



**Energy Trust of Oregon
Solar Incentive Research Study
Executive Summary**

**Findings and Recommendations
October 18, 2007**

Background

Energy Trust of Oregon has been hosting seminars inviting the public to learn more about the advantages of solar power and financial incentives offered through the Trust. Attendance at these monthly meetings has grown sharply over the past few years and now host approximately 100 people per event. Energy Trust has also distributed more than 1000 solar information packets to people who request them via the web. However, despite the marked increase in interest in solar, solar installations, while rising, have not increased at the same rate. Energy Trust has contracted with SmartPower to better understand what is keeping Oregonians from converting this strong interest in solar into action and help stimulate more aggressive sales of solar technology in the region.

SmartPower's Research Approach

SmartPower has undertaken a variety of research approaches across the country in the field of clean energy that help uncover underlying barriers to clean energy and develop compelling messages to help motivate sales. SmartPower proposed a two phased approach to Energy Trust to address market concerns. Phase One was a *quantitative study* that polled both existing Energy Trust Solar Incentive customers (a total of 69 respondents) as well as those individuals who attended seminars or requested materials but who have not installed (a total of 160 respondents). (SmartPower refers to this second group of individuals as Inerts.)

Phase Two of the research process was *qualitative*. We conducted focus groups (two groups of Inerts and one group of customers) clustered by interest in solar water heating or solar PV. Six groups were held over a two day period. A series of projective exercises were structured to elicit emotional connections and concerns. The following Summary reflects key findings from our research:

Findings

Barriers to Solar

There were substantial differences in the mindset between customers and Inerts and as a result, there are a range of emotional and practical barriers that keep many Inerts from converting to solar. ***Solar is perceived by many Inerts as a commitment and challenge that could ultimately alter their lifestyle.*** Our focus group panelists described solar as a “sacrifice” and “shared commitment.” They described the costs as prohibitive in many instances, and the payback as more moral than financial. Many of the Inerts felt that solar was associated with retreat and retirement rather than everyday living. It was seen as part of a self-sustaining simplicity and often more of a dream than reality.

While customers saw solar as part of a mindset they had embraced, taking the longer view in terms of payback and financial perspectives, ***Inerts tended to be more short term in their thinking. They were more likely to get caught up in the details as well as immediate payback.***

In many instances, ***Inerts felt that “attending a seminar was not doing nothing.”*** They were proud of their participation in this process and it constituted a valid action in their minds, even though they had not yet installed solar. It is important to note that Inerts are engaged in a variety of other environmental actions, such as energy efficiency, bio-diesel choices, etc. While some Inerts intend to install solar and are simply in a process of decision making, others will get stalled in early on. The challenge for Energy Trust will be to overcome Inert resistance through consistent messaging and marketing that address their barriers.

It’s clear that installing a solar energy system requires a certain level of education, time commitment and comfort with technology. It is a time consuming process that left even customers struck by its complexity. We observed that our customer groups were highly educated and many had advanced degrees. Not surprisingly, Inerts often felt overwhelmed by the amount of information and time required to understand the solar requirements for their specific home. While Energy Trust is perceived as a reliable and useful source of information, Inerts clearly could use more help in this process.

Inerts found the solar seminars a very useful source of information. However, ***many reported disappointment when they realized they could not achieve 100% of their home’s energy from solar.*** Many felt that only getting 1/3 of their energy from solar did not make the investment a sound one.

The process of deciding on installing solar is a much longer one than expected. More than a third of customers reported they considered their purchase decision for more than two years before installing. Not surprisingly, therefore, many Inerts in our focus groups indicated they were waiting to replace a roof or some other substantial repair before installing.

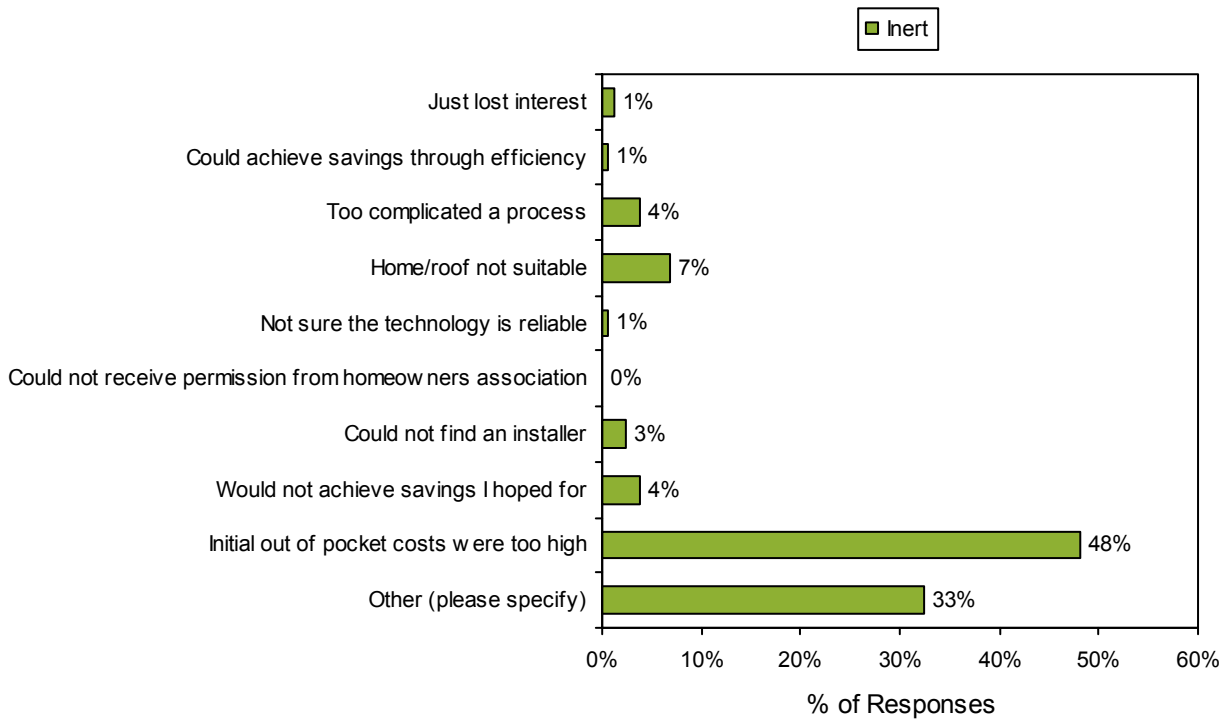
How long had you been thinking about installing solar in your home before you actually did?

Response	Percent
Less than 6 months	14.3%
6 months – 1 year	24.3%
1-2 years	22.9%
More than 2 years	38.6%

Price is a Barrier

While customers did not report price as an obstacle, they also had slightly higher incomes than Inerts. However, price was a substantial barrier for Inerts, as reported in our quantitative study.

#1 Reason for Not Installing? by Segment



Inerts cited concerns about the high up-front costs required. They complained that tax credits are spread over a 4 year period and lessen the appeal. Many preferred rebates. Some Inerts were delaying their decision to install because they felt the technology would be less expensive and more reliable in the future and that perhaps incentives would increase as well. Finding a way to make solar more affordable for the average homeowner is clearly a challenge and a priority.

Emotional Connections

Several themes emerged that reflected the potential emotional benefit customers had realized and/or Inerts were seeking with solar:

Pioneer Status... blazing a new trail, sense of independent leadership.

Clearing the Conscience... done your part, alleviation of guilt and pressure.

Earth-Connected... connected to the earth on a deeper level.

New Beginnings... a sense of optimism and feeling like we could start again.

Honorable Pride... feeling “holier than thou”... the pride of doing the right thing.

Simple Self-Sufficiency... getting by on their own without help.

The core emotional promise of installing solar can be represented by the pride and honor of being a pioneer. The pioneer spirit is clearly prevalent in Oregon. The deep connection to nature was manifest by most participants. That pioneer spirit can be embodied in a core emotional promise of installing solar, which is represented by the pride and honor of being a pioneer. We should note here, that this is a theme that is clearly unique to Oregon. Other states and regions do show regional pride and local commitments – but in Oregon the “pioneer spirit” seemed to be deep and ingrained.

Powerful Visual Images

Several images emerged that helped make these connections. The most compelling image that emerged from our focus groups was the photograph of Planet Earth (see below). This image worked on a number of levels: from a global perspective, it framed the issue as beyond their immediate family. Their actions impacted the world. It also conveyed a harmonious connection to earth, a sense of peace and contentment. And finally, this view of earth connected solar to science and nature.



Other images that reflected a feeling of personal connection to the world around them, or how life should look and feel were also selected.



Purity of green woods provided an aspirational view of Oregon

Optimism of the future, and the positive impact they could have on their children

Motivations

Many Inerts felt that the rewards for solar are more moral than financial.

Customers who installed solar were setting an example, reducing their carbon footprint, making a contribution to society. This made solar a more values-based proposition. In our on-line study we can see that customers who installed are motivated by doing something good for the environment while Inerts are focusing on reducing their fossil

fuel usage. Inerts are also more motivated by reducing their dependence on their utility company.

Motivation	Customers	Inerts
Environment Total	61%	58%
Good for Environment	36%	23%
Reducing use of Fossil Fuels	12%	24%
Global Warming	13%	11%
Financial Total	25%	23%
Concern about Rising Energy Costs Over Time	13%	17%
Saving Money	12%	6%
Improving Value of My Home	0%	0%
Reducing Dependence on Utility	6%	17%
Other	9%	3%

Positioning

To understand how best to communicate the benefits of solar, our focus group participants were shown a set of 5 potential positioning statements, each reflecting a particular beneficial aspect of solar technology. These positioning statements included:

- Solar Makes Energy Sense
- Solar is Good for the Health of Future Generations
- Solar is Good for the Environment
- Solar is a Good Investment
- Solar is a Move to Energy Independence

Our focus groups found positives and “issues” in each of the five positionings. However, the *common sense tone and approach of “making energy sense”* appeared to be the most compelling voice for solar and represents the best

foundation for developing an effective communication positioning for solar in Oregon. The elements of that communications should include:

Solar Makes Energy Sense

Oregon should be a leader in solar development (moral imperative that embraces the pioneer spirit)

The world doesn't change until mindfulness is turned into action (thinking alone won't do the trick)

Oregon has more sun than people think

Solar is more dependable than ever

Solar is more doable than ever from a financial perspective

Profiling the Target Audience

Based on the online study and focus group discussions it is possible to more narrowly define the potential solar target. The bull's eye potential customers would:

Demographics

- Be 35-64 years old
- Have income of \$75,000 +
- Be highly educated
- Be considering home improvements
- Own a 2500+ square foot home
- Intend to live in their home for a long period of time
- Not require financing to install but see incentives as a key enabler

Attitudinally:

Feel established, seeking purpose. They have reached a feeling of some security in terms of finances, professional and home life. They are now interested in fulfilling their **sense of purpose**.

Knowledgeable about solar. They have done research, requested information; have a general awareness of the benefits and limitations of solar power.

Role of Energy Trust

Energy Trust of Oregon was perceived as a trusted advisor who had clearly helped educate and broaden awareness of solar power possibilities in Oregon. The organization embodies a set of positive equities:

- **Respect and Knowledge** – A knowledgeable resource that would have the answers on the solar process. The website was well liked and appeared to be used with some frequency.
- **Honest brokers** – Energy Trust representatives were seen as people who told the truth about solar and helped overall with energy efficiency needs. Some recounted tales of Energy Trust advising prospects they weren't ready for solar yet, and should employ energy efficiency measures first.
- **Connection with contractors** – Energy Trust was seen as the only place they could find a full list of trusted solar installers and contractors.

However, Energy Trust seems to be poised to play a broader role. Based on comments from the quantitative study and focus groups there was a desire for Energy Trust to promote solar more aggressively by:

- Creating broader awareness of the benefits of solar.
- Promoting knowledge of sunshine levels in Oregon
- Showcasing testimonials from customers
- Providing better and clearer financing options

Recommendations to Energy Trust of Oregon

1. **Financing Strategies.** Inerts tell us that price is the number one barrier for installing solar. In order to overcome that barrier Energy Trust should work with local financial institutions to develop lending products (either low interest or no interest loans) that allow Energy Trust to present solar as affordable through small monthly payments, not dissimilar to those employed by car dealers (to utilize a high ticket item comparison). Rather than present the financial investment in solar exclusively in terms of its total cost outlay (minus incentives, tax returns, etc.) Energy Trust can reposition the cost of solar through the introduction of a “low monthly payments” approach. It should be reflected as (for example) “as little as \$100 month.” Reviewing payment strategies at seminars may help convert Inerts from the “waiting bench” to the customer queue.

2. **Rebates and Tax Credits.** The four year pay out of tax credits is seen as both confusing and an additional barrier to Inerts, as it requires more up-front cash to initiate a solar project. Additionally people in lower income brackets complained that if they do not itemize, the tax credit does not help them. Energy Trust may want to pass this information on to the appropriate State agency to see if it can be addressed in the future.
3. **Solar Water Heater – Renewable or Energy Efficiency?** Energy Trust may want to re-examine its incentive program for solar water heaters. It does not compare as favorably as other states and requires a significant out of pocket investment, compared to the incentive. Solar water heaters can be a more affordable “entry level” solar product for homeowners.
4. **Solar Ambassadors.** Customers have reported how complicated the “homework” is in installing solar. Inerts suggested that having a “helping hand” during the research phase would be helpful. Energy Trust has a built in army of prospective Ambassadors in its current customer list. These customers are strong advocates for solar and would welcome the opportunity to support the growth of solar in the Portland area. These Ambassadors can be utilized in a variety of ways:
 - a. **Testimonials at seminars.** Utilize Ambassadors during the seminar and let them answer questions from the audience about real life installation questions and concerns.
 - b. **Testimonials on website and materials.** Let customers showcase their homes, their experience and their satisfaction.
 - c. **Buddy System.** Consider assigning an Ambassador to prospective customers who need help navigating through the process. Sign ups for Buddies can be made available at seminars.

Customers and their stories can help convert the inertia of Inerts into “right action.” They can help persuade Inerts that attending a seminar is simply not enough.

5. **Marketing to Inerts.** Our research shows that the decision making process for installing solar is over two years. Over the course of that time, Energy Trust has an opportunity to keep Inerts motivated and on the decision-making pathway. By developing a marketing communications strategy specifically for Inerts, Energy Trust can keep this important audience interested and connected to solar energy and informed about program improvements. Communications can be in the form of on-line newsletters, events, etc. and can contain 1) testimonials, 2) financing options and 3) installation guidance, and 4) new program updates.
6. **New Home Construction.** Because solar installations are less expensive when installed in new home construction, and financing can be rolled into home mortgages, Energy Trust should place emphasis on the marketing of solar in this category. Market outreach to developers that emphasizes incentives for multiple home installations may make this category more robust.
7. **Contractor Referral Process.** Customers and Inerts feel they may need help working with contractors. While Energy Trust may not want to get into the referral

business, it may want to allow customers to rate their experiences with specific contractors and serve as an on-line site for customer comments.

8. **General Solar Marketing with New Positioning.** Most agreed that Portland residents do not believe there is sufficient sun in the region to support solar technology. Utilizing the “solar makes energy sense” positioning and capitalizing on the pioneer spirit prevalent in Oregonians, Energy Trust should promote solar as a way of increasing attendance at seminars and broadening the base of solar interest. Creating more “top-of-mind” awareness of solar options will help widen the base for solar. Utilizing elements from the positioning statement “Solar Makes Energy Sense” will increase the effectiveness of the overall message as well as provide encouragement for those attending solar seminars to turn thoughts into action.
9. **Solarizing One Two Three.** Combining an energy efficiency audit with solar installations is an effective way of making solar more affordable while helping the home owner and business with overall energy costs. Packaging these efforts together helps move activity of all three.
 - a. Step One: The Energy Trust Energy Audit
 - b. Step Two: Implement Energy Audit Recommendations
 - c. Step Three: Install solar water heater, PV or both
10. **The Geek Factor.** Looking at the profile of customers and recognizing the need for those customers to be comfortable with complex information and technology issues, SmartPower recommends that Energy Trust partner with Hi-Tech corporations in the Portland area and offer *customized solar seminars on-site*. Portland is an ideal region for this approach. There are over 66,000 Hi-Tech employees in the area, with an average salary of over \$78,000. By working directly with these companies, Energy Trust can construct unique opportunities to co-brand solar incentive offerings and potentially create additional financial matches by employers. For example, Intel may want to offer no-interest loans, or offer \$1000 to employees who install. (Earlier this year Citibank offered any employee who bought a Hybrid car \$3,000). Solar seminars can be promoted within companies via newsletters and email and posters. More importantly, Energy Trust will be creating ideal settings for solar information seminars, targeted to prospects uniquely suited to install solar. SmartPower can provide on the ground manpower to help create marketing opportunities with these high-tech businesses.
11. **Revise Solar Presentation.** Based on the above recommendations as well as our previous review of the solar presentation, there are several suggested changes to the solar information PowerPoint. The include:
 - a. **Focus on Solar Hot Water Upfront** – Solar water heaters require less out of pocket costs. Lead with this opportunity.
 - b. **Financing** – Address ways to finance solar in the meeting to make it more affordable. Invite financial institutions to attend and present.

- c. **Testimonials** – include satisfied customers in the presentation who can speak to how easy it is to install, how satisfied they are with the product, and willingness to answer questions.
- d. **Message** – utilize the themes that have emerged in our research: the pioneer spirit of Oregonians, reducing fossil fuel use, how to make solar affordable, creating an action plan, instituting the “buddy system” for those who need support getting started.