable data as to the specific, factual information about the residential survey participants. Many of the questions were optional on the Internet-based survey; however, on average, just six people (<1%) chose not to supply this information on the Internet and mail survey responses.

- Nearly 60% of respondents were 35-54 years old and 55% were women.
- The most highly cited occupation was that in the field of office/administrative (11%), followed by homemaker (8%), computer science (8%), and engineering (6%).
- One quarter of all respondents earn between $50,000-$75,000 each year with 32% having some college education, and another 36% being a four-year college graduate or higher.
- Two-person households totaled 36%, with one third estimating their home value to be between $100,000-$199,999.
- Over half of the respondents live in a California city or town, with nearly equal response numbers from the North and South Coasts, and South Inland regions.

RS.2.2 Commercial Market Research – Key Findings

General Awareness, Understanding, and Interest in Renewable Energy Sources

As the concept of renewable energy has developed over recent years, it is important to more fully understand the awareness of these technologies among the commercial market segments in order to weight and prioritize consumer education strategies.

- Overall, 31% of respondents said they were "familiar" or "very familiar" with solar PV cells with 36% at least "familiar" or "very familiar" with small wind turbines.
- Forty-one and 46 percent of respondents, respectively, were "not at all familiar" with fuel cells and solar thermal electric technologies.

[2] Web- and Internet-related information sources clearly are heavily biased by the predominance of residential Web survey responses (754 versus 76 mail respondents.)

- Twenty percent of commercial participants claimed some form of direct experience with renewable energy.
- Nearly 9 out of 10 believe using renewable energy sources helps to improve the environment.
- Thirty-eight percent were aware of someone who had installed a renewable energy system at their home or business, with more than half of this group indicating that person was a "friend."
- Commercial respondents rated "economic and financial considerations" as the most important purchase consideration in the decision-making process for on-site renewable generation systems, followed by the availability of after-sales support/service.
- More than half of the largest business group ("office" segment) respondents ranked "personal interest in technology and up-to-date trends" as an "important" consideration. This is notable as, overall, it was ranked the least important of all considerations.
- Almost all commercial respondents (91%) selected an acceptable "pay back" period for the cost of purchasing and installing an on-site generation system to be 1-10 years, with the slight majority (25%) choosing a "pay back" period of 7-10 years.
- Almost one half of respondents replied positively that they would consider installing a renewable energy system sometime in the future. Note that relevant system cost data could not be provided to Commercial respondents.
- When rating installation and ownership features, "equipment reliability" was highest, followed by "initial cost of system," and "system longevity."
- Only contractors were asked their opinion as to what they believe to be the two most significant barriers to improving the overall market for emerging renewable technologies. Over 57% of Contractor respondents rated the "first cost of the system" as the biggest barrier.

Perceptions and Issues Concerning Renewable Energy Sources

The data obtained within this section of the survey assists in assessing the availability of renewable energy information, respondents' perceptions of these materials, and direct experience with renewable energy systems. Although market research data was available and reviewed in the opening stages of this project, for some of these issues it was identified that additional, more relevant information would be beneficial to help meet consumer education needs.

- Only 13% of commercial respondents believe information about renewable energy systems is easy to find, access, or understand. Of this 13%, most have found their

information via a green power provider/marketing firm. More than 40% stated that this key information is not easy to access or understand.

- Of the 9% of commercial respondents who are aware of the Energy Commission's Emerging Renewables Buydown Program, 40% are in the retail or construction business.
- Ninety-six percent of commercial consumers are not aware of the utility net metering requirements.
- Just 3% of all commercial respondents claimed to have a renewable energy system currently installed at their office/business.

General Organizational and Operational Information

This final section of the survey instrument provides essential data about factual characteristics of the commercial participants. Providing a better understanding of these market segments enables the provision of better planning tools for the development of consumer education programs.

- Overall, 70% of commercial businesses that responded to the survey had five or fewer employees.
- Two thirds have facilities that are 5,000 square feet or less with the majority (36%) estimating an electric bill of $100-$499 per month.
- Eighty-three percent of businesses do not follow set procurement procedures.
- Over 33% of businesses are members of a professional/trade organization.
- Fifty-eight percent of respondents claim to use the Internet regularly at work.

RS.3 Recommendations for Consumer Education Program Planning

The recommendations within this report for consumer education program planning identifies the overall strategic direction most applicable for emerging renewable technologies, suggests the most viable target markets, and provides strategies for meeting the goal of the Renewable Energy Consumer Education Program.

RS.3.1 Strategic Approach

The understanding of consumer perceptions of renewable energy and consumer awareness of the Energy Commission's role and activities within that environment, offer a recommendation for the program's overall strategic approach: one of competitive advantage.

The prime competitive advantage of emerging renewable technologies' against other products and services in the California marketplace is a combination of two characteristics:

- Renewable energy sources help to improve the environment.
- A quality resource (namely the Energy Commission's Renewable Energy Program) is available, free to consumers, when considering the purchase of an on-site renewable generating system.

The first strand of this competitive advantage is made even more powerful as it is recognized by consumers: 90% of California residents and 87% of the California commercial sector agree with the statement "using renewable energy sources helps to improve the environment." The Energy Commission has made progress towards communicating and reinforcing this message to consumers.

The second strand is not widely known or recognized in the California marketplace. There is very low awareness among homeowners or businesses that when considering the purchase of an on-site electric generating system, there exists a high-quality resource of information, guidance and incentives available to them - free of charge – from the Energy Commission's Renewable Energy Program. Such a strong support resource is not commonly available when considering the purchase of comparably priced products and services and needs to be capitalized on.

RS.3.2 Market Segmentation and Targeting

Target marketing involves the division of a large market (namely the state of California) into smaller market segments. Each segment is characterized or profiled by certain, often demographic, characteristics. Selecting attractive target markets, or those most likely to be receptive to the consumer message, maximizes both time and money resources.

Residential Market

The residential market in California has been segmented by geographic region and against key attributes from survey data. Once segmented, these residential groups were then profiled against demographic data to better understand the individual geographic segments' overall traits or characteristics.

As a result of this residential segmentation analysis, it is recommended that the most attractive and viable target markets for the Energy Commission to pursue in its consumer education activities are shown in Table RS-1.

Table RS-1: Recommended Residential Target Markets

	North Coast Residents	*South Coast Residents*
TARGET MARKET PROFILE	- Familiar of renewables (solar cells/PV)	- Familiar with renewables (solar cells/PV)
	- High willingness to install renewable energy system at home	- High willingness to install renewable energy system at home
	- Higher home values (57% $200,000-$500,000+)	- Average home values (52% $200,000-$300,000)
	- Higher income spread (34% $75,000-$150,000+)	- Average income spread (35% $50,000-$100,000)
	- Age spread 25-54 years	- Age spread 35-54 years
	- Information source – Internet (40%)	- Information source split – Internet (42%)

Commercial Market

The commercial sector in California has been segmented by geographic region and business type against characteristics highlighted in survey data. Review by type of business included only the top four business sectors represented in the survey (office, restaurant, retail, services). Using additional data compiled from the research effort, groups were then profiled to better understand their overall market segment characteristics or traits.

As a result of the segmentation analysis, it is recommended that the Energy Commission pursue the following commercial market segment in its consumer education activities for emerging renewable technologies.

Table RS-2: Recommended Commercial Target Market

	South Inland Businesses
TARGET MARKET PROFILE	- Substantially higher familiarity
	- High willingness to install renewable energy system at business
	- High current electricity bill (25% pay $1k-$10k+ per month)
	- Office, service, retail, and restaurant type businesses
	- Most do not regularly use Internet at work

Although within this recommended target area, 'restaurants' represent a sector with high willingness to consider on-site generation and higher usage of electricity in the operation of the business, it was not deemed the survey represented a high enough response rate from this group to be classified as a recommended target market.

Supply-Side Market

The success of the Energy Commission's consumer education activities depends heavily on external providers of emerging renewable technology-related products and services. Better understanding and management of the Supply infrastructure will enable the Energy Commission to complete its role as a quality resource for consumers when considering the purchase of an on-site generating system.

It is important, therefore, that the Energy Commission views the Supply-Side sector as a target market for its attention in the consumer education effort.

The Supply infrastructure includes manufacturers, retailers, installers, and maintenance firms within the emerging renewable technology marketplace. Considerable market information on this sector has been gathered in a previous Energy Commission-sponsored project[3] and key findings have been included in the development of consumer education plan recommendations for this target market.

RS.3.3 Consumer Education Strategies - Overview

Residential Market

The recommended target markets for the residential sector represent a knowledgeable, relatively affluent section of California interested in committing to on-site electricity generation at their homes. The Energy Commission's goal is to influence residents' actual purchase of an emerging renewable technology system through:

1) Developing a high presence and profile of emerging technology products and options at the time of considering home-related expenditures (e.g., home-improvement projects, new home purchases, home financing opportunities).
2) Increasing residents' awareness and assurance of the Energy Commission's role in emerging renewable technologies, available incentives, and the developed supply-side and after-sales network of support.

The overall recommended key consumer education objectives for the residential target markets of North Coast and Central Valley are as follows:

- *Raise the profile of the Energy Commission at the local, target market level.*
- *Increase involvement with local target market facilitator businesses.*
- *Increase information resources available to target market residents.*
- *Develop and position website as one-stop-shop for information.*

[3] Emerging Technologies Market Research Demand-Side Assessment, May 2000

Detailed recommended consumer education activities can be found within the Recommendation Section of this report.

Commercial Market

The geographic target market recommended for the commercial sector represents an area in California considerably more aware of renewable energy and a greater user of electricity in their organization.

The Energy Commission's goal is to create a market for emerging renewable technologies within the commercial sector through:

1) Increasing awareness and knowledge of the benefits and potential savings of using emerging renewable technologies on site at business premises.
2) Educating the target market of the Energy Commission's role in emerging renewable technologies, applicable financial incentives available, and the developed supply-side and after-sales network of support

To meet this goal, and capture the identified target market, the overall recommended consumer education objectives are as follows:

- *Build Energy Commission presence in target market business community.*
- *Create communication channels and information opportunities for local business.*
- *Increase involvement with other commercial-related businesses and develop joint initiative/promotion opportunities.*

The detailed recommended consumer education activities to support these objectives can be found within the Recommendation Section of this report.

Supply-Side Market

In order for consumers to fully benefit from the Energy Commission's role as facilitator of renewable energy, it is vital that the Commission further develops its role as a resource of information, guidance, and support. To meet this objective, and increase the value of the Energy Commission's role to consumer, the following recommendations are made:

- *Build a Supply-Side network for consumers to refer for information and advice.*
- *Develop open communications with Supply-side of renewable market.*
- *Create program of joint promotion ventures.*
- *Expand Call Center Services.*
- *Development of Renewable Energy School.*

Supporting recommended consumer education activities are detailed within the Recommendation Section of this report.

1

Introduction

1.1 Background

The market information collected in this survey is a result of the compilation and review of existing market research on emerging renewable technologies performed and available to date. The resulting information requirements were grouped under the two separate divisions that make up the market for emerging renewable technologies: the Consumer Side and the Supplier Side.

This report encompasses the data collection methods and results of an Internet and mail-based survey delivered to over 7,249 California residents and commercial businesses during the period April 27 – June 6, 2000. There were 947 residential and commercial respondents. This work was performed by Regional Economic Research, Inc. (RER) under contract to the California Energy Commission (Contract No. 500-97-022, Work Authorization No. 19).

This report addresses the information needs identified for the Consumer Side of the market and was gathered for both the Residential and the Commercial segments. Market research information gathered for the Supplier Side of the market was addressed in a previous Energy Commission-sponsored project (Emerging Technologies Market Research Demand-Side Assessment, Work Authorization No. 5) and relevant key findings related to the manufacturer, retailers, installers and maintenance firms operating within California's emerging renewable technologies marketplace can be found within that effort's Final Report.

1.2 Objectives

The California Energy Commission's Renewable Energy Consumer Education Program aims to "help build a viable customer-driven market for renewable power."[1] In meeting this overall objective, the Energy Commission aims its consumer education strategies at two distinguishable markets: the renewable energy (or Green Power) market and the emerging renewable technologies market.

[1] February 1999, Renewable Energy Consumer Education Marketing Plan, California Energy Commission

This project dealt solely with the better understanding of the emerging renewable technologies market. In all areas where survey respondents were asked to consider issues concerning emerging renewable technologies, these systems were referenced as solar cells (photovoltaics), small wind turbines, fuel cells, and solar-thermal electric systems. The project objectives were identified as:

- Determine market research requirements and gather data to fill existing gaps on the market and potential for grid-connected emerging renewable technologies.
- Determine promising audiences and target markets (residential and commercial) for the Energy Commission's Emerging Renewables Program.
- Identify supply-side/distribution channels, their weaknesses to consumers in the emerging technology information process and communication gaps with Emerging Renewables Buydown Program information.
- Recommend path forward for the Energy Commission's Renewable Energy Consumer Education Program efforts to support the increased effectiveness of the Emerging Renewables Buydown Program and the post-program era consumer-driven market.

In meeting these objectives, this research effort examined awareness, understanding, interest, and perceptions of renewable energy sources and collected valuable information concerning the characteristics of these different market sectors.

2

Residential Market Research

2.1 Survey Overview

Following the review of current and available market research, existing information gaps were identified (See Appendix G). Grouped within specified categories, the information gaps illustrated the required additional data needed from residential sectors in California.

This needed market information, and the resulting information categories, were identified as follows.

- Characteristics of decision makers
  - Geographic factors
  - Demographic/personal factors
  - Cultural/social factors
- Characteristics of emerging technology market
  - Communication/information sources
  - Awareness
  - Motivations
  - Product issue/concerns
  - Barriers
  - Communication issues

To capture this necessary information and to keep a logical sequence of questions for the survey participant, the residential survey instrument questions were grouped under the following sections.

- Awareness, understanding of, and interest in renewable energy sources
- Perceptions and issues concerning renewable energy sources
- Communication/information sources, interests, affiliations
- Personal and general information

This report reflects the above survey design and the following sections present findings within the residential survey data.

2.1.1 Sample Design

The residential sample was designed to represent the population of owner-occupied housing units in California.[1] A stratified sampling method was implemented for the mail portion of the survey, segmenting the homeowner population by geographic region. The state was divided into five geographic regions.[2] The Internet portion of the survey could not be segmented by region or sector but it included only California-based e-mail addresses.

The initial target of 725 completed surveys was divided between Internet and mail surveys. As the return from the Internet survey was expected to be higher for the residential sector, the target was set at 150 for the mail survey. The initial mail target was proportionally allocated across five geographical regions. The distribution of the completed mail sample is presented in Table 2-1. Expecting a response rate of 20%, 750 residential surveys were mailed out.

The total initial Internet target of 400 completed surveys included only California-based e-mail addresses. E-mail lists are broken into 'special interest' categories and of the categories available, four relevant interest categories were selected: environmental, solar, business owner, and homeowner interest categories. The allocation of e-mail addresses within these four categories is presented in Figure 2-1. Expecting a response rate of 10%, 4,000 e-mails were ordered. The e-mail company sent out additional messages, for a total of 5,249.

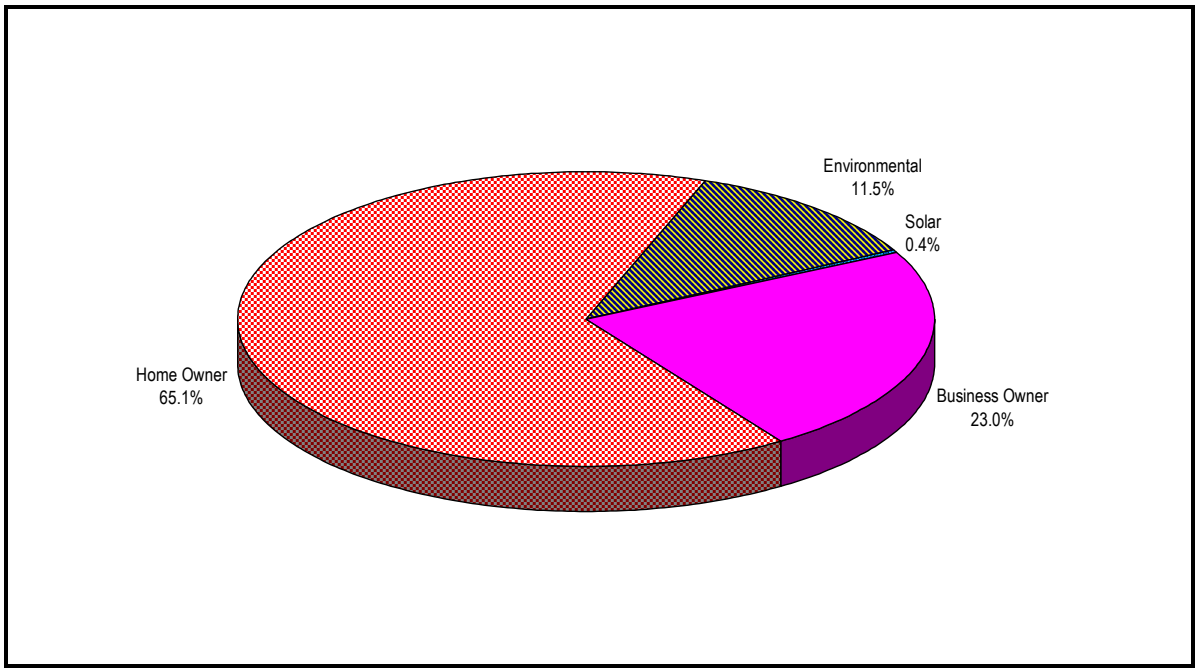
Table 2-1: Residential Mail Survey Sample Distribution

Regions	Target Completed Sample	Percent of Sample
North Coastal	29	19.3%
Central Valleys	25	16.7%
South Coast	71	47.3%
South Inland	10	6.7%
Desert/Mountain	15	10.0%
Total	**150**	**100.0%**

[1] July 1997 population estimates by county, U.S. Census Bureau.

[2] The regions were developed from grouping of households by county.

Figure 2-1: Internet Survey Interest Distribution



2.2 Survey Results

There were 76 residential mail respondents, which represent a response rate of 10%. There were 768 total Internet respondents (residential and commercial), which represents a 15% response rate. Of the total e-mail respondents, 754 completed the residential survey (the remaining 14 completed the commercial survey). Combining the results using the same geographic distributions used in the mail sample design and looking at the response distribution as a percentage, most of the regions were well covered, as can be seen in Figure 2-2, with the exception of the South Coast area. The final distribution of responses is presented in Table 2-2.

Figure 2-2: Percentage Response Distribution

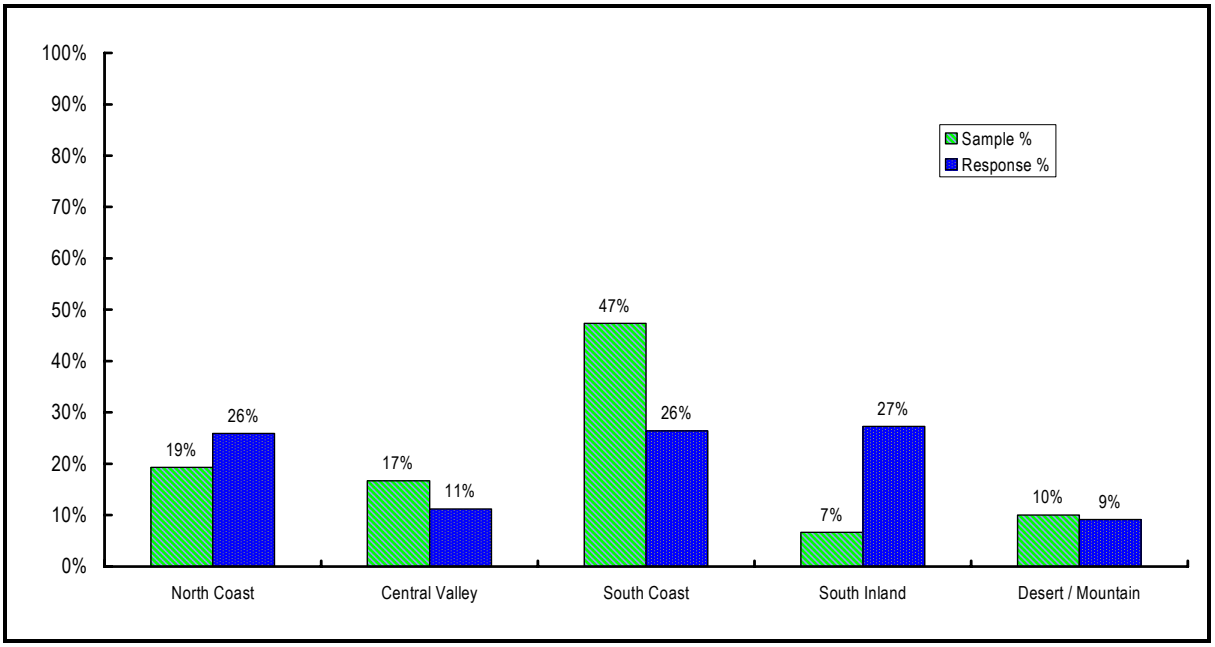


Table 2-2: Response Distribution

Regions	Percent of Sample	Response Distribution	Percent of Completed Sample
North Coastal	19.3%	203	25.9%
Central Valleys	16.7%	88	11.2%
South Coast	47.3%	207	26.4%
South Inland	6.7%	214	27.3%
Desert/Mountain	10.0%	72	9.2%
Total	**100.0%**	**784**	**100.0%**

Of the total 830 residential respondents, 46 did not supply an address/zip code and could not be included in the response distribution

There were 830 residential respondents. General survey participant characteristics are detailed as follows:

- Thirty-two percent of respondents were 35-44 years, 26% 45-54 years, 18% 25-34 years, 11% were 55-65 years, 8% 65+ years, 5% less than 25 years old.
- Fifty-five percent were women, 45% men.
- Almost one third had some college education, 12% were two-year college graduates, 19% graduated from a four-year college, 6% had some post-graduate education with 11% claiming a graduate degree.
- Sixty-six percent have a house value of $300,000 or less with 13% stating they did not know the current value of their house.
- Over half of respondents live in a city/town, 27% in suburbs, 17% in rural areas.

2.3 General Awareness, Understanding of, and Interest in Renewable Energy Sources

2.3.1 Familiarity with Renewable Energy Sources

Questions in the first section of the survey address various issues concerning the four emerging renewable technologies, including familiarity/awareness, personal experience with renewables, understanding of the generation of electricity from renewable energy sources, product pricing, environmental issues, motivations and intention.

Overall, 42% of respondents were at least somewhat familiar with one or more renewable energy sources as illustrated in Figure 2-3. Broken into specific emerging renewable technology categories as shown in Table 2-3, 54% and 53%, respectively, were at least somewhat familiar with solar cells (photovoltaics) or small wind turbines. Familiarity dropped with fuel cells and solar-thermal generation systems with 27% and 34%, respectively, at least somewhat familiar. Indeed, over half of respondents stated they were not at all familiar with fuel cells.

When cross tabulating the survey against demographic data (see Appendix B for a set of key residential cross tabulations), those who claimed themselves “very familiar” with solar cells, also claimed a higher awareness of the Energy Commission’s Emerging Renewables Buydown Program against overall awareness (25% versus 14% overall aware).

Those indicating they were not at all familiar with any of the four emerging sources were directed to complete only the final two survey sections, containing communication/information sources, interests, affiliations, and personal/general information. This consisted of approximately 19% of total respondents.

Figure 2-3: Familiarity with Renewable Energy Sources

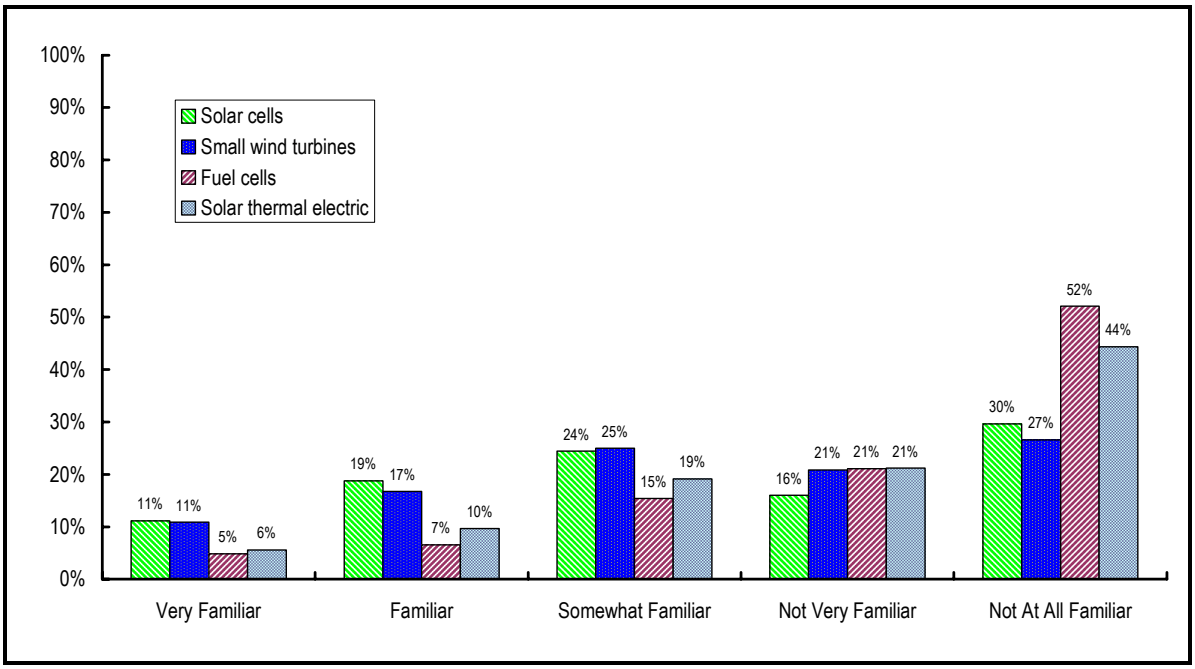


Table 2-3: Familiarity with Renewable Energy Sources

Q1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

Response categories	Very Familiar	Familiar	Somewhat Familiar	Not Very Familiar	Not At All Familiar	Base n
Solar cells	11.1%	18.8%	24.5%	16.0%	29.7%	826
Small wind turbines	10.9%	16.7%	25.0%	20.8%	26.5%	825
Fuel cells	4.8%	6.5%	15.4%	21.1%	52.1%	825
Solar thermal electric	5.6%	9.7%	19.2%	21.2%	44.4%	825

As presented in Figure 2-4 and Table 2-4, when gauging residential understanding as to *how* renewable energy sources generate electricity, the distribution was similar. Respondents at least somewhat familiar with how solar cells generate electricity were 58% and small wind turbines 65%. This is noteworthy in that it represents those who claimed familiarity with renewable energy sources also perceived themselves as knowledgeable about the technology. The majority of respondents were not familiar with the way fuel cells or solar-thermal systems generate electricity.

In cross tabulation analysis of those claiming to be "very familiar" with the way solar cells generate electricity 83% were men, versus just 17% of women who felt the same. Over one third of respondents very familiar with the way in which solar cells generate electricity were aged between 35-44 years.

Figure 2-4: Familiarity with the Generation of Electricity

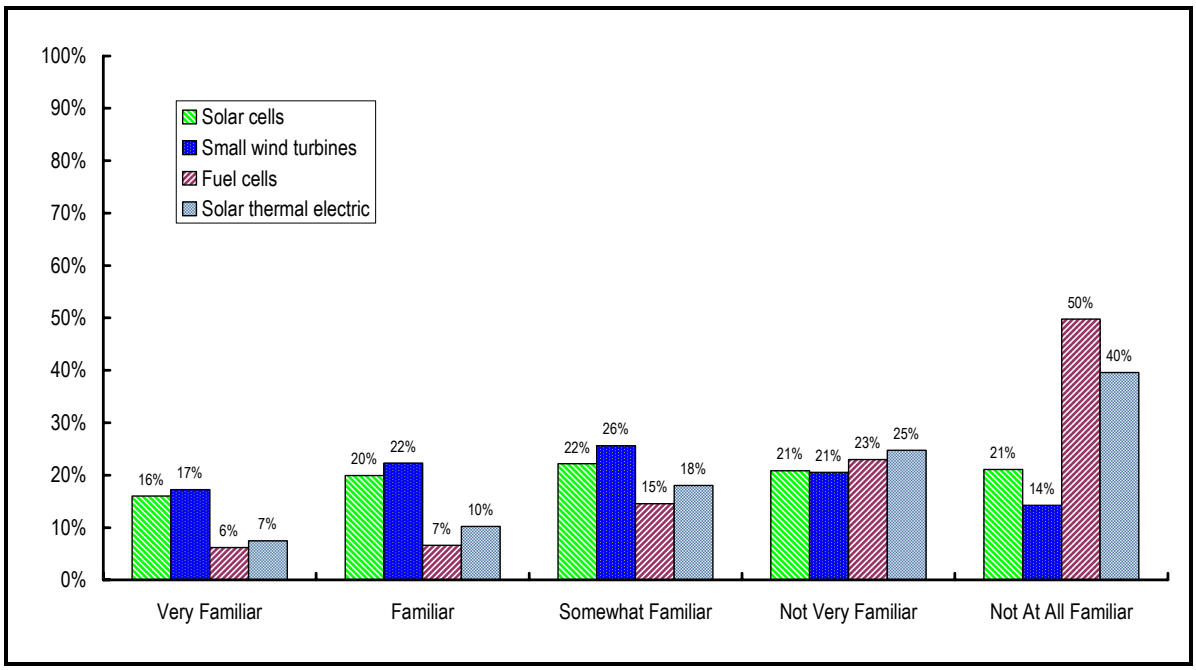


Table 2-4: Familiarity with the Generation of Electricity

Q3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

Response categories	Very Familiar	Familiar	Somewhat Familiar	Not Very Familiar	Not At All Familiar	Base n
Solar cells	16.0%	19.9%	22.2%	20.8%	21.1%	668
Small wind turbines	17.2%	22.3%	25.6%	20.5%	14.2%	667
Fuel cells	6.1%	6.6%	14.5%	22.9%	49.8%	667
Solar thermal electric	7.5%	10.2%	18.0%	24.7%	39.6%	667

Next, participants were asked to estimate how much it would cost to purchase and install each of the emerging renewable technology systems in their home, as presented in Table 2-5. Assuming the system would provide 75% of their electric needs, 65% of the respondents estimated solar cells providing this capacity would cost in the range of $500-$5,000. Installing small wind turbines to produce this amount of electricity, 30% estimated a range of $500-$2,499 with more than half estimating a range of $2,500-$15,000. Estimating the cost to purchase and install fuel cells, 30% estimated a cost of $2,500-$4,999. Solar-thermal systems were estimated to be the most costly with 16% putting the price of purchase and installation at $15,000+. Overall, an average of 40% of women estimated the purchase and installation costs of each of the renewable energy sources to be $2,499 or less.

Table 2-5: Estimation of Purchase and Installation Costs

Q4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your home. Assume that the system would provide about 75% of your electric needs. (Please provide an answer for each one of the energy sources.)

Response categories	Less than $500	$500 - $2,499	$2,500 - $4,999	$5,000 - $14,999	$15,000+	Base n
Solar cells	6.8%	32.0%	32.9%	20.8%	7.5%	665
Small wind turbines	9.9%	30.3%	28.2%	24.4%	7.2%	664
Fuel cells	8.3%	22.4%	30.4%	24.5%	14.0%	662
Solar thermal electric	4.5%	18.7%	31.2%	30.1%	15.5%	664

2.3.2 Experience and Awareness of Renewable Energy and the Environment

As illustrated in Table 2-6, one quarter of respondents have personal experience with renewable energy. This experience was detailed as experience with solar energy sources at 11%, experience with wind energy sources at 3%, related research or work experience at 5%.

When asked if survey participants believed using renewable energy sources helps to improve the environment, 90% of respondents replied "yes," as presented in Table 2-7. In cross tabulation review, positive responses were split virtually even between men and women, although almost twice the number of women than men stated they were "not sure." Of the 90% who believe using renewable energy assists in improving the environment, more than one-third have contributed money, donated goods, or volunteered their time to an environmental organization.

Table 2-6: Personal Renewable Energy Experience

Q2. Do you have any personal experience with renewable energy?

Response categories	
Yes	24.6%
No	75.4%
Base n	668

Table 2-7: Renewable Energy and the Environment

Q5. Do you believe using renewable energy sources helps to improve the environment?	
Response categories	
Yes	90.4%
No	0.3%
Not sure	9.3%
Base n	667

Next, respondents were asked if they were aware of anyone who had installed one of the four emerging renewable energy systems, and were using that system to generate electricity directly at their home or business. Thirty-six percent of respondents indicated they were aware of someone using a renewable energy system, as shown in Table 2-8, while 72% indicated they did not know anyone using such a system. Of those who were aware of someone, most referenced "a friend." Overall, almost one third of respondents indicating they knew of someone with an emerging renewable energy system were in the age group of 25-34 years.

In continuing to assess awareness among California residents, survey participants were asked if they had ever received information about renewable energy and, if so, who provided that information. As indicated in Table 2-9, most information had been provided by "a friend," although 75% of respondents stated they had never received any information from anyone.

Table 2-8: Awareness of Others Using Renewable Energy

Q6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)	
Response categories	
Yes, a neighbor	8.1%
Yes, a friend	10.8%
Yes, a colleague	4.5%
Yes, a relative	6.3%
Yes, other	6.6%
No	72.0%
Base n	667

* Category response percentages do not add to 100% due to allowance for multiple responses.

Table 2-9: Received Renewable Energy Information

Q7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)	
Response categories	
A neighbor	3.7%
A friend	8.7%
A colleague	5.1%
A relative	4.8%
Other	15.7%
No	74.8%
Base n	667

* Category response percentages do not add to 100% due to allowance for multiple responses.

2.3.3 Purchase Considerations and Motivations for a Renewable Generation System

Survey participants were asked to place importance upon considerations and motivations in the decision-making process. Results are presented in Table 2-10. As illustrated, residents felt strongly about the importance of most purchase considerations.

Economic considerations ranked the most important with 87% of respondents stating this consideration in the decision-making process "important" or "very important." Next, almost half of respondents ranked personal values for saving money, environmental concerns, and availability of after-sale support as "very important" considerations.

The least ranked important consideration was personal interest in technology and up-to-date trends with 44% measuring it as an "important" or higher purchase consideration.

Cross tabulation analysis provided additional information when comparing this question's findings against other key data. Of those respondents who currently have a renewable energy system installed at their home, an average of 60% rank economical/financial, personal values for saving money and availability of support and maintenance services as "very important" purchase considerations. When compared by age group, 50% or more of all age groups ranked the economic/financial issue as "very important."

Table 2-10: Purchase Considerations for an On-Site Renewable Generation System

Q8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

Response categories	Very Important	Important	Somewhat Important	Not Very Important	Not At All Important	Base n
Improve reliability of my electric service	33.9%	20.0%	21.5%	14.4%	10.2%	666
Environmental concerns/ conserving environment's resources	48.8%	28.1%	16.2%	5.6%	1.4%	666
Economic/financial considerations	62.8%	24.2%	10.4%	2.3%	0.5%	666
Investment in the future for family/children	41.3%	26.1%	20.0%	8.9%	3.8%	666
Personal values for saving money	48.8%	29.0%	16.5%	3.5%	2.3%	666
Personal interest in technology and up-to-date trends	20.7%	22.8%	30.6%	18.0%	7.8%	666
Less reliance on fossil fuels	46.7%	29.7%	15.8%	5.3%	2.6%	666
Less reliance on electric utility	40.7%	29.7%	17.4%	8.6%	3.6%	666
Global climate change	42.3%	21.2%	19.4%	9.5%	7.7%	666
Complete independence from the electric utility	33.2%	21.2%	23.6%	12.9%	9.2%	666
Cost of extending electric utility lines for new service	33.6%	22.4%	22.4%	9.8%	11.9%	666
Availability of support/sales/ design/maintenance services	48.5%	28.1%	14.9%	5.6%	3.0%	666

The last question in section one of the survey revolved around a genuine gauge as to participants' commitment to installing an emerging renewable energy system at their home. Figure 2-5 presents an impressive 64% of respondents answered positively that *yes* they would consider such a system but were not sure when that would happen, with another 7% claiming to consider this issue within the next year. Just 4% answered categorically *no* they were not interested in such a system at their home. The results are presented in Table 2-11.

When cross tabulating the results against demographic data, 76% of homeowners with a house value of $300,000 or more confirmed they would consider installation of a renewable energy source in the future. It should be noted that 25% of respondents classified themselves as "not sure." Of those unsure about installation, cross tabulation analysis provided data that 36% of these respondents are in homes with an estimated value of $100,000-$200,000, 56% live in a city or town, and 33% are four-year college graduates or higher.

Figure 2-5: Consideration for Installing a Renewable Energy System

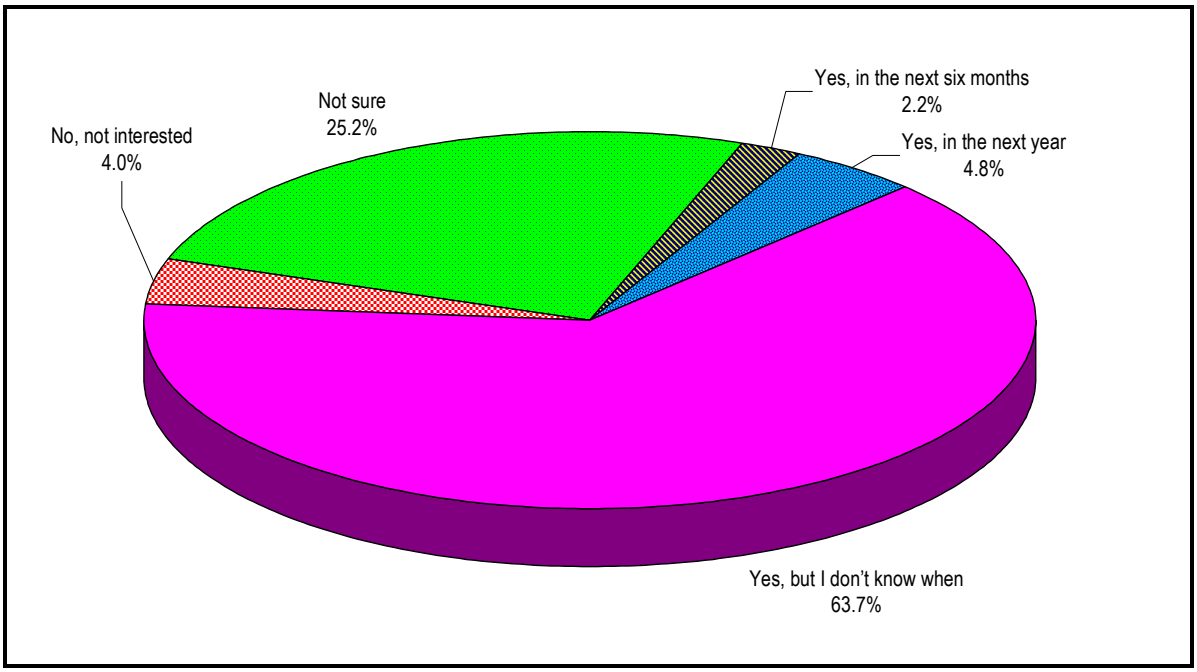


Table 2-11: Consideration for Installing a Renewable Energy System

Q9. Are you now, or would you ever, consider installing a solar, wind, or fuel cell renewable energy system at your home?	
Response categories	
Yes, in the next six months	2.2%
Yes, in the next year	4.8%
Yes, but I don't know when	63.7%
No, not interested	4.0%
Not sure	25.2%
Base n	667

2.4 Perceptions and Issues Concerning Renewable Energy Sources

2.4.1 Awareness of Renewable Energy Information

Almost 30% of respondents said they did not believe that information about renewable energy systems was easy to find, access, and understand, with more than half claiming they "did not know," or "had not looked," for such information as indicated in Table 2-12 and illustrated in Figure 2-6. Those who believe the information is easy to find, access, and understand listed numerous informational sources: 49% listed environmental organizations, 43% green power marketing firms, and 40% electric utility/energy providers. The complete list of informational sources is summarized in Figure 2-7 and Table 2-13.

Figure 2-6: Accessibility and Understandability of Renewable Energy Information

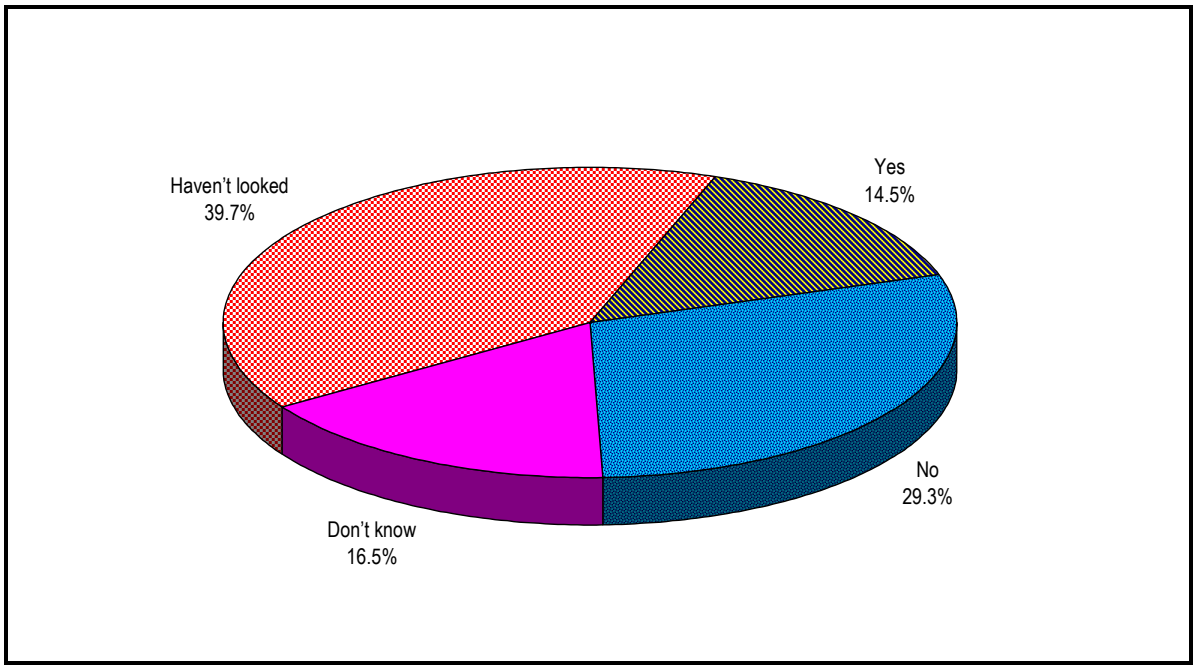


Table 2-12: Accessibility and Understandability of Renewable Energy Information

Q10. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?	
Response categories	
Yes	14.5%
No	29.3%
Don't know	16.5%
Haven't looked	39.7%
Base n	668

Figure 2-7: Information Sources

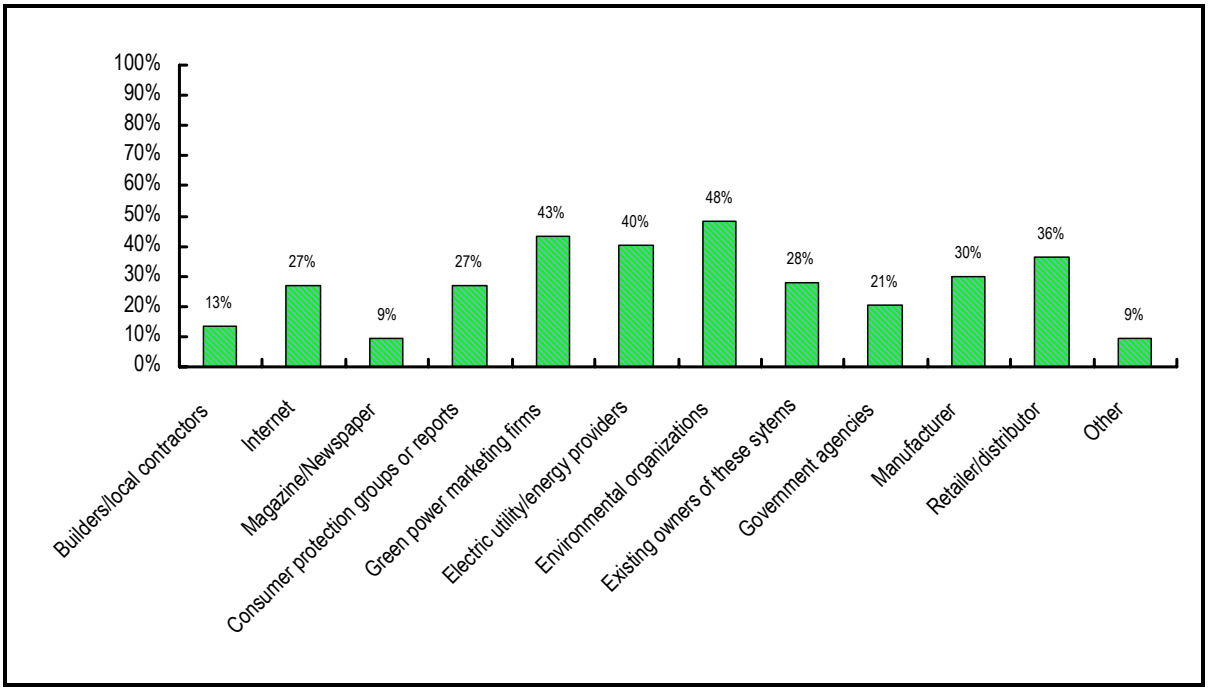


Table 2-13: Information Sources

Q10a. If yes, where have you found your information? (Please check all that apply.)	
Response categories	
Builders/local contractors	13.4%
Internet	26.8%
Magazine/Newspaper	9.3%
Consumer protection groups or reports	26.8%
Green power marketing firms	43.3%
Electric utility/energy providers	40.2%
Environmental organizations	48.5%
Existing owners of these systems	27.8%
Government agencies	20.6%
Manufacturer	29.9%
Retailer/distributor	36.1%
Other	9.3%
Base n	97

* Category response percentages do not add to 100% due to allowance for multiple responses.

Respondents were then asked if they were aware of the Energy Commission's renewable energy activities. Table 2-14 shows that 14% stated they had heard of the Emerging Renewables Buydown Program. Of those who stated they had seen the Energy Commission's Emerging Renewables Buydown promotional materials, Table 2-15 illustrates most respondents referenced materials on "renewable energy sources." In responding, participants may not recall the distinction between "renewable energy" and "emerging renewable technology" promotion materials. Seventy percent stated they had never seen any promotional materials. In cross tabulation review against home locations, awareness was highest with those living in a rural area (19% aware). As shown in Table 2-16, 99% stated that they have never applied to the Energy Commission for any type of funding for their home.

In cross tabulation analysis, of those respondents who indicated they currently have a renewable energy system installed at their home, 78% had not heard of the Energy Commission's Emerging Renewables Buydown Program although it is not known if these installations occurred prior to the Buydown Program. None of the respondents who currently have a renewable energy system installed at home, however, claimed to have ever applied to the Energy Commission for any type of funding.

Table 2-14: Awareness of Commission's Emerging Renewable Buydown Program

Q11. Have you ever heard of the California Energy Commission's (CEC) Emerging Renewable Buydown Program?	
Response categories	
Yes	13.9%
No	86.1%
Base n	668

Table 2-15: Awareness of CEC's Emerging Buydown Program Promotional Materials

Q12. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown program? (Check all that apply.)	
Response categories	
Yes, about renewable energy sources	12.0%
Yes, about the Emerging Renewables Buydown Program	4.0%
No	87.0%
Base n	668

* Category response percentages do not add to 100% due to allowance for multiple responses.

Table 2-16: Application for CEC Funding

Q13. Have you ever applied to the CEC for any type of funding for your house?	
Response categories	
Yes	0.9%
No	99.1%
Base n	668

As presented in Table 2-17, 26% of respondents were aware of a company or organization offering renewable energy products and services and as detailed in Table 2-18 and Table 2-19, most of the respondents found their information useful and easy to access/understand.

Table 2-17: Awareness of Renewable Energy Organizations

Q14. Are you aware of any companies or other organizations that produce/sell renewable energy products and services?	
Response categories	
Yes	25.9%
No	74.1%
Base n	668

Table 2-18: Renewable Energy Organization Materials

Q14a. Have you found their information useful?	
Response categories	
Yes	74.3%
No	25.7%
Base n	175

Table 2-19: Accessibility and Understandability of Renewable Energy Materials

Q14b. Was the information easy to access and understand?	
Response categories	
Yes	73.3%
No	26.7%
Base n	176

2.4.2 Current Users of Renewable Energy Systems

Three percent of respondents currently have a renewable energy system installed at their house, with 81% stating that although they had never considered using such a system, they would consider it in the future (See Table 2-20 and Table 2-21). Thirteen percent responded they had considered installing a renewable energy system, but 7% decided against it mainly due to cost.

Interestingly in cross tab analysis, of those respondents who currently have a renewable energy system installed, 50% claim the Internet as their single most relied on, and referred to, source for information. These respondents also claim to read their utility bill inserts at least sometimes, if not always.

Table 2-20: Current Use of Renewable Energy Systems

Q15. Do you currently have a renewable energy system installed at your house?	
Response categories	
Yes	2.7%
No, I **did** consider using them but decided against it	13.2%
No, I **never** considered using them but I **would** consider them in the future	81.0%
No, I **never** considered using them and I **would not** consider them in the future	3.1%
Base n	667

Table 2-21: Type of Renewable Energy System in Use

Q15a. If yes, what kind of renewable energy system do you have installed at your house? (Please check all that apply.)	
Response categories	
Solar cells (photovoltaics)	33.3%
Small-scale wind power	16.7%
Fuel cells	5.6%
Solar-thermal electricity	16.7%
Other	55.6%
Base n	18

* Category response percentages do not add to 100% due to allowance for multiple responses.

Of those respondents who currently have a renewable energy system installed at their house, 89% state that they have not been offered information following the purchase/installation of their system, nor have manufacturers/suppliers/installers remained in contact with them. This is illustrated in Table 2-22 and Table 2-23.

Table 2-22: Post-Purchase Information

Q15b. Have manufacturers/suppliers/installers of the system offered information to you following the purchase/installation (i.e., "post purchase") of your system? (Please check all that apply.)	
Response categories	
Yes, the manufacturers have offered “post-purchase” information	16.7%
Yes, the suppliers have offered “post-purchase” information	5.6%
Yes, the installers have offered “post-purchase” information	11.1%
No	88.9%
Base n	18

* Category response percentages do not add to 100% due to allowance for multiple responses.

Table 2-23: Post-Purchase Contact

Q15c. Do manufacturers/suppliers/installers remain in contact with you? (Please check all that apply.)	
Response categories	
Yes, manufacturers	5.6%
Yes, suppliers	16.7%
Yes, installers	11.1%
No	105.6%
Base n	18

* Category response percentages do not add to 100% due to allowance for multiple responses.

2.5 Communication/Information Sources, Interests, Affiliations

2.5.1 Media Preferences

To better understand the media preferences of residents, survey respondents were asked to indicate each television station, radio station, newspaper, and magazine they subscribe to on a regular basis. Table 2-24 to Table 2-26 present that 53% watch a major television network, a relatively even number (15%, 16%, 17% respectively) listen to a country, oldies, or rock radio station, and over half read the local paper on a regular basis. Magazine preferences, as would be expected due to the range of choice, were spread with almost 16% among "home" and 11% among "technology" type publications as indicated in Table 2-27.

Table 2-24: Television Preference

Q16. Please indicate one television station you regularly watch.	
Response categories	
Cable stations	25.9%
Major network (ABC, NBC, CBS, Fox)	52.8%
Public access	1.1%
Public television (KPBS)	7.6%
Other	7.1%
Don't watch television	5.6%
Base n	807

Table 2-25: Radio Preference

Q17. Please indicate one type of radio station you listen to regularly.	
Response categories	
Classical	5.7%
Country	14.6%
Dance	1.3%
Jazz	5.7%
New Age	1.8%
Oldies	16.4%
Pop	7.1%
Religious	4.5%
Rock	16.5%
Sports Talk	2.5%
Urban/Hip Hop	2.5%
Other	17.0%
Don't listen to the radio	4.5%
Base n	830

Table 2-26: Newspaper Preference

Q18. Please indicate one type of newspaper you read regularly.	
Response categories	
Major regional paper (i.e., L.A. Times, SF Examiner, SD Union)	25.9%
USA Today	1.7%
Wall Street Journal	2.5%
Local paper	49.9%
Other	4.5%
Don't read the newspaper	15.5%
Base n	814

Table 2-27: Magazine Preference

Q19. Please indicate one type of magazine you read regularly.	
Response categories	
Arts	1.3%
Business	8.1%
Cooking	5.7%
Fashion	4.3%
Hobby	6.5%
Home	15.9%
Pets	1.7%
Science	5.3%
Sports	4.4%
Technology	11.2%
Travel	3.1%
Other	19.2%
Don't read magazines	13.4%
Base n	819

2.5.2 Internet and Information Sources

For the Internet-based respondents, it is not surprising to find that 93% regularly use the Internet at home. Sixty-one percent of mail survey respondents claimed to use the Internet regularly at home, making a 90% average of regular Internet usage at home as represented in Table 2-28. Table 2-29 and Table 2-30 indicate that most respondents work away from home (74%), with 41% of those using the Internet on a regular basis at work. Purely for consumer education planning purposes, respondents were asked which search engines they used most often when researching new topics. Over 50% stated that they use Yahoo as their main search engine resource, as shown in Table 2-31.

Table 2-28: Internet Usage

Q20. Do you regularly use the Internet at home?	
Response categories	
Yes	90.1%
No	9.9%
Base n	829

Table 2-29: Home Office

Q21. Do you perform your work primarily at a home office?	
Response categories	
Yes	25.8%
No	74.2%
Base n	828

Table 2-30: Internet Usage at Office

Q22. If you work outside the home, do you regularly use the Internet at work?	
Response categories	
Yes	40.9%
No	24.9%
Not applicable	34.1%
Base n	826

Table 2-31: Search Engine Preference

Q23. When researching new topics, which search engine(s) do you use the most?	
Response categories	
Yahoo	51.2%
Excite	17.3%
Alta Vista	19.4%
MSN Web Search	14.9%
Lycos	13.1%
Infoseek	12.5%
Northern Light	2.5%
Other	25.9%
Don't use search engines	6.6%
Base n	830

* Category response percentages do not add to 100% due to allowance for multiple responses.

Given the bias of Internet-based respondents, 41% stated Internet/websites as the information source they relied upon and referred to the most with just 19% of mail survey respondents claiming the same. Half of mail survey respondents claimed television/radio station as the source relied upon and referred to the most. Presented in Table 2-32, combined mail and Internet survey responses produced results of 41% citing TV/radio, 39% claiming Internet/websites and 16% claiming newspapers as their main source to rely and refer to for information.

In cross tabulation review, 43% of respondents aged 35-54 cited the Internet as their main source of information relied on, and referred to, the most.

Table 2-32: Information Sources

Q24. Which information source would you say you rely on, and refer to, ***the most?***	
Response categories	
Television/radio stations	40.5%
Magazines	4.7%
Newspapers	16.0%
Internet/websites	38.8%
Base n	830

Table 2-33 presents that over 90% of all respondents claim they always or sometimes read their electric/gas utility bill inserts. Cross tabulation analysis indicates 68% of those with a house value of $300,000 or less always read their utility bill inserts.

Table 2-33: Utility Inserts

Q26. Do you read your electric or gas utility bill inserts?	
Response categories	
Always	25.1%
Sometimes	65.4%
Never	9.5%
Base n	830

2.5.3 Affiliations and Leisure Pursuits

A relatively small percent, 17%, stated they were a member of a professional organization, as indicated in Table 2-34. When asked to list the organization, there existed no striking commonality among the various professional groups to be useful in analysis. Again, when asked to detail any such professional publications/journals they receive, the results produced a range of responses from approximately 27% of the total participants, but were inconclusive and not reflective of any particular association.

Table 2-34: Support Professional Organizations

Q29. Are you a member of any professional organizations?	
Response categories	
Yes	17.0%
No	83.0%
Base n	828

Eighty percent of respondents stated they did not belong to any special interest group and only 5% of the total respondents claimed they were actively involved with an environmental organization as shown in Table 2-35 and Table 2-36, respectively. Interestingly, however, Table 2-37 indicates that almost 40% of respondents stated they had contributed money, donated goods, or volunteered their time to an environmental organization.

Table 2-35: Support Special Interest Groups

Q28. Do you belong to any special interest groups other than environmental organizations	
Response categories	
Consumer advocate	3.6%
Political	4.9%
Human rights	5.4%
Other	11.9%
No	80.2%
Base n	830

* Category response percentages do not add to 100% due to allowance for multiple responses.

Table 2-36: Involvement with Environmental Organizations

Q30. Are you actively involved with any environmental organizations?	
Response categories	
Yes	4.8%
No	95.2%
Base n	829

Table 2-37: Support Environmental Organizations

Q31. Have you contributed to any environmental organizations? (Check all that apply.)	
Response categories	
Yes, I have donated money to environmental organizations	29.0%
Yes, I have donated goods/items to environmental organizations	8.1%
Yes, I have volunteered my time to environmental organizations	6.7%
No	66.7%
Base n	830

When asked to list any hobbies, 30% stated sports with 16% detailing gardening or home improvement as a hobby. Almost 14% listed arts and crafts or sewing as shown in Table 2-28.

Table 2-38: Hobbies

Q27. Please list any hobbies you may have.	
Response categories	
Sports	29.7%
Camping/Travel	5.8%
Reading/Photography	11.1%
Gardening/Home Improvement	15.8%
Computers	7.6%
Arts & Crafts/Sewing	13.8%
Other	16.1%
Base n	669

2.6 Personal and General Information

2.6.1 Personal Demographic Information

The following data provides information concerning the general demographics of respondents. In the Internet-based survey, many of the questions were optional but, on average, just five people chose not to answer some of the questions with an average of just one person not answering some of the mail-based survey demographic questions.

Table 2-39: Age

Q32. What age group are you in?	
Response categories	
Less than 25	4.8%
25-34	18.1%
35-44	32.2%
45-54	25.9%
55-64	11.0%
65+	8.0%
Base n	829

Table 2-40: Ethnicity

Q33. Which ethnic group best describes you?	
Response categories	
African American	3.0%
American Indian	1.5%
Asian, Pacific Islander	6.7%
Hispanic, Latino	7.5%
White	76.3%
Other	5.0%
Base n	823

Table 2-41: Gender

Q34. What is your gender?	
Response categories	
Male	45.5%
Female	54.5%
Base n	829

2.6.2 Occupation, Income and Education Information

Table 2-42: Occupation

Q35. What is your occupation?	
Response categories	
Architect/Building Contractor	1.1%
Banking/Financial	3.1%
Community/Social Services	1.9%
Computer Science	7.9%
Education/Academic	5.4%
Engineering	6.2%
Entertainment/Media	1.4%
Environment/Energy	1.3%
Food Service	1.3%
Health Care	4.1%
Homemaker	8.2%
Legal	2.3%
Marketing/Sales	7.0%
Office/Administrative	10.6%
Retail	3.4%
Other	34.7%
Base n	828

Table 2-43: Income

Q36. Which of the following categories best describes your TOTAL household gross income during 1999 (before taxes and other deductions)?	
Response categories	
Less than $10,000	4.3%
$10,000 - $19,999	7.6%
$20,000 - $29,999	10.2%
$30,000 - $39,999	11.0%
$40,000 - $49,999	12.8%
$50,000 - $74,999	24.8%
$75,000 - $99,999	13.3%
$100,000 - $124,999	8.3%
$125,000 - $149,999	3.3%
$150,000 or more	4.5%
Base n	798

Table 2-44: Education

Q37. Please indicate the highest level of education you have completed.	
Response categories	
Some high school or less	1.6%
High school graduate	14.1%
Trade or technical school	4.7%
Some college	32.1%
2-year college graduate	11.5%
4-year college graduate	19.0%
Some graduate school	6.3%
Graduate degree	10.7%
Base n	825

2.6.3 Household and Home Information

Table 2-45: Persons per Household

Q38. How many people (including yourself) live at your address?	
Response categories	
One	11.9%
Two	35.6%
Three	21.2%
Four	17.4%
Five	8.3%
Six	3.4%
Seven or more	2.2%
Base n	829

Table 2-46: Home Size

Q39. What is the estimated size (in square feet) of your home)?	
Response categories	
Less than 1,000 square feet	11.6%
1,000 – 1,499 square feet	29.4%
1,500 – 1,999 square feet	23.6%
2,000 – 2,499 square feet	13.9%
2,500 – 2,999 square feet	7.3%
3,000 – 3,499 square feet	2.3%
3,500 – 3,999 square feet	1.8%
4,000 square feet or more	0.7%
Don't know	9.4%
Base n	821

Table 2-47: Home Value

Q40. Which of the following categories best represents the value of your home?	
Response categories	
Less than $100,000	15.8%
$100,000 - $199,000	32.4%
$200,000 - $299,999	17.5%
$300,000 - $399,999	8.6%
$400,000 - $499,999	5.9%
$500,000 or more	7.1%
Don't know	12.8%
Base n	830

Table 2-48: Home Location

Q41. Which best describes the location of your home?	
Response categories	
City/Town	56.0%
Suburb	27.2%
Rural	16.7%
Base n	830

3

Commercial Market Research

3.1 Survey Overview

The review of current and available market research for commercial and contractor sectors highlighted the need for market information (See Appendix G). Information needs were identified for both commercial and contractor segments and the resulting gaps were grouped within specified categories.

Following is the categorized resulting information needs.

- Characteristics of decision makers
  - Geographic factors
  - Organizational factors
  - Individual buyer factors
- Characteristics of emerging technology market
  - Communication/information sources
  - Awareness
  - Motivations
  - Product issue/concerns
  - Barriers
  - Communication issues

The market research gap analysis illustrated that data were unavailable in most information categories. Adequate data relevant to the emerging technology market were available only in two areas of awareness among the commercial sector, and no sufficient information was available for the contractor sector.

The ensuing commercial and contractor survey instruments were designed to address the specified information needs and encourage the completion of the survey via a natural flow of questions. Thirty-two survey questions were developed and grouped in the following sections:

- Section 1: Awareness, understanding, and interest in renewable energy sources.

- Section 2: Perceptions and issues concerning renewable energy sources.
- Section 3: General organizational and operational information.

This report reflects the above survey design and the following sections present key findings within the commercial and contractor survey data. Details of all survey results are included in the attached appendices.

3.1.1 Sample Design

The commercial sample was designed to represent the distribution of business establishments in California.[1] A stratified sampling method was implemented segmenting the state into thirteen Standard Industrial Classification (SIC) codes.[2] The Internet portion of the survey could not be segmented by SIC or sector, but it included only California-based e-mail addresses.

The initial target of 725 completed surveys was divided between Internet and mail surveys. As the return from the Internet survey was expected to be much lower for the commercial sector, the target was set at 175 for the mail survey. The initial mail target was proportionally allocated across 13 SIC codes. The distribution of the completed mail sample is presented in Table 3-1. Expecting a response rate of about 14%, 1,250 commercial surveys were mailed out.

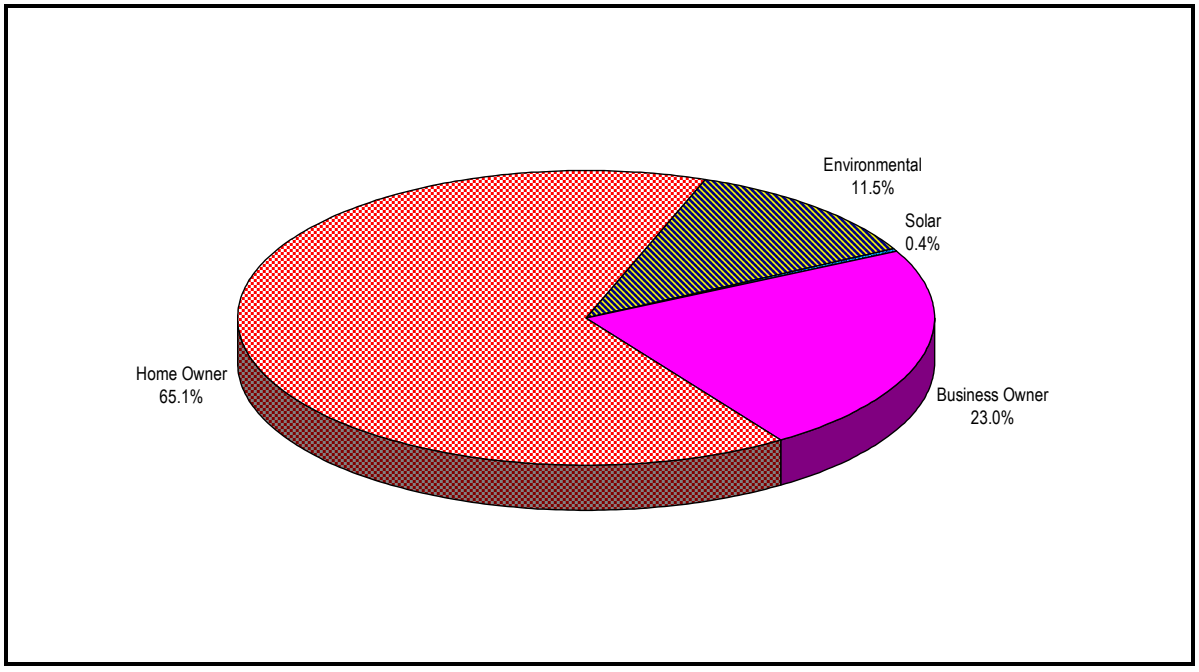
The initial Internet target of 400 completed surveys (residential and commercial) included only California-based e-mail addresses. E-mail lists are broken into "special interest" categories and of the categories available, four relevant interest categories were selected: environmental, solar, business owner, and homeowner interest categories. The allocation of e-mail addresses within these four categories is presented in Figure 3-1. Expecting a response rate of 10%, 4,000 e-mail addresses were ordered. The e-mail company sent out additional messages, for a total e-mail distribution of 5,249. Of the initial e-mail sample of 4,000, 23%, or 920, were expected to include business owners, which may have responded to either the residential or commercial survey, or both.

[1] 1996 California County Business Patterns, number of establishments by SIC.
[2] The grouping were developed from 3-digit SIC codes.

Table 3-1: Commercial Mail Survey Sample Distribution

SIC Codes	Target Completed Sample	Percent of Sample
Agriculture	1	0.3%
Colleges	1	0.6%
Hospitals	3	1.7%
Construction	10	5.7%
Grocery	4	2.3%
Lodging	1	0.7%
Manufacturing and Mining	12	6.6%
Offices	59	33.8%
Restaurants	12	7.0%
Retail	19	11.0%
Schools	2	1.0%
Warehouse	17	9.9%
Unclassified and Miscellaneous	33	19.0%
Total	**175**	**100.0%**

Figure 3-1: Internet Survey Interest Distribution



3.2 Survey Results

There were 103 commercial mail respondents, which represent a response rate of 8%. There were 768 Internet respondents (residential and commercial), which represents a 15% response rate. Of the total e-mail respondents, 14 completed the commercial survey (the remaining 754 completed the residential survey). Combining the results using the same SIC distributions used in the mail sample design and looking at the response distribution as a percentage, most of the SICs were well covered with the exception of warehouses as can be seen in Figure 3-2. The final distribution of responses are presented in Table 3-2.

Figure 3-2: Percentage Response Distribution

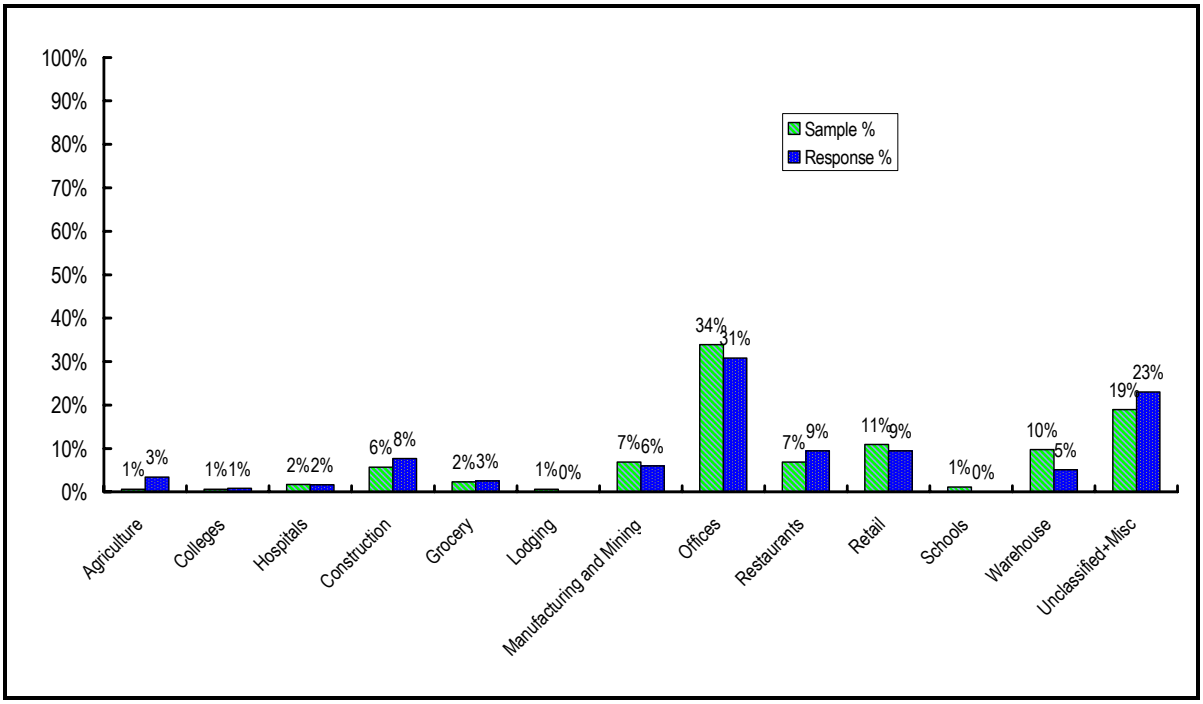


Table 3-2: Response Distribution

SIC Codes	Percent of Sample	Response Distribution	Percent of Completed Sample
Agriculture	0.3%	4	3.4%
Colleges	0.6%	1	0.9%
Hospitals	1.7%	2	1.7%
Construction	5.7%	9	7.7%
Grocery	2.3%	3	2.6%
Lodging	0.7%	0	0.0%
Manufacturing and Mining	6.6%	7	6.0%
Offices	33.8%	36	30.8%
Restaurants	7.0%	11	9.4%
Retail	11.0%	11	9.4%
Schools	1.0%	0	0.0%
Warehouse	9.9%	6	5.1%
Unclassified and Miscellaneous	19.0%	27	23.1%
Total	**100.0%**	**117**	**100.0%**

One hundred seventeen (117) commercial/contractor surveys were completed with the following overall characteristic results:

- Forty-two percent of respondents classified themselves as "management," 22% as "owner."
- Seventy-six percent of business locations were in a city/town.
- Seventy-two percent of businesses have one location within California.
- Fifty-four percent of businesses represented an office, restaurant, retail, or service establishment.

3.3 General Awareness, Understanding, and Interest in Renewable Energy Sources

3.3.1 Familiarity with Renewable Energy Sources

First, commercial and contractor respondents were asked to gauge their familiarity with the four emerging renewable technologies – namely solar cells, small wind turbines, fuel cells, and solar-thermal electric systems. As presented in Figure 3-3 and Table 3-3, respondents claimed to be "most familiar" with solar cells with 25% stating they were "familiar" or "very familiar." Thirty-six percent stated they were at least "somewhat familiar" with small wind turbines.

Those stating they were "not at all familiar" with any of the four emerging renewable technologies, approximately 40 respondents, or 35%, were asked to complete only the final section of the survey.

Figure 3-3: Familiarity with Renewable Energy Sources

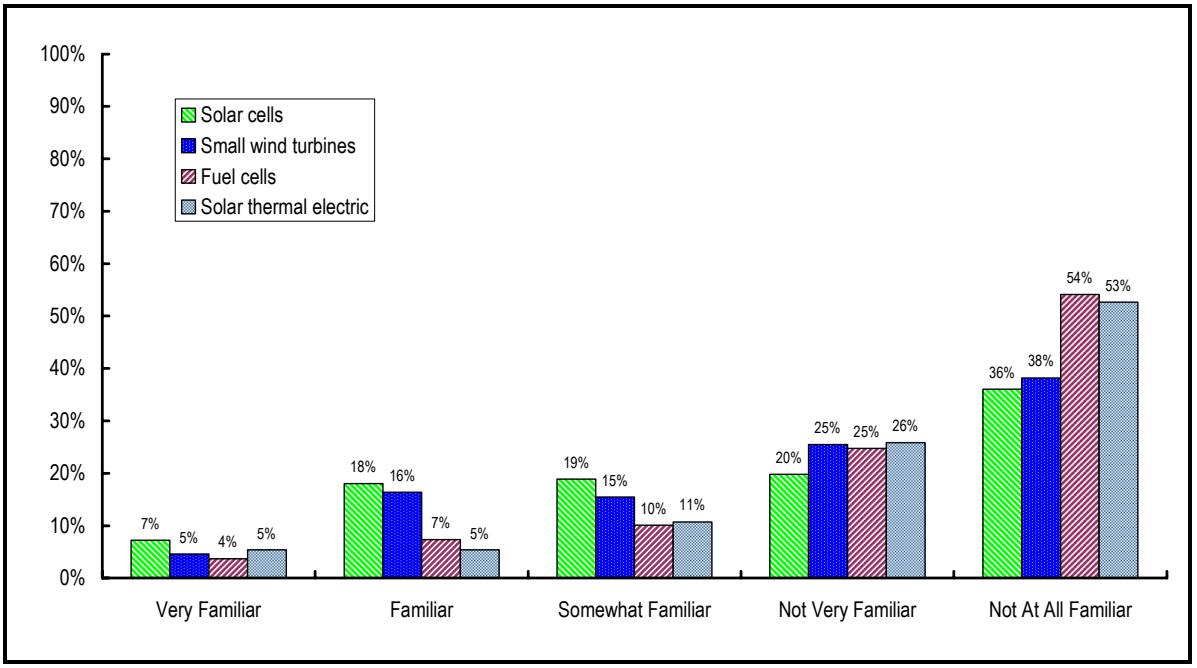


Table 3-3: Familiarity with Renewable Energy Sources

Q1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

Response categories	Very Familiar	Familiar	Somewhat Familiar	Not Very Familiar	Not At All Familiar	Base n
Solar cells	7.2%	18.0%	18.9%	19.8%	36.0%	111
Small wind turbines	4.5%	16.4%	15.5%	25.5%	38.2%	110
Fuel cells	3.7%	7.3%	10.1%	24.8%	54.1%	109
Solar thermal electric	5.4%	5.4%	10.7%	25.9%	52.7%	112

Interestingly, familiarity was higher among respondents when asked how familiar they were with the *way* in which renewable energy sources generate electricity. Figure 3-4 and Table 3-4 illustrate 56% of respondents were "somewhat familiar" or higher with solar cells and small wind turbines. Approximately 73% felt they "were not at all familiar" or "not very familiar" with the way fuel cells or solar-thermal electric systems generated electricity.

Figure 3-4: Familiarity with the Generation of Electricity

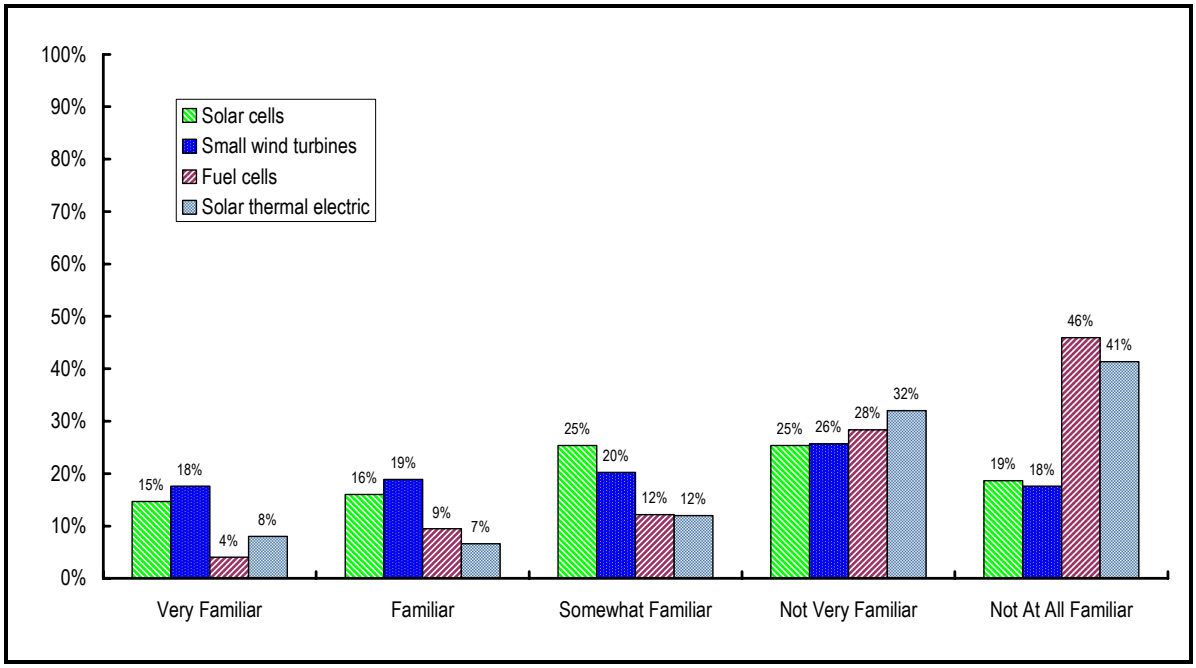


Table 3-4: Familiarity with the Generation of Electricity

Q3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

Response categories	Very Familiar	Familiar	Somewhat Familiar	Not Very Familiar	Not At All Familiar	Base n
Solar cells	14.7%	16.0%	25.3%	25.3%	18.7%	75
Small wind turbines	17.6%	18.9%	20.3%	25.7%	17.6%	74
Fuel cells	4.1%	9.5%	12.2%	28.4%	45.9%	74
Solar thermal electric	8.0%	6.7%	12.0%	32.0%	41.3%	75

Respondents were then asked to estimate the product pricing of emerging renewable technology systems. Given an assumption that each of the renewable technologies would provide four kilowatts of their electric needs, Table 3-5 indicates that one-third of respondents believe solar cells would cost $500-$2,499 to purchase and install. Another 30% estimated the price would be between $2,500-$4,999. Fuel cells and solar-thermal electric systems were estimated to be the most costly with more than 30% choosing $5,000-$14,999.

Table 3-5: Estimation of Purchase and Installation Costs

Q4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your business. Assume that the system would provide about 4 kilowatts of your electric needs. (Please provide an answer for each one of the energy sources.)

Response categories	Less than $500	$500 - $2,499	$2,500 - $4,999	$5,000 - $14,999	$15,000+	Base n
Solar cells	9.0%	32.8%	29.9%	14.9%	13.4%	67
Small wind turbines	6.2%	23.1%	30.8%	24.6%	15.4%	65
Fuel cells	4.7%	25.0%	18.8%	32.8%	18.8%	64
Solar thermal electric	3.1%	18.8%	29.7%	31.3%	17.2%	64

3.3.2 Experience and Awareness of Renewable Energy and the Environment

Table 3-6 shows that almost 20% of respondents have had some direct experience with renewable energy, with several respondents claiming this experience came via an association with a friend.

Table 3-6: Direct Renewable Energy Experience

Q2. Do you have any direct experience with renewable energy?	
Response categories	
Yes	19.5%
No	80.5%
Base n	77

Over 86% of respondents believe using renewable energy sources helps to improve the environment as presented in Table 3-7 below.

Table 3-7: Renewable Energy and the Environment

Q5. Do you believe using renewable energy sources helps to improve the environment?	
Response categories	
Yes	86.8%
No	2.6%
Not sure	10.5%
Base n	76

When asked whether respondents were aware of someone who has installed a renewable energy system, 38% replied "yes" with the majority (18%) citing "a friend" as shown in Table 3-8.

Table 3-8: Awareness of Others Using Renewable Energy

Q6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)	
Response categories	
Yes, another business	7.8%
Yes, a colleague	5.2%
Yes, a friend	18.2%
Yes a neighbor	3.9%
Yes, a relative	1.3%
Yes, other	1.3%
No	68.8%
Base n	77

*Category response percentages do not add to 100% due to allowance for multiple responses.

Table 3-9 indicated that 73% of respondents have never received any information about renewable energy sources. Of the 35% who had received information, most claimed a friend (9%) had provided the information. Of the 16% of "other" categories, approximately one third referenced media or a trade publication as providing the information.

Table 3-9: Received Renewable Energy Information

Q7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)	
Response categories	
Yes, another business	5.2%
Yes, a colleague	3.9%
Yes, a friend	9.1%
Yes a neighbor	0.0%
Yes, a relative	1.3%
Yes, other	15.6%
No	72.7%
Base n	77

*Category response percentages do not add to 100% due to allowance for multiple responses.

3.3.3 Purchase Considerations and Motivations for a Renewable Generation System

Commercial and contractor respondents were asked to rank several options when considering the purchase of an on-site generating system. Respondents felt strongly about all of the specified purchase considerations, and rated each consideration to be at least 60% "somewhat important" or higher in the decision-making process as shown in 3-10.

Respondents ranked economic/financial as the most important consideration, with 49% alone citing it as "very important." Similarly, almost 85% of respondents ranked available system support/maintenance services and personal values for saving money as "somewhat important" or higher. When considering complete independence from the electric utility, 40% felt it was "not at all important" or "not very important."

In cross tabulation analysis, although ranking low as an important consideration overall, 53% of office business types ranked "personal interest in technology and up-to-date trends" as important considerations.

Table 3-10: Purchase Considerations for an On-Site Renewable Generation System

Q8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

Response Categories	Very Important	Important	Somewhat Important	Not Very Important	Not At All Important	Base n
Improve reliability of my electric service	30.6%	19.4%	11.1%	19.4%	19.4%	72
Environmental concerns/ conserving environment's resources	31.9%	29.2%	18.1%	12.5%	8.3%	72
Economic/financial considerations	49.3%	22.5%	16.9%	7.0%	4.2%	71
Investment in the future for family/children	28.8%	24.7%	21.9%	11.0%	13.7%	73
Personal values for saving money	28.8%	34.2%	19.2%	11.0%	6.8%	73
Personal interest in technology and up-to-date trends	15.3%	30.6%	25.0%	16.7%	12.5%	72
Less reliance on fossil fuels	35.6%	21.9%	20.5%	9.6%	12.3%	73
Less reliance on electric utility	32.9%	23.3%	19.2%	15.1%	9.6%	73
Global climate change	32.9%	19.2%	16.4%	16.4%	15.1%	73
Complete independence from the electric utility	30.0%	15.7%	14.3%	25.7%	14.3%	70
Cost of extending electric utility lines for new service	32.4%	19.7%	15.5%	15.5%	16.9%	71
Availability of support/sales/ design/maintenance services	37.5%	34.7%	12.5%	9.7%	5.6%	72

Table 3-11 presents that there are differing perceptions as to the estimated 'pay back' time period participants would find acceptable. Views were spread evenly between one year and 10 years as acceptable, with the most (25%) finding a payback period of 7-10 years acceptable, as illustrated in Figure 3-5. In cross tabulation analysis, this spread of pay back periods was reflected in the largest group of respondents by business type (office), although the majority of 37% indicated a pay back of 1-2 years as most acceptable.

Figure 3-5: Payback Period

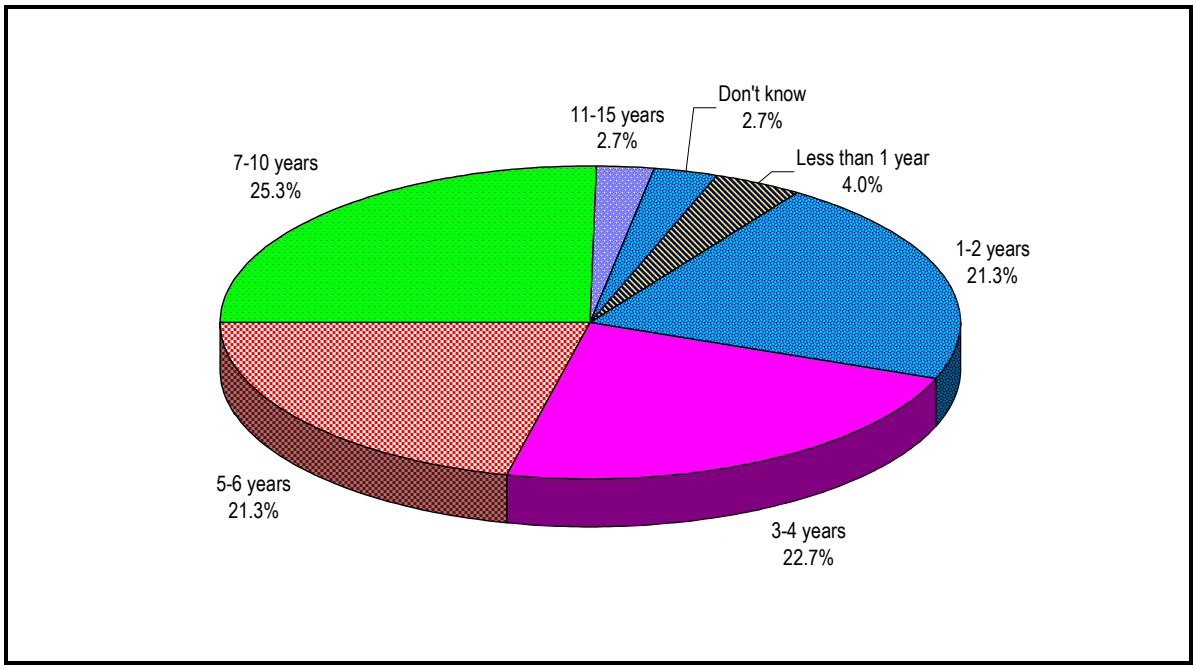


Table 3-11: Payback Period

Q9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost (i.e., the equipment and installation costs) and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to "pay back" the initial cost of the equipment.

Looking at the list of possible ranges for this required payback timeframe, please indicate the range that best describes the number of years that you would accept to pay back the initial cost of the equipment.

Response categories	
Less than 1 year	4.0%
1-2 years	21.3%
3-4 years	22.7%
5-6 years	21.3%
7-10 years	25.3%
11-15 years	2.7%
Don't know	2.7%
Base n	75

When asked about system size preferences, 31% of respondents opted for a medium system that would provide up to 25% of their electricity usage as shown in Figure 3-6 and presented in Table 3-12. Interestingly, almost one third of commercial respondents replying to the Internet survey chose a larger system that provided 50-100% of their electricity requirements, whereas overall, only 19% chose these system sizes.

Figure 3-6: Preferred System Sizes

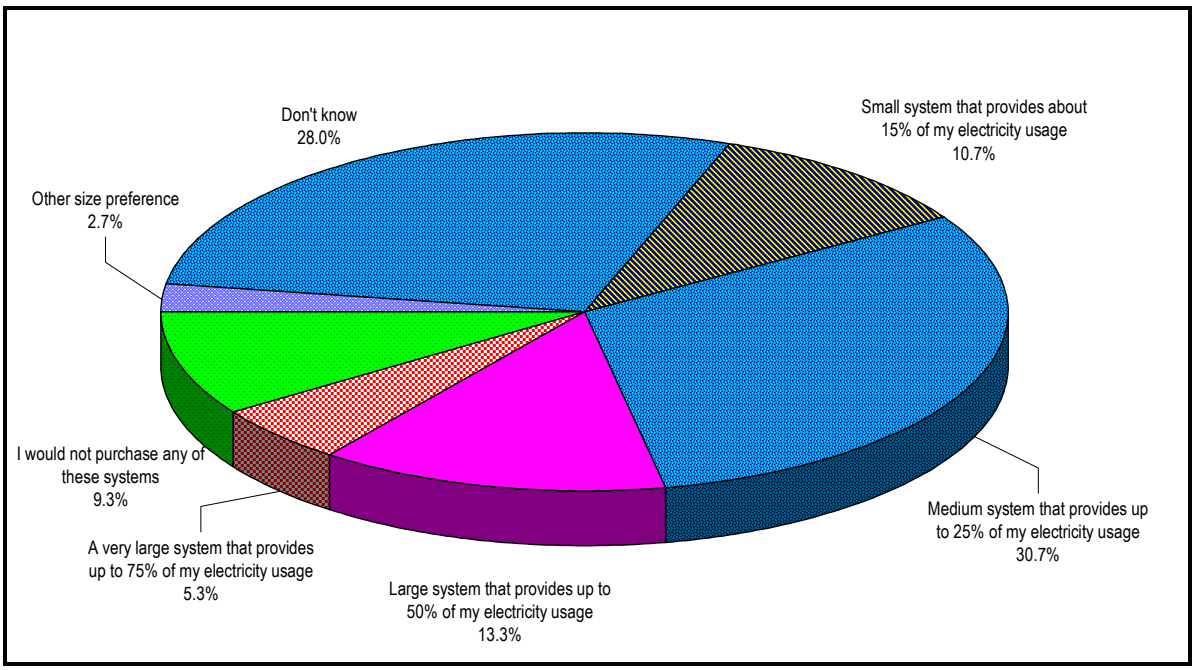


Table 3-12: Preferred System Sizes

Q10. On-site renewable generation systems can be sized to supply various amounts of your electricity needs. Larger generation systems produce more electricity and cost more than smaller systems. If you were to purchase a renewable energy system for your commercial premises, which of the following system sizes would you most prefer?

Response categories	
Small system that provides about 15% of my electricity usage	10.7%
Medium system that provides up to 25% of my electricity usage	30.7%
Large system that provides up to 50% of my electricity usage	13.3%
A very large system that provides up to 75% of my electricity usage	5.3%
I would not purchase any of these systems	9.3%
Other size preference	2.7%
Don't know	28.0%
Base n	75

In a direct question that asked if respondents would now, or ever, consider installing one of the emerging renewable technology systems at their business, responses are illustrated in Figure 3-7. Table 3-13 also represents that 47% of participants answered positively, but were unsure when that would happen. One quarter of all respondents were unsure and another 26% stated that they were not interested. In cross tabulation analysis, 35% of office type businesses stated "no," they would not consider installation of a renewable energy system.

Figure 3-7: Consideration for Installing a Renewable Energy System

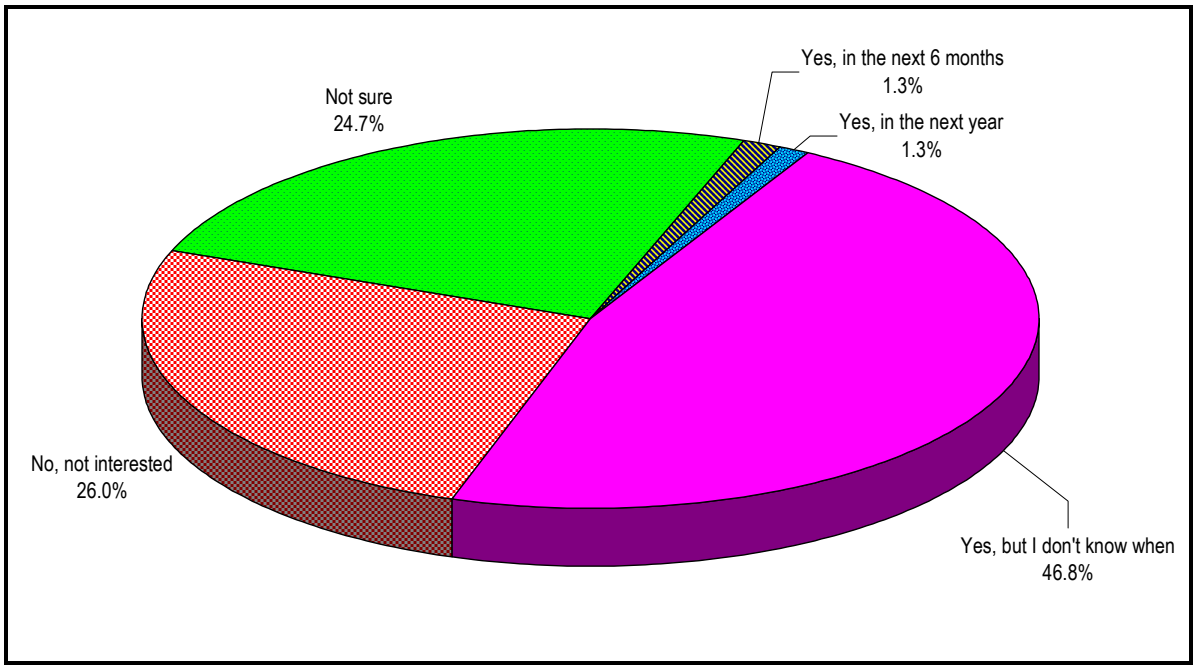


Table 3-13: Consideration for Installing a Renewable Energy System

Q11. Are you now, or would you ever, consider installing a solar, wind, or fuel cell renewable energy system at your business?	
Response categories	
Yes, in the next six months	1.3%
Yes, in the next year	1.3%
Yes, but I don't know when	46.8%
No, not interested	26.0%
Not sure	24.7%
Base n	77

Respondents were asked to rate various installation and ownership features of emerging renewable technology systems. Table 3-14 presents the results and again, options were rated highly with an average of 88% of respondents rating each of the 22 installation/ownership features as "somewhat important" or higher. At least half of the respondents cited the following system features as "very important."

- Equipment reliability (76%)
- Initial cost of system (73%)
- Longevity (64%)
- Expense of maintaining system (59%)
- Availability of finance (57%)
- Length of warranty (56%)
- System safety (56%)

Table 3-14: Importance of Features

Q12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all important and 5 is very important.

Response categories	Very Important	Important	Somewhat Important	Not Very Important	Not At All Important	Base n
Initial cost of the system	72.5%	15.9%	7.2%	1.4%	2.9%	69
System add-on or upgrade capability	47.8%	26.1%	13.0%	5.8%	7.2%	69
Ability to measure how much electricity is produced	42.9%	20.0%	18.6%	11.4%	7.1%	70
Visual attractiveness of the system	21.4%	15.7%	38.6%	8.6%	15.7%	70
How long system would last	64.3%	22.9%	8.6%	0.0%	4.3%	70
Ability to finance the generation system	57.1%	17.1%	15.7%	4.3%	5.7%	70
Length of the warranty period	55.9%	25.0%	14.7%	0.0%	4.4%	68
Availability of maintenance agreement	42.9%	22.9%	21.4%	8.6%	4.3%	70
Option to install equipment myself	25.7%	18.6%	27.1%	12.9%	15.7%	70
Availability of net metering (sale back to utility at retail prices)	32.9%	20.0%	30.0%	10.0%	7.1%	70
Reliability of the equipment	76.1%	16.9%	4.2%	0.0%	2.8%	71
Battery storage for emergency use during power outages	45.7%	25.7%	14.3%	8.6%	5.7%	70
Ability to lease the generation system	25.7%	25.7%	28.6%	11.4%	8.6%	70
Ease of installation of equipment	39.4%	25.4%	23.9%	4.2%	7.0%	71
Availability of insurance	28.2%	25.4%	31.0%	8.5%	7.0%	71
Reputation of manufacturer	39.4%	38.0%	15.5%	2.8%	4.2%	71
Suitability to my building or property	48.6%	37.5%	9.7%	0.0%	4.2%	72
Expense of maintaining the system	59.2%	29.6%	7.0%	0.0%	4.2%	71
Complying with codes and restrictions	47.9%	29.6%	15.5%	2.8%	4.2%	71
Impact of storms, vandalism, etc.	35.7%	27.1%	22.9%	10.0%	4.3%	70
Safety of the system	56.3%	25.4%	11.3%	2.8%	4.2%	71
Availability of financial incentives/rebates	38.6%	37.1%	15.7%	2.9%	5.7%	70

3.3.4 Market Barriers (asked of Building Contractors only)

Given a list of options, contractor respondents were asked what they believed were the two most significant barriers to improving the overall market for on-site emerging renewable generation systems in California. Table 3-15 presents the results and while a few respondents indicated more than two barriers, 57% cited the "first cost of the system" as the main barrier. The next highest ranked barriers were "concerns with performance or product reliability" (26%) followed by "consumer understanding of technology costs and benefits" (25%).

Table 3-15: Barriers to Market

Q13. Based on your understanding and experience to date, what do you believe are the two most significant barriers to improving the overall market for on-site emerging renewable generation systems in California?	
Response categories	
First cost of the system	57.1%
Electric utility interconnection/interface cooperation	14.3%
Consumer understanding of the technology costs and benefits	24.7%
Local building department permits and approvals	7.8%
Availability of products and trained installers	10.4%
Availability of financing at reasonable rates	10.4%
Concerns with performance or product reliability	26.0%
Other	3.9%
Base n	77

* Category response percentages do not add to 100% due to allowance for multiple responses.

3.4 Perceptions and Issues Concerning Renewable Energy Sources

3.4.1 Awareness of Renewable Energy Information

Respondents were asked if they believed information about renewable energy systems (for home or business applications) was easy to find, access, and understand. Forty-three percent of respondents answered "no," with another 44% indicating they did not know or had not looked for such information. Results are presented in Figure 3-8 along with Table 3-16. In further cross tabulation review, 42% of businesses in a suburb location believed information was easy to access and understand against just 7% of the city/town based businesses.

Figure 3-8: Accessibility and Understandability of Renewable Energy Information

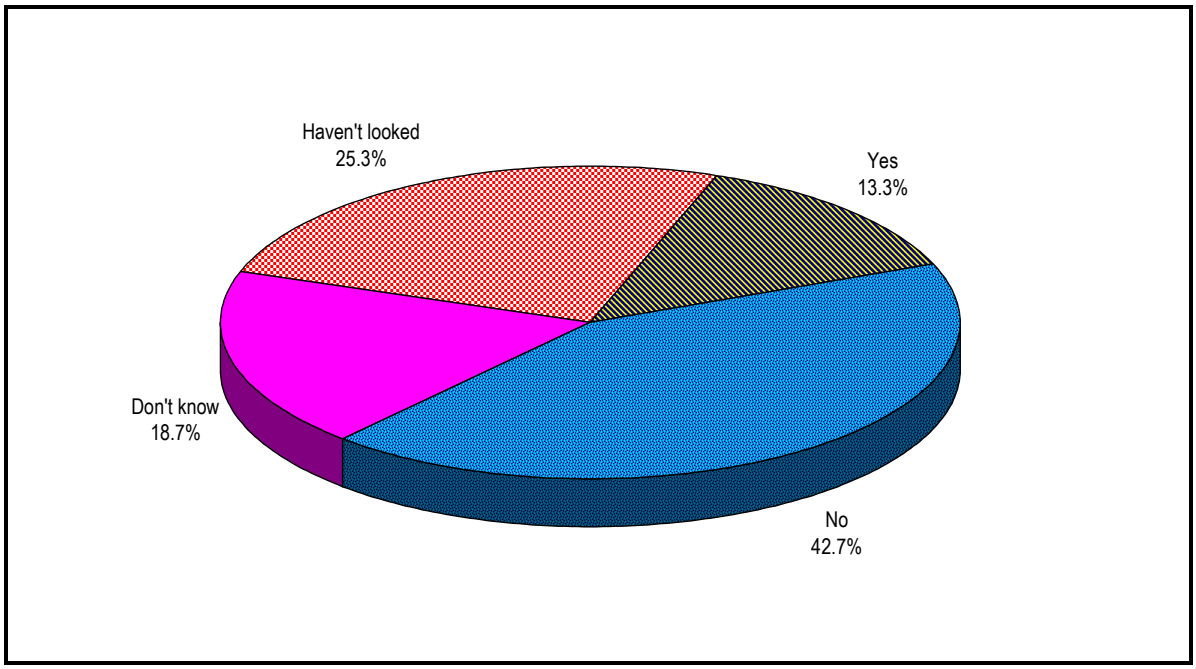


Table 3-16: Accessibility and Understandability of Renewable Energy Information

Q14. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?	
Response categories	
Yes	13.3%
No	42.7%
Don't know	18.7%
Haven't looked	25.3%
Base n	75

Of the 13% who had found information easy to access and understand, most (60%) had received it from a green power-marketing firm.

Figure 3-9: Information Sources

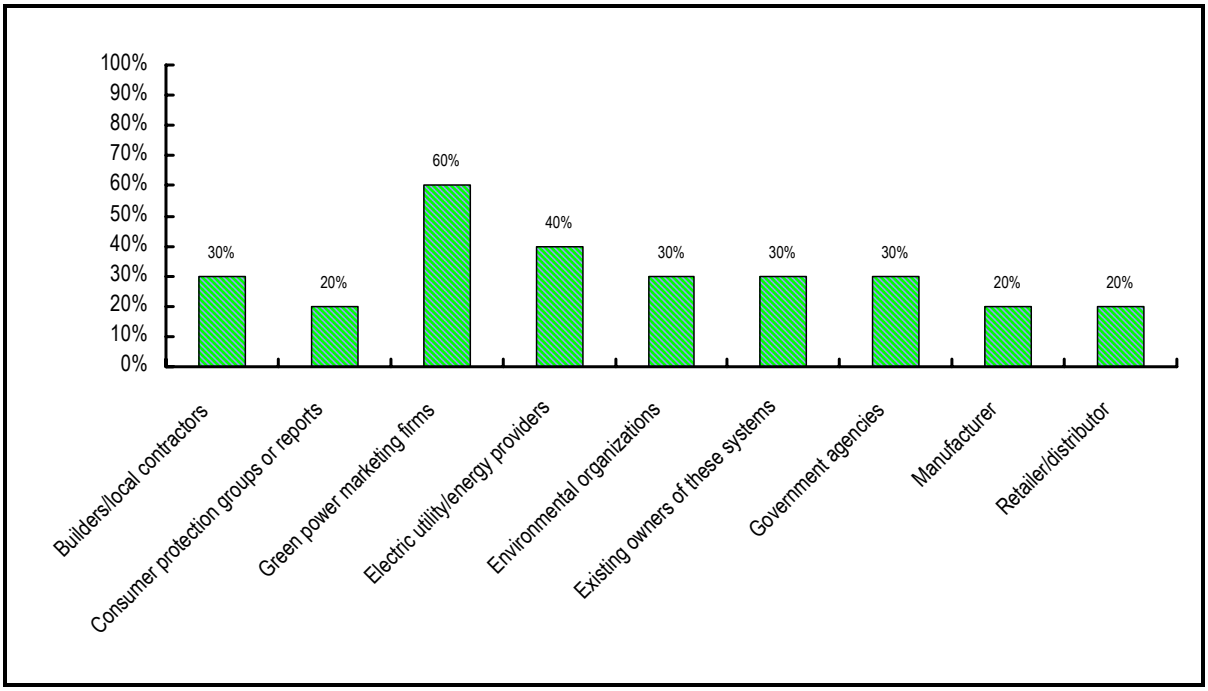


Table 3-17: Information Sources

Q14a. If yes, where have you found your information? (Please check all that apply.)	
Response categories	
Builders/local contractors	30.0%
Consumer protection groups or reports	20.0%
Green power marketing firms	60.0%
Electric utility/energy providers	40.0%
Environmental organizations	30.0%
Existing owners of these systems	30.0%
Government agencies	30.0%
Manufacturer	20.0%
Retailer/distributor	20.0%
Base n	10

* Category response percentages do not add to 100% due to allowance for multiple responses.

Ninety-one percent of respondents indicated they were not aware of the Energy Commission's Emerging Renewables Buydown Program as shown in Table 3-18. Cross tabulation analysis indicated that the retail and manufacturing business types were the most aware of the Buydown Program (40% awareness against the overall 9%).

Table 3-18: Awareness of Commission's Emerging Renewable Buydown Program

Q15. Have you ever heard of the California Energy Commission's (CEC) Emerging Renewable Buydown Program?	
Response categories	
Yes	9.1%
No	90.9%
Base n	77

Ninety-six percent of respondents are unaware of the Utility Net Metering Requirement and 94% stated they had never seen any promotional materials on renewable energy sources or the Buydown Program, as presented in Table 3-19 and Table 3-20.

Table 3-19: Awareness of Net Metering Requirements

Q16. Are you aware of the Utility Net Metering Requirements?	
Response categories	
Yes	3.9%
No	96.1%
Base n	76

Table 3-20: Awareness of CEC's Emerging Buydown Program Promotional Materials

Q17. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown Program? (Check all that apply.)	
Response categories	
Yes, about renewable energy sources	5.5%
Yes, about the Emerging Renewables Buydown Program	0.9%
No	93.6%
Base n	110

* Category response percentages do not add to 100% due to allowance for multiple responses.

One respondent indicated they had applied to the Commission for any type of funding for their business as shown in Table 3-21 below.

Table 3-21: Application for CEC Funding

Q18. Have you ever applied to the CEC for any type of funding for your business?	
Response categories	
Yes	0.9%
No	99.1%
Base n	114

When commercial and contractor respondents were asked if they were aware of any company or organization that offered renewable energy products or services, 16% respondents answered "yes" (Table 3-22). Views among these respondents, as shown in Table 3-23 and Table 3-24, were mixed as to the usefulness of the organizations' product/service information, however, 65% found the information easy to access and understand.

Table 3-22: Awareness of Renewable Energy Organizations

Q19. Are you aware of any companies or other organizations that produce/sell renewable energy products and services?	
Response categories	
Yes	15.7%
No	84.3%
Base n	115

Table 3-23: Usefulness of Renewable Energy Organization Materials

Q19a. Have you found their information useful?	
Response categories	
Yes	52.0%
No	48.0%
Base n	25

Table 3-24: Accessibility and Understandability of Renewable Energy Materials

Q19b. Was the information easy to access and understand?	
Response categories	
Yes	65.0%
No	35.0%
Base n	20

3.4.2 Current Users of Renewable Energy Systems

When asked if any participants had a renewable energy system installed at their office or business (Table 3-25), just 3% replied "yes" with 75% stating that although they had never considered it previously, they would consider such a system in the future. Another 20% claimed to have never, and would never, consider such a system.

Table 3-25: Current Use of Renewable Energy Systems

Q20. Do you currently have a renewable energy system installed at your office/business?	
Response categories	
Yes	2.7%
No, I **did** consider using them but decided against it	2.7%
No, I **never** considered using them but I **would** consider them in the future	75.0%
No, I **never** considered using them and I **would not** consider them in the future	19.6%
Base n	109

3.5 General Organizational Information

3.5.1 Business and Operational Information

The following data (See Table 3-26 through Table 3-33) provides information about the commercial and contractor survey respondents and assists in better understanding general organizational characteristics and operational procedures. From the survey data (key cross-tabulation data can be found in Appendix D), the following general organizational and operational conclusions are made.

- Approximately 70% of the commercial and contractor businesses that responded had 5 or fewer employees.
- Based on estimates provided, about 66% of businesses participating in the survey have premise sizes of 5,000 square feet or less.
- When asked to approximate the company's average monthly electric bill, 36% estimated $100-$499 per month, with 28% stating less than $100 per month in electric charges.
- Eighty-three percent of businesses do not follow set procuring policies when purchasing products or services.
- Over one-third of companies are a member of a professional and/or trade organization.
- More than half (58%) of responding companies use the Internet at work with 45% using the search engine, Yahoo, when researching new topics.

Table 3-26: Type of Business

Q21. What type of business is this?	
Response categories	
Office	24.3%
Restaurant	8.7%
Retail	9.6%
Grocery	2.6%
Warehouse	0.9%
Lodging/Public	2.6%
Services	12.2%
Transportation, Communications, or Utilities/Pipelines	2.6%
Agriculture	2.6%
Construction	5.2%
Manufacturing	6.1%
Other	22.6%
Base n	36

Table 3-27: Job Title

Q23. What is your job title?	
Response categories	
Engineering	3.5%
Finance	4.4%
Management	45.6%
Marketing	4.4%
Purchasing/Procurement	0.9%
Other	41.2%
Base n	114

Table 3-28: Business Location

Q27. Which best describes the location of your business?	
Response categories	
City/Town	76.5%
Suburb	13.9%
Rural	9.6%
Base n	115

Table 3-29: Electric Bill

Q28. What is your company's approximate average monthly electric bill?	
Response categories	
Less than $100	27.5%
$100-$499	35.8%
$500-$999	13.8%
$1,000-$1,999	8.3%
$2,000-$9,000	11.9%
$10,000 or more	2.8%
Base n	109

Table 3-30: Purchase Policies

Q29. Does your company follow set purchase policies for procuring products and/or services?	
Response categories	
Yes	17.4%
No	82.6%
Base n	115

Table 3-31: Professional/Trade Organization Membership

Q30. Is your company a member of any professional and/or trade organization?	
Response categories	
Yes	36.9%
No	63.1%
Base n	111

Table 3-32: Internet Usage

Q31. Do you regularly use the Internet at work?	
Response categories	
Yes	58.3%
No	41.7%
Base n	115

Table 3-33: Search Engine Preference

Q32. When researching new topics, which search engine(s) do you use the most?	
Response categories	
Yahoo	45.2%
Excite	12.2%
Alta Vista	10.4%
MSN Web Search	18.3%
Lycos	7.8%
Infoseek	4.3%
Northern Light	0.9%
Other	7.8%
Don't use search engines	20.9%
Base n	115

* Category response percentages do not add to 100% due to allowance for multiple responses.

4

Recommendations for Consumer Education Program Planning

4.1 Overview

The recommendations made in this section of the report reflect the analysis and findings of the Market Research for Emerging Renewable Technologies project. They are of a strategic nature in deciding the course for future consumer education efforts, and consequently offer an overview as to how the Energy Commission's Renewable Energy Consumer Education Program can meet its goal to "help build a viable customer-driven market for renewable power."[1] Tactical planning (communication tools, concepts, details, schedules, resources, etc.) to support these proposals is not addressed within these recommendations but will be prepared by RER for each activity of the Emerging Renewables Consumer Education effort.

4.1.1 The Role of the California Energy Commission

The Energy Commission is poised as a premier resource of renewable energy information, guidance, and facilitation within California. The Energy Commission is also, however, in a unique position with respect to the consumer marketplace. While it has funding and objectives to encourage the development of the renewable energy market, and although its purpose is to build and expand the consumer base for renewable energy as a whole, the Energy Commission offers no tangible "product" directly to consumers. Instead, the Energy Commission is positioned as a "matchmaker" between stakeholders: consumers of renewable energy, sellers of renewable energy products and services, and manufacturers of renewable energy systems and equipment.

While encouraging uptake in the relatively new area of emerging renewable technologies among residential and commercial sectors in California, the Energy Commission is reliant on external providers of service to fulfill consumers' expectations. This makes the development of an effective consumer education program even more challenging.

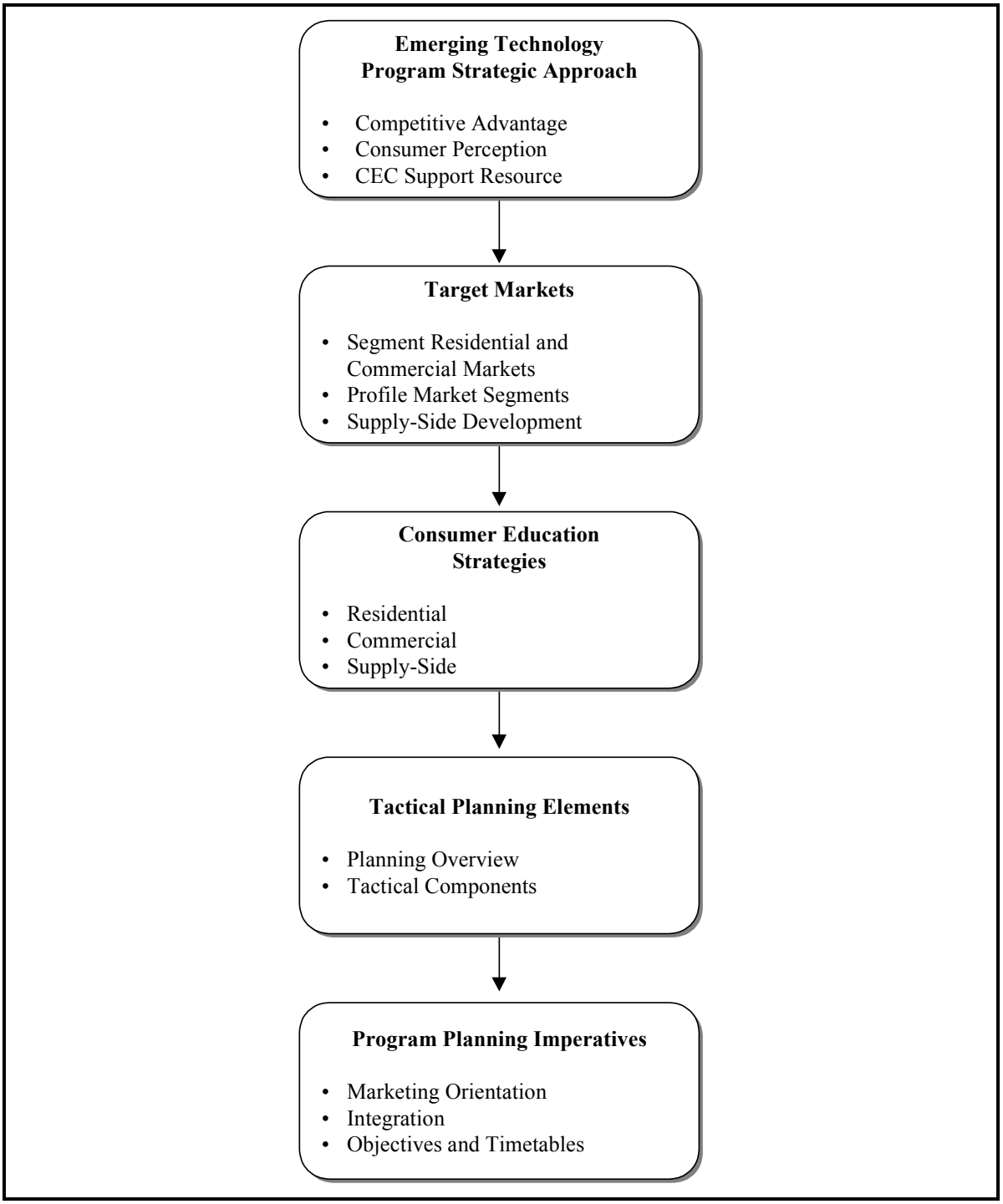
4.1.2 Recommendation Process

The result of careful consideration and analysis of the collected data, this report offers recommendations that include: overall strategic approach for Emerging Renewables

[1] February 1999, Renewable Energy Consumer Education Marketing Plan, California Energy Commission

Program, target markets for residential and commercial sectors, development of supply-side sector, consumer education strategies, tactical planning elements, and program planning imperatives. The general process of this analysis and the resulting recommended elements, are illustrated in Figure 4-1.

Figure 4-1: Consumer Education Planning Analysis



4.2 Consumer Education Strategy for Emerging Renewable Technologies

4.2.1 Strategic Approach

This market research effort has substantially assisted the understanding of the external environment in which the Energy Commission operates its Emerging Renewables Program. Consumer perceptions of renewable energy, and consumer awareness of the Energy Commission's role and activities within that environment, offer a recommendation for the program's overall strategic approach – one of competitive advantage.

The prime competitive advantage of emerging renewable technologies' against other products and services in the California marketplace is a combination of two characteristics:

- Renewable energy sources help to improve the environment.
- A quality resource (namely the Energy Commission's Renewable Energy Program) is available, free to consumers, when considering the purchase of an on-site renewable generating system.

The first strand of this competitive advantage is made even more powerful as it is recognized by consumers: 90% of California residents and 87% of the California commercial sector agree with the statement "using renewable energy sources helps to improve the environment." The Energy Commission has made progress toward communicating and reinforcing this message to consumers.

The second strand is not widely known or recognized in the California marketplace. There is very low awareness that when a homeowner or business enterprise considers the purchase of an on-site electric generating system, there exists a high-quality resource of information, guidance, and incentives available to them, free of charge. Such a strong support resource is not commonly available when considering the purchase of comparably priced products and services and needs to be capitalized on.

It is therefore recommended that the Energy Commission's overall strategic focus for its Renewable Energy Consumer Education activities revolve around this combined competitive advantage (product attribute and purchase advice/support) and include the following:

- Continuing, and increasing, the emphasis on the environmental effect of using renewable energy to consumers;
- Positioning the Energy Commission in the mind of consumers as a professional, high quality resource of support service in the decision-making process; and
- Developing a better support service for consumers through creation and communication of a supplier network, after-sales support service, and the

development of relationships with other complementary organizations (e.g., financing institutions, new homebuilders).

4.2.2 Market Segmentation and Target Markets

Target marketing involves the division of a large market (namely the state of California) into smaller market segments. Each segment is characterized or profiled by certain, often demographic, characteristics. Selecting attractive target markets, or those most likely to be receptive to the consumer message, reduces monetary and human resource waste.

Residential Market

Based on survey respondents, the residential market in California has been segmented by geographic region and against the following attributes:

- Residential consumers
  - Familiarity with solar cells/PV
  - Consideration to install a renewable energy system at home
  - Current use of a renewable energy system at home
  - Awareness of Commission Buydown Program

Residential respondents were analyzed according to these attributes to determine overall awareness and willingness to consider installing a renewable energy system at their home. Once segmented, these groups were then profiled against demographic data to better understand the individual geographic segment's overall traits or characteristics. Complete segmentation and profiling data is illustrated in Appendix G.

As a result of this segmentation analysis, it is recommended that the most attractive and viable residential target markets for the Energy Commission to pursue in its consumer education activities are shown in Table 4-1.

Table 4-1: Recommended Residential Target Markets

	North Coast Residents	*South Coast Residents*
TARGET MARKET PROFILE	- Familiar of renewables (solar cells/PV)	- Familiar with renewables (solar cells/PV)
	- High willingness to install renewable energy system at home	- High willingness to install renewable energy system at home
	- Higher home values (57% $200,000-$500,000+)	- Average home values (52% $200,000-$300,000)
	- Higher income spread (34% $75,000-$150,000+)	- Average income spread (35% $50,000-$100,000)
	- Age spread 25-54 years	- Age spread 35-54 years
	- Information source – Internet (40%)	- Information source split – Internet (42%)

Commercial Market

Based on survey participants, the commercial sector in California has been segmented by geographic region and business type against the following traits:

- Commercial consumers
  - Familiarity with solar cells/PV
  - Consideration to install a renewable energy system at business
  - Monthly electric bill

Commercial sectors were analyzed according to the above characteristics to determine overall awareness and willingness to consider installing a renewable energy system at home or business. Commercial consumers were also analyzed according to their estimated monthly electricity bills as indication of an additional motivation to install a renewable energy source. Review by type of business included only the top four business sectors represented in the survey (office, restaurant, retail, services). Using additional data compiled from the research effort, groups were then profiled to better understand their overall market segment characteristics or traits. Complete commercial segmentation and profiling data can be found in Appendix G.

As a result of the segmentation analysis, it is recommended that the Energy Commission pursue the following (Table 4-2) commercial target market in its consumer education activities for emerging renewable technologies.

Table 4-2: Recommended Commercial Target Market

TARGET MARKET PROFILE	*South Inland Businesses*
	- Substantially higher familiarity
	- High willingness to install renewable energy system at business
	- High current electricity bill (25% pay $1k-$10k+ per month)
	- Office, service, retail, and restaurant type businesses
	- Most do not regularly use Internet at work

Although within this recommended target area, 'restaurants' represent a sector with high willingness to consider on-site generation and higher usage of electricity in the operation of the business, it was not deemed the survey represented a high enough response rate from this group to be classified as a recommended target market.

Supply-Side Market

As mentioned previously, the success of the Energy Commission's consumer education activities depends heavily on external providers of emerging renewable technology-related products and services. It is important that the Energy Commission views this sector as a target market for its attention in the consumer education effort.

The supply infrastructure includes manufacturers, retailers, installers, and maintenance firms within California's emerging renewable technology marketplace and therefore makes up the target market group for this sector. Considerable market information on this sector has been gathered in a previous Commission-sponsored project[2] and key findings have been considered in the development of specific consumer education plans for this target market.

4.2.3 Consumer Education Strategies

Residential Market

The recommended target markets for the residential sector represent a knowledgeable, relatively affluent section of California interested in committing to on-site electricity generation at their homes. The Energy Commission's goal is to influence residents' actual purchase of an emerging renewable technology system through the following strategies:

1) Develop a high presence and profile of emerging technology products and options at the time of considering home-related expenditures (e.g., home-improvement projects, new home purchases, home financing opportunities).

[2] Emerging Technologies Market Research Demand-Side Assessment, May 2000.

2) Increase residents' awareness and assurance of the Energy Commission's role in emerging renewable technologies, available incentives, and the developed supply-side and after-sales network of support.

To develop these opportunities, the following key consumer education objectives and supporting activities are recommended for the residential target markets:

- **Raise the profile of the Energy Commission at the local level**

  Action recommended:

  - Build presence, raise profile and awareness of Commission as a resource for residents in target market regions.
  - Create relationship with regional press, providing stories, "green" home columns, use new booth exhibits at press-sponsored events, advertise in home/garden supplements, provide fact sheets as newspaper inserts.
  - Understand and work with businesses in these target market areas that offer complementary renewable/green products and services to residents, pursue joint promotion ventures/opportunities.
  - Pursue opportunities in target market regions to become involved in the communities, have a presence at public service promotions, advertise in local initiatives.
  - Further develop local stakeholder workshops and meetings, involve current PV stakeholder groups in developing local initiatives.

- **Increase involvement with local target market facilitator businesses**

  Action recommended:

  - Understand local financing market available to residents, communicate/educate financing organizations about available emerging renewable technology opportunities for customers.
  - Develop promotion opportunities with financial lenders, create referral system with these organizations for residents to receive information, consider a "tour" of booth exhibits at high profile financing organizations, provide fact sheets for new home construction financing.
  - Develop relationships with target market area home builders, roofers, architects via regular communications of consumer education activities in the identified target market, create training opportunities, invite to visit exhibits.
  - Pursue joint promotion opportunities with large regional home improvement stores, provide brochures/fact sheets, consider sponsorship opportunities for brochure display stands, offer training to select "green" staff, provide articles or regular column for staff/customer newsletters.

- **Increase information resources available to target market residents**

  Action recommended:

- Develop regular communication system with current renewable technology users in target market areas, offer feedback mechanisms, updates of current consumer education activities, build referral program considering "reward" system from local home improvement store for referrals, remind/update of Buydown program and incentives.
- Encourage involvement of current users with other users in the region, establish a network forum between users (current and future) and after-sales support, involve users in testimonial situations and promotional activities.
- Create opportunities for residents to join an Energy Commission-led communication network of information, consider communication newsletter (joint venture or sponsorship opportunity) for target market residents.
- Continue promotion of consumer education program activities, create program of exhibits and invite residents to local training days, information workshops, sponsor local school/college environmental and scientific initiatives.

- **Develop and position website as one-stop-shop for information**

  Action recommended:
  - Develop and expand website, specific to emerging renewable technologies, making it user-friendly as the ultimate resource for questions, concerns, support network information, referrals, testimonials, and questions.
  - Capture the high number of users who rely on, and regularly use, the Internet by developing regular communication messages on the web, consider emerging technology/Buydown participant "only" areas on the web, position the Commission as a prime resource for non-biased information and guidance on-line, encourage on-line questions/comments to key staff.
  - Develop regular e-mail interaction with users, target market residents, general inquiries, stakeholders groups and offer regular details of promotion and information on emerging renewables, related topics, relevant news.
  - Understand major "green" e-retailers and their regional profile, pursue promotion opportunities, for nationally-focused websites negotiate a "California Corner" for relevant news, information, consumer education.

Commercial Market

The geographic target market recommended for the commercial sector represents an area in California considerably more aware of renewable energy, a greater user of electricity in their organization, and a sector with high willingness to consider on-site renewable generation.

The Energy Commission must inform this market of the benefits and potential savings of using emerging renewable technologies and raise awareness of applicable financial incentives available. To meet these objectives, and capture the identified target market, consumer education activities are recommended as follows:

- **Build Energy Commission presence in target market business community**

  Action recommended:

  - Communicate industry-specific savings, examples, testimonials, and incentives to local trade and commerce affiliations.
  - Understand existing business communication networks in target market areas, sponsor regional and business specific functions and events, provide Commission speaker to organization meetings, build promotional opportunities within large businesses in area.
  - Develop seasonal information and promotion workshops in regional areas, including prominent current commercial users of emerging renewable technology (not necessarily from target market area), ensure high profile of event within State, encourage external involvement/sponsorship from developing Supply-side network.
  - Create regular press opportunities in business sections of newspapers/press in major cities/towns, offer 'syndicated' column to targeted press aimed at commercial readers and including relevant renewable energy topics.

- **Create communication channels and information opportunities for local business**

  Action recommended:

  - Define relevant and popular commercial publications and events within target market areas and develop regular communication system providing: "greening" business columns; highlighting investment of renewables and payback; control of utility charges; educate concerning net utility metering.
  - Pursue advertising and promotional opportunities in professional publications of organizations with traditionally high electricity usage, understand and become involved in regional business networks, exhibits, events.
  - Develop mailing list of establishments in target market area creating regular communication system with this business sector encouraging feedback, questions, request for additional information, on-site advice.
  - Highlight involvement and communicate testimonials of future renewable energy investment by target market businesses.

- **Increase involvement with other commercial-related businesses and develop joint initiative/promotion opportunities**

  Action recommended:

  - Research and develop relationships with local office supply businesses and major business-related retail outlets in target market area.
  - Develop joint promotional opportunities, participate in customer newsletters, consider purchase of customer mailing lists, provide commercial specific fact sheets, create and offer in store information days.
  - Increase involvement with building contractors for commercial properties, inform of target market consumer education activities, communicate current

Energy Commission incentive programs, invite to regional Energy Commission events, offer training and resources, provide with materials for distribution to their customers.

Supply-Side Market

In order for consumers to fully benefit from the Energy Commission's role as facilitator of renewable energy, it is vital that the Energy Commission further develops its role as a resource of information, guidance, and support. To meet this objective, and increase the value of the Energy Commission's role to consumers, it is recommended that the Energy Commission consider the following consumer education activities to the Supply Side of this market.

- **Build a Supply-Side network for consumers to refer for information and advice**

  Action recommended:

  - Develop internal systems that coordinate information and resources in target market areas to aid and encourage consumers in the decision-making process and in providing after-purchase support.

- **Develop open communications with Supply-side of renewable market**

  Action recommended:

  - Make available an open channel of communication and support at the Energy Commission for firms and organizations that offer emerging renewable energy products or services.
  - Consider the designation of an Energy Commission liaison representative dedicated to building this vital relationship.

- **Create program of joint promotion ventures**

  Action recommended:

  - Consider alliances with Supply-side sector in key target market areas (residential and commercial) in consumer education activities.
  - Negotiate and develop funding/sponsorship opportunities for Energy Commission consumer education programs from Supply-side providers.
  - Create presence on local levels via partnerships with organizations of local influence.

- **Expand Call Center Services**

Action recommended:

- Add value to Energy Commission-based call center service via integrating more fully with industry associations, Internet-based information and communication opportunities.

  - Offer supplier side network and referral system, encourage the ongoing relationship between enquirers of renewable energy program activities and developing available communication resources.

- **Development of Renewable Energy School**

  Action recommended:

  - Develop regular program of targeted workshops and training opportunities (geographically located for target markets) for consumers and suppliers.
  - Consider instigation of paid-for/sponsored "Emerging Renewable Technology Certificate" for supply-side of market.
  - Evaluate opportunities with regional education establishments in the development of awareness workshops for emerging renewable technologies at home or business.
  - Negotiate presence for brief workshop topics on public/cable television.
  - Consider development of grade-school renewable energy awareness including support from local Supply-side sector.

4.2.4 Consumer Education Tactical Planning Elements

The tactical planning and issues determine how, specifically, programs will be organized. Tactical planning to implement the proposed consumer education activities will include the following elements:

- Objectives of consumer education activity
- Specified target market that activity is focus on
- Communication tools (advertising, direct marketing, public relations, exhibitions, call center, merchandise, etc.)
- Integration opportunities will other internal and external activities
- Budget/resources available
- Timescale and deadlines for each stage of activity
- System to monitor results

Following the Energy Commission's consideration of the recommended target markets and consumer education activities, RER will develop supporting tactical plans. It is expected while an overall strategic outline for the Emerging Renewables Program will be drafted at that time, specific planning for individual activities will occur as the consumer education program is implemented.

4.2.5 Consumer Education Planning Imperatives

Several issues exist that are considered imperative to the successful planning and implementation of a Renewable Energy Consumer Education Program for Emerging Renewables. At a minimum, these include internal marketing orientation, integration of key consumer education efforts, and commitment to specified objectives and timetables.

- Internal marketing orientation

  Considering the high profile of internal Energy Commission staff in achieving the goal of providing quality advice and consumer support, it will be important that key areas of staff are committed to the provision of exceptional consumer service.

- Integration of Key Consumer Education efforts

  The Energy Commission addresses a range of renewable energy consumer education efforts, not solely emerging renewable technologies. There exists great opportunity to increase the impact of awareness and consumer education campaigns, and maximize efficient use of resources, if integration can be achieved between the renewable energy and emerging technology consumer education efforts.

- Measurable Objectives and Timetable

  The Energy Commission's ultimate consumer education plan must include measurable objectives to ensure sound controls in assessing the effect of consumer education programs.

Appendix A

Residential Survey

California Energy Commission
Residential Survey

Remember -- Return your completed survey, postmarked by May 30, 2000 to be eligible to win cash or one of 10 terrific prizes!

First, we would like to determine your awareness, understanding of, and interest in renewable energy sources. Please answer the following questions.

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells, or solar-thermal electric systems? Please provide an answer for **each** one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

	Not at all familiar				Very familiar
Renewable Energy Source	1	2	3	4	5
Solar cells (photovoltaics)	☐	☐	☐	☐	☐
Small wind turbines	☐	☐	☐	☐	☐
Fuel cells	☐	☐	☐	☐	☐
Solar-thermal electric systems	☐	☐	☐	☐	☐

If <u>not at all familiar</u> with any of these energy sources, please <u>skip to *Question 17*</u>

2. Do you have any personal experience with renewable energy?
   ☐ Yes ☐ No

   If yes, specify nature of your experience: _____

3. How familiar are you with the way in which renewable energy sources **generate** electricity? Please provide an answer for **each** one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

	Not at all familiar				Very familiar
Renewable Energy Source	1	2	3	4	5
Solar cells (photovoltaics)	☐	☐	☐	☐	☐
Small wind turbines	☐	☐	☐	☐	☐
Fuel cells	☐	☐	☐	☐	☐
Solar-thermal electric systems	☐	☐	☐	☐	☐

4. Please give your <u>best estimate</u> on how much you think it would cost to purchase and install each of the following renewable energy systems in your home. Assume that the system would provide about 75% of your electric needs. (Please provide an answer for each of the energy sources.)

Renewable Energy Systems	Less than $500	$500-$2499	$2500-$4999	$5000-$14,999	$15,000+
a. Solar cells (photovoltaics)	☐	☐	☐	☐	☐
b. Small wind turbines	☐	☐	☐	☐	☐
c. Fuel cells	☐	☐	☐	☐	☐
d. Solar-thermal electric systems	☐	☐	☐	☐	☐

5. Do you believe using renewable energy sources helps to improve the environment?
   ☐ Yes ☐ No ☐ Not sure

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells, or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check <u>all</u> that apply.)

   ☐ Yes, a neighbor
   ☐ Yes, a friend
   ☐ Yes, a colleague
   ☐ Yes, a relative
   ☐ Yes, other (please describe) _____
   ☐ No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity.

7. Have you received any information about renewable energy sources from: (Please check all that apply.)
   ☐ A neighbor?
   ☐ A friend?
   ☐ A colleague?
   ☐ A relative?
   ☐ Other (please describe) _____
   ☐ No, I have not received any information from anyone.

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer **each** one of the options below on a scale of 1 to 5, where 1 is not at all important and 5 is very important.

Purchase Considerations for an On-site Renewable Generation System	Not at all important 1	2	3	4	Very important 5
Improve reliability of my electric service	☐	☐	☐	☐	☐
Environmental concerns/conserving environment's resources	☐	☐	☐	☐	☐
Economic/financial considerations	☐	☐	☐	☐	☐
Investment in the future for family/children	☐	☐	☐	☐	☐
Personal values for saving money	☐	☐	☐	☐	☐
Personal interest in technology and up-to-date trends	☐	☐	☐	☐	☐
Less reliance on fossil fuels	☐	☐	☐	☐	☐
Less reliance on electric utility	☐	☐	☐	☐	☐
Global climate change	☐	☐	☐	☐	☐
Complete independence from the electric utility	☐	☐	☐	☐	☐
Cost of extending electric utility lines for new service	☐	☐	☐	☐	☐
Availability of support/sales/design/maintenance services	☐	☐	☐	☐	☐

9. Are you now, or would you ever, consider installing a solar, wind, or fuel cell system at your home?
   ☐ Yes, in the next 6 months
   ☐ Yes, in the next year
   ☐ Yes, but I don't know when
   ☐ No, not interested (please explain why) _____
   ☐ Not sure

Next, we would like to understand your perceptions and any issues you may have concerning on-site renewable energy generation sources. Please answer the following questions.

10. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?
    ☐ Yes ☐ No ☐ Don't know ☐ Haven't looked

    10a. If yes, where have you found your information? (Please check **all** that apply.)
    ☐ Builders/local contractors ☐ Electric utility/energy providers ☐ Government agencies
    ☐ Consumer protection groups or reports ☐ Environmental organizations ☐ Manufacturer
    ☐ "Green power" marketing firms ☐ Existing owners of these systems ☐ Retailer/distributor
    ☐ Other (please describe) _____

11. Have you ever heard of the California Energy Commission's (CEC) Emerging Renewables Buydown program?
    ☐ Yes ☐ No

12. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Renewables Buydown program? (Please check all that apply)
    ☐ Yes, about renewable energy sources
    ☐ Yes, about the Emerging Renewables Buydown program
    ☐ No, never seen any promotional materials

13. Have you ever applied to the CEC for any type of funding for your house?
    ☐ Yes ☐ No

    13a. If you have applied for funding, did you find the CEC's forms, regulations, and materials to be user friendly?
    ☐ Yes ☐ No

14. Are you aware of the companies who produce/sell renewable energy products and services? ☐ Yes ☐ No

    14a. If you are aware of these companies, have you found their information useful? ☐ Yes ☐ No
    14b. Was the information easy to access/understand? ☐ Yes ☐ No
    If no, why not?_____

15. Do you currently have a renewable energy system installed at your house?
    ☐ Yes [If yes, please check all that apply.]
    ☐ Solar cells (photovoltaics) _____ kW installed nameplate capacity
    ☐ Small-scale wind power _____ kW installed nameplate capacity
    ☐ Fuel cells _____ kW installed nameplate capacity
    ☐ Solar-thermal electricity _____ kW installed nameplate capacity
    ☐ Other (please describe) _____
    ☐ No, I did consider using them but decided against it because (please describe) _____
    ☐ No, I never considered using them but I would in the future
    ☐ No, I never considered using them and I would not in the future

15b. If yes, have manufacturers/suppliers/installers of the system offered information to you following the purchase/installation (i.e. "post purchase") of your system? (please check all that apply)
☐ Yes, the manufacturers have offered "post-purchase" information
☐ Yes, the suppliers have offered "post-purchase" information
☐ Yes, the installers have offered "post-purchase" information
☐ No

15c. Do the manufacturers/suppliers/installers remain in contact with you?
☐ Yes, manufacturers ☐ Yes, suppliers ☐ Yes, installers ☐ No

Now we would like to find out more about you, your interests and where you obtain information. Please answer the following questions.

16. Please indicate one television station you regularly watch:
☐ Cable stations
☐ Major network (ABC, NBC, CBS, Fox)
☐ Public Access
☐ Public TV (KPBS)
☐ Don't watch TV
☐ Other: (please describe) _____

17. Please indicate one type of radio station you listen to regularly:
☐ Classical ☐ Country ☐ Dance
☐ Jazz ☐ New Age ☐ Oldies
☐ Pop ☐ Religious ☐ Rock
☐ Sports Talk ☐ Urban/Hip Hop ☐ Don't listen to radio
☐ Other (please describe) _____

18. Please indicate on type of newspaper you read regularly:
☐ Major regional paper (LA Times, SF Examiner, SD Union)
☐ Wall Street Journal
☐ Don't read newspapers
☐ USA Today
☐ Local paper
☐ Other: (please describe) _____

19. Please indicate one type of magazine you read regularly:
☐ Arts ☐ Business ☐ Cooking
☐ Fashion ☐ Hobby ☐ Home
☐ Pets ☐ Science ☐ Sports
☐ Technology ☐ Travel ☐ Don't read magazines
☐ Other (please describe) _____

20. Do you regularly use the internet at home?
☐ Yes ☐ No

21. Do you perform your work primarily at a home office?
☐ Yes ☐ No

22. If you work outside the home, do you regularly use the internet at work?
☐ Yes ☐ No

23. When researching new topics, which search engine(s) do you use the most?
☐ Yahoo
☐ Excite
☐ Alta Vista
☐ MSN Web Search
☐ Lycos
☐ Infoseek
☐ Northern Light
☐ Other (please describe):_____
☐ Don't use search engines

24. Which information sources would you say you rely on, and refer to, the most –
☐ Television/radio stations ☐ Magazines ☐ Newspapers ☐ Internet/websites

25. Do you read your electric or gas utility bill inserts?
☐ Always ☐ Sometimes ☐ Never

26. Please list any trade/professional journals you receive
_____
_____
_____
_____

27. Please list any hobbies you may have.
_____
_____
_____
_____

28. Do you belong to any special interest groups other than environmental organizations?
☐ Consumer advocate ☐ Political ☐ Human rights ☐ No
☐ Other, please specify_____

29. Are you a member of any professional organizations?
☐ Yes ☐ No If yes, please specify_____

30. Are you actively involved with any environmental organizations?
☐ Yes ☐ No If yes, please specify_____

31. Have you contributed to any environmental organizations? (Please check all that apply)
☐ Yes, I have donated money to environmental organizations
☐ Yes, I have donated goods/items to environmental organizations
☐ Yes, I have volunteered my time to environmental organizations
If yes, please specify environmental organization(s) _____
☐ No, I have not contributed to any environmental organizations

Lastly, we would like to find out more about you. We realize this information is the most sensitive and may we therefore emphasize again that answers will be held in the strictest confidence and will be used only in the total results of the survey. Please answer the following questions.

32. What age group are you in? ☐ Less than 25 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

33. Which ethnic group best describes you?
☐ African American ☐ American Indian ☐ Asian, Pacific Islander
☐ Hispanic, Latino ☐ White ☐ Other (please specify): _____

34. What is your gender? ☐ Male ☐ Female

35. What is your occupation?
☐ Architect/Building Contractor ☐ Engineering ☐ Homemaker ☐ Other (please specify)
☐ Banking/Financial ☐ Entertainment/Media ☐ Legal _____
☐ Community/Social Services ☐ Environment/Energy ☐ Marketing/Sales
☐ Computer Science ☐ Food Service ☐ Office/Administrative
☐ Education/Academic ☐ Health Care ☐ Retail

36. Which of the following categories best describes your TOTAL household income during 1999 before taxes and other deductions?
☐ Less than $10,000 ☐ $30,000 - $39,999 ☐ $75,000 - $99,999 ☐ $150,000 or more
☐ $10,000 - $19,999 ☐ $40,000 - $49,999 ☐ $100,000 - $124,999
☐ $20,000 - $29,999 ☐ $50,000 - $74,999 ☐ $125,000 - $149,999

37. Please indicate the highest level of education you have completed -
☐ Some high school or less ☐ Trade or technical school ☐ 2-year college graduate ☐ Some graduate school
☐ High school graduate ☐ Some college ☐ 4-year college graduate ☐ Graduate degree

38. How many people (including yourself) live at your address?
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 or more

39. What is the estimated size (in square feet) of your home?
☐ Less than 1000 square feet ☐ 2000 - 2499 square feet ☐ 3500 - 3999 square feet
☐ 1000 - 1499 square feet ☐ 2500 - 2999 square feet ☐ 4000 square feet or more
☐ 1500 - 1999 square feet ☐ 3000 - 3499 square feet ☐ Don't know

40. Which of the following best represent the value of your house -
☐ Less than $100,000 ☐ $100,000 - $199,999 ☐ $200,000 - $299,999 ☐ Don't know
☐ $300,000 - $399,999 ☐ $400,000 - $499,999 ☐ $500,000 or more

41. Which best describes the location of your home? ☐ City/Town ☐ Suburb ☐ Rural

We very much appreciate your valuable time and effort in completing our renewable energy survey. Please fill out the information below and your name will be entered into the drawing for one of the terrific prizes! To qualify for the prize draw, you must provide your state and zip code. Thank you.

First name: _____
Last name: _____
Address: _____
_____
City: _____
State: _____
Phone (day): _____
(eve): _____

I am interested in receiving any future information from the California Energy Commission on renewable technologies
– please forward details to me -
☐ via email ☐ via mail

Fax:_____
E-mail:_____

Please send me more information from the California Energy Commission on the following topics:
☐ Solar cells (PV) ☐ Fuel cells ☐ How to purchase green power from energy providers
☐ Small wind ☐ Solar-thermal electric ☐ Consumer education activities

☐ I would like to talk to a California Energy Commission staff member about the Renewable Energy Program.
Please call me during normal business hours at _____

For more information about the Renewable Energy Program, you may also contact the California Energy Commission by phone at 1 (800) 555-7794 or on the Web at: http://www.energy.ca.gov/renewables

Thank you again for participating!

Appendix B

Residential Cross Tabulations

1a. How familiar are you with renewable energy sources such as solar cells (photovoltaics)?

		11. Have you heard of the CEC's Emerging Renewables Buydown Program?		Climate Zone				
	Total	**Yes**	**No**	**North Coast**	**South Coast**	**South Inland**	**Central Valley**	**Desert/Mountain**
Not at all Familiar	245	7	79	62	17	52	67	16
	29.7%	7.5%	13.8%	30.8%	20.5%	29.9%	31.8%	25.4%
Not Familiar	132	12	119	26	17	26	39	9
	16.0%	12.9%	20.8%	12.9%	20.5%	14.9%	18.5%	14.3%
Somewhat Familiar	202	23	179	53	19	46	48	15
	24.5%	24.7%	31.3%	26.4%	22.9%	26.4%	22.7%	23.8%
Familiar	155	28	126	41	15	31	34	15
	18.8%	30.1%	22.0%	20.4%	18.1%	17.8%	16.1%	23.8%
Very Familiar	92	23	69	19	15	19	23	8
	11.1%	24.7%	12.1%	9.5%	18.1%	10.9%	10.9%	12.7%
Total	826	93	572	201	83	174	211	63
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

3a. How familiar are you with the way in which solar cells (photovoltaics) generate electricity?

		34. What is your gender?		**32. What age group are you in?**					
	Total	**Male**	**Female**	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Familiar	141	36	105	7	29	48	27	19	11
	21.1%	10.8%	31.4%	23.3%	26.4%	22.1%	15.0%	23.8%	21.6%
Not Familiar	139	52	87	4	17	49	40	18	11
	20.8%	15.6%	26.0%	13.3%	15.5%	22.6%	22.2%	22.5%	21.6%
Somewhat Familiar	148	71	77	7	25	46	39	19	12
	22.2%	21.3%	23.1%	23.3%	22.7%	21.2%	21.7%	23.8%	23.5%
Familiar	133	85	47	7	22	38	42	13	11
	19.9%	25.5%	14.1%	23.3%	20.0%	17.5%	23.3%	16.3%	21.6%
Very Familiar	107	89	18	5	17	36	32	11	6
	16.0%	26.7%	5.4%	16.7%	15.5%	16.6%	17.8%	13.8%	11.8%
Total	668	333	334	30	110	217	180	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

5. Do you believe using renewable energy sources helps to improve the environment?

	Total	34. What is your gender?		31. Have you contributed to any environmental organizations?	
		Male	Female	Yes	No
Yes	603	308	294	224	379
	90.4%	92.8%	88.0%	95.3%	87.7%
No	2	2	0	0	2
	0.3%	0.6%	0.0%	0.0%	0.5%
Not Sure	62	22	40	11	51
	9.3%	6.6%	12.0%	4.7%	11.8%
Total	667	332	334	235	432
	100.0%	100.0%	100.0%	100.0%	100.0%

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system, how important would the following considerations be to you in the decision-making process?

8a. Importance of "Improved reliability of my electric service."

		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	68	0	10	20	19	6	13
	10.2%	0.0%	9.1%	9.3%	10.6%	7.5%	25.5%
Not Important	96	3	21	26	31	11	4
	14.4%	10.0%	19.1%	12.0%	17.3%	13.8%	7.8%
Somewhat Important	143	4	25	59	31	13	11
	21.5%	13.3%	22.7%	27.3%	17.3%	16.3%	21.6%
Important	133	9	23	35	41	17	8
	20.0%	30.0%	20.9%	16.2%	22.9%	21.3%	15.7%
Very Important	226	14	31	76	57	33	15
	33.9%	46.7%	28.2%	35.2%	31.8%	41.3%	29.4%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8b. Importance of "Environmental concerns/conserving environment's resources."

		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	9	0	2	2	1	2	2
	1.4%	0.0%	1.8%	0.9%	0.6%	2.5%	3.9%
Not Important	37	1	5	5	17	7	2
	5.6%	3.3%	4.5%	2.3%	9.5%	8.8%	3.9%
Somewhat Important	108	4	18	38	20	13	15
	16.2%	13.3%	16.4%	17.6%	11.2%	16.3%	29.4%
Important	187	6	27	61	51	27	15
	28.1%	20.0%	24.5%	28.2%	28.5%	33.8%	29.4%
Very Important	325	19	58	110	90	31	17
	48.8%	63.3%	52.7%	50.9%	50.3%	38.8%	33.3%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8c. Importance of "Economic/financial considerations."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	3	0	0	1	1	0	1
	0.5%	0.0%	0.0%	0.5%	0.6%	0.0%	2.0%
Not Important	15	3	2	4	4	2	0
	2.3%	10.0%	1.8%	1.9%	2.2%	2.5%	0.0%
Somewhat Important	69	4	12	18	20	7	8
	10.4%	13.3%	10.9%	8.3%	11.2%	8.8%	15.7%
Important	161	8	30	43	45	19	16
	24.2%	26.7%	27.3%	19.9%	25.1%	23.8%	31.4%
Very Important	418	15	66	150	109	52	26
	62.8%	50.0%	60.0%	69.4%	60.9%	65.0%	51.0%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
8d. Importance of "Investment in the future for family/children."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	25	0	3	10	4	3	5
	3.8%	0.0%	2.7%	4.6%	2.2%	3.8%	9.8%
Not Important	59	3	10	12	17	10	7
	8.9%	10.0%	9.1%	5.6%	9.5%	12.5%	13.7%
Somewhat Important	133	1	25	47	36	15	9
	20.0%	3.3%	22.7%	21.8%	20.1%	18.8%	17.6%
Important	174	9	29	50	56	18	12
	26.1%	30.0%	26.4%	23.1%	31.3%	22.5%	23.5%
Very Important	275	17	43	97	66	34	18
	41.3%	56.7%	39.1%	44.9%	36.9%	42.5%	35.3%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8e. Importance of "Personal values for saving money."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	15	0	3	7	1	0	4
	2.3%	0.0%	2.7%	3.2%	0.6%	0.0%	7.8%
Not Important	23	1	3	3	8	5	3
	3.5%	3.3%	2.7%	1.4%	4.5%	6.3%	5.9%
Somewhat Important	110	2	20	33	32	12	11
	16.5%	6.7%	18.2%	15.3%	17.9%	15.0%	21.6%
Important	193	9	35	62	48	26	13
	29.0%	30.0%	31.8%	28.7%	26.8%	32.5%	25.5%
Very Important	325	18	49	111	90	37	20
	48.8%	60.0%	44.5%	51.4%	50.3%	46.3%	39.2%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8f. Importance of " Personal interest in technology and up-to-date trends."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	52	0	16	21	11	1	3
	7.8%	0.0%	14.5%	9.7%	6.1%	1.3%	5.9%
Not Important	120	6	26	29	33	17	9
	18.0%	20.0%	23.6%	13.4%	18.4%	21.3%	17.6%
Somewhat Important	204	10	30	66	56	26	16
	30.6%	33.3%	27.3%	30.6%	31.3%	32.5%	31.4%
Important	152	8	20	56	36	22	10
	22.8%	26.7%	18.2%	25.9%	20.1%	27.5%	19.6%
Very Important	138	6	18	44	43	14	13
	20.7%	20.0%	16.4%	20.4%	24.0%	17.5%	25.5%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8g. Importance of "Less reliance on fossil fuels."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	17	0	2	7	3	3	2
	2.6%	0.0%	1.8%	3.2%	1.7%	3.8%	3.9%
Not Important	35	2	4	9	11	6	3
	5.3%	6.7%	3.6%	4.2%	6.1%	7.5%	5.9%
Somewhat Important	105	5	19	39	24	12	6
	15.8%	16.7%	17.3%	18.1%	13.4%	15.0%	11.8%
Important	198	9	32	66	50	21	20
	29.7%	30.0%	29.1%	30.6%	27.9%	26.3%	39.2%
Very Important	311	14	53	95	91	38	20
	46.7%	46.7%	48.2%	44.0%	50.8%	47.5%	39.2%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
8h. Importance of "Less reliance on electric utility."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	24	2	2	10	1	5	4
	3.6%	6.7%	1.8%	4.6%	0.6%	6.3%	7.8%
Not Important	57	4	11	11	15	9	7
	8.6%	13.3%	10.0%	5.1%	8.4%	11.3%	13.7%
Somewhat Important	116	2	20	41	35	8	10
	17.4%	6.7%	18.2%	19.0%	19.6%	10.0%	19.6%
Important	198	13	35	66	45	23	16
	29.7%	43.3%	31.8%	30.6%	25.1%	28.8%	31.4%
Very Important	271	9	42	88	83	35	14
	40.7%	30.0%	38.2%	40.7%	46.4%	43.8%	27.5%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8i. Importance of "Global climate change."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	51	2	2	10	1	5	4
	7.7%	6.7%	1.8%	4.6%	0.6%	6.3%	7.8%
Not Important	63	4	11	11	15	9	7
	9.5%	13.3%	10.0%	5.1%	8.4%	11.3%	13.7%
Somewhat Important	129	2	20	41	35	8	10
	19.4%	6.7%	18.2%	19.0%	19.6%	10.0%	19.6%
Important	141	13	35	66	45	23	16
	21.2%	43.3%	31.8%	30.6%	25.1%	28.8%	31.4%
Very Important	282	9	42	88	83	35	14
	42.3%	30.0%	38.2%	40.7%	46.4%	43.8%	27.5%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8j. Importance of "Complete independence from the electric utility."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	61	3	10	19	13	7	9
	9.2%	10.0%	9.1%	8.8%	7.3%	8.8%	17.6%
Not Important	86	2	19	18	26	12	9
	12.9%	6.7%	17.3%	8.3%	14.5%	15.0%	17.6%
Somewhat Important	157	6	32	58	39	14	8
	23.6%	20.0%	29.1%	26.9%	21.8%	17.5%	15.7%
Important	141	10	23	42	38	19	9
	21.2%	33.3%	20.9%	19.4%	21.2%	23.8%	17.6%
Very Important	221	9	26	79	63	28	16
	33.2%	30.0%	23.6%	36.6%	35.2%	35.0%	31.4%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8k. Importance of "Cost of extending electric utility lines for new service."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	79	0	13	25	26	10	5
	11.9%	0.0%	11.8%	11.6%	14.5%	12.5%	9.8%
Not Important	65	1	17	20	15	8	4
	9.8%	3.3%	15.5%	9.3%	8.4%	10.0%	7.8%
Somewhat Important	149	12	24	51	40	15	7
	22.4%	40.0%	21.8%	23.6%	22.3%	18.8%	13.7%
Important	149	8	24	48	38	17	14
	22.4%	26.7%	21.8%	22.2%	21.2%	21.3%	27.5%
Very Important	224	9	32	72	60	30	21
	33.6%	30.0%	29.1%	33.3%	33.5%	37.5%	41.2%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

8l. Importance of "Availability of support/sales/design/maintenance services."							
		32. What age group are you in?					
	Total	**< 25 yrs**	**25–34 yrs**	**35–44 yrs**	**45–54 yrs**	**55-64 yrs**	**65 +**
Not at all Important	20	0	2	6	8	1	3
	3.0%	0.0%	1.8%	2.8%	4.5%	1.3%	5.9%
Not Important	37	0	6	9	12	6	4
	5.6%	0.0%	5.5%	4.2%	6.7%	7.5%	7.8%
Somewhat Important	99	6	17	35	27	7	7
	14.9%	20.0%	15.5%	16.2%	15.1%	8.8%	13.7%
Important	187	10	40	52	42	30	13
	28.1%	33.3%	36.4%	24.1%	23.5%	37.5%	25.5%
Very Important	323	14	45	114	90	36	24
	48.5%	46.7%	40.9%	52.8%	50.3%	45.0%	47.1%
Total	666	30	110	216	179	80	51
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

		37. Please Indicate the highest level of education you have completed:							
	Total	**Some High School or Less**	**High School Graduate**	**Trade or Technical School**	**Some College**	**2-year College Graduate**	**4-year College Graduate**	**Some Graduate School**	**Graduate Degree**
Yes, in the next 6 months	15	0	3	1	2	2	4	1	2
	2.2%	0.0%	3.7%	3.2%	1.0%	2.5%	3.1%	2.1%	2.6%
Yes, in the next year	32	0	2	4	10	5	4	2	5
	4.8%	0.0%	2.4%	12.9%	4.8%	6.3%	3.1%	4.2%	6.6%
Yes, but I don't know when	425	3	47	16	136	49	93	32	46
	63.7%	33.3%	57.3%	51.6%	65.7%	62.0%	71.5%	66.7%	60.5%
No, I'm not interested	27	1	2	1	10	3	2	2	6
	4.0%	11.1%	2.4%	3.2%	4.8%	3.8%	1.5%	4.2%	7.9%
Not Sure	168	5	28	9	49	20	27	11	17
	25.2%	55.6%	34.1%	29.0%	23.7%	25.3%	20.8%	22.9%	22.4%
Total	667	9	82	31	207	79	130	48	76
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

	40. Which of the following best represent the value of your house?							
	Total	**Less than $100,000**	**$100,000 - $199,999**	**$200,000 - $299,999**	**$300,000 - $399,999**	**$400,000 - $499,999**	**$500,000 or more**	**Don't Know**
Yes, in the next 6 months	15	5	1	2	1	1	3	2
	2.2%	4.5%	0.5%	1.8%	1.8%	2.4%	5.8%	2.7%
Yes, in the next year	32	3	10	9	3	5	1	1
	4.8%	2.7%	4.5%	8.0%	5.4%	12.2%	1.9%	1.4%
Yes, but I don't know when	425	68	138	74	39	25	35	46
	63.7%	61.3%	62.7%	65.5%	69.6%	61.0%	67.3%	62.2%
No, I'm not interested	27	4	10	6	0	1	1	5
	4.0%	3.6%	4.5%	5.3%	0.0%	2.4%	1.9%	6.8%
Not Sure	168	31	61	22	13	9	12	20
	25.2%	27.9%	27.7%	19.5%	23.2%	22.0%	23.1%	27.0%
Total	667	111	220	113	56	41	52	74
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

		41. Which best describes the location of your home?			**Climate Zone**				
	Total	**City/Town**	**Suburb**	**Rural**	**North Coast**	**South Coast**	**South Inland**	**Central Valley**	**Desert/ Mountain**
Yes, in the next 6 months	15 2.2%	5 1.4%	4 2.1%	6 5.0%	3 1.8%	0 0.0%	3 2.2%	3 1.8%	2 3.6%
Yes, in the next year	32 4.8%	19 5.3%	5 2.7%	8 6.7%	12 7.4%	1 1.4%	4 2.9%	7 4.2%	2 3.6%
Yes, but I don't know when	425 63.7%	226 62.8%	125 66.5%	74 62.2%	108 66.3%	48 68.6%	94 68.6%	103 61.3%	35 62.5%
No, I'm not interested	27 4.0%	15 4.2%	9 4.8%	3 2.5%	5 3.1%	0 0.0%	4 2.9%	7 4.2%	5 8.9%
Not Sure	168 25.2%	95 26.4%	45 23.9%	28 23.5%	35 21.5%	21 30.0%	32 23.4%	48 28.6%	12 21.4%
Total	667 100.0%	360 100.0%	188 100.0%	119 100.0%	163 100.0%	70 100.0%	137 100.0%	168 100.0%	56 100.0%

11. Have you heard of the CEC's Emerging Renewables Buydown program?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/ Mountain
Yes	93	26	8	20	17	9
	13.9%	16.0%	11.4%	14.5%	10.1%	16.1%
No	575	137	62	118	151	47
	86.1%	84.0%	88.6%	85.5%	89.9%	83.9%
Total	668	163	70	138	168	56
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

15. Do you currently have a renewable energy system installed at your house?

		8a. Importance of "Improved reliability of my electric service."					*8b. Importance of "Environmental concerns/conserving environment's resources."*				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	67	93	140	129	219	8	36	106	180	318
	97.3%	98.5%	96.9%	97.9%	97.0%	96.9%	88.9%	97.3%	98.1%	96.3%	97.8%
Yes	18	1	3	3	4	7	1	1	2	7	7
	2.7%	1.5%	3.1%	2.1%	3.0%	3.1%	11.1%	2.7%	1.9%	3.7%	2.2%
Total	667	68	96	143	133	226	9	37	108	187	325
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		8c. Importance of "Economic/financial considerations."					*8d. Importance of "Investment in the future for family/children."*				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	3	14	68	157	406	23	59	129	170	267
	97.3%	100.0%	93.3%	98.6%	97.5%	97.1%	92.0%	100.0%	97.0%	97.7%	97.1%
Yes	18	0	1	1	4	12	2	0	4	4	8
	2.7%	0.0%	6.7%	1.4%	2.5%	2.9%	8.0%	0.0%	3.0%	2.3%	2.9%
Total	667	3	15	69	161	418	25	59	133	174	275
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		8e. Importance of "Personal values for saving money."					*8f. Importance of " Personal interest in technology and up-to-date trends."*				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	14	23	105	192	314	50	120	199	147	132
	97.3%	93.3%	100.0%	95.5%	99.5%	96.6%	96.2%	100.0%	97.5%	96.7%	95.7%
Yes	18	1	0	5	1	11	2	0	5	5	6
	2.7%	6.7%	0.0%	4.5%	0.5%	3.4%	3.8%	0.0%	2.5%	3.3%	4.3%
Total	667	15	23	110	193	325	52	120	204	152	138

	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

15. Do you currently have a renewable energy system installed at your house?

		8g. Importance of "Less reliance on fossil fuels."					***8h. Importance of "Less reliance on electric utility."***				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	17	35	102	190	304	23	55	115	192	263
	97.3%	100.0%	100.0%	97.1%	96.0%	97.7%	95.8%	96.5%	99.1%	97.0%	97.0%
Yes	18	0	0	3	8	7	1	2	1	6	8
	2.7%	0.0%	0.0%	2.9%	4.0%	2.3%	4.2%	3.5%	0.9%	3.0%	3.0%
Total	667	17	35	105	198	311	24	57	116	198	271
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		8i. Importance of "Global climate change."					***8j. Importance of "Complete independence from the electric utility."***				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	48	62	125	137	276	57	83	157	139	212
	97.3%	94.1%	98.4%	96.9%	97.2%	97.9%	93.4%	96.5%	100.0%	98.6%	95.9%
Yes	18	3	1	4	4	6	4	3	0	2	9
	2.7%	5.9%	1.6%	3.1%	2.8%	2.1%	6.6%	3.5%	0.0%	1.4%	4.1%
Total	667	51	63	129	141	282	61	86	157	141	221
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		8k. Importance of "Cost of extending electric utility lines for new service."					***8l. Importance of "Availability of support/sales/design/maintenance services."***				
	Total	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**	**Not at all Important**	**Not Important**	**Somewhat Important**	**Important**	**Very Important**
No	649	76	64	147	145	216	20	34	99	182	313
	97.3%	96.2%	98.5%	98.7%	97.3%	96.4%	100.0%	91.9%	100.0%	97.3%	96.9%
Yes	18	3	1	2	4	8	0	3	0	5	10
	2.7%	3.8%	1.5%	1.3%	2.7%	3.6%	0.0%	8.1%	0.0%	2.7%	3.1%
Total	667	79	65	149	149	224	20	37	99	187	323
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

15. Do you currently have a renewable energy system installed at your house?

		11. Have you heard of the CEC's Emerging Renewables Buydown program?		***24. Which information source would you say you rely on, and refer to the most?***			
	Total	**Yes**	**No**	**Television/ Radio Stations**	**Magazines**	**Newspapers**	**Internet/ Websites**
No	649	88	561	244	35	100	270
	97.3%	95.7%	97.6%	98.8%	94.6%	96.2%	96.8%
Yes	18	4	14	3	2	4	9
	2.7%	4.3%	2.4%	1.2%	5.4%	3.8%	3.2%
Total	667	92	575	247	37	104	279
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

		26. Do you read your electric or gas utility bill inserts?		
	Total	**Always**	**Sometimes**	**Never**
No	649	163	427	59
	97.3%	94.2%	98.2%	100.0%
Yes	18	10	8	0
	2.7%	5.8%	1.8%	0.0%
Total	667	173	435	59
	100.0%	100.0%	100.0%	100.0%

24. Which information source would you say you rely on, and refer to the most?

	Total	32. What age group are you in?					
		< 25 yrs	25–34 yrs	35–44 yrs	45–54 yrs	55-64 yrs	65 +
Television/Radio Stations	336	24	64	101	80	40	26
	40.5%	60.0%	42.7%	37.8%	37.2%	44.0%	39.4%
Magazines	39	3	8	5	12	5	6
	4.7%	7.5%	5.3%	1.9%	5.6%	5.5%	9.1%
Newspapers	133	4	18	49	30	14	18
	16.0%	10.0%	12.0%	18.4%	14.0%	15.4%	27.3%
Internet/Websites	322	9	60	112	93	32	16
	38.8%	22.5%	40.0%	41.9%	43.3%	35.2%	24.2%
Total	830	40	150	267	215	91	66
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Television/Radio Stations	336	68	31	79	91	19
	40.5%	33.8%	37.3%	44.9%	43.1%	29.7%
Magazines	39	16	5	6	3	4
	4.7%	8.0%	6.0%	3.4%	1.4%	6.3%
Newspapers	133	37	12	26	31	7
	16.0%	18.4%	14.5%	14.8%	14.7%	10.9%
Internet/Websites	322	80	35	65	86	34
	38.8%	39.8%	42.2%	36.9%	40.8%	53.1%
Total	830	201	83	176	211	64
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

32. What age group are you in?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
< 25 yrs	40	8	6	13	7	1
	4.8%	4.0%	7.2%	7.4%	3.3%	1.6%
25–34 yrs	150	48	10	27	40	11
	18.1%	23.9%	12.0%	15.3%	19.0%	17.2%
35–44 yrs	267	65	22	64	78	12
	32.2%	32.3%	26.5%	36.4%	37.0%	18.8%
45–54 yrs	215	49	23	41	61	21
	25.9%	24.4%	27.7%	23.3%	28.9%	32.8%
55–64 yrs	91	23	11	19	15	9
	11.0%	11.4%	13.3%	10.8%	7.1%	14.1%
65 +	66	8	11	12	10	10
	8.0%	4.0%	13.3%	6.8%	4.7%	15.6%
Total	829	201	83	176	211	64
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

36. Which of the following categories best describe your TOTAL household income during 1999 before taxes and other deductions?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Less than $10,000	34	6	3	9	8	3
	4.3%	3.2%	3.7%	5.2%	3.8%	5.0%
$10,000 - $19,999	61	15	3	6	20	11
	7.6%	8.0%	3.7%	3.5%	9.6%	18.3%
$20,000 - $29,999	81	14	9	14	24	7
	10.2%	7.5%	11.1%	8.1%	11.5%	11.7%
$30,000 - $39,999	88	15	11	21	23	11
	11.0%	8.0%	13.6%	12.1%	11.1%	18.3%
$40,000 - $49,999	102	25	14	23	21	7
	12.8%	13.4%	17.3%	13.3%	10.1%	11.7%
$50,000 - $74,999	198	48	19	49	56	16
	24.8%	25.7%	23.5%	28.3%	26.9%	26.7%
$75,000 - $99,999	106	21	9	28	30	3
	13.3%	11.2%	11.1%	16.2%	14.4%	5.0%
$100,000 - $124,999	66	20	8	12	15	2
	8.3%	10.7%	9.9%	6.9%	7.2%	3.3%
$125,000 - $149,999	26	8	2	3	7	0
	3.3%	4.3%	2.5%	1.7%	3.4%	0.0%
$150,000 or more	36	15	3	8	4	0
	4.5%	8.0%	3.7%	4.6%	1.9%	0.0%
Total	798	187	81	173	208	60
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

40. Which of the following best represent the value of your house?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Less than $100,000	131	16	5	18	53	27
	15.8%	8.0%	6.0%	10.2%	25.1%	42.2%
$100,000 - $199,999	269	39	25	67	90	23
	32.4%	19.4%	30.1%	38.1%	42.7%	35.9%
$200,000 - $299,999	145	33	16	46	29	4
	17.5%	16.4%	19.3%	26.1%	13.7%	6.3%
$300,000 - $399,999	71	28	12	9	10	1
	8.6%	13.9%	14.5%	5.1%	4.7%	1.6%
$400,000 - $499,999	49	24	5	7	7	0
	5.9%	11.9%	6.0%	4.0%	3.3%	0.0%
$500,000 or more	59	30	10	5	3	0
	7.1%	14.9%	12.0%	2.8%	1.4%	0.0%
Don't Know	106	31	10	24	19	9
	12.8%	15.4%	12.0%	13.6%	9.0%	14.1%
Total	830	201	83	176	211	64
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix C

Commercial/Contractor Survey

California Energy Commission
Commercial and Contractor* Survey

Remember -- Return your completed survey, postmarked by May 30, 2000 to be eligible to win cash or one of 10 terrific prizes!

***note** – Please complete the survey as it pertains to your business, not as it pertains to you as a homeowner.

First, we would like to determine your awareness, understanding of, and interest in renewable energy sources. Please answer the following questions.

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells, or solar-thermal electric systems? Please provide an answer for **each** one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

	Not at all familiar				Very familiar
Renewable Energy Source	1	2	3	4	5
Solar cells (photovoltaics)	☐	☐	☐	☐	☐
Small wind turbines	☐	☐	☐	☐	☐
Fuel Cells	☐	☐	☐	☐	☐
Solar-thermal electric systems	☐	☐	☐	☐	☐

If <u>not at all familiar</u> with any of these energy sources, please <u>skip to *Question 17*</u>

2. Do you have any direct experience with renewable energy? ☐ Yes ☐ No
   If yes, specify nature of your experience: _____

3. How familiar are you with the way in which renewable energy sources **generate** electricity? Please provide an answer for **each** one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

	Not at all familiar				Very familiar
Renewable Energy Source	1	2	3	4	5
Solar cells (photovoltaics)	☐	☐	☐	☐	☐
Small wind turbines	☐	☐	☐	☐	☐
Fuel Cells	☐	☐	☐	☐	☐
Solar-thermal electric systems	☐	☐	☐	☐	☐

4. Please give your <u>best estimate</u> on how much you think it would cost to purchase and install each of the following renewable energy systems in your business. Assume that the system would provide about 4 kilowatts of your electric needs. (Please provide an answer for **each** one of the energy sources.)

Renewable Energy Systems	Less than $500	$500-$2499	$2500-$4999	$5000-$14,999	$15,000+
a. Solar cells (photovoltaics)	☐	☐	☐	☐	☐
b. Small wind turbines	☐	☐	☐	☐	☐
c. Fuel cells	☐	☐	☐	☐	☐
d. Solar-thermal electric systems	☐	☐	☐	☐	☐

5. Do you believe using renewable energy sources helps to improve the environment?
   ☐ Yes ☐ No ☐ Not sure

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells, or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check <u>all</u> that apply.)

   ☐ Yes, another business
   ☐ Yes, a colleague
   ☐ Yes, a friend
   ☐ Yes, a neighbor
   ☐ Yes, a relative
   ☐ Yes, other (please describe) _____
   ☐ No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity.

7. Have you received any information about renewable energy sources from: (Please check all that apply.)
   ☐ Another business?
   ☐ A colleague?
   ☐ A friend?
   ☐ A neighbor?
   ☐ A relative?
   ☐ Other: _____(please describe)
   ☐ No, I have not receive any information from anyone

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important.

Purchase Considerations for an On-site Renewable Generation System	Not at all important 1	2	3	4	Very important 5
Improve reliability of my electric service	☐	☐	☐	☐	☐
Environmental concerns/conserving environment's resources	☐	☐	☐	☐	☐
Economic/financial considerations	☐	☐	☐	☐	☐
Investment in the future for family/children	☐	☐	☐	☐	☐
Personal values for saving money	☐	☐	☐	☐	☐
Personal interest in technology and up-to-date trends	☐	☐	☐	☐	☐
Less reliance on fossil fuels	☐	☐	☐	☐	☐
Less reliance on electric utility	☐	☐	☐	☐	☐
Global climate change	☐	☐	☐	☐	☐
Complete independence from the electric utility	☐	☐	☐	☐	☐
Cost of extending electric utility lines for new service	☐	☐	☐	☐	☐
Availability of support/sales/design/maintenance services	☐	☐	☐	☐	☐

9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost (i.e. the equipment and installation costs) and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to 'pay back' the initial cost of the equipment.

   Looking at the list of possible ranges for this required payback timeframe, please identify the range that best describes the number of years that you would accept to pay back the initial cost of the equipment.

   ☐ Less than1 year ☐ 5 - 6 years ☐ 16 - 20 years
   ☐ 1 - 2 years ☐ 7 - 10 years ☐ More than 20 years
   ☐ 3 - 4 years ☐ 11 - 15 years ☐ Don't know

10. On-site renewable generation systems can be sized to supply various amounts of your electricity needs. Larger generation systems produce more electricity and cost more than smaller systems. If you were to purchase a renewable energy system for your commercial premises, which of the following system sizes would you most prefer?
   ☐ Small system that provides about 15% of my electricity usage
   ☐ Medium-size system that provides up to 25% of my electricity usage
   ☐ Large system that provides up to 50% of my electricity usage
   ☐ A very large system that provides up to 75% of my electricity usage
   ☐ I would not purchase any of these systems
   ☐ Other size preference (please specify) _____
   ☐ Don't know

11. Are you now, or would you ever, consider installing solar, wind or fuel cell renewable energy system at your business?
   ☐ Yes, in the next 6 months ☐ Yes, but I don't know when
   ☐ Yes, in the next year ☐ No, not interested ☐ Not sure

   If not interested, please explain why not - _____

12. If you have already considered, or were to in the future, acquiring an on-site renewable energy system, how important would the following system installation/ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all important and 5 is very important?

Installation/Ownership Features for an On-site Renewable Generation System	Not at all important 1	2	3	4	Very important 5
Initial cost of the system	☐	☐	☐	☐	☐
System add-on or upgrade capability	☐	☐	☐	☐	☐
Ability to measure how much electricity is produced	☐	☐	☐	☐	☐
Visual attractiveness of the system	☐	☐	☐	☐	☐
How long system would last	☐	☐	☐	☐	☐
Ability to finance the generation system	☐	☐	☐	☐	☐
Length of the warranty period	☐	☐	☐	☐	☐
Availability of maintenance agreement	☐	☐	☐	☐	☐
Option to install equipment myself	☐	☐	☐	☐	☐
Availability of net metering (sale back to utility at retail prices)	☐	☐	☐	☐	☐
Reliability of the equipment	☐	☐	☐	☐	☐
Battery storage for emergency use during power outages	☐	☐	☐	☐	☐
Ability to lease the generation system	☐	☐	☐	☐	☐

12 continued.

Installation/Ownership Features for an On-site Renewable Generation System	Not at all important 1	2	3	4	Very important 5
Ease of installation of equipment	☐	☐	☐	☐	☐
Availability of insurance	☐	☐	☐	☐	☐
Reputation of manufacturer	☐	☐	☐	☐	☐
Suitability to my building or property	☐	☐	☐	☐	☐
Expense of maintaining system	☐	☐	☐	☐	☐
Complying with codes and restrictions	☐	☐	☐	☐	☐
Impact of storms, vandalism, etc	☐	☐	☐	☐	☐
Safety of the system	☐	☐	☐	☐	☐
Availability of financial incentives/rebates	☐	☐	☐	☐	☐

13. Based upon your understanding and experience to date, what do you believe are the **two** most significant barriers to improving the overall market for on-site emerging renewable generation systems in California?
☐ First cost of the system
☐ Electric utility interconnection/interface cooperation
☐ Consumer understanding of the technology costs/benefits
☐ Local building department permits and approvals
☐ Availability of products and trained installers
☐ Availability of financing at reasonable rates
☐ Concerns with performance or product reliability
☐ Other (please specify) _____

Next, we would like to understand your perceptions and any issues you may have concerning on-site renewable energy sources. Please answer the following questions.

14. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?
☐ Yes ☐ No ☐ Don't know ☐ Haven't looked

14a. If yes, where have you found your information? (Please check **all** that apply.)
☐ Builders/local contractors
☐ Consumer protection groups or reports
☐ "Green power" marketing firms
☐ Electric utility/energy providers
☐ Environmental organizations
☐ Existing owners of these systems
☐ Government agencies
☐ Manufacturer
☐ Retailer/distributor
☐ Other (please describe) _____

15. Have you ever heard of the California Energy Commission's (CEC) Emerging Renewables Buydown program?
☐ Yes ☐ No

16. Are you aware of the Utility Net Metering Requirements? ☐ Yes ☐ No

17. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Renewables Buydown program? (Please check all that apply.)
☐ Yes, about renewable energy sources
☐ Yes, about the Emerging Renewables Buydown program
☐ No, never seen any promotional materials

18. Have you ever applied to the CEC for any type of funding for your business? ☐ Yes ☐ No

18a. If you have applied for funding, did you find the CEC's forms, regulations, and materials to be user friendly?
☐ Yes ☐ No

19. Are you aware of the companies who produce/sell renewable energy products and services? ☐ Yes ☐ No

19a. If you are aware of these companies, have you found their information useful? ☐ Yes ☐ No
19b. Was the information easy to access/understand? ☐ Yes ☐ No
If no, why not?_____

20. Do you currently have a renewable energy system installed at your office/business?
☐ Yes [If yes, please check all that apply.]
☐ Solar cells (photovoltaics) _____ kW installed nameplate capacity
☐ Small-scale wind power _____ kW installed nameplate capacity
☐ Fuel cells _____ kW installed nameplate capacity
☐ Solar-thermal electricity _____ kW installed nameplate capacity
☐ Other (please describe) _____
☐ No, we did consider using them but decided against it because (please describe) _____
☐ No, we never considered using them but we would in the future
☐ No, we never considered using them and we would not in the future

20b. If yes, have manufacturers/suppliers/installers of the system offered information to you following the purchase/installation (i.e. "post purchase") of your system? (Please check all that apply)
☐ Yes, manufacturers have offered "post-purchase" information
☐ Yes, suppliers have offered "post-purchase" information
☐ Yes, installers have offered "post-purchase" information
☐ No

20c. Do manufacturers/suppliers/installers remain in contact with you?
☐ Yes, manufacturers ☐ Yes, suppliers ☐ Yes, installers ☐ No

Now we would like to find out more about your organization and your role within it. Please answer the following questions.

21. What type of business is this?
    - ☐ Office
    - ☐ Restaurant
    - ☐ Retail
    - ☐ Grocery
    - ☐ Warehouse
    - ☐ School/College
    - ☐ Lodging
    - ☐ Hospital
    - ☐ Services
    - ☐ Transportation, Communications, or Utilities/Pipelines
    - ☐ Agriculture
    - ☐ Mining
    - ☐ Construction
    - ☐ Manufacturing
    - ☐ Public Assembly
    - ☐ Other [Please specify] _____

22. What is your company's main product/service? _____

23. What is your job classification?
    - ☐ Engineering
    - ☐ Finance
    - ☐ Management
    - ☐ Marketing
    - ☐ Purchasing/Procurement
    - ☐ Other (please specify) _____

24. Approximately how much enclosed floor space is occupied at this location? _____ square feet

25. How many people usually are employed at this business? _____

26. How many company locations does your organization have within California? _____

27. Which best describes the location of your business?
    - ☐ City/Town
    - ☐ Suburb
    - ☐ Rural
    - ☐ Virtual

28. What is your approximate average monthly electric bill?
    - ☐ Less than $100
    - ☐ $100-$499
    - ☐ $500-$999
    - ☐ $1,000-$1,999
    - ☐ $2,000-$9,999
    - ☐ $10,000 +

29. Does your company follow set purchase policies for procuring products and/or services?

    ☐ Yes ☐ No If yes, please specify _____

30. Is your company a member of any professional and/or trade organization?

    ☐ Yes ☐ No If yes, please specify _____

31. Do you regularly use the internet at your business?

    ☐ Yes ☐ No

32. Which search engines do you use the most?
    - ☐ Yahoo
    - ☐ Excite
    - ☐ Alta Vista
    - ☐ MSN Web Search
    - ☐ Lycos
    - ☐ Infoseek
    - ☐ Northern Light
    - ☐ Other (please specify): _____
    - ☐ Don't use search engines

We very much appreciate your valuable time and effort in completing our renewable energy survey. Please fill out the information below and your name will be entered into the drawing for one of the terrific prizes! To qualify for the prize draw, you must fill in your state and zipe code. Thank you.

First name: _____

Last name: _____

Address: _____

_____

City: _____

State: _____

Phone (day): _____

(eve): _____

I am interested in receiving any future information from the California Energy Commission on renewable technologies
– please forward details to me -

☐ via email ☐ via mail

Fax: _____

E-mail: _____

Please send me more information from the California Energy Commission on the following topics:
- ☐ Solar cells (PV)
- ☐ Small wind
- ☐ Fuel cells
- ☐ Solar-thermal electric
- ☐ Consumer education activities
- ☐ Marketing materials
- ☐ How to purchase green power from energy providers

☐ I would like to talk to a California Energy Commission staff member about the Renewable Energy Program. Please call me during normal business hours at _____

For more information about the Renewable Energy Program, you may also contact the California Energy Commission by phone at 1 (800) 555-7794 or on the Web at: http://www.energy.ca.gov/renewables

Thank you again for participating!

Appendix D

Commercial/Contractor Cross Tabulations

1a. How familiar are you with renewable energy sources such as solar cells (photovoltaics)?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Not at all Familiar	40	1	6	18	0	0
	36.0%	16.7%	33.3%	40.0%	0.0%	0.0%
Not Familiar	22	2	6	6	2	0
	19.8%	33.3%	33.3%	13.3%	66.7%	0.0%
Somewhat Familiar	21	2	1	8	1	1
	18.9%	33.3%	5.6%	17.8%	33.3%	50.0%
Familiar	20	1	3	10	0	0
	18.0%	16.7%	16.7%	22.2%	0.0%	0.0%
Very Familiar	8	0	2	3	0	1
	7.2%	0.0%	11.1%	6.7%	0.0%	50.0%
Total	111	6	18	45	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

2. Do you have any direct experience with renewable energy?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Yes	15	1	2	5	0	1
	19.5%	16.7%	15.4%	16.7%	0.0%	50.0%
No	62	5	11	25	3	1
	80.5%	83.3%	84.6%	83.3%	100.0%	50.0%
Total	77	6	13	30	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to 'pay back' the initial cost of the equipment.
Looking at the list of possible ranges for this required payback timeframe, please identify the range that best describes the number of years that you would expect to pay back the initial cost of the equipment.

		21. What type of business is this?				
	Total	**Office**	**Restaurant**	**Retail**	**Grocery**	**Lodging**
Less than 1 year	3	0	0	1	0	0
	4.0%	0.0%	0.0%	20.0%	0.0%	0.0%
1 – 2 years	16	7	1	2	0	0
	21.3%	36.8%	20.0%	40.0%	0.0%	0.0%
3 – 4 years	17	4	1	0	1	1
	22.7%	21.1%	20.0%	0.0%	100.0%	50.0%
5 – 6 years	16	4	0	2	0	1
	21.3%	21.1%	0.0%	40.0%	0.0%	50.0%
7 – 10 years	19	4	3	0	0	0
	25.3%	21.1%	60.0%	0.0%	0.0%	0.0%
11 – 15 years	2	0	0	0	0	0
	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
16 – 20 years	2	0	0	0	0	0
	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
More than 20 years	0	0	0	0	0	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0	0	0	0	0	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	75	19	5	5	1	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to 'pay back' the initial cost of the equipment.
Looking at the list of possible ranges for this required payback timeframe, please identify the range that best describes the number of years that you would expect to pay back the initial cost of the equipment.

		21. What type of business is this? (cont.)					
	Total	**Services**	**Transportation/ Communications / Utilities**	**Agriculture**	**Construction**	**Manufacturing**	**Other**
Less than 1 year	3	1	0	0	1	0	0
	4.0%	11.1%	0.0%	0.0%	20.0%	0.0%	0.0%
1 – 2 years	16	1	0	0	0	1	4
	21.3%	11.1%	0.0%	0.0%	0.0%	20.0%	21.1%
3 – 4 years	17	2	1	1	2	2	2
	22.7%	22.2%	50.0%	33.3%	40.0%	40.0%	10.5%
5 – 6 years	16	2	0	1	1	1	4
	21.3%	22.2%	0.0%	33.3%	20.0%	20.0%	21.1%
7 – 10 years	19	1	1	1	1	1	7
	25.3%	11.1%	50.0%	33.3%	20.0%	20.0%	36.8%
11 – 15 years	2	1	0	0	0	0	1
	2.7%	11.1%	0.0%	0.0%	0.0%	0.0%	5.3%
16 – 20 years	2	0	0	0	0	0	0
	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
More than 20 years	0	0	0	0	0	0	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0	1	0	0	0	0	1
	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	5.3%
Total	75	9	2	3	5	5	19
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to 'pay back' the initial cost of the equipment.
Looking at the list of possible ranges for this required payback timeframe, please identify the range that best describes the number of years that you would expect to pay back the initial cost of the equipment.

		Climate Zone				
	Total	**North Coast**	**South Coast**	**South Inland**	**Central Valley**	**Desert/Mountain**
Less than 1 year	3	0	1	1	0	0
	4.0%	0.0%	8.3%	3.6%	0.0%	0.0%
1 – 2 years	16	0	4	8	0	0
	21.3%	0.0%	33.3%	28.6%	0.0%	0.0%
3 – 4 years	17	2	0	6	1	0
	22.7%	33.3%	0.0%	21.4%	33.3%	0.0%
5 – 6 years	16	2	5	4	1	0
	21.3%	33.3%	41.7%	14.3%	33.3%	0.0%
7 – 10 years	19	2	2	6	1	1
	25.3%	33.3%	16.7%	21.4%	33.3%	50.0%
11 – 15 years	2	0	0	1	0	1
	2.7%	0.0%	0.0%	3.6%	0.0%	50.0%
16 – 20 years	2	0	0	0	0	0
	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%
More than 20 years	0	0	0	0	0	0
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Don't Know	0	0	0	2	0	0
	0.0%	0.0%	0.0%	7.1%	0.0%	0.0%
Total	75	6	12	28	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

11. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

		21. What type of business is this?				
	Total	**Office**	**Restaurant**	**Retail**	**Grocery**	**Lodging**
Yes, in the next 6 months	1	0	0	0	0	0
	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Yes, in the next year	1	0	0	0	0	0
	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Yes, but I don't know when	36	5	4	4	0	2
	46.8%	25.0%	80.0%	80.0%	0.0%	100.0%
No, I'm not interested	20	7	1	1	0	0
	26.0%	35.0%	20.0%	20.0%	0.0%	0.0%
Not Sure	19	8	0	0	1	0
	24.7%	40.0%	0.0%	0.0%	100.0%	0.0%
Total	77	20	5	5	1	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

11. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

		21. What type of business is this? (cont.)					
	Total	**Services**	**Transportation/ Communications / Utilities**	**Agriculture**	**Construction**	**Manufacturing**	**Other**
Yes, in the next 6 months	1	0	0	0	0	0	1
	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
Yes, in the next year	1	0	0	0	0	0	1
	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
Yes, but I don't know when	36	1	1	2	3	2	12
	46.8%	11.1%	50.0%	66.7%	60.0%	40.0%	60.0%
No, I'm not interested	20	4	0	0	1	1	5
	26.0%	44.4%	0.0%	0.0%	20.0%	20.0%	25.0%
Not Sure	19	4	1	1	1	2	1
	24.7%	44.4%	50.0%	33.3%	20.0%	40.0%	5.0%
Total	77	9	2	3	5	5	20
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

11. Are you now, or would you ever, consider installing a solar wind, or fuel cell system at your home?

		Climate Zone				
	Total	**North Coast**	**South Coast**	**South Inland**	**Central Valley**	**Desert/Mountain**
Yes, in the next 6 months	1	0	0	1	0	0
	1.3%	0.0%	0.0%	3.6%	0.0%	0.0%
Yes, in the next year	1	0	0	0	0	0
	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Yes, but I don't know when	36	5	5	14	2	1
	46.8%	83.3%	41.7%	50.0%	66.7%	50.0%
No, I'm not interested	20	0	2	8	1	0
	26.0%	0.0%	16.7%	28.6%	33.3%	0.0%
Not Sure	19	1	5	5	0	1
	24.7%	16.7%	41.7%	17.9%	0.0%	50.0%
Total	77	6	12	28	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

14. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?

		27. Which best describes the location of your home?		
	Total	**City/Town**	**Suburb**	**Rural**
Yes	10	4	5	1
	13.3%	7.4%	41.7%	11.1%
No	32	23	6	3
	42.7%	42.6%	50.0%	33.3%
Don't Know	14	9	1	4
	18.7%	16.7%	8.3%	44.4%
Haven't Looked	19	18	0	1
	25.3%	33.3%	0.0%	11.1%
Total	75	54	12	9
	100.0%	100.0%	100.0%	100.0%

15. Have you heard of the CEC's Emerging Renewables Buydown program?

	Total	21. What type of business is this?				
		Office	Restaurant	Retail	Grocery	Lodging
Yes	7	0	1	2	0	0
	9.1%	0.0%	20.0%	40.0%	0.0%	0.0%
No	70	20	4	3	1	2
	90.9%	100.0%	80.0%	60.0%	100.0%	100.0%
Total	77	20	5	5	1	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	Total	21. What type of business is this? (cont.)					
		Services	Transportation/ Communications / Utilities	Agriculture	Construction	Manufacturing	Other
Yes	7	0	0	1	0	2	1
	9.1%	0.0%	0.0%	33.3%	0.0%	40.0%	5.0%
No	70	9	2	2	5	3	19
	90.9%	100.0%	100.0%	66.7%	100.0%	60.0%	95.0%
Total	77	9	2	3	5	5	20
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

20. Do you currently have a renewable energy system installed at your office/business?

		Climate Zone				
	Total	**North Coast**	**South Coast**	**South Inland**	**Central Valley**	**Desert/Mountain**
Yes	3	0	0	2	0	0
	2.7%	0.0%	0.0%	4.7%	0.0%	0.0%
No, we did consider using them by decided against it.	3	0	1	2	0	0
	2.7%	0.0%	5.3%	4.7%	0.0%	0.0%
No, we never considered using them but we would in the future.	84	6	15	30	2	2
	75.0%	100.0%	78.9%	69.8%	66.7%	100.0%
No, we never considered using them and we would not in the future.	22	0	3	9	1	0
	19.6%	0.0%	15.8%	20.9%	33.3%	0.0%
Total	112	6	19	43	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

21. What type of business is this?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Office	28	1	8	9	0	0
	31.5%	16.7%	42.1%	19.6%	0.0%	0.0%
Restaurant	10	1	2	5	0	0
	11.2%	16.7%	10.5%	10.9%	0.0%	0.0%
Retail	11	0	1	6	0	0
	12.4%	0.0%	5.3%	13.0%	0.0%	0.0%
School/ College	3	0	0	0	0	0
	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Lodging	1	0	0	2	0	0
	1.1%	0.0%	0.0%	4.3%	0.0%	0.0%
Services	3	1	1	8	0	1
	3.4%	16.7%	5.3%	17.4%	0.0%	50.0%
Transportation/Communications/ Utilities	14	0	1	2	0	0
	15.7%	0.0%	5.3%	4.3%	0.0%	0.0%
Agriculture	3	1	0	0	0	0
	3.4%	16.7%	0.0%	0.0%	0.0%	0.0%
Construction	3	0	1	1	1	0
	3.4%	0.0%	5.3%	2.2%	33.3%	0.0%
Manufacturing	6	0	1	2	0	0
	6.7%	0.0%	5.3%	4.3%	0.0%	0.0%
Other	7	2	4	11	2	1
	7.9%	33.3%	21.1%	23.9%	66.7%	50.0%
Total	89	6	19	46	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

28. What is your approximate average monthly electric bill?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Less than $100	30	4	8	8	0	0
	27.5%	80.0%	42.1%	18.2%	0.0%	0.0%
$100 - $499	39	0	5	21	1	1
	35.8%	0.0%	26.3%	47.7%	33.3%	50.0%
$500 - $999	15	0	4	4	1	1
	13.8%	0.0%	21.1%	9.1%	33.3%	50.0%
$1,000 - $1,999	9	0	1	3	1	0
	8.3%	0.0%	5.3%	6.8%	33.3%	0.0%
$2,000 - $9,999	13	0	1	7	0	0
	11.9%	0.0%	5.3%	15.9%	0.0%	0.0%
More than $10,000	3	1	0	1	0	0
	2.8%	20.0%	0.0%	2.3%	0.0%	0.0%
Total	109	5	19	44	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

31. Do you regularly use the internet at work?

	Total	Climate Zone				
		North Coast	South Coast	South Inland	Central Valley	Desert/Mountain
Yes	67	5	13	20	2	2
	58.3%	83.3%	68.4%	43.5%	66.7%	100.0%
No	48	1	6	26	1	0
	41.7%	16.7%	31.6%	56.5%	33.3%	0.0%
Total	115	6	19	46	3	2
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix E

Residential Frequency Distribution Report

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q1a Solar cells (photovoltaics)

Uses Format: familfmt

Familiar with solar cells

Q1A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	4	0.5	4	0.5
Not at all familiar	245	29.5	249	30.0
Not very familiar	132	15.9	381	45.9
Somewhat familiar	202	24.3	583	70.2
Familiar	155	18.7	738	88.9
Very familiar	92	11.1	830	100.0

q1b Small wind turbines

Uses Format: familfmt

Familiar with sm wind turbines

Q1B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	5	0.6	5	0.6
Not at all familiar	219	26.4	224	27.0
Not very familiar	172	20.7	396	47.7
Somewhat familiar	206	24.8	602	72.5
Familiar	138	16.6	740	89.2
Very familiar	90	10.8	830	100.0

q1c Fuel cells

Uses Format: familfmt

Familiar with fuel cells

Q1C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	5	0.6	5	0.6
Not at all familiar	430	51.8	435	52.4
Not very familiar	174	21.0	609	73.4
Somewhat familiar	127	15.3	736	88.7
Familiar	54	6.5	790	95.2
Very familiar	40	4.8	830	100.0

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q1d Solar-thermal electric
Uses Format: familfmt

Familiar with solar-thermal

Q1D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	5	0.6	5	0.6
Not at all familiar	366	44.1	371	44.7
Not very familiar	175	21.1	546	65.8
Somewhat familiar	158	19.0	704	84.8
Familiar	80	9.6	784	94.5
Very familiar	46	5.5	830	100.0

2. Do you have any personal experience with renewable energy?

q2 Yes / No
Uses Format: yesnofmt

Personal experience with renewables

Q2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	162	19.5	162	19.5
Yes	164	19.8	326	39.3
No	504	60.7	830	100.0

q2a1 If yes, specify nature of your experience.
Uses Format: experfmt

Specify nature of experience

Q2A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	671	80.8	671	80.8
Experience with solar energy soures	87	10.5	758	91.3
Experience with wind energy soures	21	2.5	779	93.9
Research/work experience	42	5.1	821	98.9
Other	9	1.1	830	100.0

3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q3a Solar cells (photovoltaics)

Uses Format: familfmt

	Know how solar cells make kW Q3A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	162	19.5	162	19.5
Not at all familiar	Not at all familiar	141	17.0	303	36.5
Not very familiar	Not very familiar	139	16.7	442	53.3
Somewhat familiar	Somewhat familiar	148	17.8	590	71.1
Familiar	Familiar	133	16.0	723	87.1
Very familiar	Very familiar	107	12.9	830	100.0

q3b Small wind turbines

Uses Format: familfmt

	Know how sm wind turbines make kW Q3B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	163	19.6	163	19.6
Not at all familiar	Not at all familiar	95	11.4	258	31.1
Not very familiar	Not very familiar	137	16.5	395	47.6
Somewhat familiar	Somewhat familiar	171	20.6	566	68.2
Familiar	Familiar	149	18.0	715	86.1
Very familiar	Very familiar	115	13.9	830	100.0

q3c Fuel cells

Uses Format: familfmt

	Know how fuel cells make kW Q3C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	163	19.6	163	19.6
Not at all familiar	Not at all familiar	332	40.0	495	59.6
Not very familiar	Not very familiar	153	18.4	648	78.1
Somewhat familiar	Somewhat familiar	97	11.7	745	89.8
Familiar	Familiar	44	5.3	789	95.1
Very familiar	Very familiar	41	4.9	830	100.0

3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q3d Solar-thermal electric
Uses Format: familfmt

Know how solar-thermal make kW

Q3D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	163	19.6	163	19.6
Not at all familiar	264	31.8	427	51.4
Not very familiar	165	19.9	592	71.3
Somewhat familiar	120	14.5	712	85.8
Familiar	68	8.2	780	94.0
Very familiar	50	6.0	830	100.0

4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your home. Assume that the system would provide about 75% of your electric needs. (Please provide an answer for each one of the energy sources

q4a Solar cells (photovoltaics)
Uses Format: icostfmt

Estimate cost of solar cells

Q4A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	165	19.9	165	19.9
Less than $500	45	5.4	210	25.3
$500 - $2,499	213	25.7	423	51.0
$2,500 - $4,999	219	26.4	642	77.3
$5,000 - $14,999	138	16.6	780	94.0
$15,000 +	50	6.0	830	100.0

q4b Small wind turbines
Uses Format: icostfmt

Estimate cost of sm wind turbines

Q4B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	166	20.0	166	20.0
Less than $500	66	8.0	232	28.0
$500 - $2,499	201	24.2	433	52.2
$2,500 - $4,999	187	22.5	620	74.7
$5,000 - $14,999	162	19.5	782	94.2
$15,000 +	48	5.8	830	100.0

4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your home. Assume that the system would provide about 75% of your electric needs. (Please provide an answer for each one of the energy sources

q4c Fuel cells — **Estimate cost of fuel cells**

Uses Format: icostfmt

Q4C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	168	20.2	168	20.2
Less than $500	55	6.6	223	26.9
$500 - $2,499	149	18.0	372	44.8
$2,500 - $4,999	202	24.3	574	69.2
$5,000 - $14,999	163	19.6	737	88.8
$15,000 +	93	11.2	830	100.0

q4d Solar-thermal electric — **Estimate cost of solar-thermal**

Uses Format: icostfmt

Q4D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	166	20.0	166	20.0
Less than $500	30	3.6	196	23.6
$500 - $2,499	124	14.9	320	38.6
$2,500 - $4,999	207	24.9	527	63.5
$5,000 - $14,999	200	24.1	727	87.6
$15,000 +	103	12.4	830	100.0

5. Do you believe using renewable energy sources helps to improve the environment?

q5 Yes / No / Not Sure — **Renewables help the environment**

Uses Format: ynnsfmt

Q5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	163	19.6	163	19.6
Yes	603	72.7	766	92.3
No	2	0.2	768	92.5
Not sure	62	7.5	830	100.0

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6a Yes, a neighbor — **A neighbor has a renew system**

Uses Format: chkdfmt	Q6A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	776	93.5	776	93.5
Yes, a neighbor	Checked	54	6.5	830	100.0

q6b Yes, a friend — **A friend has a renew system**

Uses Format: chkdfmt	Q6B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	758	91.3	758	91.3
Yes, a friend	Checked	72	8.7	830	100.0

q6c Yes, a colleague — **A colleague has a renew system**

Uses Format: chkdfmt	Q6C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	800	96.4	800	96.4
Yes, a colleague	Checked	30	3.6	830	100.0

q6d Yes, a relative — **A relative has a renew system**

Uses Format: chkdfmt	Q6D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	788	94.9	788	94.9
Yes, a relative	Checked	42	5.1	830	100.0

q6e Yes, other — **A other has a renew system**

Uses Format: chkdfmt	Q6E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	786	94.7	786	94.7
Yes, other	Checked	44	5.3	830	100.0

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6e1 If other, please describe

Uses Format:

Description of other

Q6E1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	787	94.8	787	94.8
A church my daughter attends in Aust	1	0.1	788	94.9
A neighbor of a friend	1	0.1	789	95.1
Carrizo Plains installation. No longer	1	0.1	790	95.2
Documentary coverage of European	1	0.1	791	95.3
HSUs CCAT house	1	0.1	792	95.4
House in a community that used a wi	1	0.1	793	95.5
I did, at my previous home.	1	0.1	794	95.7
I have seen solar panels on a neighb	1	0.1	795	95.8
I know some people that use Solar C	1	0.1	796	95.9
I saw a press release for an office par	1	0.1	797	96.0
I see solar panels in different neighbo	1	0.1	798	96.1
James Cameron	1	0.1	799	96.3
My company installs them	1	0.1	800	96.4
My sister has solor panels	1	0.1	801	96.5
Myself	1	0.1	802	96.6
Real Estate Agent I met. He has his	1	0.1	803	96.7
Schatz Energy Research Center	1	0.1	804	96.9
Television programs such as HOMET	1	0.1	805	97.0
Travelers Lodge in Fresno - cogenera	1	0.1	806	97.1
a customer years ago	1	0.1	807	97.2
an amateur radio operator who uses	1	0.1	808	97.3
article in magazine.	1	0.1	809	97.5
buisness	1	0.1	810	97.6
city	1	0.1	811	97.7
clients	1	0.1	812	97.8
co worker	1	0.1	813	98.0
dr. solar in utah	1	0.1	814	98.1
former teacher	1	0.1	815	98.2
have seen solar panels on houses	1	0.1	816	98.3
just that apartment complex - they ins	1	0.1	817	98.4
landlord	1	0.1	818	98.6

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6e1 If other, please describe

Uses Format:

Description of other

Q6E1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
my church	1	0.1	819	98.7
my family (wife, twelve children, and	1	0.1	820	98.8
relatives neighbor	1	0.1	821	98.9
san jose	1	0.1	822	99.0
solar-thermal electrid system	1	0.1	823	99.2
someone I met at a meeting of a hous	1	0.1	824	99.3
steam elect generation	1	0.1	825	99.4
the Homeowners association at a con	1	0.1	826	99.5
to heat swimming pool	1	0.1	827	99.6
us	1	0.1	828	99.8
wind farm near Palm Springs	1	0.1	829	99.9
wind turbine at ski lake	1	0.1	830	100.0

q6f No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity

Uses Format: chkdfmt

No one has a renew system

	Q6F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	350	42.2	350	42.2
No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity	Checked	480	57.8	830	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7a Yes, a neighbor

Uses Format: chkdfmt

A neighbor gave me information

	Q7A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	805	97.0	805	97.0
Yes, a neighbor	Checked	25	3.0	830	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7b Yes, a friend — **A friend gave me information**

Uses Format: chkdfmt

	Q7B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	772	93.0	772	93.0
Yes, a friend	Checked	58	7.0	830	100.0

q7c Yes, a colleague — **A colleague gave me information**

Uses Format: chkdfmt

	Q7C	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	796	95.9	796	95.9
Yes, a colleague	Checked	34	4.1	830	100.0

q7d Yes, a relative — **A relative gave me information**

Uses Format: chkdfmt

	Q7D	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	798	96.1	798	96.1
Yes, a relative	Checked	32	3.9	830	100.0

q7e Yes, other — **A other gave me information**

Uses Format: chkdfmt

	Q7E	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	725	87.3	725	87.3
Yes, other	Checked	105	12.7	830	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7e1a If other, please describe — **Description of other**

Uses Format: infofmt

Q7E1a	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	728	87.7	728	87.7
Utility	23	2.8	751	90.5
Environmental organization or event	12	1.4	763	91.9
Internet or e-mail	16	1.9	779	93.9
Searched for information on my own	22	2.7	801	96.5
Other	29	3.5	830	100.0

q7f No, I have not received any information from anyone — **No one gave me information**

Uses Format: chkdfmt

Q7F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	331	39.9	331	39.9
Checked	499	60.1	830	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8a Improve reliability of my electric service — **Import of reliable of service**

Uses Format: imporfmt

Q8A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	68	8.2	232	28.0
Not very important	96	11.6	328	39.5
Somewhat important	143	17.2	471	56.7
Important	133	16.0	604	72.8
Very important	226	27.2	830	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8b Environmental concerns/conserving environment's resources

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of environmental concerns

Q8B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	9	1.1	173	20.8
Not very important	37	4.5	210	25.3
Somewhat important	108	13.0	318	38.3
Important	187	22.5	505	60.8
Very important	325	39.2	830	100.0

q8c Economic/financial considerations

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of financial concernns

Q8C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	3	0.4	167	20.1
Not very important	15	1.8	182	21.9
Somewhat important	69	8.3	251	30.2
Important	161	19.4	412	49.6
Very important	418	50.4	830	100.0

q8d Investment in the future for family/children

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of investment for family

Q8D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	25	3.0	189	22.8
Not very important	59	7.1	248	29.9
Somewhat important	133	16.0	381	45.9
Important	174	21.0	555	66.9
Very important	275	33.1	830	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8e Personal values for saving money

Import of saving money

Uses Format: imporfmt

Q8E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	15	1.8	179	21.6
Not very important	23	2.8	202	24.3
Somewhat important	110	13.3	312	37.6
Important	193	23.3	505	60.8
Very important	325	39.2	830	100.0

q8f Personal interest in technology and up-to-date trends

Import of interest in technology

Uses Format: imporfmt

Q8F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	52	6.3	216	26.0
Not very important	120	14.5	336	40.5
Somewhat important	204	24.6	540	65.1
Important	152	18.3	692	83.4
Very important	138	16.6	830	100.0

q8g Less reliance on fossil fuels

Import of using less fossil fuels

Uses Format: imporfmt

Q8G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	17	2.0	181	21.8
Not very important	35	4.2	216	26.0
Somewhat important	105	12.7	321	38.7
Important	198	23.9	519	62.5
Very important	311	37.5	830	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8h Less reliance on electric utility

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of less reliance on utility

Q8H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	24	2.9	188	22.7
Not very important	57	6.9	245	29.5
Somewhat important	116	14.0	361	43.5
Important	198	23.9	559	67.3
Very important	271	32.7	830	100.0

q8i Global climate change

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of global climate change

Q8I	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	51	6.1	215	25.9
Not very important	63	7.6	278	33.5
Somewhat important	129	15.5	407	49.0
Important	141	17.0	548	66.0
Very important	282	34.0	830	100.0

q8j Complete independence from the electric utility

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of independ from utility

Q8J	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	61	7.3	225	27.1
Not very important	86	10.4	311	37.5
Somewhat important	157	18.9	468	56.4
Important	141	17.0	609	73.4
Very important	221	26.6	830	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8k Cost of extending electric utility lines for new service

Uses Format: imporfmt

Import of line extension cost

Q8K	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	79	9.5	243	29.3
Not very important	65	7.8	308	37.1
Somewhat important	149	18.0	457	55.1
Important	149	18.0	606	73.0
Very important	224	27.0	830	100.0

q8l Availability of support/sales/design/maintenance services

Uses Format: imporfmt

Import of availibility of services

Q8L	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	164	19.8	164	19.8
Not at all important	20	2.4	184	22.2
Not very important	37	4.5	221	26.6
Somewhat important	99	11.9	320	38.6
Important	187	22.5	507	61.1
Very important	323	38.9	830	100.0

9. Are you now, or would you ever, consider installing a solar, wind, or fuel cell renewable energy system at your home?

q9 **Yes / No**
Uses Format: instlfmt

Consider a renew system for home

Q9	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	163	19.6	163	19.6
Yes, in the next 6 months	15	1.8	178	21.4
Yes, in the next year	32	3.9	210	25.3
Yes, but I do not know when	425	51.2	635	76.5
No, not interested (please explain wh	27	3.3	662	79.8
Not sure	168	20.2	830	100.0

q9a1 **If not interested, please explain why:**
Uses Format: notinfmt

Reason why not interested

Q9A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	809	97.5	809	97.5
Cost	7	0.8	816	98.3
I am just renting	7	0.8	823	99.2
Other	7	0.8	830	100.0

10. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?

q10 **Yes / No**
Uses Format: yndklfmt

Found information easily

Q10	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	162	19.5	162	19.5
Yes	97	11.7	259	31.2
No	196	23.6	455	54.8
Do not know	110	13.3	565	68.1
Have not looked	265	31.9	830	100.0

10a. If yes, where have you found your information? (Please check all that apply.)

q10a1 Builders/local contractors — **Info from builders/contractors**

Uses Format: chkdfmt

	Q10A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	817	98.4	817	98.4
Builders/local contractors	Checked	13	1.6	830	100.0

q10a10a Internet — **Info from internet**

Uses Format: chkdfmt

	Q10A10a	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	804	96.9	804	96.9
Internet	Checked	26	3.1	830	100.0

q10a10b Magazine/newspaper — **Info from Magazine/newspaper**

Uses Format: chkdfmt

	Q10A10b	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	821	98.9	821	98.9
Magazine/newspaper	Checked	9	1.1	830	100.0

q10a10c Other — **Info from other source**

Uses Format: chkdfmt

	Q10A10c	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	821	98.9	821	98.9
Other	Checked	9	1.1	830	100.0

q10a2 Consumer protection groups or reports — **Info from consumer reports**

Uses Format: chkdfmt

	Q10A2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	804	96.9	804	96.9
Consumer protection groups or reports	Checked	26	3.1	830	100.0

10a. If yes, where have you found your information? (Please check all that apply.)

q10a3 Green power marketing firms — Uses Format: chkdfmt

Info from Green Power firms

Q10A3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	788	94.9	788	94.9
Green power marketing firms	Checked	42	5.1	830	100.0

q10a4 Electric utility/energy providers — Uses Format: chkdfmt

Info from utility/ESP

Q10A4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	791	95.3	791	95.3
Electric utility/energy providers	Checked	39	4.7	830	100.0

q10a5 Environmental organizations — Uses Format: chkdfmt

Info from environmental org

Q10A5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	783	94.3	783	94.3
Environmental organizations	Checked	47	5.7	830	100.0

q10a6 Existing owners of these systems — Uses Format: chkdfmt

Info from owners of renew sys

Q10A6	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	803	96.7	803	96.7
Existing owners of these systems	Checked	27	3.3	830	100.0

q10a7 Government agencies — Uses Format: chkdfmt

Info from govt agency

Q10A7	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	810	97.6	810	97.6
Government agencies	Checked	20	2.4	830	100.0

10a. If yes, where have you found your information? (Please check all that apply.)

q10a8 Manufacturer Uses Format: chkdfmt	Info from manufacturer Q10A8	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	801	96.5	801	96.5
Manufacturer	Checked	29	3.5	830	100.0

q10a9 Retailer/distributor Uses Format: chkdfmt	Info from retailer/distributor Q10A9	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	795	95.8	795	95.8
Retailer/distributor	Checked	35	4.2	830	100.0

11. Have you ever heard of the California Energy Commission's (CEC) Emerging Renewable Buydown program?

q11 Yes / No Uses Format: yesnofmt	Aware of CECs Buydown Program Q11	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	162	19.5	162	19.5
Yes	Yes	93	11.2	255	30.7
No	No	575	69.3	830	100.0

12. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown program? (Check all that apply.)

q12a Yes, on renewable energy sources Uses Format: chkdfmt	Seen Renewables promo materials Q12A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	750	90.4	750	90.4
Yes, about renewable energy sources	Checked	80	9.6	830	100.0

12. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown program? (Check all that apply.)

q12b **Yes, on the CEC's Emerging Buydown program**

Uses Format: chkdfmt

	Seen Buydown Prog promo materials				
	Q12B	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Not checked	803	96.7	803	96.7
Yes, about the Emerging Renewables Buydown program	Checked	27	3.3	830	100.0

q12c **No, never seen any promotional materials**

Uses Format: chkdfmt

	Never seen any promo materials				
	Q12C	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Not checked	249	30.0	249	30.0
No, never seen any promotional materials	Checked	581	70.0	830	100.0

13. Have you ever applied to the CEC for any type of funding for your house?

q13 **Yes / No**

Uses Format: yesnofmt

	Applied for CEC funding				
	Q13	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	162	19.5	162	19.5
Yes	Yes	6	0.7	168	20.2
No	No	662	79.8	830	100.0

q13a **If yes, did you find the CEC's forms, regulations, and materials to be user friendly?**

Uses Format: yesnofmt

	Found CECs forms user friendly				
	Q13A	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	819	98.7	819	98.7
Yes	Yes	6	0.7	825	99.4
No	No	5	0.6	830	100.0

14. Are you aware of any companies or other organizations that produce/sell renewable energy products and services?

q14 Yes / No

Uses Format: yesnofmt

Know firms who sell renew prods

Q14	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	162	19.5	162	19.5
Yes	173	20.8	335	40.4
No	495	59.6	830	100.0

q14a If yes, have you found their information useful?

Uses Format: yesnofmt

Found their information useful

Q14A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	655	78.9	655	78.9
Yes	130	15.7	785	94.6
No	45	5.4	830	100.0

q14b Was the information easy to access/understand?

Uses Format: yesnofmt

Found information easily

Q14B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	654	78.8	654	78.8
Yes	129	15.5	783	94.3
No	47	5.7	830	100.0

q14b1a If no, why not?

Uses Format: neasyfmt

Description of why not

Q14B1a	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	812	97.8	812	97.8
I have not looked for the information	5	0.6	817	98.4
The information is too technical	4	0.5	821	98.9
Other	9	1.1	830	100.0

15. Do you currently have a renewable energy system installed at your house?

q15 **Yes / No**
Uses Format: consdfmt

Renew system is installed at home

Q15	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	163	19.6	163	19.6
Yes	18	2.2	181	21.8
No, I did consider using them but deci	88	10.6	269	32.4
No, I never considered using them bu	540	65.1	809	97.5
No, I never considered using them an	21	2.5	830	100.0

q15consi **If you did consider installing, why did you not install the system?**
Uses Format: notinfmt

Reason why havent considered

Q15Consid1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	743	89.5	743	89.5
Cost	56	6.7	799	96.3
I am just renting	13	1.6	812	97.8
Other	18	2.2	830	100.0

15a. If yes, what kind of renewable energy system do you have installed at your house? (Please check all that apply.)

q15a1 **Solar cells (photovoltaics)**
Uses Format: chkdfmt

Solar cells installed

Q15A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	824	99.3	824	99.3
Checked	6	0.7	830	100.0

q15a1kw **kW installed nameplate capacity**
Uses Format:

Solar cells installed kW

Q15A1kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	827	99.6	827	99.6
4-Jan	1	0.1	829	99.9
5.4	1	0.1	830	100.0
1500	1	0.1	828	99.8

15a. If yes, what kind of renewable energy system do you have installed at your house? (Please check all that apply.)

q15a2 Small wind turbines

Uses Format: chkdfmt

	Missing
	Yes, small-scale wind power

Sm wind turbines installed

Q15A2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	827	99.6	827	99.6
Checked	3	0.4	830	100.0

q15a2kw kW installed nameplate capacity

Uses Format:

Sm wind turbines installed kW

Q15A2kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	827	99.6	827	99.6
0.9	1	0.1	828	99.8
100	1	0.1	829	99.9
2500	1	0.1	830	100.0

q15a3 Fuel cells

Uses Format: chkdfmt

	Missing
	Yes, fuel cells

Fuel cells installed

Q15A3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	829	99.9	829	99.9
Checked	1	0.1	830	100.0

q15a3kw kW installed nameplate capacity

Uses Format:

Fuel cells installed kW

Q15A3kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	829	99.9	829	99.9
650	1	0.1	830	100.0

q15a4 Solar-thermal electric

Uses Format: chkdfmt

	Missing
	Yes, solar-thermal electricity

Solar-thermal installed

Q15A4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	827	99.6	827	99.6
Checked	3	0.4	830	100.0

15a. If yes, what kind of renewable energy system do you have installed at your house? (Please check all that apply.)

q15a4kw kW installed nameplate capacity

Uses Format:

Solar-thermal installed kW

Q15A4kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	829	99.9	829	99.9
4500	1	0.1	830	100.0

q15a5 Other installed

Uses Format: chkdfmt

		Other installed
	Missing	Not checked
	Yes, other	Checked

Q15A5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	820	98.8	820	98.8
Checked	10	1.2	830	100.0

q15a5oth Description of other system

Uses Format:

Description of other system

Q15A5oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	821	98.9	821	98.9
Solar Hot Water	1	0.1	822	99.0
Solar Hot water Heater	1	0.1	823	99.2
Solar Hot water and solar heat for swi	1	0.1	824	99.3
Solar Panels for swimming pool	1	0.1	825	99.4
Solar Water heating	1	0.1	826	99.5
domestic solar hot water system	1	0.1	827	99.6
solar hot water cells,	1	0.1	828	99.8
solar panels on roof connected to hot	1	0.1	829	99.9
swimming pool solar panels	1	0.1	830	100.0

15b. Have manufacturers/suppliers/installers of the system offered information to you following the purchase/installation (i.e., "post purchase") of your system? (Please check all that apply.)

q15b1 Manufacturers	Manus offer post-purch info				
Uses Format: chkdfmt	Q15B1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	827	99.6	827	99.6
Yes, the manufacturers have offered "post-purchase" information	Checked	3	0.4	830	100.0

q15b2 Suppliers	Suppliers offer post-purch info				
Uses Format: chkdfmt	Q15B2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	829	99.9	829	99.9
Yes, the suppliers have offered "post-purchase" information	Checked	1	0.1	830	100.0

q15b3 Installers	Installers offer post-purch info				
Uses Format: chkdfmt	Q15B3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	828	99.8	828	99.8
Yes, the installers have offered "post-purchase" information	Checked	2	0.2	830	100.0

q15b4 No one offered "post-purchase" information	No one offer post-purch info				
Uses Format: chkdfmt	Q15B4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	814	98.1	814	98.1
No	Checked	16	1.9	830	100.0

15c. Do manufacturers/suppliers/installers remain in contact with you? (Please check all that apply.)

q15c1 Manufacturers	Manus remain in contact				
Uses Format: chkdfmt	Q15C1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	829	99.9	829	99.9
Yes, manufacturers	Checked	1	0.1	830	100.0

15c. Do manufacturers/suppliers/installers remain in contact with you? (Please check all that apply.)

q15c2 Suppliers — **Suppliers remain in contact**

Uses Format: chkdfmt

	Q15C2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	827	99.6	827	99.6
Yes, suppliers	Checked	3	0.4	830	100.0

q15c3 Installers — **Installers remain in contact**

Uses Format: chkdfmt

	Q15C3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	828	99.8	828	99.8
Yes, installers	Checked	2	0.2	830	100.0

q15c4 No one has remained in contact with me. — **No one remained in contact**

Uses Format: chkdfmt

	Q15C4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	811	97.7	811	97.7
No	Checked	19	2.3	830	100.0

16. Please indicate one television station you regularly watch:

q16 Television Station — **Television station watched**

Uses Format: tvstnfmt

	Q16	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	Missing	23	2.8	23	2.8
Cable stations	Cable stations	209	25.2	232	28.0
Major network (ABC, NBC, CBS, Fox)	Major network (ABC, NBC, CBS, Fox)	426	51.3	658	79.3
Public Access	Public Access	9	1.1	667	80.4
Public Television (KPBS)	Public Television (KPBS)	61	7.3	728	87.7
Other (please describe)	Other (please describe)	57	6.9	785	94.6
Don't watch television	Do not watch television	45	5.4	830	100.0

16. Please indicate one television station you regularly watch:

q16oth1 If other (please specify)
Uses Format: tvothfmt

Other television station
Q16Oth1

	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	770	92.8	770	92.8
Satellite	18	2.2	788	94.9
Learning Channels	14	1.7	802	96.6
Other	28	3.4	830	100.0

17. Please indicate one type of radio station you listen to regularly:

q17 Radio Station
Uses Format: rdstnfmt

Radio station listened to
Q17

	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Classical	47	5.7	47	5.7
Country	121	14.6	168	20.2
Dance	11	1.3	179	21.6
Jazz	47	5.7	226	27.2
New Age	15	1.8	241	29.0
Oldies	136	16.4	377	45.4
Pop	59	7.1	436	52.5
Religious	37	4.5	473	57.0
Rock	137	16.5	610	73.5
Sports Talk	21	2.5	631	76.0
Urban/Hip Hop	21	2.5	652	78.6
Other (please describe)	141	17.0	793	95.5
Don't listen to the radio	37	4.5	830	100.0

17. Please indicate one type of radio station you listen to regularly:

q17oth1 If other (please specify)
Uses Format: raothfmt

Other radio station listened to

Q17Oth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	686	82.7	686	82.7
News/public radio	50	6.0	736	88.7
Talk Radio	44	5.3	780	94.0
Alternative Music	13	1.6	793	95.5
Other	37	4.5	830	100.0

18. Please indicate one type of newspaper you read regularly:

q18 Type of Newspaper
Uses Format: newspfmt

Newspaper read regularly

Q18	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	16	1.9	16	1.9
Major regional paper (i.e. LA Times, SF Examiner, SD Union)	211	25.4	227	27.3
USA Today	14	1.7	241	29.0
Wall Street Journal	20	2.4	261	31.4
Local paper	406	48.9	667	80.4
Other (please describe)	37	4.5	704	84.8
Don't read the newspaper	126	15.2	830	100.0

q18oth1 If other (please specify)
Uses Format: neothfmt

Other newspaper read regularly

Q18Oth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	812	97.8	812	97.8
Other regional papers	9	1.1	821	98.9
Internet	6	0.7	827	99.6
Other	3	0.4	830	100.0

19. Please indicate one type of magazine you read regularly:

q19 Type of Magazine
Uses Format: magazfmt

Magazine read regularly

	Q19	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	11	1.3	11	1.3
Arts	Arts	11	1.3	22	2.7
Business	Business	66	8.0	88	10.6
Cooking	Cooking	47	5.7	135	16.3
Fashion	Fashion	35	4.2	170	20.5
Hobby	Hobby	53	6.4	223	26.9
Home	Home	130	15.7	353	42.5
Pets	Pets	14	1.7	367	44.2
Science	Science	43	5.2	410	49.4
Sports	Sports	36	4.3	446	53.7
Technology	Technology	92	11.1	538	64.8
Travel	Travel	25	3.0	563	67.8
Other (please describe)	Other (please describe)	157	18.9	720	86.7
Don't read magazines	Do not read magazines	110	13.3	830	100.0

q19oth1 If other (please specify)
Uses Format: maothfmt

Other magazine read regularly

	Q19Oth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	675	81.3	675	81.3
Parenting / family	Parenting / family	16	1.9	691	83.3
News	News	24	2.9	715	86.1
National Geopgraphic / nature	National Geopgraphic / nature	13	1.6	728	87.7
Computer	Computer	15	1.8	743	89.5
Gardening / Home	Gardening / Home	13	1.6	756	91.1
Sports	Sports	6	0.7	762	91.8
Entertainment	Entertainment	15	1.8	777	93.6
Other	Other	53	6.4	830	100.0

20. Do you regularly use the internet at home?

q20 Yes / No Uses Format: yesnofmt	Regularly use the internet at home Q20	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	1	0.1	1	0.1
Yes	Yes	747	90.0	748	90.1
No	No	82	9.9	830	100.0

21. Do you perform your work primarily at a home office?

q21 Yes / No Uses Format: yesnofmt	Work primarily at home office Q21	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	2	0.2	2	0.2
Yes	Yes	214	25.8	216	26.0
No	No	614	74.0	830	100.0

22. If you work outside the home, do you regularly use the internet at work?

q22 Yes / No Uses Format: ynnafmt	Regularly use the internet at work Q22	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	4	0.5	4	0.5
Yes	Yes	338	40.7	342	41.2
No	No	206	24.8	548	66.0
Not Applicable	Not Applicable	282	34.0	830	100.0

23. When researching new topics, which search engine(s) do you use the most?

q23a Yahoo — **Use Yahoo as search engine**

Uses Format: chkdfmt

Q23A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	405	48.8	405	48.8
Yahoo	Checked	425	51.2	830	100.0

q23b Excite — **Use Excite as search engine**

Uses Format: chkdfmt

Q23B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	686	82.7	686	82.7
Excite	Checked	144	17.3	830	100.0

q23c Alta Vista — **Use Alta Vista as search engine**

Uses Format: chkdfmt

Q23C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	669	80.6	669	80.6
Alta Vista	Checked	161	19.4	830	100.0

q23d MSN Web Search — **Use MSN as search engine**

Uses Format: chkdfmt

Q23D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	706	85.1	706	85.1
MSN Web Search	Checked	124	14.9	830	100.0

q23e Lycos — **Use Lycos as search engine**

Uses Format: chkdfmt

Q23E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	721	86.9	721	86.9
Lycos	Checked	109	13.1	830	100.0

23. When researching new topics, which search engine(s) do you use the most?

q23f Infoseek

Uses Format: chkdfmt

Use Infoseek as search engine

	Q23F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	726	87.5	726	87.5
Infoseek	Checked	104	12.5	830	100.0

q23g Northern Light

Uses Format: chkdfmt

Use Northern Light as search eng

	Q23G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	809	97.5	809	97.5
Northern Light	Checked	21	2.5	830	100.0

q23h Other

Uses Format: chkdfmt

Use Other search engine

	Q23H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	615	74.1	615	74.1
Other (please describe)	Checked	215	25.9	830	100.0

q23hoth1 If other, please describe

Uses Format: enginfmt

Other search engine

	Q23HOth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	621	74.8	621	74.8
Iwon	Iwon	17	2.0	638	76.9
AOL	AOL	30	3.6	668	80.5
AskJeeves	AskJeeves	16	1.9	684	82.4
Google	Google	29	3.5	713	85.9
GoTo	GoTo	11	1.3	724	87.2
Dogpile	Dogpile	19	2.3	743	89.5
Other	Other	87	10.5	830	100.0

23. When researching new topics, which search engine(s) do you use the most?

q23i	Don't use search engines	Don't use search engines				
Uses Format:	chkdfmt	Q23I	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Not checked	775	93.4	775	93.4
	Don't use search engines	Checked	55	6.6	830	100.0

24. Which information source would you say you rely on, and refer to, the most?

q24	Information Source	Information source most relied on				
Uses Format:	mediafmt	Q24	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Television/radio stations	Television/radio stations	336	40.5	336	40.5
	Magazines	Magazines	39	4.7	375	45.2
	Newspapers	Newspapers	133	16.0	508	61.2
	Internet/websites	Internet/websites	322	38.8	830	100.0

25. Please list any trade/professional journals you receive

q25 Trade/Professional Journals

Uses Format:

Trade/professional journals

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	609	73.4	609	73.4
ABA Journal	1	0.1	610	73.5
AEOE newsletter, AEE newsletter	1	0.1	611	73.6
AJPA, Conective Tissue, JFS	1	0.1	612	73.7
ASHRAE	1	0.1	613	73.9
Advance (for Occupational Therapists	1	0.1	614	74.0
American Federation of Teacher Mag	1	0.1	615	74.1
American Psychology Association Jo	1	0.1	616	74.2
Aramco	1	0.1	617	74.3
Archit, Fine Homebuilding, Sunset	1	0.1	618	74.5
Arts Illustrator	1	0.1	619	74.6
Automotive Weekly, Applause, WIN	1	0.1	620	74.7
Bassmasters and Workbench	1	0.1	621	74.8
Broadcasting, Variety, Hollywood Rep	1	0.1	622	74.9
Building Operation Management	1	0.1	623	75.1
California Educator, Nea Journal, Tea	1	0.1	624	75.2
California Hospital Assoc.	1	0.1	625	75.3
Civil Engineering	1	0.1	626	75.4
Commercial Carrier Journal, Lubes a	1	0.1	627	75.5
Communications Design	1	0.1	628	75.7
Computer Networking, InfoWorld	1	0.1	629	75.8
ComputerWorld	1	0.1	630	75.9
DEPUTY SHERIFF/LAW JOURNALS	1	0.1	631	76.0
Digital Broadcast	1	0.1	632	76.1
Dog Fancy (pet grooming)	1	0.1	633	76.3
ECN, Design News	1	0.1	634	76.4
EE Times	1	0.1	635	76.5
EE Times/EDTN/Computer Reseller/	1	0.1	636	76.6
EEB	1	0.1	637	76.7
EV World	1	0.1	638	76.9
Electrical	1	0.1	639	77.0
Electronic Design	1	0.1	640	77.1
Electronics	1	0.1	641	77.2

25. Please list any trade/professional journals you receive

q25 Trade/Professional Journals

Uses Format:

Trade/professional journals

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Electronics Industry	1	0.1	642	77.3
Energy User News, Alternative Energ	1	0.1	643	77.5
Entrepeneur	1	0.1	644	77.6
Eyecare Business	1	0.1	645	77.7
Fast Company	1	0.1	646	77.8
Firehouse Magazine, Fire Chief Maga	1	0.1	647	78.0
Footwear Journal	1	0.1	648	78.1
HANDYMAN HOW TO	1	0.1	649	78.2
HR Magazine	1	0.1	650	78.3
Handyman	1	0.1	651	78.4
Homeowners today	1	0.1	652	78.6
I.B.E.W. Journal	2	0.2	654	78.8
IBEW, POWER MAGAZINE	1	0.1	655	78.9
IEEE Spectrum, ABA Journal, Intellec	1	0.1	656	79.0
IT,PC,HOME COMPUTER	1	0.1	657	79.2
Impressions /EMB/Printwear/Conveni	1	0.1	658	79.3
Industry Standard	1	0.1	659	79.4
InfoWorld, RedHerring, Fortune, Indu	1	0.1	660	79.5
Integrated Systems Design	1	0.1	661	79.6
Internet Week	1	0.1	662	79.8
Investors Business Daily	1	0.1	663	79.9
LC\GC, Todays Chemist, Laboratory	1	0.1	664	80.0
Landscape design, Kitchen Garden,	1	0.1	665	80.1
Local Business Journal	1	0.1	666	80.2
MJSA, American Jewelry Mfg	1	0.1	667	80.4
MacWorld	1	0.1	668	80.5
MarketPlace	1	0.1	669	80.6
Marketing News	1	0.1	670	80.7
N/A	2	0.2	672	81.0
NAR Realtors	1	0.1	673	81.1
NASA Tech Briefs	1	0.1	674	81.2
NASP today	1	0.1	675	81.3
NATIONAL NOTARY	1	0.1	676	81.4

25. Please list any trade/professional journals you receive

q25 Trade/Professional Journals

Uses Format:

Trade/professional journals

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
NONE	3	0.4	679	81.8
NSA, NATP, PUBLIC ACCOUNTANT	1	0.1	680	81.9
NetWare Connection, Smart Money, I	1	0.1	681	82.0
None	8	1.0	689	83.0
Notary Association, Legal Assistant	1	0.1	690	83.1
Online Investor, Individual Investor	1	0.1	691	83.3
Oracal	1	0.1	692	83.4
Oracle Magazine	1	0.1	693	83.5
PC Computing	1	0.1	694	83.6
PC Week	2	0.2	696	83.9
PC Week, InfoWorld, Internet World	1	0.1	697	84.0
PORAC	1	0.1	698	84.1
Point of Beginning, Geotechnical fabri	1	0.1	699	84.2
Police Magazine, Black Enterprise, N	1	0.1	700	84.3
Popular Electronics, AARP Journal	1	0.1	701	84.5
Power Magazine, Electric Light and P	1	0.1	702	84.6
Power Magazine, Power Engineering,	1	0.1	703	84.7
Professional Painting Contractor	1	0.1	704	84.8
Project Management Institute	1	0.1	705	84.9
Psychology today / RN Journal	1	0.1	706	85.1
QST Amateur radio	1	0.1	707	85.2
RCR	1	0.1	708	85.3
Realtor. Real Estate (NAR), RE/MAX I	1	0.1	709	85.4
Registered Investment Advisor, Baro	1	0.1	710	85.5
San Diego Daily Transcript	1	0.1	711	85.7
Saxophone Journal	1	0.1	712	85.8
Semiconductor International	1	0.1	713	85.9
Sheetmetal workers news	1	0.1	714	86.0
Smart Reseller, Ebay, PC Computing	1	0.1	715	86.1
Society of Cable Telecommunications	1	0.1	716	86.3
Solid State Technology	1	0.1	717	86.4
State Bar Journal	1	0.1	718	86.5
Technology Review, Wired, MacWorl	1	0.1	719	86.6

25. Please list any trade/professional journals you receive

q25 Trade/Professional Journals

Uses Format:

Trade/professional journals

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
The American Music Teacher, The C	1	0.1	720	86.7
The Industry Standard	1	0.1	721	86.9
The Psychologist; Human Factors; Be	1	0.1	722	87.0
The Recorder	1	0.1	723	87.1
The Wall Journal	1	0.1	724	87.2
Time, Health	1	0.1	725	87.3
Training & Development	1	0.1	726	87.5
VB Programmers Journal	1	0.1	727	87.6
Wall Street, Business Week	1	0.1	728	87.7
Water World, AWWA Journal, NASA	1	0.1	729	87.8
Worship leader, Leadership Journal	1	0.1	730	88.0
Worth, Technology, Money	1	0.1	731	88.1
ZD Net Smart Business; Red Herring	1	0.1	732	88.2
accounting	1	0.1	733	88.3
air force magazine	1	0.1	734	88.4
american journal of nursing	1	0.1	735	88.6
american public health association	1	0.1	736	88.7
architectureal magizines and alternati	1	0.1	737	88.8
arts antiques, collectors guide	1	0.1	738	88.9
automotive news	1	0.1	739	89.0
aviation weekly	1	0.1	740	89.2
business and computer journals	1	0.1	741	89.3
business week	1	0.1	742	89.4
calif laywer, acba journal	1	0.1	743	89.5
computer world	1	0.1	744	89.6
counterman magazine	1	0.1	745	89.8
credit union magazine/credit union ti	1	0.1	746	89.9
dental journals	1	0.1	747	90.0
design news, solid state technology, t	1	0.1	748	90.1
e magazine	1	0.1	749	90.2
eWeek	1	0.1	750	90.4
edirections, midrange computing, info	1	0.1	751	90.5
electronic design news, elecronic, bu	1	0.1	752	90.6

25. Please list any trade/professional journals you receive

q25 Trade/Professional Journals

Uses Format:

Trade/professional journals

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
film & video, dv, phone, telecommuni	1	0.1	753	90.7
fine homebuilding, residential architec	1	0.1	754	90.8
forbes	1	0.1	755	91.0
handy man	1	0.1	756	91.1
hearing journal	1	0.1	757	91.2
industry standard	2	0.2	759	91.4
journal of taxation	1	0.1	760	91.6
lawn and landscape,pro, turf,	1	0.1	761	91.7
materials engineering, machine desig	1	0.1	762	91.8
math monthly, AMS bulletin	1	0.1	763	91.9
money magazine	1	0.1	764	92.0
money, business	1	0.1	765	92.2
n/a	1	0.1	766	92.3
na	1	0.1	767	92.4
network world	1	0.1	768	92.5
none	49	5.9	817	98.4
none at this time	1	0.1	818	98.6
not sure some are sent to my office i	1	0.1	819	98.7
painters and allied trades internationa	1	0.1	820	98.8
pc	1	0.1	821	98.9
pc week	1	0.1	822	99.0
pc week, blink, wired, industry standa	1	0.1	823	99.2
postal record	1	0.1	824	99.3
professional counselor, california alco	1	0.1	825	99.4
stick brokerage	1	0.1	826	99.5
the wholesaler magazine and trade p	1	0.1	827	99.6
web design and web expo	1	0.1	828	99.8
woodworkers	1	0.1	829	99.9
writers journals	1	0.1	830	100.0

26. Do you read your electric or gas utility bill inserts?

q26	Always / Sometimes / Never	Read utility bill inserts				
Uses Format:	asnfmt	Q26	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Always	Always	208	25.1	208	25.1
	Sometimes	Sometimes	543	65.4	751	90.5
	Never	Never	79	9.5	830	100.0

27. Please list any hobbies you may have.

q27a	Hobbies	Hobbies				
Uses Format:	hobbyfmt	Q27a	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Missing	161	19.4	161	19.4
	Sports	Sports	199	24.0	360	43.4
	Camping / Travel	Camping / Travel	39	4.7	399	48.1
	Reading / Photography	Reading / Photography	74	8.9	473	57.0
	Gardening / Home Improvement	Gardening / Home Improvement	106	12.8	579	69.8
	Computers	Computers	51	6.1	630	75.9
	Arts & Crafts / Sewing	Arts & Crafts / Sewing	92	11.1	722	87.0
	Other	Other	108	13.0	830	100.0

28. Do you belong to any special interest groups other than environmental organizations?

q28a	Consumer advocate	Belong to consumer advocate group				
Uses Format:	chkdfmt	Q28A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Not checked	800	96.4	800	96.4
	Consumer advocate	Checked	30	3.6	830	100.0

28. Do you belong to any special interest groups other than environmental organizations?

q28b Political — **Belong to political group**

Uses Format: chkdfmt	Q28B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	789	95.1	789	95.1
Political	Checked	41	4.9	830	100.0

q28c Human rights — **Belong to human rights group**

Uses Format: chkdfmt	Q28C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	785	94.6	785	94.6
Human rights	Checked	45	5.4	830	100.0

q28d Other — **Belong to other group**

Uses Format: chkdfmt	Q28D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	731	88.1	731	88.1
Other	Checked	99	11.9	830	100.0

q28doth1 If other, please describe — **Other group**

Uses Format: spintfmt	Q28DOth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	738	88.9	738	88.9
Animal rights	Animal rights	17	2.0	755	91.0
Community Organizations / Church	Community Organizations / Church	22	2.7	777	93.6
Other	Other	53	6.4	830	100.0

q28e No — **Do not belong to any groups**

Uses Format: chkdfmt	Q28E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	164	19.8	164	19.8
No	Checked	666	80.2	830	100.0

29. Are you a member of any professional organizations?

q29 Yes / No Uses Format: yesnofmt	Member of professional org Q29	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	2	0.2	2	0.2
Yes	Yes	141	17.0	143	17.2
No	No	687	82.8	830	100.0

29. Are you a member of any professional organizations?

q29a If yes, please specify:

Uses Format:

Professional organization

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	695	83.7	695	83.7
AARP	2	0.2	698	84.1
AAUW	1	0.1	699	84.2
ABA, IEEE	1	0.1	700	84.3
ACS	1	0.1	701	84.5
ADA, CDA	1	0.1	702	84.6
AEOE (Assoc. for Environmental and	1	0.1	703	84.7
AFCOM	1	0.1	704	84.8
AIA, CSI	1	0.1	705	84.9
AMA	1	0.1	706	85.1
ASCE	1	0.1	707	85.2
ASE Certified Parts Specialist	1	0.1	708	85.3
ASHRAE, APEM	1	0.1	709	85.4
ASI	1	0.1	710	85.5
ASIS, NRA,	1	0.1	711	85.7
ASQ	1	0.1	712	85.8
ASTD, NCHRA, Chamber of Commer	1	0.1	713	85.9
Airline Pilots Association	1	0.1	714	86.0
American Marketing Association	1	0.1	715	86.1
American Production & Inventory Con	1	0.1	716	86.3
American Rehabilitation Economics A	1	0.1	717	86.4
American Vacuum Society	2	0.2	719	86.6
American Water Works Association	1	0.1	720	86.7
Assoc. of Realtors, National Assn of	1	0.1	721	86.9
Association of Contingency Planners	1	0.1	722	87.0
Association of Energy Engineers + C	1	0.1	723	87.1
B.A.S.S. (Bass anglers sportsmans s	1	0.1	724	87.2
BMI - Broadcast Music Inc.	1	0.1	725	87.3
British Psychological Society; Ergono	1	0.1	726	87.5
Bureau of Registered Nursing, CA	1	0.1	727	87.6
CA Teachers Association	1	0.1	728	87.7
CTA	1	0.1	729	87.8
CV Horse Assoc	1	0.1	730	88.0

29. Are you a member of any professional organizations?

q29a If yes, please specify:

Uses Format:

Professional organization

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Cal. Probation & Parole Assn.	1	0.1	731	88.1
Calif. Assoc. Psychiatric Technicians	1	0.1	732	88.2
Californai Society Hospital Enginers	1	0.1	733	88.3
California Association of Alcoholism &	1	0.1	734	88.4
California Association of Professional	1	0.1	735	88.6
California Board of Realtors	1	0.1	736	88.7
California Campus Environmental He	1	0.1	737	88.8
California Hydrogen Business Council	1	0.1	738	88.9
California Professional Firefighters, C	1	0.1	739	89.0
California State Bar	1	0.1	740	89.2
California Teachers Assoc.	1	0.1	741	89.3
Chamber of Commerce, Classified Sc	1	0.1	742	89.4
Child Life Council	1	0.1	743	89.5
Child care Association	1	0.1	744	89.6
Council on Library techinical assistant	1	0.1	745	89.8
DEPUTY SHERIFFS ASSOCIATION	1	0.1	746	89.9
Downtown Rotary	1	0.1	747	90.0
EEE, NTuser.	1	0.1	748	90.1
Educators	1	0.1	749	90.2
FLEET RESERVE	1	0.1	750	90.4
Federation of Republican Women, A	1	0.1	751	90.5
I am a licensed day care provider	1	0.1	752	90.6
IAPMO , ASTM	1	0.1	753	90.7
IEEE	1	0.1	754	90.8
ISA, CLCA	1	0.1	755	91.0
Industrial Relation Research Assoc.	1	0.1	756	91.1
Institute of Internal Auditors	1	0.1	757	91.2
Institute of internal Auditors, WACUB	1	0.1	758	91.3
Instt. of Electrical & Electronic Engine	1	0.1	759	91.4
International Association of Specialty	1	0.1	760	91.6
International Transactional Analysis A	1	0.1	761	91.7
Legal Secretaries, Inc	1	0.1	762	91.8
Legal Secretarys Association	1	0.1	763	91.9

29. Are you a member of any professional organizations?

q29a If yes, please specify:

Uses Format:

Professional organization

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Lockheed Management Club	1	0.1	764	92.0
Los Angeles Teachers Union	1	0.1	765	92.2
MAA, AMS	1	0.1	766	92.3
MDC	1	0.1	767	92.4
MJSA	1	0.1	768	92.5
Music Teachers National Association,	1	0.1	769	92.7
Music Teachers of America	1	0.1	770	92.8
N/A	1	0.1	771	92.9
NAACP	2	0.2	773	93.1
NACBA, CMA	1	0.1	774	93.3
NALC	1	0.1	775	93.4
NASD ChFC	1	0.1	776	93.5
NASP; CASP	1	0.1	777	93.6
NATIONAL NOTARY ASSOCIATION	1	0.1	778	93.7
NCHRC,	1	0.1	779	93.9
NEA, CTA, APA	1	0.1	780	94.0
NEA, CTA, SVEA	1	0.1	781	94.1
NEA,CTA	1	0.1	782	94.2
NEHA, CWEA,	1	0.1	783	94.3
NSA, NATP	1	0.1	784	94.5
National Academy of Television Arts	1	0.1	785	94.6
National Assoc. of Women Executive	1	0.1	786	94.7
National Association For Young Child	1	0.1	787	94.8
National Association of Female Exec	1	0.1	788	94.9
National Council of Teachers of Math	1	0.1	789	95.1
National Federation Paralegal Associ	1	0.1	790	95.2
NetWare Users International	1	0.1	791	95.3
Orange COunty probate Paralegal	1	0.1	792	95.4
Project Management Institute	1	0.1	793	95.5
Rebeccas and Odd Fellows	1	0.1	794	95.7
SCTE	1	0.1	795	95.8
SHRM; SHRMA; ACA; USAFR	1	0.1	796	95.9
Society of Cable Technicians & Engin	1	0.1	797	96.0

29. Are you a member of any professional organizations?

q29a If yes, please specify:

Uses Format:

Professional organization

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
State of Ca. Consumer Affairs	1	0.1	798	96.1
The Natural Step Trainers,	1	0.1	799	96.3
Toastmasters International	1	0.1	800	96.4
Toastmasters, AARP 55 Alive Mature	1	0.1	801	96.5
Union Local 715	1	0.1	802	96.6
WNMA	1	0.1	803	96.7
Women Energy Associates	1	0.1	804	96.9
apha	1	0.1	805	97.0
carpenters union	1	0.1	806	97.1
cdp,ccp	1	0.1	807	97.2
clergy	1	0.1	808	97.3
comuter programmers	1	0.1	809	97.5
educational maintenance	1	0.1	810	97.6
ena	1	0.1	811	97.7
greepace	1	0.1	812	97.8
harbor transportaion club, long beach	1	0.1	813	98.0
ieee	1	0.1	814	98.1
international brotherhood of electrical	1	0.1	815	98.2
notary public	1	0.1	816	98.3
p.a.p.a. , alameda county resource a	1	0.1	817	98.4
pesticide applicators professional ass	1	0.1	818	98.6
poa, keith kelly,	1	0.1	819	98.7
religious jehovah witness	1	0.1	820	98.8
retired California School Employee, P	1	0.1	821	98.9
royal institute of australian architects	1	0.1	822	99.0
sf trial lawyers, acba, state bar	1	0.1	823	99.2
socitety of auditor appraisers	1	0.1	824	99.3
teachers asso.	1	0.1	825	99.4
teamster, on hold	1	0.1	826	99.5
teamsters	1	0.1	827	99.6
trade union	1	0.1	828	99.8
transportation researc board, internati	1	0.1	829	99.9
vfw	1	0.1	830	100.0

29. Are you a member of any professional organizations?

q29a **If yes, please specify:**

Uses Format:

Professional organization

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
2.61E+18	1	0.1	696	83.9

30. Are you actively involved with any environmental organizations?

q30 **Yes / No**

Uses Format: yesnofmt

Involved with an environmental org

	Q30	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	1	0.1	1	0.1
Yes	Yes	40	4.8	41	4.9
No	No	789	95.1	830	100.0

30. Are you actively involved with any environmental organizations?

q30a If yes, please specify:

Uses Format:

Environmental organization

Q30A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	794	95.7	794	95.7
Adopt A Creek Project	1	0.1	796	95.9
California Coastal Commission	1	0.1	797	96.0
Care 2	1	0.1	798	96.1
Conservation Action Network	1	0.1	799	96.3
Duck Unlimited	1	0.1	800	96.4
EarthSave	1	0.1	801	96.5
Friends of River	1	0.1	802	96.6
Greenpeace	1	0.1	803	96.7
Humboldt Watershed Council + Mattol	1	0.1	804	96.9
I speak out on the internet on issues	1	0.1	805	97.0
Nature Conservacy	1	0.1	806	97.1
Nature Conservancy, WWF	1	0.1	807	97.2
Natures Conservatory	1	0.1	808	97.3
PETA	1	0.1	809	97.5
SIERRA CLUB	1	0.1	810	97.6
Save Mt. Diablo	1	0.1	811	97.7
Save San Francisco Bay	1	0.1	812	97.8
Save the Rain Forest	1	0.1	813	98.0
Sierra Club	2	0.2	815	98.2
Sierra Club, Open Space Preserve	1	0.1	816	98.3
Student Conservation Association	1	0.1	817	98.4
Turtle rescue and box turtle sanctuar	1	0.1	818	98.6
We encourage all family members to	1	0.1	819	98.7
Wildlife Forever	1	0.1	820	98.8
World Wildlife Foundation	1	0.1	821	98.9
Yes! I am an active opponent of the si	1	0.1	822	99.0
at work, involved with the project gree	1	0.1	823	99.2
california 4wheel drive ass.	1	0.1	824	99.3
financial support!	1	0.1	825	99.4
green party member	1	0.1	826	99.5
green peace phone and paper brigad	1	0.1	827	99.6
greenpeace, wwf,	1	0.1	828	99.8

30. Are you actively involved with any environmental organizations?

q30a If yes, please specify: — **Environmental organization**

Uses Format:

Q30A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
online emails for eviromental defense	1	0.1	829	99.9
sierra club	1	0.1	830	100.0
2.61E+18	1	0.1	795	95.8

31. Have you contributed to any environmental organizations? (Check all that apply.)

q31a Yes, I have donated money to environmental organizations — **Donated money to enviro org**

Uses Format: chkdfmt

Q31A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing				
Not checked	589	71.0	589	71.0
Checked	241	29.0	830	100.0

q31b Yes, I have donated goods/items to environmental organizations — **Donated goods to enviro org**

Uses Format: chkdfmt

Q31B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing				
Not checked	763	91.9	763	91.9
Checked	67	8.1	830	100.0

q31c Yes, I have volunteered my time to environmental organizations — **Volunteered time to enviro org**

Uses Format: chkdfmt

Q31C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing				
Not checked	774	93.3	774	93.3
Checked	56	6.7	830	100.0

q31d No — **Havent contributed to enviro org**

Uses Format: chkdfmt

Q31D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing				
Not checked	276	33.3	276	33.3
Checked	554	66.7	830	100.0

31. Have you contributed to any environmental organizations? (Check all that apply.)

32. What age group are you in?

q32	Age Group	Age Group				
Uses Format:	agefmt	Q32	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Missing	1	0.1	1	0.1
	Less than 25	Less than 25	40	4.8	41	4.9
	25-34	25-34	150	18.1	191	23.0
	35-44	35-44	267	32.2	458	55.2
	45-54	45-54	215	25.9	673	81.1
	55-64	55-64	91	11.0	764	92.0
	65+	65+	66	8.0	830	100.0

33. Which ethnic group best describes you?

q33	Ethnic Group	Ethnic Group				
Uses Format:	ethncfmt	Q33	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Missing	7	0.8	7	0.8
	African American	African American	25	3.0	32	3.9
	American Indian	American Indian	12	1.4	44	5.3
	Asian, Pacific Islander	Asian, Pacific Islander	55	6.6	99	11.9
	Hispanic, Latino	Hispanic, Latino	62	7.5	161	19.4
	White	White	628	75.7	789	95.1
	Other	Other	41	4.9	830	100.0

34. What is your gender?

q34	Male / Female	Gender				
Uses Format:	gendrfmt	Q34	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Missing	1	0.1	1	0.1
	Male	Male	377	45.4	378	45.5
	Female	Female	452	54.5	830	100.0

35. What is your occupation?

q35	Occupation	Occupation				
Uses Format:	occupfmt	Q35	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	Missing	Missing	2	0.2	2	0.2
	Architect/Building Contractor	Architect/Building Contractor	9	1.1	11	1.3
	Banking/Financial	Banking/Financial	26	3.1	37	4.5
	Community/Social Services	Community/Social Services	16	1.9	53	6.4
	Computer Science	Computer Science	65	7.8	118	14.2
	Education/Academic	Education/Academic	45	5.4	163	19.6
	Engineering	Engineering	51	6.1	214	25.8
	Entertainment/Media	Entertainment/Media	12	1.4	226	27.2
	Environment/Energy	Environment/Energy	11	1.3	237	28.6
	Food Service	Food Service	11	1.3	248	29.9
	Health Care	Health Care	34	4.1	282	34.0
	Homemaker	Homemaker	68	8.2	350	42.2
	Legal	Legal	19	2.3	369	44.5
	Marketing/Sales	Marketing/Sales	58	7.0	427	51.4
	Office/Administrative	Office/Administrative	88	10.6	515	62.0
	Retail	Retail	28	3.4	543	65.4
	Other	Other	287	34.6	830	100.0

35. What is your occupation?

q35oth1 If other, please specify:

Uses Format: occu2fmt

Other occupation description

Q35Oth1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	543	65.4	543	65.4
Child Care	13	1.6	556	67.0
Manufacturing	12	1.4	568	68.4
Self employed	12	1.4	580	69.9
Disabled	15	1.8	595	71.7
Retired	73	8.8	668	80.5
Other	162	19.5	830	100.0

36. Which of the following categories best describes your TOTAL household gross income during 1999 (before taxes and other deductions)?

q36 1999 Gross Income

Uses Format: incomfmt

1999 Total household gross income

Q36	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	32	3.9	32	3.9
Less than $10,000	34	4.1	66	8.0
$10,000 - $19,999	61	7.3	127	15.3
$20,000 - $29,999	81	9.8	208	25.1
$30,000 - $39,999	88	10.6	296	35.7
$40,000 - $49,999	102	12.3	398	48.0
$50,000 - $74,999	198	23.9	596	71.8
$75,000 - $99,999	106	12.8	702	84.6
$100,000 - $124,999	66	8.0	768	92.5
$125,000 - $149,999	26	3.1	794	95.7
$150,000 or more	36	4.3	830	100.0

37. Please indicate the highest level of education you have completed

q37 Education Uses Format: educfmt	Highest level of education Q37	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	5	0.6	5	0.6
Some high school or less	Some high school or less	13	1.6	18	2.2
High school graduate	High school graduate	116	14.0	134	16.1
Trade or technical school	Trade or technical school	39	4.7	173	20.8
Some college	Some college	265	31.9	438	52.8
2-year college graduate	2-year college graduate	95	11.4	533	64.2
4-year college graduate	4-year college graduate	157	18.9	690	83.1
Some graduate school	Some graduate school	52	6.3	742	89.4
Graduate degree	Graduate degree	88	10.6	830	100.0

38. How many people (including yourself) live at your address?

q38 Number of people at address Uses Format: numrefmt	Number of people at address Q38	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	1	0.1	1	0.1
One	One	99	11.9	100	12.0
Two	Two	295	35.5	395	47.6
Three Four	Three	176	21.2	571	68.8
Five	Four	144	17.3	715	86.1
Six	Five	69	8.3	784	94.5
Seven or more	Six	28	3.4	812	97.8
	Seven or more	18	2.2	830	100.0

39. What is the estimated size (in square feet) of your home?

q39 Square Footage Uses Format: sqftfmt	Estimated sq feet of home Q39	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	9	1.1	9	1.1
Less than 1,000 square feet	Less than 1,000 square feet	95	11.4	104	12.5
1,000 - 1,499 square feet	1,000 - 1,499 square feet	241	29.0	345	41.6
1,500 - 1,999 square feet	1,500 - 1,999 square feet	194	23.4	539	64.9
2,000 - 2,499 square feet	2,000 - 2,499 square feet	114	13.7	653	78.7
2,500 - 2,999 square feet	2,500 - 2,999 square feet	60	7.2	713	85.9
3,000 -3,499 square feet	3,000 - 3,499 square feet	19	2.3	732	88.2
3,500 - 3,999 square feet	3,500 - 3,999 square feet	15	1.8	747	90.0
4,000 square feet or more	4,000 square feet or more	6	0.7	753	90.7
Don't know	Do not know	77	9.3	830	100.0

40. Which of the following categories best represents the value of your house?

q40 Value Uses Format: hsvalfmt	Value of home Q40	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Less than $100,000	Less than $100,000	131	15.8	131	15.8
$100,000 - $199,999	$100,000 - $199,999	269	32.4	400	48.2
$200,000 - 299,999	$200,000 - 299,999	145	17.5	545	65.7
$300,000 - $399,999	$300,000 - $399,999	71	8.6	616	74.2
$400,000 - 499,999	$400,000 - 499,999	49	5.9	665	80.1
$500,000 or more	$500,000 or more	59	7.1	724	87.2
Don't know	Do not know	106	12.8	830	100.0

41. Which best describes the location of your home?

q41 Location Uses Format: loctpfmt	Location of home Q41	Frequency	Precent	Cumulative Frequency	Cumulative Percent
City/Town	City/Town	465	56.0	465	56.0
Suburb	Suburb	226	27.2	691	83.3
Rural	Rural	139	16.7	830	100.0

Appendix F

Commercial Frequency Distribution Report

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q1a Solar cells (photovoltaics)

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	4	3.5	4	3.5
Not at all familiar	40	34.8	44	38.3
Not very familiar	22	19.1	66	57.4
Somewhat familiar	21	18.3	87	75.7
Familiar	20	17.4	107	93.0
Very familiar	8	7.0	115	100.0

Familiar with solar cells

Q1A

q1b Small wind turbines

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	5	4.3	5	4.3
Not at all familiar	42	36.5	47	40.9
Not very familiar	28	24.3	75	65.2
Somewhat familiar	17	14.8	92	80.0
Familiar	18	15.7	110	95.7
Very familiar	5	4.3	115	100.0

Familiar with sm wind turbines

Q1B

q1c Fuel cells

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	6	5.2	6	5.2
Not at all familiar	59	51.3	65	56.5
Not very familiar	27	23.5	92	80.0
Somewhat familiar	11	9.6	103	89.6
Familiar	8	7.0	111	96.5
Very familiar	4	3.5	115	100.0

Familiar with fuel cells

Q1C

1. How familiar are you with renewable energy sources such as solar cells (photovoltaics), small wind turbines, fuel cells or solar-thermal electric systems? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q1d Solar-thermal electric
Uses Format: familfmt

Familiar with solar-thermal

Q1D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	3	2.6	3	2.6
Not at all familiar	59	51.3	62	53.9
Not very familiar	29	25.2	91	79.1
Somewhat familiar	12	10.4	103	89.6
Familiar	6	5.2	109	94.8
Very familiar	6	5.2	115	100.0

2. Do you have any direct experience with renewable energy?

q2 Yes / No
Uses Format: yesnofmt

Personal experience with renewables

Q2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	38	33.0	38	33.0
Yes	15	13.0	53	46.1
No	62	53.9	115	100.0

2. Do you have any direct experience with renewable energy?

q2a If yes, specify nature of your experience.
Uses Format:

Specify nature of experience

Q2A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	100	87.0	100	87.0
A FRIEND HAS SOLAR CELLS FOR	1	0.9	101	87.8
FRIEND HAS INSTALLED AND USE	1	0.9	102	88.7
FUEL CELLS	1	0.9	103	89.6
GEOTHERMAL CORPORATION	1	0.9	104	90.4
I sell it	1	0.9	105	91.3
LIVE IN PASSIVE SOLAR HOME	1	0.9	106	92.2
REPRESENTED CLIENTS INVOLVE	1	0.9	107	93.0
SOLAR HOT WATER SYSTEM	1	0.9	108	93.9
Specifying hydro-electric, wind turbin	1	0.9	109	94.8
WATER PUMPS, ELECTRIC FENCE	1	0.9	110	95.7
WE HAVE RADIOS ON MOUNTAINS	1	0.9	111	96.5
as a physicist working on energy syst	1	0.9	112	97.4
friends have solar heated pool	1	0.9	113	98.3
solar cells	1	0.9	114	99.1
solar panels once	1	0.9	115	100.0

3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q3a Solar cells (photovoltaics)
Uses Format: familfmt

	Missing
	Not at all familiar
	Not very familiar
	Somewhat familiar
	Familiar
	Very familiar

Know how solar cells make kW

Q3A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	40	34.8	40	34.8
Not at all familiar	14	12.2	54	47.0
Not very familiar	19	16.5	73	63.5
Somewhat familiar	19	16.5	92	80.0
Familiar	12	10.4	104	90.4
Very familiar	11	9.6	115	100.0

3. How familiar are you with the way in which renewable energy sources generate electricity? Please provide an answer for each one of the following energy sources using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q3b Small wind turbines

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	41	35.7	41	35.7
Not at all familiar	13	11.3	54	47.0
Not very familiar	19	16.5	73	63.5
Somewhat familiar	15	13.0	88	76.5
Familiar	14	12.2	102	88.7
Very familiar	13	11.3	115	100.0

Know how sm wind turbines make kW

Q3B

q3c Fuel cells

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	41	35.7	41	35.7
Not at all familiar	34	29.6	75	65.2
Not very familiar	21	18.3	96	83.5
Somewhat familiar	9	7.8	105	91.3
Familiar	7	6.1	112	97.4
Very familiar	3	2.6	115	100.0

Know how fuel cells make kW

Q3C

q3d Solar-thermal electric

Uses Format: familfmt

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	40	34.8	40	34.8
Not at all familiar	31	27.0	71	61.7
Not very familiar	24	20.9	95	82.6
Somewhat familiar	9	7.8	104	90.4
Familiar	5	4.3	109	94.8
Very familiar	6	5.2	115	100.0

Know how solar-thermal make kW

Q3D

4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your business. Assume that the system would provide about 4 kilowatts of your electric needs. (Please provide an answer for each one of the energy sources.)

q4a Solar cells (photovoltaics)

Uses Format: icostfmt

Estimate cost of solar cells

Q4A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	48	41.7	48	41.7
Less than $500	6	5.2	54	47.0
$500 - $2,499	22	19.1	76	66.1
$2,500 - $4,999	20	17.4	96	83.5
$5,000 - $14,999	10	8.7	106	92.2
$15,000 +	9	7.8	115	100.0

q4b Small wind turbines

Uses Format: icostfmt

Estimate cost of sm wind turbines

Q4B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	50	43.5	50	43.5
Less than $500	4	3.5	54	47.0
$500 - $2,499	15	13.0	69	60.0
$2,500 - $4,999	20	17.4	89	77.4
$5,000 - $14,999	16	13.9	105	91.3
$15,000 +	10	8.7	115	100.0

q4c Fuel cells

Uses Format: icostfmt

Estimate cost of fuel cells

Q4C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	51	44.3	51	44.3
Less than $500	3	2.6	54	47.0
$500 - $2,499	16	13.9	70	60.9
$2,500 - $4,999	12	10.4	82	71.3
$5,000 - $14,999	21	18.3	103	89.6
$15,000 +	12	10.4	115	100.0

4. Please give your best estimate on how much you think it would cost to purchase and install each of the following renewable energy systems in your business. Assume that the system would provide about 4 kilowatts of your electric needs. (Please provide an answer for each one of the energy sources.)

q4d Solar-thermal electric
Uses Format: icostfmt

Estimate cost of solar-thermal

Q4D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	51	44.3	51	44.3
Less than $500	2	1.7	53	46.1
$500 - $2,499	12	10.4	65	56.5
$2,500 - $4,999	19	16.5	84	73.0
$5,000 - $14,999	20	17.4	104	90.4
$15,000 +	11	9.6	115	100.0

5. Do you believe using renewable energy sources helps to improve the environment?

q5 Yes / No / Not Sure
Uses Format: ynnsfmt

Renewables help the environment

Q5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	39	33.9	39	33.9
Yes	66	57.4	105	91.3
No	2	1.7	107	93.0
Not sure	8	7.0	115	100.0

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6a Yes, another business
Uses Format: perscfmt

Another business has a renew system

Q6A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	109	94.8	109	94.8
Yes, another business	6	5.2	115	100.0

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6b Yes, a colleague

Uses Format: perscfmt

	A colleague has a renew system				
	Q6B	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Not Checked	Missing	111	96.5	111	96.5
Checked	Yes, another business	4	3.5	115	100.0

q6c Yes, a friend

Uses Format: perscfmt

	A friend has a renew system				
	Q6C	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Not Checked	Missing	101	87.8	101	87.8
Checked	Yes, another business	14	12.2	115	100.0

q6d Yes, a neighbor

Uses Format: perscfmt

	A neighbor has a renew system				
	Q6D	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Not Checked	Missing	112	97.4	112	97.4
Checked	Yes, another business	3	2.6	115	100.0

q6e Yes, a relative

Uses Format: perscfmt

	A relative has a renew system				
	Q6E	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Not Checked	Missing	114	99.1	114	99.1
Checked	Yes, another business	1	0.9	115	100.0

q6f Yes, other

Uses Format: perscfmt

	A other has a renew system				
	Q6F	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Not Checked	Missing	114	99.1	114	99.1
Checked	Yes, another business	1	0.9	115	100.0

6. Are you aware of anyone who has installed a renewable energy system such as solar PV cells (photovoltaics), wind turbines, fuel cells or solar-thermal electric systems and is using it to generate electricity directly at their home or business? (Please check all that apply.)

q6f1 If other, please describe

Uses Format:

Description of other

Q6F1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	114	99.1	114	99.1
ARTICLES AND VIDEOS -- BOOKS	1	0.9	115	100.0

q6g No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity

Uses Format: perscfmt

No one has a renew system

	Q6G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	62	53.9	62	53.9
No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity	Yes, another business	53	46.1	115	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7a Yes, another business

Uses Format: perscfmt

Another business gave me information

	Q7A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	111	96.5	111	96.5
Yes, a neighbor	Yes, another business	4	3.5	115	100.0

q7b Yes, a colleague

Uses Format: perscfmt

A friend gave me information

	Q7B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	112	97.4	112	97.4
Yes, a friend	Yes, another business	3	2.6	115	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7c Yes, a friend

Uses Format: perscfmt

	A colleague gave me information				
	Q7C	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	108	93.9	108	93.9
Yes, a colleague	Yes, another business	7	6.1	115	100.0

q7d Yes, a neighbor

Uses Format: perscfmt

	A neighbor gave me information				
	Q7D	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	115	100.0	115	100.0

q7e Yes, a relative

Uses Format: perscfmt

	A relative gave me information				
	Q7E	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	114	99.1	114	99.1
Yes, other	Yes, another business	1	0.9	115	100.0

q7f Yes, other

Uses Format: perscfmt

	A other gave me information				
	Q7F	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	103	89.6	103	89.6
Yes, other	Yes, another business	12	10.4	115	100.0

7. Have you ever received any information about renewable energy sources from: (Please check all that apply.)

q7f1 If other, please describe

Uses Format:

Description of other

Q7F1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	103	89.6	103	89.6
CATALOGS, MAGAZINES	1	0.9	104	90.4
LA DWP	1	0.9	105	91.3
MAIL ORDER FOR SMALL WIND TU	1	0.9	106	92.2
MEDIA INTERNET	1	0.9	107	93.0
PROFESSIONAL ORGANIZATIONS	1	0.9	108	93.9
SCE	1	0.9	109	94.8
SPEAKER AT ROTARY MEETING	1	0.9	110	95.7
Trade Publication	1	0.9	111	96.5
VIDEOS -- BOOKS	1	0.9	112	97.4
earth day	1	0.9	113	98.3
securities industry	1	0.9	114	99.1
trade publications & papers	1	0.9	115	100.0

q7g No, I don't know anyone who has installed a renewable energy system directly at their home or business and is using it to generate electricity

Uses Format: perscfmt

No one gave me information

Q7G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	59	51.3	59	51.3
Yes, another business	56	48.7	115	100.0

Missing	
No, I have not received any information from anyone.	

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8a Improve reliability of my electric service

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of reliable of service

Q8A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	43	37.4	43	37.4
Not at all important	14	12.2	57	49.6
Not very important	14	12.2	71	61.7
Somewhat important	8	7.0	79	68.7
Important	14	12.2	93	80.9
Very important	22	19.1	115	100.0

q8b Environmental concerns/conserving environment's resources

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of environmental concerns

Q8B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	43	37.4	43	37.4
Not at all important	6	5.2	49	42.6
Not very important	9	7.8	58	50.4
Somewhat important	13	11.3	71	61.7
Important	21	18.3	92	80.0
Very important	23	20.0	115	100.0

q8c Economic/financial considerations

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of financial concernns

Q8C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	3	2.6	47	40.9
Not very important	5	4.3	52	45.2
Somewhat important	12	10.4	64	55.7
Important	16	13.9	80	69.6
Very important	35	30.4	115	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8d Investment in the future for family/children

Uses Format: imporfmt

	Import of investment for family				
	Q8D	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	42	36.5	42	36.5
Not at all important	Not at all important	10	8.7	52	45.2
Not very important	Not very important	8	7.0	60	52.2
Somewhat important	Somewhat important	16	13.9	76	66.1
Important	Important	18	15.7	94	81.7
Very important	Very important	21	18.3	115	100.0

q8e Personal values for saving money

Uses Format: imporfmt

	Import of saving money				
	Q8E	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	42	36.5	42	36.5
Not at all important	Not at all important	5	4.3	47	40.9
Not very important	Not very important	8	7.0	55	47.8
Somewhat important	Somewhat important	14	12.2	69	60.0
Important	Important	25	21.7	94	81.7
Very important	Very important	21	18.3	115	100.0

q8f Personal interest in technology and up-to-date trends

Uses Format: imporfmt

	Import of interest in technology				
	Q8F	**Frequency**	**Precent**	**Cumulative Frequency**	**Cumulative Percent**
Missing	Missing	43	37.4	43	37.4
Not at all important	Not at all important	9	7.8	52	45.2
Not very important	Not very important	12	10.4	64	55.7
Somewhat important	Somewhat important	18	15.7	82	71.3
Important	Important	22	19.1	104	90.4
Very important	Very important	11	9.6	115	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8g Less reliance on fossil fuels

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of using less fossil fuels

Q8G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	42	36.5	42	36.5
Not at all important	9	7.8	51	44.3
Not very important	7	6.1	58	50.4
Somewhat important	15	13.0	73	63.5
Important	16	13.9	89	77.4
Very important	26	22.6	115	100.0

q8h Less reliance on electric utility

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of less reliance on utility

Q8H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	42	36.5	42	36.5
Not at all important	7	6.1	49	42.6
Not very important	11	9.6	60	52.2
Somewhat important	14	12.2	74	64.3
Important	17	14.8	91	79.1
Very important	24	20.9	115	100.0

q8i Global climate change

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of global climate change

Q8I	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	42	36.5	42	36.5
Not at all important	11	9.6	53	46.1
Not very important	12	10.4	65	56.5
Somewhat important	12	10.4	77	67.0
Important	14	12.2	91	79.1
Very important	24	20.9	115	100.0

8. If you have already considered, or were to consider in the future, purchasing an on-site generating system (solar PV cells, small wind, fuel cells or solar-thermal electric technology), how important would the following considerations be to you in the decision-making process? Please answer each option below on a scale of 1 to 5, where 1 is not at all important and 5 is very important. (Please provide an answer for each one of the purchase considerations.)

q8j Complete independence from the electric utility

Uses Format: imporfmt

Import of independ from utility

Q8J	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	10	8.7	55	47.8
Not very important	18	15.7	73	63.5
Somewhat important	10	8.7	83	72.2
Important	11	9.6	94	81.7
Very important	21	18.3	115	100.0

q8k Cost of extending electric utility lines for new service

Uses Format: imporfmt

Import of line extension cost

Q8K	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	12	10.4	56	48.7
Not very important	11	9.6	67	58.3
Somewhat important	11	9.6	78	67.8
Important	14	12.2	92	80.0
Very important	23	20.0	115	100.0

q8l Availability of support/sales/design/maintenance services

Uses Format: imporfmt

Import of availibility of services

Q8L	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	43	37.4	43	37.4
Not at all important	4	3.5	47	40.9
Not very important	7	6.1	54	47.0
Somewhat important	9	7.8	63	54.8
Important	25	21.7	88	76.5
Very important	27	23.5	115	100.0

9. When considering an investment in electricity generating equipment, you would probably take into account both the up-front cost (i.e., the equipment and installation costs) and the value of the energy savings. One method of evaluating such an investment is in terms of the investment's payback period, or the number of years it takes for the energy savings to "pay back" the initial cost of the equipment.

q9 Payback Timeframe
Uses Format: paybkfmt

Payback Timeframe

Q9	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	40	34.8	40	34.8
Less than 1 year	3	2.6	43	37.4
1 - 2 years	16	13.9	59	51.3
3 - 4 years	17	14.8	76	66.1
5 - 6 years	16	13.9	92	80.0
7 - 10 years	19	16.5	111	96.5
11 - 15 years	2	1.7	113	98.3
Do not know	2	1.7	115	100.0

10. On-site renewable generation systems can be sized to supply various amounts of your electricity needs. Larger generation systems produce more electricity and cost more than smaller systems. If you were to purchase a renewable energy system for your commercial premises, which of the following system sizes would you most prefer?

q10 System Size
Uses Format: sysszfmt

Preference of system size

Q10	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	40	34.8	40	34.8
Small system that provides about 15% of my electricity usage	8	7.0	48	41.7
Medium system that provides up to 25% of my electricity usage	23	20.0	71	61.7
Large system that provides up to 50% of my electricity usage	10	8.7	81	70.4
A very large system that provides up to 75% of my electricity usage	4	3.5	85	73.9
I would not purchase any of these systems	7	6.1	92	80.0
Other size preference	2	1.7	94	81.7
Do not know	21	18.3	115	100.0

10. On-site renewable generation systems can be sized to supply various amounts of your electricity needs. Larger generation systems produce more electricity and cost more than smaller systems. If you were to purchase a renewable energy system for your commercial premises, which of the following system sizes would you most prefer?

q10oth If other size preference, please specify
Uses Format:

Description of other

Q10Oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	113	98.3	113	98.3
100%	2	1.7	115	100.0

11. Are you now, or would you ever, consider installing a solar, wind, or fuel cell renewable energy system at your business?

q11 Yes / No
Uses Format: instlfmt

Consider a renew system for bus

Q11	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	38	33.0	38	33.0
Yes, in the next 6 months	1	0.9	39	33.9
Yes, in the next year	1	0.9	40	34.8
Yes, but I do not know when	36	31.3	76	66.1
No, not interested	20	17.4	96	83.5
Not sure	19	16.5	115	100.0

11. Are you now, or would you ever, consider installing a solar, wind, or fuel cell renewable energy system at your business?

q11a If not interested, please explain why:
Uses Format:

Reason why not interested

Q11A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	104	90.4	104	90.4
Commercial application is at a water t	1	0.9	105	91.3
Cost , Return on Investment	1	0.9	106	92.2
I DONT BELIEVE THAT ITS PRACTI	1	0.9	107	93.0
I LEASE; MY LANDLORD MAY BE IN	1	0.9	108	93.9
MARKED YES BUT DONT KNOW W	1	0.9	109	94.8
MEDICAL BUSINESS - ELECTRICAL	1	0.9	110	95.7
NOT MUCH USAGE FOR BUSINESS	1	0.9	111	96.5
WOULD BE SOMETHING BULDING	1	0.9	112	97.4
do not own our property	1	0.9	113	98.3
my business isnt doing well	1	0.9	114	99.1
tenant, do not own building	1	0.9	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12a Initial cost of the system
Uses Format: imporfmt

Import of initial system cost

	Q12A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	46	40.0	46	40.0
Not at all important	Not at all important	2	1.7	48	41.7
Not very important	Not very important	1	0.9	49	42.6
Somewhat important	Somewhat important	5	4.3	54	47.0
Important	Important	11	9.6	65	56.5
Very important	Very important	50	43.5	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12b System add-on or upgrade capability

Uses Format: imporfmt

Import of sys upgrade capability

Q12B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	46	40.0	46	40.0
Not at all important	5	4.3	51	44.3
Not very important	4	3.5	55	47.8
Somewhat important	9	7.8	64	55.7
Important	18	15.7	82	71.3
Very important	33	28.7	115	100.0

q12c Ability to measure how much electricity is produced

Uses Format: imporfmt

Import of ability to measure kWh

Q12C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	5	4.3	50	43.5
Not very important	8	7.0	58	50.4
Somewhat important	13	11.3	71	61.7
Important	14	12.2	85	73.9
Very important	30	26.1	115	100.0

q12d Visual attractiveness of the system

Uses Format: imporfmt

Import of attractiveness of sys

Q12D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	11	9.6	56	48.7
Not very important	6	5.2	62	53.9
Somewhat important	27	23.5	89	77.4
Important	11	9.6	100	87.0
Very important	15	13.0	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12e How long system would last

Uses Format: imporfmt

	Import of system longevity Q12E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	45	39.1	45	39.1
Not at all important	Not at all important	3	2.6	48	41.7
Somewhat important	Somewhat important	6	5.2	54	47.0
Important	Important	16	13.9	70	60.9
Very important	Very important	45	39.1	115	100.0

q12f Ability to finance the generation system

Uses Format: imporfmt

	Import of ability to finance sys Q12F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	45	39.1	45	39.1
Not at all important	Not at all important	4	3.5	49	42.6
Not very important	Not very important	3	2.6	52	45.2
Somewhat important	Somewhat important	11	9.6	63	54.8
Important	Important	12	10.4	75	65.2
Very important	Very important	40	34.8	115	100.0

q12g Length of the warranty period

Uses Format: imporfmt

	Import of length of warranty Q12G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	47	40.9	47	40.9
Not at all important	Not at all important	3	2.6	50	43.5
Somewhat important	Somewhat important	10	8.7	60	52.2
Important	Important	17	14.8	77	67.0
Very important	Very important	38	33.0	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12h Availability of maintenance agreement

Uses Format: imporfmt

Import of maintenance agreement

Q12H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	3	2.6	48	41.7
Not very important	6	5.2	54	47.0
Somewhat important	15	13.0	69	60.0
Important	16	13.9	85	73.9
Very important	30	26.1	115	100.0

q12i Option to install equipment myself

Uses Format: imporfmt

Import of option to install myself

Q12I	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	11	9.6	56	48.7
Not very important	9	7.8	65	56.5
Somewhat important	19	16.5	84	73.0
Important	13	11.3	97	84.3
Very important	18	15.7	115	100.0

q12j Availability of net metering (sale back to utility at retail prices)

Uses Format: imporfmt

Import of net metering

Q12J	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	5	4.3	50	43.5
Not very important	7	6.1	57	49.6
Somewhat important	21	18.3	78	67.8
Important	14	12.2	92	80.0
Very important	23	20.0	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12k Reliability of the equipment

Uses Format: imporfmt

	Missing
	Not at all important
	Somewhat important
	Important
	Very important

Import of equipment reliability

Q12K	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	2	1.7	46	40.0
Somewhat important	3	2.6	49	42.6
Important	12	10.4	61	53.0
Very important	54	47.0	115	100.0

q12l Battery storage for emergency use during power outages

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of battery storage

Q12L	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	4	3.5	49	42.6
Not very important	6	5.2	55	47.8
Somewhat important	10	8.7	65	56.5
Important	18	15.7	83	72.2
Very important	32	27.8	115	100.0

q12m Ability to lease the generation system

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of ability to lease the sys

Q12M	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	6	5.2	51	44.3
Not very important	8	7.0	59	51.3
Somewhat important	20	17.4	79	68.7
Important	18	15.7	97	84.3
Very important	18	15.7	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12n Ease of installation of equipment

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of ease of installation

Q12N	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	5	4.3	49	42.6
Not very important	3	2.6	52	45.2
Somewhat important	17	14.8	69	60.0
Important	18	15.7	87	75.7
Very important	28	24.3	115	100.0

q12o Availability of insurance

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of insurance availability

Q12O	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	5	4.3	49	42.6
Not very important	6	5.2	55	47.8
Somewhat important	22	19.1	77	67.0
Important	18	15.7	95	82.6
Very important	20	17.4	115	100.0

q12p Reputation of manufacturer

Uses Format: imporfmt

	Missing
	Not at all important
	Not very important
	Somewhat important
	Important
	Very important

Import of manufacturer reputation

Q12P	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	3	2.6	47	40.9
Not very important	2	1.7	49	42.6
Somewhat important	11	9.6	60	52.2
Important	27	23.5	87	75.7
Very important	28	24.3	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12q Suitability to my building or property

Uses Format: imporfmt

	Missing	Not at all important	Somewhat important	Important	Very important
Frequency	43	3	7	27	35
Percent	37.4	2.6	6.1	23.5	30.4
Cumulative Frequency	43	46	53	80	115
Cumulative Percent	37.4	40.0	46.1	69.6	100.0

Import of suitability to property

Q12Q	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	43	37.4	43	37.4
Not at all important	3	2.6	46	40.0
Somewhat important	7	6.1	53	46.1
Important	27	23.5	80	69.6
Very important	35	30.4	115	100.0

q12r Expense of maintaining system

Uses Format: imporfmt

	Missing	Not at all important	Somewhat important	Important	Very important
Frequency	44	3	5	21	42
Percent	38.3	2.6	4.3	18.3	36.5
Cumulative Frequency	44	47	52	73	115
Cumulative Percent	38.3	40.9	45.2	63.5	100.0

Import of expense sys maintainance

Q12R	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	3	2.6	47	40.9
Somewhat important	5	4.3	52	45.2
Important	21	18.3	73	63.5
Very important	42	36.5	115	100.0

q12s Complying with codes and restrictions

Uses Format: imporfmt

	Missing	Not at all important	Not very important	Somewhat important	Important	Very important
Frequency	44	3	2	11	21	34
Percent	38.3	2.6	1.7	9.6	18.3	29.6
Cumulative Frequency	44	47	49	60	81	115
Cumulative Percent	38.3	40.9	42.6	52.2	70.4	100.0

Import of complying with codes

Q12S	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	3	2.6	47	40.9
Not very important	2	1.7	49	42.6
Somewhat important	11	9.6	60	52.2
Important	21	18.3	81	70.4
Very important	34	29.6	115	100.0

12. If you have already considered, or were to consider in the future, acquiring an on-site renewable energy system, how important would the following system installation and ownership features be to you? Please provide an answer for each one of the following system preferences using a scale of 1 to 5, where 1 is not at all familiar and 5 is very familiar.

q12t Impact of storms, vandalism, etc

Uses Format: imporfmt

Import of impact of externalities

Q12T	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	3	2.6	48	41.7
Not very important	7	6.1	55	47.8
Somewhat important	16	13.9	71	61.7
Important	19	16.5	90	78.3
Very important	25	21.7	115	100.0

q12u Safety of the system

Uses Format: imporfmt

Import of safety of the system

Q12U	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	44	38.3	44	38.3
Not at all important	3	2.6	47	40.9
Not very important	2	1.7	49	42.6
Somewhat important	8	7.0	57	49.6
Important	18	15.7	75	65.2
Very important	40	34.8	115	100.0

q12v Availability of financial incentives/rebates

Uses Format: imporfmt

Import of financial incentives

Q12V	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	45	39.1	45	39.1
Not at all important	4	3.5	49	42.6
Not very important	2	1.7	51	44.3
Somewhat important	11	9.6	62	53.9
Important	26	22.6	88	76.5
Very important	27	23.5	115	100.0

13. Based upon your understanding and experience to date, what do you believe are the two most significant barriers to improving the overall market for on-site emerging renewable generation systems in California?

q13a First cost of the system

Uses Format: chkdfmt	First cost of the system Q13A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	71	61.7	71	61.7
Checked	Checked	44	38.3	115	100.0

q13b Electric utility interconnection/interface cooperation

Uses Format: chkdfmt	Electric utility interconnection/interface cooperation Q13B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	104	90.4	104	90.4
Checked	Checked	11	9.6	115	100.0

q13c Consumer understanding of the technology costs and benefits

Uses Format: chkdfmt	Consumer understanding of the technology costs and Q13C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	96	83.5	96	83.5
Checked	Checked	19	16.5	115	100.0

q13d Local building department permits and approvals

Uses Format: chkdfmt	Local building department permits and approvals Q13D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	109	94.8	109	94.8
Checked	Checked	6	5.2	115	100.0

q13e Availability of products and trained installers

Uses Format: chkdfmt	Availability of products and trained installers Q13E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	107	93.0	107	93.0
Checked	Checked	8	7.0	115	100.0

13. Based upon your understanding and experience to date, what do you believe are the two most significant barriers to improving the overall market for on-site emerging renewable generation systems in California?

q13f Availability of financing at reasonable rates

Uses Format: chkdfmt

	Not Checked
	Checked

Availability of financing at reasonable rates

Q13F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	107	93.0	107	93.0
Checked	8	7.0	115	100.0

q13g Concerns with performance or product reliability

Uses Format: chkdfmt

	Not Checked
	Checked

Concerns with performance or product reliability

Q13G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	95	82.6	95	82.6
Checked	20	17.4	115	100.0

q13h Other

Uses Format: chkdfmt

	Not Checked
	Checked

Description of other

Q13H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	112	97.4	112	97.4
Checked	3	2.6	115	100.0

q13hot If other, please specify

Uses Format:

Description of other

Q13HOth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	113	98.3	113	98.3
IGNORANCE	1	0.9	114	99.1
UNDERSTANDING/NO EXPERIENC	1	0.9	115	100.0

14. Do you think that information about renewable energy systems for home or business applications is easy to find, access, and understand?

q14 Yes / No
Uses Format: yndklfmt

Found information easily

Q14	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	40	34.8	40	34.8
Yes	10	8.7	50	43.5
No	32	27.8	82	71.3
Do not know	14	12.2	96	83.5
Have not looked	19	16.5	115	100.0

14a. Where have you found your information? (Please check all that apply.)

q14a1 Builders/local contractors
Uses Format: chkdfmt

Info from builders/contractors

Q14A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	112	97.4	112	97.4
Checked	3	2.6	115	100.0

q14a2 Consumer protection groups or reports
Uses Format: chkdfmt

Info from consumer reports

Q14A2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	113	98.3	113	98.3
Checked	2	1.7	115	100.0

q14a3 Green power marketing firms
Uses Format: chkdfmt

Info from Green Power firms

Q14A3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	109	94.8	109	94.8
Checked	6	5.2	115	100.0

14a. Where have you found your information? (Please check all that apply.)

q14a4 Electric utility/energy providers — **Info from utility/ESP**

Uses Format: chkdfmt	Q14A4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	111	96.5	111	96.5
Electric utility/energy providers	Checked	4	3.5	115	100.0

q14a5 Environmental organizations — **Info from environmental org**

Uses Format: chkdfmt	Q14A5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	112	97.4	112	97.4
Environmental organizations	Checked	3	2.6	115	100.0

q14a6 Existing owners of these systems — **Info from owners of renew sys**

Uses Format: chkdfmt	Q14A6	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	112	97.4	112	97.4
Existing owners of these systems	Checked	3	2.6	115	100.0

q14a7 Government agencies — **Info from govt agency**

Uses Format: chkdfmt	Q14A7	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	112	97.4	112	97.4
Government agencies	Checked	3	2.6	115	100.0

q14a8 Manufacturer — **Info from manufacturer**

Uses Format: chkdfmt	Q14A8	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	113	98.3	113	98.3
Manufacturer	Checked	2	1.7	115	100.0

14a. Where have you found your information? (Please check all that apply.)

q14a9 Retailer/distributor
Uses Format: chkdfmt

	Info from retailer/distributor				
	Q14A9	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	113	98.3	113	98.3
Retailer/distributor	Checked	2	1.7	115	100.0

15. Are you aware of the California Energy Commission's (CEC) Emerging Renewables Buydown program and its available incentives?

q15 Yes / No
Uses Format: yesnofmt

	Aware of CECs Buydown Program				
	Q15	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	38	33.0	38	33.0
Yes	Yes	7	6.1	45	39.1
No	No	70	60.9	115	100.0

16. Are you aware of the Utility Net Metering Requirements?

q16 Yes / No
Uses Format: yesnofmt

	Aware of Utility Net Metering Reqs				
	Q16	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	39	33.9	39	33.9
Yes	Yes	3	2.6	42	36.5
No	No	73	63.5	115	100.0

17. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown program? (Check all that apply.)

q17a Yes, about renewable energy sources
Uses Format: chkdfmt

	Have seen renew sources materials				
	Q17A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not Checked	Not checked	109	94.8	109	94.8
Checked	Checked	6	5.2	115	100.0

17. Have you seen any promotional materials on renewable energy sources or the CEC's Emerging Buydown program? (Check all that apply.)

q17b Yes, about the Emerging Renewables Buydown program

Uses Format: chkdfmt

Have seen Buydown prog materials

Q17B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	114	99.1	114	99.1
Checked	1	0.9	115	100.0

q17c No, never seen any promotional materials

Uses Format: chkdfmt

Have not seen any promo materials

Q17C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	12	10.4	12	10.4
Checked	103	89.6	115	100.0

18. Have you ever applied to the CEC for any type of funding for your business?

q18 Yes / No

Uses Format: yesnofmt

Applied for CEC funding

Q18	Frequency	Precent	Cumulative Frequency	Cumulative Percent
.	2	1.7	2	1.7
1	1	0.9	3	2.6
2	112	97.4	115	100.0

q18a If yes, did you find the CEC's forms, regulations, and materials to be user friendly?

Uses Format: yesnofmt

Found CECs forms user friendly

Q18A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	93	80.9	93	80.9
Yes	1	0.9	94	81.7
No	21	18.3	115	100.0

19. Are you aware of any companies or other organizations that produce/sell renewable energy products and services?

q19 Yes / No
Uses Format: yesnofmt

Know firms who sell renew prods

Q19	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Yes	18	15.7	18	15.7
No	97	84.3	115	100.0

q19a If yes, have you found their information useful?
Uses Format: yesnofmt

Found their information useful

Q19A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	90	78.3	90	78.3
Yes	13	11.3	103	89.6
No	12	10.4	115	100.0

q19b Was the information easy to access/understand?
Uses Format: yesnofmt

Found information easily

Q19B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	95	82.6	95	82.6
Yes	13	11.3	108	93.9
No	7	6.1	115	100.0

q19b1 If no, why not?
Uses Format:

Description of why not

Q19B1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	114	99.1	114	99.1
MISLEADING	1	0.9	115	100.0

20. Do you currently have a renewable energy system installed at your office/business?

q20 Yes / No
Uses Format: consdfmt
Renew system is installed at home

Q20	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	3	2.6	3	2.6
Yes	3	2.6	6	5.2
No, I did consider using them but deci	3	2.6	9	7.8
No, I never considered using them bu	84	73.0	93	80.9
No, I never considered using them an	22	19.1	115	100.0

q20a1 Solar cells (photovoltaics)
Uses Format: chkdfmt
Solar cells installed

Q20A1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	113	98.3	113	98.3
Checked	2	1.7	115	100.0

q20a1 kW installed nameplate capacity
Uses Format:
Solar cells installed kW

Q20A1kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	114	99.1	114	99.1
LESS THAN	1	0.9	115	100.0

q20a2 Small wind turbines
Uses Format: chkdfmt
Sm wind turbines installed

Q20A2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	115	100.0	115	100.0

q20a2 kW installed nameplate capacity
Uses Format:
Sm wind turbines installed kW

Q20A2kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	115	100.0	115	100.0

20. Do you currently have a renewable energy system installed at your office/business?

q20a3 Fuel cells

Uses Format: chkdfmt

Fuel cells installed

Q20A3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	115	100.0	115	100.0

q20a3 kW installed nameplate capacity

Uses Format:

Fuel cells installed kW

Q20A3kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	115	100.0	115	100.0

q20a4 Solar-thermal electric

Uses Format: chkdfmt

Solar-thermal installed

Q20A4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	115	100.0	115	100.0

q20a4 kW installed nameplate capacity

Uses Format:

Solar-thermal installed kW

Q20A4kW	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	115	100.0	115	100.0

q20a5 Other installed

Uses Format: chkdfmt

Other installed

Q20A5	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	114	99.1	114	99.1
Yes, other	Checked	1	0.9	115	100.0

q20a5 Description of other system

Uses Format:

Description of other system

Q20A5oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	114	99.1	114	99.1
SOLAR HOT WATER SYSTEM	1	0.9	115	100.0

20. Do you currently have a renewable energy system installed at your office/business?

q20b1 Have the manufacturers of the system offered "post-purchase" information?

Manus offer post-purch info

Uses Format: chkdfmt	Q20B1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	115	100.0	115	100.0

q20b2 Have the suppliers of the system offered "post-purchase" information?

Suppliers offer post-purch info

Uses Format: chkdfmt	Q20B2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	115	100.0	115	100.0

q20b3 Have the installers of the system offered "post-purchase" information?

Installers offer post-purch info

Uses Format: chkdfmt	Q20B3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	115	100.0	115	100.0

q20b4 No one offered "post-purchase" information

No one offer post-purch info

Uses Format: chkdfmt	Q20B4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	92	80.0	92	80.0
No	Checked	23	20.0	115	100.0

q20c1 Have the manufacturers of the system remained in contact with you?

Manus remain in contact

Uses Format: chkdfmt	Q20C1	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	114	99.1	114	99.1
Yes, manufacturers	Checked	1	0.9	115	100.0

20. Do you currently have a renewable energy system installed at your office/business?

q20c2 Have the suppliers of the system remained in contact with you?

Uses Format: chkdfmt

Suppliers remain in contact

Q20C2	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	114	99.1	114	99.1
Yes, suppliers	Checked	1	0.9	115	100.0

q20c3 Have the installers of the system remained in contact with you?

Uses Format: chkdfmt

Installers remain in contact

Q20C3	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	112	97.4	112	97.4
Yes, installers	Checked	3	2.6	115	100.0

q20c4 No one has remained in contact with me.

Uses Format: chkdfmt

No one remained in contact

Q20C4	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	73	63.5	73	63.5
No	Checked	42	36.5	115	100.0

21. What type of business is this?

q21 Type of business
Uses Format: bustyfmt

Type of business	Q21	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Office	Office	28	24.3	28	24.3
Restaurant	Restaurant	10	8.7	38	33.0
Retail	Retail	11	9.6	49	42.6
Grocery	Grocery	3	2.6	52	45.2
Warehouse	Warehouse	1	0.9	53	46.1
Lodging Public	Lodging Public	3	2.6	56	48.7
Services	Services	14	12.2	70	60.9
Transportation, Communications, or Utilities/Pipelines	Transportation, Communications, or	3	2.6	73	63.5
Agriculture	Agriculture	3	2.6	76	66.1
Construction	Construction	6	5.2	82	71.3
Manufacturing	Manufacturing	7	6.1	89	77.4
Other	Other	26	22.6	115	100.0

21. What type of business is this?

q21oth If other, please specify
Uses Format:

Description of other

Q21Oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	90	78.3	90	78.3
APT. COMPLEX	1	0.9	91	79.1
AUTO REPAIR	1	0.9	92	80.0
BEAUTY SALON	1	0.9	93	80.9
Building Design and Consulting	1	0.9	94	81.7
CHURCH	2	1.7	96	83.5
DIESEL TRUCK REPAIR	1	0.9	97	84.3
DRY CLEANING PLANT	1	0.9	98	85.2
Dental Office	1	0.9	99	86.1
HOTEL	1	0.9	100	87.0
HOUSING	1	0.9	101	87.8
MEDICAL	1	0.9	102	88.7
Nonprofit	1	0.9	103	89.6
OFFICE BLDG.	1	0.9	104	90.4
RE-MANUFACTURING	1	0.9	105	91.3
TEACHER - PUBLISHER - MUSICIA	1	0.9	106	92.2
VEGETABLE PROCESSING	1	0.9	107	93.0
WATER W.	1	0.9	108	93.9
Water treatment plant	1	0.9	109	94.8
automotive electric parts	1	0.9	110	95.7
bar restaurant bank & hotel	1	0.9	111	96.5
charter boat	1	0.9	112	97.4
consultant	1	0.9	113	98.3
consulting	1	0.9	114	99.1
wholesale	1	0.9	115	100.0

22. What is your company's main product/service?

q22 Product / Service
Uses Format:

Company's main product/service

Q22	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	6	5.2	6	5.2
ABUSED CHILDREN TRATMENT CE	1	0.9	7	6.1
ALFALFA HAY	1	0.9	8	7.0
APARTMENTS	1	0.9	9	7.8
APT. RENTERS	1	0.9	10	8.7
ARCHERY PRO SHOP	1	0.9	11	9.6
ASPHAL MFG	1	0.9	12	10.4
AUTO PARTS	1	0.9	13	11.3
AUTO REPAIR	1	0.9	14	12.2
Advertising	1	0.9	15	13.0
BEVERAGES	1	0.9	16	13.9
BOOKS - MUSIC	1	0.9	17	14.8
CHINESE FOOD	1	0.9	18	15.7
CHIROPRACTIC CARE	1	0.9	19	16.5
CLOTHING	1	0.9	20	17.4
COMPUTER CONSULTING	1	0.9	21	18.3
COPIES/PRINTING	1	0.9	22	19.1
Construction Project Facilitation	1	0.9	23	20.0
DENTISTRY	1	0.9	24	20.9
DOMESTIC WATER SUPPLY	1	0.9	25	21.7
DRY CLEANING	1	0.9	26	22.6
DRY CLEANING AND LAUNDRY	1	0.9	27	23.5
Dental Services	1	0.9	28	24.3
ELECTRONICS	1	0.9	29	25.2
ENGINEERING	1	0.9	30	26.1
ESCROW/PROCESS REAL ESTATE	1	0.9	31	27.0
FAST FOODS, BURGERS - DOGS -	1	0.9	32	27.8
FEED/FOOD	1	0.9	33	28.7
FLOOR COVERING/INSTALATION C	1	0.9	34	29.6
FOOD	1	0.9	35	30.4
FOOD AND BEVERAGE	1	0.9	36	31.3
FOOD SERVICES	1	0.9	37	32.2
FRESH PROCESSED VEGETABLES	1	0.9	38	33.0

22. What is your company's main product/service?

q22 Product / Service
Uses Format:

Company's main product/service

Q22	Frequency	Precent	Cumulative Frequency	Cumulative Percent
FUEL CELL EQUIPMENT	1	0.9	39	33.9
FURNITURE	1	0.9	40	34.8
GAS STATION	1	0.9	41	35.7
GROCERY MARKET	1	0.9	42	36.5
HAIR AND SPA SERVICES	1	0.9	43	37.4
HAIR CUTS - SERVICES - SUPPLIE	1	0.9	44	38.3
HEALTH CARE	1	0.9	45	39.1
HEALTH PRODUCTS	1	0.9	46	40.0
HOTEL/HOSPITALITY	1	0.9	47	40.9
IMPORTER/DISTRBUTOR	1	0.9	48	41.7
INSURANCE	2	1.7	50	43.5
Insurance	1	0.9	51	44.3
LAND DEVELOPMENT/RESIDENTIA	1	0.9	52	45.2
LANDSCAPE CONSTRUCTION	1	0.9	53	46.1
LAW	2	1.7	55	47.8
LEGAL	1	0.9	56	48.7
LEGAL SERVICES	1	0.9	57	49.6
LITERATURE SALES	1	0.9	58	50.4
Lighting Audits	1	0.9	59	51.3
MEDICAL - HEALTH CARE	1	0.9	60	52.2
MESSENGER SERVICE	1	0.9	61	53.0
MGR	1	0.9	62	53.9
Mail and packaging center	1	0.9	63	54.8
Mental Health Care	1	0.9	64	55.7
NONE	1	0.9	65	56.5
NONPROFIT ASSOC SERVUBG TH	1	0.9	66	57.4
PACKAGING	1	0.9	67	58.3
PRINTING	1	0.9	68	59.1
PSYCHIATRIC SERVICES	1	0.9	69	60.0
PSYCHOLOGY	1	0.9	70	60.9
Pollution Abatement Control Products	1	0.9	71	61.7
REBUILDING MACHINES	1	0.9	72	62.6
RELIGION	1	0.9	73	63.5

22. What is your company's main product/service?

q22 Product / Service
Uses Format:

Company's main product/service

Q22	Frequency	Precent	Cumulative Frequency	Cumulative Percent
RELIGIOUS SERVICE	1	0.9	74	64.3
RENTAL OFFICE	1	0.9	75	65.2
RENTER	1	0.9	76	66.1
REPAIR OF DIESEL TRUCKS	1	0.9	77	67.0
RESIDENTIAL CONSTRUCTION	1	0.9	78	67.8
REWIND ARMATURES, REBUILD EL	1	0.9	79	68.7
Residential Heating & Air Conditionin	1	0.9	80	69.6
SALE OF CERAMIC GREENWARE	1	0.9	81	70.4
SALES AND SERVICE 2 WAY RADI	1	0.9	82	71.3
SELL HOT DOGS AND DRINKS	1	0.9	83	72.2
SERVING FOOD & DRINK	1	0.9	84	73.0
SPACE RENTAL	1	0.9	85	73.9
SYSTEMS ENGINEERING	1	0.9	86	74.8
Smoothies	1	0.9	87	75.7
TRUCKING	1	0.9	88	76.5
VENDING MACHINES	1	0.9	89	77.4
VICTORIAN GIFTS	1	0.9	90	78.3
WE MAKE ROUND METAL PARTS	1	0.9	91	79.1
advertising	1	0.9	92	80.0
aircraft parts distribution	1	0.9	93	80.9
barbering	1	0.9	94	81.7
bookkeeping	1	0.9	95	82.6
books & audiotapes	1	0.9	96	83.5
check processing	1	0.9	97	84.3
commercial framing	1	0.9	98	85.2
condominium management	1	0.9	99	86.1
dentistry	1	0.9	100	87.0
financial	1	0.9	101	87.8
foodservice	1	0.9	102	88.7
gas	1	0.9	103	89.6
harbor cruise	1	0.9	104	90.4
legal services	1	0.9	105	91.3
maintenance	1	0.9	106	92.2

22. What is your company's main product/service?

q22 Product / Service
Uses Format:

Company's main product/service

Q22	Frequency	Precent	Cumulative Frequency	Cumulative Percent
organizational services	1	0.9	107	93.0
paper	1	0.9	108	93.9
specialty products	1	0.9	109	94.8
subs/sandwiches	1	0.9	110	95.7
talent agency	1	0.9	111	96.5
technical consulting	1	0.9	112	97.4
tires--alignment--brakes--tire repair	1	0.9	113	98.3
trade shows	1	0.9	114	99.1
water	1	0.9	115	100.0

23. What is your job title?

q23 Job Classification
Uses Format: jobtlfmt

	Job classification				
	Q23	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	1	0.9	1	0.9
Engineering	Engineering	4	3.5	5	4.3
Finance	Finance	5	4.3	10	8.7
Management	Management	52	45.2	62	53.9
Marketing	Marketing	5	4.3	67	58.3
Purchasing/Procurement	Purchasing/Procurement	1	0.9	68	59.1
Other	Other	47	40.9	115	100.0

23. What is your job title?

q23oth If other, please specify
Uses Format:

Description of other

Q23Oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	68	59.1	68	59.1
ARTS - PUBLISHING	1	0.9	69	60.0
ATTORNEY	1	0.9	70	60.9
CEO	1	0.9	71	61.7
EXECUTIVE SECRETARY (TREASU	1	0.9	72	62.6
Health Care	1	0.9	73	63.5
LAWYER/PARALEGAL	1	0.9	74	64.3
OWNER	9	7.8	83	72.2
OWNER SELF-EMPLOYED	1	0.9	84	73.0
OWNER - STYLIST	1	0.9	85	73.9
OWNER OPERATOR	2	1.7	87	75.7
OWNER/MANAGEMENT	1	0.9	88	76.5
OWNER/MGR	1	0.9	89	77.4
OWNER/PROVIDER	1	0.9	90	78.3
Owner	3	2.6	93	80.9
Owner - Operator	1	0.9	94	81.7
PHYSICIAN	1	0.9	95	82.6
PSYCHOLOGIST	1	0.9	96	83.5
PYSICIAN	1	0.9	97	84.3
RESTAURANT OWNER. COOKING.	1	0.9	98	85.2
SERVICES	1	0.9	99	86.1
SOLO PRACTICIONER	1	0.9	100	87.0
Sole Proprietor	1	0.9	101	87.8
VP	1	0.9	102	88.7
accounting	1	0.9	103	89.6
dentist	1	0.9	104	90.4
director	1	0.9	105	91.3
insurance sales	1	0.9	106	92.2
name brand consumer electronics	1	0.9	107	93.0
operations	1	0.9	108	93.9
owner	4	3.5	112	97.4
owner/operator	1	0.9	113	98.3
professional	1	0.9	114	99.1

23. What is your job title?

q23oth If other, please specify
Uses Format:

Description of other

Q23Oth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
supermarket goods	1	0.9	115	100.0

24. Approximately how much enclosed floor space is occupied at this location?

q24 Square Footage

Uses Format:

Square Footage

Q24	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	12	10.4	12	10.4
1,000	4	3.5	17	14.8
1,100	1	0.9	18	15.7
1,800	1	0.9	19	16.5
10,000	1	0.9	20	17.4
12,000	1	0.9	31	27.0
15,000	1	0.9	40	34.8
2,000	4	3.5	53	46.1
2,200	1	0.9	54	47.0
2,500	1	0.9	55	47.8
26,000	1	0.9	72	62.6
30 M	1	0.9	73	63.5
30,000	1	0.9	74	64.3
345,000	1	0.9	77	67.0
4,000	1	0.9	80	69.6
40,000	1	0.9	81	70.4
45,000	1	0.9	87	75.7
5,000	1	0.9	88	76.5
50,000	1	0.9	89	77.4
50,180	1	0.9	90	78.3
54,000	1	0.9	96	83.5
7,000	1	0.9	104	90.4
0	1	0.9	13	11.3
100	4	3.5	24	20.9
185	1	0.9	49	42.6
200	3	2.6	58	50.4
400	1	0.9	82	71.3
500	2	1.7	92	80.0
526	1	0.9	94	81.7
600	3	2.6	99	86.1
700	1	0.9	105	91.3
750	1	0.9	107	93.0
800	2	1.7	109	94.8

24. Approximately how much enclosed floor space is occupied at this location?

q24 Square Footage

Uses Format:

Square Footage

Q24	Frequency	Precent	Cumulative Frequency	Cumulative Percent
840	1	0.9	111	96.5
854	1	0.9	112	97.4
855	1	0.9	113	98.3
900	1	0.9	115	100.0
1000	4	3.5	28	24.3
1100	2	1.7	30	26.1
1200	5	4.3	36	31.3
1300	1	0.9	37	32.2
1400	1	0.9	38	33.0
1500	4	3.5	44	38.3
1800	2	1.7	48	41.7
2000	7	6.1	65	56.5
2400	2	1.7	68	59.1
2500	3	2.6	71	61.7
3000	2	1.7	76	66.1
3600	1	0.9	78	67.8
3750	1	0.9	79	68.7
4000	3	2.6	85	73.9
5000	1	0.9	93	80.9
5300	1	0.9	95	82.6
6000	2	1.7	101	87.8
6500	1	0.9	102	88.7
7000	1	0.9	106	92.2
8000	1	0.9	110	95.7
8750	1	0.9	114	99.1
14000	1	0.9	39	33.9
15000	2	1.7	46	40.0
20000	1	0.9	66	57.4
40000	1	0.9	86	74.8
650000	1	0.9	103	89.6

25. How many people usually are employed at this business?

q25 Employees

Uses Format:

Number of Employees

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	3	2.6	3	2.6
10 TO 15	1	0.9	21	18.3
2 + TENANTS/OTHERS	1	0.9	43	37.4
2 1/2	1	0.9	44	38.3
2 PLUS 2 OWNERS	1	0.9	45	39.1
3-Feb	1	0.9	69	60.0
30+	1	0.9	72	62.6
6-Apr	1	0.9	103	89.6
APPROX 300	1	0.9	112	97.4
DFC - 7, FIELD 70	1	0.9	113	98.3
NA	1	0.9	114	99.1
mostly part-time	1	0.9	115	100.0
1	14	12.2	17	14.8
2	14	12.2	42	36.5
3	19	16.5	68	59.1
4	13	11.3	88	76.5
5	9	7.8	98	85.2
6	4	3.5	102	88.7
7	1	0.9	105	91.3
8	4	3.5	109	94.8
10	3	2.6	20	17.4
14	1	0.9	24	20.9
15	3	2.6	27	23.5
16	1	0.9	28	24.3
22	1	0.9	46	40.0
25	2	1.7	49	42.6
30	2	1.7	71	61.7
31	2	1.7	74	64.3
35	1	0.9	75	65.2
40	1	0.9	89	77.4
65	1	0.9	104	90.4
95	1	0.9	111	96.5
120	1	0.9	22	19.1

25. How many people usually are employed at this business?

q25 Employees
Uses Format:

Number of Employees

Q25	Frequency	Precent	Cumulative Frequency	Cumulative Percent
135	1	0.9	23	20.0
240	1	0.9	47	40.9
800	1	0.9	110	95.7

26. How many company locations does your organization have within California?

q26 California Locations
Uses Format:

Number of California Locations

Q26	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	4	3.5	4	3.5
3 JOB SITES, 1 SHOP AT PRESENT	1	0.9	107	93.0
800+	1	0.9	114	99.1
SO MANY	1	0.9	115	100.0
0	1	0.9	5	4.3
1	83	72.2	88	76.5
2	10	8.7	98	85.2
3	7	6.1	106	92.2
5	2	1.7	109	94.8
6	2	1.7	112	97.4
7	1	0.9	113	98.3
23	1	0.9	99	86.1
500	1	0.9	110	95.7

27. Which best describes the location of your business?

q27 Location Uses Format: loctbfmt	Location of your business Q27	Frequency	Precent	Cumulative Frequency	Cumulative Percent
City/Town	City/Town	88	76.5	88	76.5
Suburb	Suburb	16	13.9	104	90.4
Rural	Rural	11	9.6	115	100.0

28. What is your company's approximate average monthly electric bill?

q28 Average Monthly Electric Bill Uses Format: bilamfmt	Average monthly electric bill Q28	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Missing	6	5.2	6	5.2
Less than $100	Less than $100	30	26.1	36	31.3
$100-$499	$100-$499	39	33.9	75	65.2
$500-$999	$500-$999	15	13.0	90	78.3
$1,000-$1,999	$1,000-$1,999	9	7.8	99	86.1
$2,000-$9,999	$2,000-$9,999	13	11.3	112	97.4
$10,000 or more	$10,000 or more	3	2.6	115	100.0

29. Does your company follow set purchase policies for procuring products and/or services?

q29 Yes / No Uses Format: yesnofmt	Follew set purchase policies Q29	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Yes	Yes	20	17.4	20	17.4
No	No	95	82.6	115	100.0

29. Does your company follow set purchase policies for procuring products and/or services?

q29a If yes, please specify
Uses Format:

Description of policy

Q29A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	100	87.0	100	87.0
3 bids, etc.	1	0.9	101	87.8
BEST PRICE AND PRODUCT	1	0.9	102	88.7
BOARD SET BUDGET	1	0.9	103	89.6
BY OWNER	1	0.9	104	90.4
COMPETITIVE BID AND NEGOTIAT	1	0.9	105	91.3
COMPLY WITH DWP	1	0.9	106	92.2
COST TO PROFITS	1	0.9	107	93.0
FINANCIAL PLANNING - BUDGET A	1	0.9	108	93.9
FOOD, BEVERAGE, PAPER	1	0.9	109	94.8
I buy what I want	1	0.9	110	95.7
PURCH. ORDER SYSTEM	1	0.9	111	96.5
PURCHASE ORDERS AND BIDDING	1	0.9	112	97.4
Purchase Orders	1	0.9	113	98.3
VENDOR LIST	1	0.9	114	99.1
purchase order required	1	0.9	115	100.0

30. Is your company a member of any professional and/or trade organization?

q30 Yes / No
Uses Format: yesnofmt

Member of professional/trade org

Q30	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	4	3.5	4	3.5
Yes	41	35.7	45	39.1
No	70	60.9	115	100.0

30. Is your company a member of any professional and/or trade organization?

q30a If yes, please specify

Uses Format:

List of organizaitons

Q30A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	83	72.2	83	72.2
AFCEA	1	0.9	84	73.0
AMPC, LB Chamber of Commerce	1	0.9	85	73.9
APART. OWNERS ASSOC.	1	0.9	86	74.8
ASM, ASTM, SAE	1	0.9	87	75.7
ATA	1	0.9	88	76.5
B.B.B. NAT. HOME FURN. ASS.	1	0.9	89	77.4
BIA	1	0.9	90	78.3
BUILDING TRADE ORGANIZATIONS	1	0.9	91	79.1
C OF C	1	0.9	92	80.0
CA BAR ASSN; ABA	1	0.9	93	80.9
CALIF ESC ASSOC. BETTER BUSIN	1	0.9	94	81.7
CASRA, AAMHC	1	0.9	95	82.6
CTA, IANA, TIA	1	0.9	96	83.5
California Dental Association	1	0.9	97	84.3
DRY CLEANERS ASSOC.	1	0.9	98	85.2
EASA	1	0.9	99	86.1
IAFP	1	0.9	100	87.0
LACBA, STATE BAR	1	0.9	101	87.8
Locale Constractors Exchange	1	0.9	102	88.7
NATIONAL FIELD ARCHERY ASSN	1	0.9	103	89.6
PIRA	1	0.9	104	90.4
PMA	1	0.9	105	91.3
Rotary, AEE	1	0.9	106	92.2
SDMA, Unified Western Grocer	1	0.9	107	93.0
SSDC, AEA	1	0.9	108	93.9
STATE BOARD OF BARBERING AN	1	0.9	109	94.8
U.S. CHAMBER OF COMMERCE	1	0.9	110	95.7
WE ARE A PROFESSIONAL ORGAN	1	0.9	111	96.5
West Coast Builders Association	1	0.9	112	97.4
automotive trade organization of calif	1	0.9	113	98.3
nra	1	0.9	114	99.1
various water organizations	1	0.9	115	100.0

30. Is your company a member of any professional and/or trade organization?

q30a If yes, please specify

Uses Format:

List of organizaitons

Q30A	Frequency	Precent	Cumulative Frequency	Cumulative Percent

31. Do you regularly use the Internet at work?

q31 Yes / No

Uses Format: yesnofmt

Use the internet at work

Q31	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Yes	67	58.3	67	58.3
No	48	41.7	115	100.0

32. When researching new topics, which search engine(s) do you use the most?

q32a Yahoo

Uses Format: chkdfmt

Use Yahoo as search engine

Q32A	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	63	54.8	63	54.8
Checked	52	45.2	115	100.0

q32b Excite

Uses Format: chkdfmt

Use Excite as search engine

Q32B	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	101	87.8	101	87.8
Checked	14	12.2	115	100.0

q32c Alta Vista

Uses Format: chkdfmt

Use Alta Vista as search engine

Q32C	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	103	89.6	103	89.6
Checked	12	10.4	115	100.0

32. When researching new topics, which search engine(s) do you use the most?

q32d MSN Web Search — **Use MSN as search engine**

Uses Format: chkdfmt

	Q32D	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	94	81.7	94	81.7
MSN Web Search	Checked	21	18.3	115	100.0

q32e Lycos — **Use Lycos as search engine**

Uses Format: chkdfmt

	Q32E	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	106	92.2	106	92.2
Lycos	Checked	9	7.8	115	100.0

q32f Infoseek — **Use Infoseek as search engine**

Uses Format: chkdfmt

	Q32F	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	110	95.7	110	95.7
Infoseek	Checked	5	4.3	115	100.0

q32g Northern Light — **Use Northern Light as search eng**

Uses Format: chkdfmt

	Q32G	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	114	99.1	114	99.1
Northern Light	Checked	1	0.9	115	100.0

q32h Other — **Use Other search engine**

Uses Format: chkdfmt

	Q32H	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Missing	Not checked	106	92.2	106	92.2
Other (please describe)	Checked	9	7.8	115	100.0

32. When researching new topics, which search engine(s) do you use the most?

q32hot If other, please describe

Uses Format:

Other search engine

Q32HOth	Frequency	Precent	Cumulative Frequency	Cumulative Percent
	106	92.2	106	92.2
AOL	1	0.9	107	93.0
AOL SERVICES	1	0.9	108	93.9
AT HOME	1	0.9	109	94.8
GOOGLE.COM	1	0.9	110	95.7
MetaCrawler	1	0.9	111	96.5
THEM ALL!	1	0.9	112	97.4
WHATEVER AOL PROVIDES	1	0.9	113	98.3
hotmail	1	0.9	114	99.1
metacrawler,copernic, google	1	0.9	115	100.0

q32i Don't use search engines

Uses Format: chkdfmt

Missing	
Don't use search engines	

Don't use search engines

Q32I	Frequency	Precent	Cumulative Frequency	Cumulative Percent
Not checked	91	79.1	91	79.1
Checked	24	20.9	115	100.0

Appendix G

Segmentation and Profiling Data

Residential Market Segmentation

Market Segment Profiles

Respondent familiarity, awareness & willingness to buy	NORTH COAST	SOUTH COAST	SOUTH INLAND	CENTRAL VALLEY	DESERT/ MOUNTAIN
Familiar with solar cells/PV					
- "Familiar"	20%	18%	18%	16%	24%
- "Very Familiar"	9%	18%	11%	11%	13%
Aware of Buydown Program					
- "Yes"	16%	11%	14%	10%	16%
Consider installing renewable system at home					
- "Yes, in next year"	7%	1%	3%	4%	4%
- "Yes, but don't know when"	66%	69%	69%	61%	63%
Currently have renewable energy system installed at home					
- "Yes"	3%	1%	4%	2%	4%

Respondent demographics	NORTH COAST	SOUTH COAST	SOUTH INLAND	CENTRAL VALLEY	DESERT/ MOUNTAIN
Total household income					
- $50,000-$75,000	26%	24%	28%	27%	27%
- $75,000-$100,000	11%	11%	16%	14%	5%
- $100,000-$125,000	11%	10%	7%	7%	3%
- $125,000-$150,000	4%	2%	2%	3%	0%
- $150,000+	8%	4%	5%	2%	0%
Value of home					
- $100,000-$200,000	19%	30%	38%	43%	36%
- $200,000-$300,000	16%	19%	26%	14%	6%
- $300,000-$400,000	14%	15%	5%	5%	2%
- $400,000-$500,000	12%	6%	4%	3%	0%
- $500,000 +	15%	12%	3%	1%	0%
Age					
- 25-34 years	24%	12%	15%	19%	17%
- 35-44 years	32%	27%	36%	37%	19%
- 45-54 years	24%	28%	23%	29%	33%
- 55-64 years	11%	13%	11%	7%	14%
Gender					
- Male	44%	54%	47%	41%	34%
- Female	56%	46%	53%	59%	66%
Media source relied on most					
- Television/Radio	34%	37%	45%	43%	30%
- Magazine	8%	6%	3%	1%	6%
- Newspaper	18%	15%	15%	15%	11%
- Internet/Web	40%	42%	37%	41%	53%

Market Segment Profiles

Respondent familiarity, awareness, & current electricity usage	NORTH COAST	SOUTH COAST	SOUTH INLAND	CENTRAL VALLEY	DESERT/ MOUNTAIN
Familiar with solar cells/PV					
- "Familiar"	17%	17%	22%	0%	0%
- "Very Familiar"	0%	11%	7%	0%	50%
Consider installing renewable system at business					
- "Yes, but don't know when"	83%	42%	50%	67%	50%
Monthly electric bill					
- "$1,000-$2,000 per month"	0%	5%	7%	33%	0%
- "$2,000-$10,000 per month"	0%	5%	16%	0%	0%
Business Type*					
- Office	17%	42%	20%	0%	0%
- Restaurant	17%	11%	11%	0%	0%
- Retail	0%	5%	13%	0%	0%
- Services	17%	5%	17%	0%	50%

**Top four business types represented in survey*

Commercial characteristics	NORTH COAST	SOUTH COAST	SOUTH INLAND	CENTRAL VALLEY	DESERT/ MOUNTAIN
Acceptable Payback Period					
- "1-2 years"	0%	33%	29%	0%	0%
- "3-4 years"	33%	0%	21%	33%	0%
- "5-6 years"	33%	42%	14%	33%	0%
- "7-10 years"	33%	17%	21%	33%	50%
Regular use of Internet at work					
- Yes	83%	68%	43%	67%	100%
- No	17%	32%	56%	33%	0%

	Market Segment Profiles				
Commercial characteristics	**NORTH COAST**	**SOUTH COAST**	**SOUTH INLAND**	**CENTRAL VALLEY**	**DESERT/ MOUNTAIN**
Installation/ownership features rated "Very Important"					
- Initial cost of system	50%	83%	65%	67%	50%
- System upgrade capability	67%	36%	46%	33%	50%
- Ability to measure amount used	67%	25%	46%	33%	50%
- Visual attractiveness	17%	8%	25%	33%	0%
- System longevity	67%	58%	71%	33%	100%
- Ability to finance system	67%	67%	58%	33%	0%
- Length of warranty period	67%	58%	46%	33%	50%
- Available maintenance agreement	50%	50%	38%	33%	50%
- Option to install myself	67%	17%	17%	0%	50%
- Availability of net metering	50%	33%	29%	33%	0%
- Reliability of equipment	100%	83%	72%	67%	100%
- Battery storage for emergency	83%	33%	38%	67%	50%
- Ability to lease system	17%	42%	13%	33%	50%
- Ease of installation	50%	33%	33%	33%	50%
- Availability of insurance	50%	25%	13%	67%	0%
- Manufacturer reputation	50%	33%	33%	33%	50%
- Suitability to building/property	67%	50%	48%	33%	0%
- Expense of maintenance	67%	67%	54%	33%	50%
- Complying with codes	50%	50%	38%	33%	100%
- Impact of storms, vandalism,etc	50%	33%	25%	33%	50%
- Safety of system	67%	50%	42%	67%	100%
- Financial incentives/rebates	67%	50%	33%	33%	50%
Purchase considerations/motivations rated "Very Important"					
- Improve reliability	67%	8%	22%	67%	0%
- Environmental concerns	33%	25%	26%	33%	50%
- Economic/financial considerations	83%	50%	37%	33%	50%
- Investment in future for family	50%	25%	21%	67%	50%
- Personal values for saving money	33%	25%	22%	33%	50%
- Personal interest in technology	50%	8%	11%	0%	50%
- Less reliance on fossil fuels	50%	17%	30%	67%	50%
- Less reliance on electric utility	67%	25%	37%	33%	0%
- Global climate change	67%	33%	22%	33%	0%
- Independence from utility	50%	25%	36%	0%	0%
- Cost of extending utility lines	50%	33%	20%	33%	0%
- After-sales support services	50%	33%	27%	67%	100%

Appendix H

Consumer and Supplier Gap Matrices

APPENDIX B

EMERGING RENEWABLES MARKET CONSUMER SIDE

STATUS KEY	
	Adequate data
	Data avail/Additional req'd
	Research required

Characteristics of decision makers

	RESIDENTIAL		COMMERCIAL	BLDG. CONTRACTOR*
GEOGRAPHIC FACTORS		**GEOGRAPHIC FACTORS**		
City/town location	**8) via survey ID code**		**9) via survey**	
Rural/suburban	**8) data at ZIP code level**	City/town location	**ID code**	
		Rural/suburban		
DEMOGRAPHIC/PERSONAL FACTORS				
Age	**8) via Res Mail survey**	**ORGANIZATIONAL FACTORS**		
Occupation			**9) surveyed 18**	
Income	**2) moderate/very well off**	Industry	**industry groups**	
Education		Products/services		
Family size/occupancy	**5) 2.49 avg fam size**	No. employees		
Gender	**8) via Res Mail survey**	Purchase policies		
Ethnic		Purchase criteria		
House size/value	**8) via Res Mail survey**	Assoc/affiliation with groups		
Hobbies/special interests				
		INDIVIDUAL BUYER FACTORS		
CULTURAL/SOCIAL FACTORS		Age		
	8) 53% support	Job position		
Environmental attitudes	**environmental groups**	Previous experience		
Affil pers/prof groups (specify)		Technical knowledge		
	8) 53% support	Special interests (work/personal)		
Affil/contrib to envir orgs (specify)	**environmental groups**	Assoc/affiliation with groups		
Social class				

*BUILDING CONTRACTOR CATEGORY - Group of "direct influencers" of consumers including: architects, engineers, new remodel/renovation building contractors, new home developers.

APPENDIX B

EMERGING RENEWABLES MARKET
CONSUMER SIDE

RESEARCH KEY:

1) "Willing to Pay for Electricity from Renewable Energy" Farhar, BC and Ashley Houston
2) "Public Response to Residential Grid-Tied PV Systems in Colorado: A Qualitative Market Assessment", Farhar, BC and Jan Buhrmann
3) "Colorado Homeowner Preferences on Energy and Environmental Policy", Farhar, BC and Timothy C Coburn
4) "Understanding Residential Grid-tied PV Systems in Colorado: A Qualitative Assessment", Farhar BC and Marc Roper
5) "A Report on a Survey of Residential Photovoltaic Systems in Hawaii County", Greer L, Cary Bloyd
6) "Utility Grid-Connected Distributed Power Systems", Osborn, DE and David E Collier
7) Draft Results of Staff Guidebook Survey, CEC
8) Residential Consumer Mail Survey, CEC/RER, 1999
9) Commercial Consumer Mail Survey, CEC/RER, 1999
10) Results of the Emerging Technology End-User Surveys, CEC/RER, 1999
11) Survey of Cost-Effective Photovoltaic Applications at US Electric Utilities, EPRI, Aug 1993
12) Customer Driven Markets for Renewably Generated Electricity, CEERT, Aug 1996
13) "Consumers on the Fence", Hart's Energy Markets

APPENDIX C

EMERGING RENEWABLES MARKET SUPPLIER SIDE

STATUS KEY	
	Adequate data available
	Data avail/Additional required
	Research required

Characteristics of Emerging Technology Market

	MANUFACTURERS	RETAILERS	INSTALLERS/ MAINT FIRMS
GEOGRAPHIC/MARKET FACTORS			
Company location(s)	**Green-Grid website - lists Certified Equipment & 3) list of developers by FC type**	**CEC website - list of retailers/installers**	**CEC website - list of retailers/installers**
Areas you serve			
Areas you currently market			
Length of time in business			
% industry market penetration/saturation			
Market segment profiles			
Target market profiles			
Media used to reach markets			
Ratio inquiry/closing sale			
Ranked list of prime customer motivations			
Average size home/business serviced			
Peak selling months/periods			
Suggested market improvements	**3) Mkt. Barriers by vendor**		
PRODUCT FACTORS			
On-grid/off-grid systems			
Types of renewable generation	**3) Avail FC tech by vendor**		
Battery/storage vs. No back-up			
Maintenance agreement			
Equipment guarantee/warrantees		**1,2) Most installed systems meet Buydown Program requirements**	**1,2) Most installed systems meet Buydown Program requirements**
After sales service			
Cust. knowledge/understanding of products		**1,2) Most customers have little knowledge of actual system performance**	**1,2) Most customers have little knowledge of actual system performance**

APPENDIX C

EMERGING RENEWABLES MARKET SUPPLIER SIDE

STATUS KEY	
	Adequate data available
	Data avail/Additional required
	Research required

Characteristics of Emerging Technology Market

	MANUFACTURERS	RETAILERS	INSTALLERS / MAINT FIRMS
COMMUNICATION FACTORS (Manufacturers)			
Trade organization affiliation (specify)			
Trade publications			
Trade shows/attend events			
Comm. system with retailers/installers			
Communication gaps with CEC			
COMMUNICATION FACTORS (Utilities)			
Interconnection/paralleling reqmts coordination			**1,2) can be an issue, particularly for self-**
Net Metering requirements			
Utility system inspection/approval			**1,2) can be an issue, particularly for self-**
COMMUNICATION FACTORS (Local Building/Planning Depts.)			
Permitting/ Building Code requirements			**1) consistency issues across geographic boundaries**
PV system safety inspection/approval			**1) consistency issues across geographic boundaries**
COMMUNICATION FACTORS (Retailers/Installers)			
Trade organization affiliation (specify)			
Trade publications			
Trade shows/attend events			
Comm. system with manufacturers			
Communication gaps with CEC		**1,2) Complete system warranty reqmts**	**1,2) Complete system warranty reqmts**

APPENDIX C

EMERGING RENEWABLES MARKET
SUPPLIER SIDE

STATUS KEY	
	Adequate data available
	Data avail/Additional required
	Research required

Characteristics of Emerging Technology Market

	MANUFACTURERS	**RETAILERS**	**INSTALLERS / MAINT FIRMS**
CEC BUYDOWN PROGRAM			
Awareness of program	**Endecon Equipment Certification Process**	**1) Many Retailers/Installers applied for Buydown incentive for their**	**1) Many Retailers/Installers applied for Buydown incentive for their customers**
Understanding of program		**1) Retailers/Installers understand & support the Buydown Program**	**1) Retailers/Installers understand & support the Buydown Program**
Involvement with program	**1) address system performance problems**	**1) often assisted in on-site verification activity**	**1) often assisted in on-site verification activity**
Referral of program to customers			
View/opinion of program			
Est. % of customers involved in program			
Offer funding application for customers			
Joint promo with CEC		**1) SLO Bldg officials mtg 7/99 RER presentations**	**1) SLO Bldg officials mtg 7/99 RER presentations**
Promo info from CEC		**1) SLO Bldg officials mtg 7/99 RER presentations**	**1) SLO Bldg officials mtg 7/99 RER presentations**
Interested in stakeholder advisory group			
Difficulties with CEC/program			
Diff. with related Utility / Fed. Gov Programs			

RESEARCH KEY:

1) CEC Emerging Buydown Program On-Site Verifications: Phase 1, RER, 10/99
2) CEC Emerging Technology End-User Surveys, CEC/RER, 1999
3) State-of-the-Art Fuel Cell Technologies for Distributed Power, EPRI, August 1997

Appendix I

Comparison of Survey Results by Survey Method

A survey method comparison of key findings, for residential and commercial survey versions, is detailed in the section below. Although to assist in the overall understanding of different survey method participants, it remains notable that there exists Internet bias in the results of the residential portion of the survey due to predominance of residential web-based survey responses (768 versus 76 mail respondents). A better understanding, however, overall of the effect of different survey methods will assist in defining the optimum market research methods for future research projects.

I.1 Residential Market Research – Internet vs. Mail

There were significant response variations between Internet and mail respondents to many of the emerging renewable technology questions. Twice the percent of mail respondents (37%) to Internet respondents (18%) were "not at all familiar" with at least one of the emerging technologies, although both survey methods produced virtually the same percentage of respondents claiming "personal experience of renewable energy." Concerning the familiarity with solar cells PV alone, over half (55%) of Internet-based respondents claimed familiarity against 46% of mail-based respondents.

Awareness of other renewable energy system users was also higher with Internet-based respondents at 30%, versus 20% of mail-based respondents. Internet respondents claimed to be aware of more friends, against mail respondents who cited they were aware of more relatives, with a renewable energy system. The percentage of Internet respondents that had received information about renewable energy sources was double that of mail survey respondents (32% Internet vs. 16% mail).

In rating purchasing considerations there were some variances. Rated as "very important," half of Internet-based respondents cited "personal values for saving money" against just one third of mail-based respondents. Other differences at the "very important" rating included: "less reliance on fossil fuels" – Internet 48%, mail 31%; "less reliance on electric utility" – Internet 41%, mail 31%; and "availability of after-sales support" – Internet 49%, mail 36%.

Awareness of the Commission promotional material varied between the two groups, with 14% of Internet-based respondents saying they had seen material against just 4% of mail-based

participants. Twenty-seven percent of Internet respondents were aware of a company/organization providing renewable energy products or services, against 12% of mail respondents.

Demographic characteristics also reflected differences between Internet and mail survey participants. Mail-based respondents watch cable and major network television equally where over half of Internet-based respondents primarily watch major network stations. Twice the percentage of mail respondents (10%) listen to "classical" radio stations versus Internet respondents (5%). Over half of mail respondents (52%) prefer a major regional paper, to over half of Internet respondents (51%) who prefer the local paper. Twenty-seven percent of mail-based respondents "never" read their utility bill inserts against 8% of Internet-based respondents who claim the same.

Table I-1 provides an age group comparison that illustrates the difference between the Internet- and mail-based respondents (a small percent of mail-based respondents declined to answer this question). Note that Internet respondents dominated the three under 45 classes, while the mail respondents dominated the 65+ age group

Table I-1: Comparison of Respondents by Age Group and Survey Method

	Internet	Mail
Less than 25 yrs	5%	0%
25-34 years	19%	7%
35-44 years	33%	27%
45-54 years	26%	27%
55-64 years	11%	10%
65 years +	6%	27%

Of the survey respondents, 55% were women compared to the 45% of men. Notable occupation differences, as shown in Table I-2were as follows:

Table I-2 : Comparison of Respondents by Occupation and Survey Method

	Internet	Mail
Computer Science	8%	1%
Homemaker	9%	4%
Healthcare	4%	1%
Retired	8%	19%

Education illustrated that 10% of Internet-based respondents had a graduate degree versus 20% of mail-based respondents. Twenty percent of mail respondents reported living in a home valued at $500,000 or more, against 6% of Internet respondents in the same valued home. Eighteen percent of Internet respondents lived in a rural area, versus 9% of mail respondents.

I.2 Commercial Market Research – Internet versus Mail

Similar to the residential market research, there were response variations between Internet and mail commercial respondents. Generally, awareness of emerging renewable technologies overall was the same between Internet and mail respondents. Thirty-five percent of mail-based survey respondents, however, were "not at all" aware of *any of the four* emerging renewable technologies, as compared to all of the Internet respondents who claimed awareness of at least one of the four technologies.

Half of the Internet-based respondents were aware of someone who had a renewable energy system versus 25% of mail-based participants claiming the same. Almost twice the percentage of Internet-based participants had received information to mail-based respondents at 43% Internet, 23% mail.

Interesting results were highlighted when asking commercial respondents to rate numerous purchase considerations. Rated as "very important," half of the Internet respondents stated "investment for future for family/children" against 29% of mail respondents. Twice the percentage of Internet respondents rated "personal interest in technology and up-to-date trends" at 29%, against mail respondents rating this consideration at 15%. Available after-sales support was rated "very important" by 64% of Internet versus 38% of mail respondents.

Mail survey respondents rated 3-4, 5-6, and 7-10 years equally (29% each) as acceptable timeframes for "pay back" of the purchase and installation of an on-site generating system. Internet respondents were not too dissimilar with the spread of their preferences between 1-2 years (21%), 3-4 years (23%), 5-6 years (21%) and 7-10 years (25%). Internet respondents were more optimistic of installing an on-site generation system at their business sometime in the future (57%) when compared to mail respondents (49%).

In reviewing system preferences, Internet respondents rated equipment reliability (93%) and importance of battery storage (71%) as "very important" against mail respondents ranking of these as 76% and 46%, respectively. Again, 43% of Internet respondents ranked ability to lease a generation system as "very important" versus 26% of mail respondents rating it the same.

None of the Internet-based respondents had seen any of the Commission's promotional materials on renewable energy or the Buydown Program, against 6% of mail-based respondents. Twenty percent of mail-based respondents claim they will "never consider" a renewable energy system at their office or business versus just 1% of Internet respondents who stated the same.

The types of businesses between Internet and mail respondents varied. Almost one quarter of mail survey participants were from an "office" business type against 7% of Internet participants of the

same. Forty-five percent of mail respondents claimed their job titles as "management" versus 21% of Internet respondents. Most notable is that of the Internet-based commercial respondents; 43% were located in a rural area against just 10% of mail-based respondents. Not surprisingly 20% more Internet respondents use the Internet regularly at work than mail respondents (79% Internet versus 58% mail).