

Market Research Report

**Regional Public Information Program for the
Efficient Building Practices Initiative**

prepared by
Cole & Weber
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**Northwest Energy Efficiency Alliance
Efficient Building Practices
Regional Public Information Program
Market Research Findings**

Summary of Methodology

- Eighteen focus groups around the Northwest with three categories of participants –
 - Homebuyers & remodelers
 - Commercial architects, developers and building managers
 - Business decision-makers
- Sixteen one-on-one interviews with professionals involved in the energy efficiency field

Summary of Findings from Focus Groups and One-on-One Interviews

Current Awareness and Understanding of Benefits

1. Energy efficiency is not a top of mind concern for most people
2. When prompted to think about it, people associate with negatives like “sacrifice”
3. Most people think the benefits are “saving money on utility bills” and “helping the environment”
4. Tenants assume that energy efficiency is a given
5. Tenants are aware of poor performance in lighting, heating and air circulation.
6. Tenants connect physical attributes of their workplace with productivity, employee satisfaction and retention
7. Sustainability is a concept that is not well understood

Perceptions Regarding Market Barriers

1. The different players in building development are in adversarial rather than collaborative relationships
2. It is worthwhile to redefine the message from energy efficiency to something more relevant and motivating
3. There is not enough consumer demand for efficient buildings
4. Most people believe you have to spend more upfront to create efficient spaces
5. Cost seems insurmountable unless developers and their customers highly value the benefits

Potential Appeals

1. Developers drive the building development process
2. Create demand for energy efficiency among developers’ customers
3. A physical work environment that increases productivity makes good business sense
4. The appeal should be directed toward an individual benefit rather than how it would benefit society as a whole

Potential Communication Channels

1. The commercial sector should be targeted with a message emphasizing increased worker productivity
2. A counselor would help guide development at an early stage

**NEEA
Energy Efficiency
Focus Groups**

August, 1999

Study Purpose:

This report presents the results of a series of qualitative focus group sessions that were conducted throughout the Northwest to get a better understanding of the following issues among homebuyers and business professionals:

- Understanding of 'energy efficiency'. Perceived benefits of 'energy efficiency'.
- Importance of 'energy efficiency' in the home & office space selection decision.
- Understanding of 'sustainability'. Connection of 'sustainability' to 'energy efficiency'.
- Reaction to the proposed 'energy efficiency' messages. (Total of 72 messages)
- Identification of the most important 'energy efficiency' communications themes.

The resulting information, coupled with good management judgment and experience, will be used to *guide* the decisions that the Northwest Energy Efficiency Alliance (NEEA) and Cole & Weber will be making in the development and execution of its 'energy efficiency' communications campaign.

Method:

The information in this study was gathered by conducting 18 qualitative focus groups across five Northwest markets:

- | | | |
|----------------------|---------------------------------|----------|
| • Portland, OR | 6-30-99 Homebuyers & Remodelers | 1 group |
| | Commercial Potpourri | 1 " |
| | Business Decision Makers | 1 " |
| • Seattle, WA 7-7-99 | Homebuyers & Remodelers | 1 group |
| | Commercial Potpourri | 1 " |
| | Business Decision Makers | 1 " |
| • Spokane, WA | 7-13-99 Homebuyers & Remodelers | 2 groups |
| | 7-14-99 Commercial Potpourri | 1 |
| | Business Decision Makers | 1 " |
| • Boise, ID | 7-20-99 Homebuyers & Remodelers | 2 groups |
| | 7-21-99 Commercial Potpourri | 1 |
| | Business Decision Makers | 1 |
| • Bozeman, MT | 7-27-99 Homebuyers & Remodelers | 2 groups |
| | 7-28-99 Commercial Potpourri | 1 |
| | Business Decision Makers | 1 |

To qualify for the sessions, the various audiences needed to meet the following key specifications:

Homebuyers & Remodelers: (HB)

- Age 25+. Mix of education & income levels. 50%+ from suburban neighborhoods.
- Purchased a new home or completed a major remodel in the past two years.

Commercial Potpourri: (CP)

- Age 25+. Mix of education & income levels.
- Commercial *Architects*: 3+ years experience as a senior firm member.
Design new or remodeled office space.
- Commercial *Developers*: 3+ years experience as a senior firm member.
Develop office buildings, hospitals, retail stores, or schools.
- Commercial *Brokers*: 3+ years experience as a senior firm member.
80%+ of real estate work is in the commercial area.
- *Property Managers*: 3+ years experience as a senior firm member.
Make building operation decisions as manager or owner.

Business Office Space Decision-Makers: (BDM)

- Age 25+. Mix of education & income levels.
- Senior company official who strongly influences site selection or remodel decisions.

None of the respondents could work in market research or advertising; or, for an energy related entity or consulting firm.

Overall, 160 consumers participated in the sessions:

	<u>Homebuyers</u>	<u>Comm'l Potpourri</u>	<u>Business Decision Makers</u>
Portland	19	10	9
Seattle	14	8	8
Spokane	15	9	5
Boise	16	10	9
Bozeman	<u>12</u>	<u>8</u>	<u>8</u>
Total	76	45	39

Each respondent was paid a cash honorarium for participating in the sessions and sharing his, or her, views.

Representatives of the NEEA and Cole & Weber observed the sessions from behind a one-way mirror or via a remote video camera. All of the sessions were audio-&-videotaped for later review.

Overview

The NEEA and Cole & Weber have a challenging task ahead of them in trying to promote 'energy efficiency'. It's a concept that hasn't been at the forefront of consumers' thought since the gas crisis of the 1970's. And, the benefits of 'energy efficiency' are mired in the old paradigm of 'saving money on utilities' and 'being good for the environment'. The job will be to rekindle the importance of 'energy efficiency', reposition it, and make it something that people ask for and demand.

Current 'Energy Efficiency' Situation:

'Energy efficiency' is not a top-of-mind consideration for most homebuyers and business professionals. When considering which home to buy, which office space to lease, or how to remodel a home or office, 'energy efficiency' is typically not part of the conscious decision process. It's more of a background consideration. It needs to be prompted before it becomes part of the discussion.

'Energy efficiency' is a concept that is strongly associated with the gas crisis of the 1970's. To most people, 'energy efficiency' hasn't been prominently thought about in over 20 years.

'Energy efficiency' is typically equated to sacrifice. Both homebuyers and business professionals believe that they have to spend money upfront to create an 'energy efficient' environment in their home or office. Then they can recoup those costs over time in the form of dollar savings on energy bills if they stay in the space long enough.

On the positive side, 'energy efficiency' is important in the Northwest, because people here are more environmentally conscious than in other areas of the country. (Particularly, in Boise & Bozeman).

However, on the negative side, 'energy efficiency' is unimportant in the Northwest because energy costs are lower here. Consumers believe that there is no shortage of energy in the Northwest. They believe that the regions' hydroelectric power is virtually unlimited. And, they argue that there is so much energy that the Northwest is selling its power to other regions of the country.

As it stands, neither homebuyers nor business professionals are asking for 'energy efficiency' when buying a home or leasing office space. The commercial market is not pushing 'energy efficiency' on the office space market; and, the office space market is not demanding it.

Overview

Understanding of 'Energy Efficiency':

Most homebuyers and business professionals have a fairly good understanding of what 'energy efficiency' is. They generally understand what things in a home, or building, impact 'energy efficiency'.

However, at the same time, 'energy efficiency' is a broad and rather amorphous concept. It has different meanings to different people. Some consumers have a hard time wrapping their mind around the idea of 'energy efficiency'. There are so many things that relate to 'energy efficiency' that it can be overwhelming.

'Energy efficiency' is not something that can be *seen*. It's only something that can be *felt*. It's a relatively intangible concept.

Hence, homebuyers & remodelers, in particular, ask that 'energy efficiency' be better defined. They want it to be broken down into an understandable list of things that relate to 'energy efficiency'. That way, they can check to see if their home is 'energy efficient'.

Creating branded, 'energy efficient', products would likely help to make the whole concept of 'energy efficiency' more tangible.

Redefining 'Energy Efficiency':

The NEEA and Cole & Weber may want to *consider* finding a new term to describe 'energy efficiency'.

The current term, while well known, is connected to the past and is instantly associated with 'saving money on utility bills' and 'being better for the environment'. Moreover, 'energy efficiency' is typically associated with the yellow stickers found on most appliances touting the 'energy efficiency' ratings of the unit. It tends to be an overused term.

To expand beyond the current way of thinking, a different term may want to be considered. This will help to reposition the concept of 'energy efficiency' in the minds of consumers.

To its defense, the term 'energy efficiency' seems to work well with the concept of 'productivity'. This is because 'efficiency' equals 'productivity'.

Overview

'Energy Efficiency' Communications Themes:

Homebuyers and business professionals rank the alternative 'energy efficiency' themes in the following order of appeal. From their perspective, they feel that this is the best way of creating awareness of, and demand for, 'energy efficiency':

Many of them immediately gravitate toward the old way of thinking about 'energy efficiency'. That the benefits of 'energy efficiency' are two-fold: 'saving money on utilities' and 'helping the environment'. While these benefits are important, they are likely *not* ones that will create a revived interest in 'energy efficiency'.

However, the 'productivity' message shows great promise among all aspects of the business market – owners, lessors, realtors, architects, managers and employees. To those who connected with the 'productivity' message, it enlightened and broadened their way of thinking about the topic of 'energy efficiency'.

There doesn't seem to be as strong of a new 'energy efficiency' message among homebuyers. Consumers still more strongly connect with 'cost savings' and 'environmental' themes over ones about 'comfort' or 'health'.

Homebuyers & Remodelers:

#1 Cost Savings:

It's the most important message. It speaks to everyone.
It's the most practical appeal. It's a 'me-oriented' benefit.
Having an 'energy efficient' home saves money on utilities.
It's the first, and most important, benefit of 'energy efficiency'.

#2 Environment:

**It's the second most frequently volunteered benefit.
It's an important message because it benefits everyone.
It creates 'peace-of-mind' and fits well with conservation & recycling.
However, it's an 'us-oriented' benefit.
It doesn't provide an immediate benefit to the individual.**

Overview

'Energy Efficiency' Communications Themes: (Cont'd)

Homebuyers & Remodelers: (Cont'd)

#3 Comfort:

**It's a stretch for most consumers.
It infers that their home is not comfortable now.
Themes of 'dampness' don't work East of the Cascades.
Consumers believe that their homes are well built and sturdy.
It's a theme that works best on people who have older homes.**

#4 Health:

**It's not a theme that readily comes to mind.
Consumers don't consider their homes to be unhealthy now.
'Health' & 'energy efficiency' seem like a distant connection at best.
To many, 'energy efficient' homes are less healthy.
They're closed. They can't breathe. They cause mold & mildew.
It's may be a good theme because it's a new approach.
It hasn't been promoted before.
It works best with those who have asthma or allergies.**

Overview

Commercial Potpourri & Business Decision Makers:

#1 Cost Savings:

**It's always the first and most frequently mentioned benefit.
It saves on utility costs. It addresses the bottom-line.
It's an economic message.
It mainly applies to building owners, not lessors.
Utility costs are wrapped into a triple-net lease.
Payback on utility costs needs to be proven.**

#2 Productivity:

**It's a unique way of talking about 'energy efficiency'.
It applies to the bottom-line, but gets away from utility costs.
It applies to all business audiences.
Productivity = increased revenues and increased profits.
Productivity encompasses employee morale, health and comfort.
Energy efficiency = employee efficiency.**

However, it's a hard concept to communicate.
It's difficult to measure productivity and attribute it to EE.
It's hard to quantify. It can be ambiguous.

#3 **Comfort:**

It's a good message for *employees*.
Employers want to see productivity over comfort.
'Comfort' is a sub-set of productivity.
Comfortable workers are more productive workers.
Employees will want to work when they're comfortable.
It's a new way of looking at 'energy efficiency'.

#4 **Health:**

It's a new way of looking at 'energy efficiency'.
It's a sub-set of productivity.
It's a long-term concept. There's no immediate return.
It's hard to measure the health benefits of 'energy efficiency'.
There's not an immediate connection between health and EE.
It's a stretch for most business professionals.
A building that is more EE will likely have poorer air quality.
It takes *more* energy to circulate air and keep it fresh.
Air quality messages could cause employees to sue their employers.

Overview

Commercial Potpourri & Business Decision Makers:

#5 Environment:

**It's important, but it's down on the list.
It's about being a good corporate citizen. It's good PR.
Environmental themes are not as popular as they used to be.
Many environmentalists are extremists. They're 'tree-huggers'.
Environmental themes = regulatory control. I hate it.
It's too 'warm & fuzzy'. It's not a dollar-oriented message.
It's an old idea. It's overworked. It's been used before.**

#6 Sustainability:

The issue of 'sustainability' is unknown to the strong majority of respondents. Most homebuyers and business professionals are totally unaware of what the term means. They guess that it means 'keeping something going' and 'sustaining something over the long-term'. But, they do not associate it with 'green building practices', nor with 'energy efficiency'.

The only ones who seem to have a basic understanding of 'sustainability' are architects. But, it is not well understood among all architects.

It is not advised to tie the 'energy efficiency' message to the issue of 'sustainability'. To do so, would require defining and building awareness of both 'sustainability' and 'energy efficiency'.

Overview

'Energy Efficiency' Communications Guidelines:

Both consumers and business professionals respond better to a 'me-oriented' communications message, than a 'us-oriented' one. They want to know how 'energy efficiency' will benefit them first; and then, how it will benefit society as a whole.

Messages with a 'positive' theme tend to be better received than messages with a 'negative' one. And, messages that use 'scare tactics' catch people's attention, but tend to turn them off to what is being communicated.

Messages that use offensive and flip terms (like 'moron' or 'crap') are incongruent with the age of this target audience. They associate such terms with a younger person's way of talking.

All of the audiences like messages that are presented in the form of a question. It catches their attention and lets them answer it from their own perspective.

All of the audiences respond well to factual information and statistical support. It gives them something concrete to react to. They especially like it, when the message goes against their common assumptions. However, in all of the 'statistical' messages that were presented, they

question how the information is substantiated and what the source is.

All of the audiences like catchy and humorous messages. They find them provocative and enticing.

Some of the most favored messages are liked for the catchy way that they are presented over the content of what they communicate. For example, many of the homebuyers like the environmentally oriented messages, not because they are about the environment, but because they are presented in a interesting and humorous way.

'Energy efficiency' messages about 'temperature' have more of an impact than messages about 'lighting'. Messages that address how hot or cold a room are more involving than message about how well a room is lit.

Homebuyer & remodelers like the term 'home' better than 'house'. It's a warmer term that has better imagery and appeal.

Overview

'Energy Efficiency' Communications Guidelines: (Cont'd)

Business office space decision-makers are divided as to whether 'energy efficiency' messages should be communicated directly to employees.

On one hand, they want to get input from employees about what would make a more 'energy efficient' environment. They want employees to be more conscious about 'energy efficiency' so that it saves the company money on utility costs.

On the other hand, they don't want to create a situation where employees are complaining more, or where employees are taking legal action against their company because of beliefs that their office space suffers from 'sick building syndrome'.

DETAILED RESULTS

Key Home, Office, and Remodeling Considerations:

To begin the groups, the respective audiences were asked what are the top things that they consider when buying a new home or undertaking a remodel; or, when selecting new office space or doing a total interior space remodel.

The question was asked to see if energy efficiency is a top consideration among those in the residential and commercial markets.

Importantly, energy efficiency is not a key top-of-mind consideration to homebuyers, business decision-makers, or those in the commercial real estate field.

The term 'energy efficiency' itself is only volunteered by a couple of homeowners. And, things relating to energy efficiency – HVAC, gas heat, wiring, insulation, and lighting – are only infrequently mentioned as passing considerations by any of the audiences.

Following is a summary of the top-of-mind considerations that *homebuyers & remodelers* and the *commercial potpourri & business decision-makers* have when selecting or remodeling their home or office space:

Homebuyers & Remodelers:

- Location. Want a house in a good neighborhood. Close to schools. Close to work.
- Price / cost. Has to be affordable.
- Resale value.
- Floor plan. Layout. Design / style of home. Ergonomics.
- Size. Number of rooms. Square footage. Lot size. Number of garage spaces.
- Age of home. Age of construction.
- Expansion possibilities. Remodeling potential. Ability to expand living space.
- Quality / durability of construction. Quality of materials. Quality of workmanship.
- Ease of maintenance. Carefree materials. Siding that doesn't need painting.
- Condition of plumbing, furnace and wiring.
- Gas. Strongly preferred over electric. Gas equates to a more modern home.

Key Home, Office, and Remodeling Considerations:

Homebuyers & Remodelers: (Cont'd)

- Landscaping. Surrounding acreage.
- Existence (or absence) of a Homeowners Association. Strictness of Covenants. Protection of investment.
- Handicapped person accessibility.
- Community services: Fire, Garbage, and Police.
- Insulation. Energy efficiency. (Seattle 1 mention)
- Energy efficiency. Sustainability. (Bozeman 1 mention. Building own home).

Commercial Potpourri & Business Decision-Makers:

- Location. Ability to attract workers. Ability to attract customers.
- Price. Cost of the space. Cost per square foot. Occupancy cost. Rent. Utilities.
- Lease agreement. Terms of the lease. Tenant improvements. Lease term flexibility.
- Size of the space. Floorplan. Layout. Flow within the building. Storage space.
- Room for growth. Flexibility. Expandability. Ability to reconfigure the space.
- Feel. Ambiance. Openness. Brightness. View. Positive work environment. Natural light.
- Access. Ability of employees and customers / clients to get to the location. Convenience. Proximity to freeways.
- Traffic patterns. Potential customers who pass by your location. Visibility. Traffic count. Demographics of surrounding area. (Retail)
- Telecommunications infrastructure: Telephones; Fiber optic cables; PCs. T-1 cabling.
- The amount of downtime. Work productivity lost during the move or remodel.

Key Home, Office, and Remodeling Considerations:

Commercial Potpourri & Business Decision-Makers: (Cont'd)

- Parking. Adequate space for employees and customers / clients.
- Security. Access control.
- Surrounding businesses. Complimentary services. Competing companies. Next to other successful businesses.
- Surrounding environment. Services. Shops. Restaurants. Health clubs. Trees. Parks. Greenbelt. Seclusion. Quiet.
- Availability of services. Daycare. Buses. Medical.
- A.D.A. access. A.D.A. compliance. Access for disabled employees, customers and clients.
- Image. Presentability. Appearance.
- Closeness to the CEO's home.
- Privacy. Solid-core doors. Separate offices.
- Wall and floor finishes. Maintenance. Replacement. Cleaning.
- Local building rules. Local building authorities.
- HVAC. Age of the equipment. Control for multiple zones of heating and cooling.
- Lighting. Multiple levels of lighting. Dimmer switches. Lighting for working at PCs.
- Quality of materials. Quality of construction. Longevity of building.
- Delivery access.

Sources of Information About Homebuying & Remodeling:

In several of the *homebuyer & remodeler* groups (where time allowed), the respondents were asked what sources of information they depend on for making decisions about home buying and remodeling.

They volunteer the following list of sources:

- Realtors. Contractors. Builders. Architects.
- Friends. Family. Co-workers.
- Home Magazines: *Country Living; Home Builder; Fine Home Building; Colonial Homes; Metropolitan Home; Fine Homes.*
- Wood working magazines.
- Learning Channel / Discovery Channel: *This Old House; House & Garden TV.*
- Internet: *Realtor sites. Realtor.com*
- Multiple Listing Services. Parade of Homes. Open houses.
- National Home Builders Convention. Home Shows.
- Suppliers: Home Depot. Eagle Hardware. (Remodelers)

Perceived Energy Efficiency of Current Space:

In some of the *business decision maker* groups, the respondents were asked if they believe that their current office space is 'energy efficient'.

Overall, *business decision-makers* believe that their office space is energy efficient if it's a newer property that's been built in the 90's. By contrast, they believe that their office space is not energy efficient if it's an older property that was built more than 10 years ago. They especially feel this way if there is some visible, or tangible, evidence of energy *inefficiency* problems like poor room temperature, mold, or mildew.

***Business decision-makers* assume that today's building codes, construction materials and building technologies assure them that their office space is going to be energy efficient.**

Factors That Impact Energy Efficiency:

In most of the sessions, the respondents were asked to volunteer a list of things in their home or office space that impact energy efficiency. All of the audiences volunteer a relatively similar list of factors:

Homebuyers & Remodelers:

- Doors. Door seals.
- Windows. Window seals. Glazed windows. Double pane windows.
- Siding – Brick, wood, or aluminum. Insulation. Thickness of exterior walls.
- Air infiltration. Air seeping through the windows and walls.
- Roofs. Solar panels.
- Landscaping. Trees. Shade. Windbreaks. Rocks to absorb heat.
- Orientation of house to the sun.
- Heating system. Furnace.
- Appliances: Refrigerator; stove; water heater; dishwasher; fireplace; wood stove.
- Attic & ceiling fans.
- Heated floors.
- Natural gas. It's the best form of energy.
- Basement areas to cool things down.

Commercial Potpourri & Business Decision-Makers:

- Windows. Single v. double pane. Low 'E' windows. Filaments. Seals around windows. Thermal pane. Storm windows. Amount of glass. Tinted windows.
- Insulation.
- Building structure. Construction materials.
- Air conditioning. Heating. Ventilation.
- Lighting. Halogen bulbs.
- Double doors in the vestibule entrance.
- Mechanical. Lighting. Power.
- Building orientation to the sun.

Benefits of Energy Efficient Space:

Prior to being presented with the proposed energy efficiency messages, the respondents were asked to volunteer what they perceive to be the benefits of energy efficiency.

The benefits they volunteer are listed in their relative order of importance and relevance to the marketplace:

Homebuyers & Remodelers:

- **Saves money.** Lowers heating and electrical bills. Lower power bills. It helps to maintain the resale value of your home. (Always volunteered first and mentioned most often).
- **Good for the environment.** Conserves energy. Preserves natural resources. Causes less impact on resources. Burns less energy. Pollutes less. Saves today so there will be some tomorrow. It's good stewardship of resources. (Second most frequently volunteered benefit).
- **Increases comfort.** It's less drafty. You don't need to wear sweaters & socks indoors. You don't need to be under a comforter. The temperature stays at the same level throughout the house. The temperature is more uniform. It's more consistent. You can control your environment. It's more soundproof. Outside noises are kept out because the home is tighter. Furnaces and dishwashers run quieter. They don't cycle on & off as often.
- **Better for your health.** The air quality is better. There's better air exchange. The air is cleaner. It's more filtered. There's less mold & mildew on the windows. It prolongs the life of your home. There's less mold, mildew, and water seepage. It helps those with asthma and allergies. (Volunteered least frequently as a benefit. Many consumers question the connection between energy efficiency and health. Some feel that it actually consumes more energy to move the air around and create better air quality).

Benefits of Energy Efficient Space: (Cont'd)

Commercial Potpourri & Business Decision-Makers:

- **Saves money.** Lowers operating costs. Saves on utility bills. You pay less for heating and cooling. Saves on the costs of energy equipment related repairs. It's a tangible benefit. It's defined. It's a known cost. You pay extra upfront to assure energy efficiency. Then you recoup the costs over time. It's a long-term benefit. The payback is over time. It's hard to quantify. (Always volunteered first and mentioned most often).
- **Increases comfort.** Employees are more comfortable. They can work better. Creature comforts are increased. It saves the time of having to deal with employees' complaints. It minimizes the 'hot vs. cold battle'. There aren't patches of hot v. cold. Females seem to operate on their own thermostats. It offers better comfort for customers / clients. They stay longer in your store. Temperatures can be set to be higher or lower in different spaces.
- **Increases productivity.** Profits increase. Revenues increase. Employee morale improves. Working conditions are better. Employee retention is improved.
- **Better air quality.** The air feels better. It's fresher. Air quality is a distant link. Is it connected? Smart buildings are tight buildings. They can have the sick building syndrome.
- **Improved image.** It provides an opportunity to improve the company's image. You're more of a good corporate citizen. You can get positive PR. It's more socially responsible. It's something to promote in hiring.
- **Good for the environment.** It's environmentally responsible. (Least frequently volunteered benefit).

Importance of Energy Efficiency:

Although it was rarely volunteered as an important factor in the home or office space selection decision, *some homebuyers & remodelers* and *some commercial potpourri & business decision makers* claim that energy efficiency is important to them even though they didn't volunteer it top-of-mind.

However, *most homebuyers & remodelers* and most of the *commercial potpourri & business decision-makers* feel that energy efficiency is of lesser importance.

Homebuyers & Remodelers:

- It's tops in importance. The cost of the utilities to run the house is important.
- Yes, it's important. The price of gas and electricity is only going to go up.
- It's important. Because, it saves you money.
- It's important. It makes for a more comfortable home.
- It's more of a male issue. (Female)
- It's a secondary issue. I'll fix the energy-related stuff after I get into the home.
- Energy efficiency is assumed in new homes and new appliances. I assume it's there. It's the result of quality construction.
- I don't ask for energy efficiency. It's part of quality construction.
- It's not a top thing on my mind.
- It's not that important. I'm not out to save the world.
- In appliances, I'd compromise energy efficiency for better performance.
- I never asked about energy efficiency when shopping for a home.

Commercial Potpourri & Business Decision-Makers:

- Energy efficiency would be important if we were building new space. (BDM)
- It's important in terms of saving on the cost of utilities. (BDM)
- It's important in terms of saving environmental resources. (BDM)

Importance of Energy Efficiency: (Cont'd)

Commercial Potpourri & Business Decision-Makers: (Cont'd)

- It's important. It's included in the cost per square foot. (CP)
- It's number 4 or 5 on the list of considerations. (CP)
- It could be a sales point – a point of differentiation – if all other things are equal. (CP)
- It's not that important. A lot of other things are more important – location, price, amenities. (BDM)
- It's a tiebreaker factor. All other things being equal, energy efficiency comes into play. It's not a deal maker or breaker. (CP)
- It's not a conscious consideration. (BDM)
- It's not that important. It's included in a 'triple net' lease. We don't pay for utility costs directly. The energy costs rolled into the cost of the lease. An energy efficient building is important to building owners, not to leasing tenants. (BDM & CP)
- It's not important. Rates for energy are low. They're lower here in the Northwest than in any other area of the country. (BDM & CP)
- It's number 11 on the list. It's expected. It's assumed. (BDM)
- New buildings are, by definition, energy efficient. Building codes and the quality of materials today make it that way. (BDM & CP)
- Energy efficiency is much more of a concern with older buildings. (BDM & CP)
- Having an energy efficient building is a 'bragging rights' factor. (BDM)
- It rarely comes up. It only comes up if there's a problem. Clients assume it's there. It's taken for granted. (CP)
- Tenants don't ask for it. Tenants have to ask for it before we build it in. (CP)
- It's low in importance. It's only a moral issue. (BDM)

Awareness & Understanding of 'Sustainability':

All of the groups were asked if they have heard of the concept of 'sustainability'. And, if so, if they believe that there is some relationship between 'sustainability' and 'energy efficiency'.

Overall, there is very little awareness of the concept of 'sustainability'.

All of the respondents understand what the *word* 'sustainability' means, but the strong majority of them have not heard of it in terms of describing 'green building practices' or 'building in a way that doesn't use resources faster than nature can replace them'.

Architects (a component of the *commercial potpourri* groups) are the most likely to understand the concept of 'sustainability'. Several of them have read about it in trade journals, and in some cases, they have implemented it their designs.

However, most of the audiences have not heard of 'sustainability' and don't know what it means. Hence, they don't associate 'energy efficiency' with 'sustainability'.

For the NEEA to connect 'energy efficiency' with 'sustainability' would first require creating market-place awareness and understanding of the concept of 'sustainability'; and then, establishing what 'energy efficiency' is and how it relates to 'sustainability'. This would likely be a daunting task.

Moreover, the concept of 'sustainability' is an environmentally based issue. And, 'environmental' themes are not what will convince most homebuyers and business professionals to look for and demand 'energy efficient' homes and buildings.

Nevertheless, when the concept of 'sustainability' is explained to the audiences, many of them conclude that 'energy efficiency' is somehow related to 'sustainability' – albeit in a distant relationship. They describe 'energy efficiency' as a subset, or a result, of building in a sustainable style.

On the following page are the comments made by those who believe they know what the concept of 'sustainability' means:

Awareness & Understanding of 'Sustainability': (Cont'd)

Homebuyers & Remodelers:

- It's about the durability of your home. It's about how long it will last. It's concerns how long it will 'sustain' its quality over the years. It refers to the longevity of the structure. (Most common response)
- It's about maintaining the equity in your home. (Mentioned fairly frequently)
- It's about conserving resources. (One consumer in Bozeman who is using a 'sustainable' building style to construct his new home).
- It's about working to keep everything without using resources. (One mention)

Commercial Potpourri & Business Decision-Makers:

- It's a new buzzword. I don't know what it means. It means little to us. (Agreement)
- I don't readily associate 'sustainability' with 'energy efficiency', but I suppose they could be related.
- It means staying within your budget. It refers to 'sustainable cost'.
- It means creating customer demand to sustain a continued business.
- It refers to longevity. It's a term for how long you're going to stay at a particular location.
- It's about the building performing as it was designed.
- It's about maintaining standards on a continuing basis.
- It's about re-use and recycling. It's about re-using rainwater off the roof.
- It's about maintaining consistent room temperatures over time.
- It involves fewer equipment service calls. Your equipment is more reliable.
- It's an environmental term. It's about not depleting resources.

Reaction to Proposed EE Messages:

The homebuyer & commercial audiences were each shown a variety of proposed 'energy efficiency' messages. The messages were typically one-statement phrases, which presented different ways of talking about 'energy efficiency'. Each message was identified with a number. (A list of all of the messages is presented on the following pages).

About halfway through each group, the messages - which had been taped on the wall behind cover sheets - were uncovered and revealed to the respondents.

In reacting to the messages, the respondents had to go through a two-stage process:

Stage 1: Read the messages and write down the numbers of all of them that appeal to you.

Stage 2: Review the messages that you liked and write down the numbers, of no more than three, of the messages that appeal to you the most.

In all, 72 'energy efficiency' messages were presented. Fifty (50) of them were presented to *homebuyers & remodelers* and 65 of them were presented to the *commercial potpourri* and *business decision-maker* audiences.

Eleven (11) of the messages (numbers 62-72) were developed as the groups progressed and were only shown in the markets in which the research hadn't yet been completed (Spokane, Boise, and Bozeman).

On the following pages, is a review of the messages have the strongest appeal among . . .

. . . All Audiences.

. . . Homebuyers & Remodelers.

. . . Commercial Potpourri & Business Decision Makers

The messages are listed in the relative order of appeal to each audience.

The respondents were asked to explain why they chose the messages they did and what the message communicates about energy efficiency.

In some cases, the respondents found more appeal in the message because of the catchy way in which it was presented, rather than in the 'energy efficiency' theme behind the message.

Most Appealing EE Messages:

Specific reactions to each of the leading messages are provided on the following pages:

All Audiences:

- #19 Energy efficiency: It's not about cutting back. It's about being smarter.**
- #6 Mother Nature may thank you personally.**
- #9 Because your environment doesn't stop at your walls.**
- #38 It's not about conserving resources for future generations. It's about better living today.**
- #12 The one style that never goes out of style – energy efficiency.**

Homebuyers & Remodelers:

- #8 One world. One planet. How does your house fit into the picture?**
- #67 Think of an energy efficient home as a savings account with a really great interest rate. For every \$1.00 energy efficiency lowers your monthly energy bill, the resale value on your house increases \$21.00.**
- #47 Energy efficiency doesn't mean you have to do it with the lights off.**
- #46 Only shower with someone because you want to.**
- #7 Is your house part of the problem or part of the solution?**
- #65 Hey! Money does grow on trees! As few as three trees around your home could save \$150.00-to-\$250.00 in energy costs depending on the cost of energy where you live.**

Commercial Potpourri & Business Decision Makers:

- #33 A place where people actually want to come to work.**
- #4 Good business that's good for the planet.**
- #18 "This is the way we always do it", isn't a reason to always do it that way.**
- #40 You negotiated a fat salary, a laptop, company car, cell phone, parking space, childcare and fresh coffee. Did you ask for clean air? Better lighting?**

Less Appealing EE Messages:

#71 Put in a dollar. (Energy efficient building). Get two back.

Following is a list of the messages that have less appeal among the audiences. They were chosen by four, or fewer, respondents as being appealing messages.

- #1 I'm awake! I'm Alive! I'm Alert! I can conquer the world! I didn't even take Viagra!**
- #2 Are you taking advantage of your environment?**
- #3 You don't have to look after your house – Your house takes care of you.**
- #5 The hot new color this season – Green.**
- #10 Being energy efficient no longer means being a tofu-eating sandal wearer.**
- #11 There's nothing quaint about an uncomfortable home.**
- #13 Business is dog eat dog. And, the uncomfortable dog is the least prepared for the battle.**
- #14 Your memories of home should be warm & comforting, not cold & damp.**
- #15 The first effects of hypothermia include poor mental functions. (Or, why a bad air conditioning system is bad for business).**
- #16 Rule of business #34: People are more productive when they aren't freezing their butts off.**
- #17 Is it a cold, the flu, or simply the result of a poor ventilation system?**
- #20 The 80's were a period of excess. Now they're over. Energy efficiency.**
- #21 You probably haven't thought about energy efficiency since you tried to find out who shot JR?**
- #22 Is your office always having a 'bad air day'?**
- #23 Your office comes equipped with a G3 Pentium processor megahertz Intel whiz-bang. And, a florescent buzzing light from a high school gymnasium on prom night 1986.**
- #24 If your office isn't energy efficient, may we suggest another business tool? (Visual of an airplane oxygen bag).**

Less Appealing EE Messages: (Cont'd)

- #25 Welcome aboard! We're thrilled to have you as part of the team! As a signing bonus, you get moldy air and really bad lighting! Thanks for joining our company!**
- #26 Colors, fabrics and fashions go out of style. Your core values never do.**
- #27 Does the new guy get you all hot and sweaty? Or, is it just his office?**
- #28 Do your employees look tired and unmotivated to you? Maybe it's just bad lighting. (Visual of a buzzing florescent light).**
- #29 These days, there's a lot of talk about how information flows through your company. But, what about how air flows?**
- #30 You're energy efficient. Is your health club? Home? Office? (Visual of a fit person doing exercises).**
- #31 Making our house nice and pretty on the outside, but not making it energy efficient is like smoking to lose weight.**
- #32 Has your interior designer considered these: Air? Warmth? Light? Water?**
- #34 Remember when you thought the Internet was a fad? And, Gen-Xers were slackers? Well energy efficiency is the next wave of business.**
- #35 You're a durable person. The things you live in are durable. There is a connection.**
- #36 It's like buying a dress because it looks great, but never wearing it because it's not comfortable.**
- #37 Energy efficiency is not 'fringy' or 'experimental'. It's a way of living whose time has come.**
- #39 Do you feel like your boss is cold. Maybe he's just COLD.**
- #41 A man's home is his castle. But, it should be a little less drafty.**
- #42 Being energy efficient doesn't mean being a democrat or a republican. It does however mean not being a moron.**
- #43 This is your castle. (Visual of a home). It's what you don't see that can ruin the whole mood of the place.**

Less Appealing EE Messages: (Cont'd)

- #44** It's the new 'child care benefit'.
- #45** It's not about what it looks like. It's about what it feels like.
- #48** Do you make your employees sick? (We're talking about your HVAC system).
- #49** The lighting is bad. It's cold and damp and smells faintly of rotting fish. "Hey, who wants to work late tonight"?
- #50** A well decorated, freshly painted, drafty home is a bit like an 80 year old woman with a facelift.
- #51** Your house is cold, dark and clammy and you wonder why your two year old won't stop crying. Maybe he's trying to tell you something.
- #52** (Visual of empty office) Vacant because employee is at lunch? Because employee is on vacation? Or, because it's 42 degrees in there?
- #53** If Green products scare you, consider the consequences of Brown ones.
- #54** What was that brick in the toilet thing about anyway?
- #55** A more evolved idea of energy efficiency than putting a brick in your toilet.
- #56** Contrary to popular belief, tight buildings breathe better than loose ones.
- #57** Not everybody is comfortable in an energy efficient building. Just ask these airborne bacteria. (Visual of airborne bacteria).
- #58** Smart buildings make smart kids.
- #59** Kids in energy efficient buildings get better grades than kids in non-energy efficient buildings. What can we learn from this?
- #60** Today's weather: Temperature – low 70's. Humidity – 50%. This is always the forecast in an energy efficient building.
- #61** You breathe 89% less dust and airborne crap in an energy efficient building.
- #62** 25. The percentage of people who would normally call in sick, but don't after they move to an energy efficient building.

Less Appealing EE Messages: (Cont'd)

- #63** Strobe lights are good if you're John Travolta, but not if you're trying to finish that proposal by noon. (Visual of a buzzing overhead light).
- #64** Lights make light, and noise, and heat and give employees headaches.
- #66** The upside of living out of our car is that the average car produces only half the CO2 as the average house.
- #68** If energy efficiency isn't occupying a space in your home, here's what is: mold / mildew; radon; formaldehyde; and dust mites and their feces.
- #69** Think nobody will notice that your home is energy efficient? Here's what they might not notice if it's not: Radon gas leaking into home; Excess moisture, mold, mildew; Formaldehyde; Passive tobacco smoke seeping in; Dust mites & their feces.
- #70** It's time to bring environmental issues indoors, since 80% of our lives are spent there.
- #72** U.S. buildings produce more than two times the amount of pollution than there are people living here. (Over 600 million tons).

Most Appealing EE Messages: - *All Audiences*

#19 Energy efficiency: It's not about cutting back. It's about being smarter.

Homebuyers	
<u>Appealing</u>	<u>Top 3</u>
28	11

Comm'l Potpourri	
<u>Appealing</u>	<u>Top 3</u>
18	7

Business	
Decision Makers	
<u>Appealing</u>	<u>Top 3</u>
17	7

- It's about educating yourself about energy efficiency. (HB)
- It challenges you to be smarter. I like that it's about being smarter. (HB)
- Everything today is about cutting back. This says, if you're smart, you don't have to cutback. (HB)
- It's not preachy. It's serious. It says you're smart. (HB)
- It says, you're *not* smart if you don't cutback. (HB)
- It's a soft sell. You don't have to cutback. You're not losing anything. (HB)
- It combats the impression that to be energy efficient costs you more. (HB)
- It says, that it's not about cutting back. You can be energy efficient without sacrificing. (CP)
- It's smart to consider energy efficiency. You may spend money upfront, but it's cheaper over the long-term if you invest upfront. (CP)
- It's smart to consider energy efficiency. You need to think about energy efficiency. (CP)
- You don't have to sacrifice. You don't have to feel the pain. (CP)
- Energy efficiency usually means sacrificing. This says it isn't about that. (CP)
- There's no finger pointing. Nobody is to blame. It's a positive message. (BDM)
- It's about being smart. You optimize what you have. (BDM)
- You don't have to cutback on lights and heat and you still save. (BDM)
- It attacks the whole energy efficiency issue in a smart way. (BDM)
- It's an environmental message. It's about smart business decision making. (BDM)
- It says you don't have to be deprived. (BDM)

Most Appealing EE Messages: - *All Audiences* (Cont'd)

#6 Mother Nature may thank you personally.

Homebuyers		Comm'l Potpourri		Business Decision Makers	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
14	6	12	7	12	4

- It's a simple and personal message. We had better get energy efficient before we use up all of our resources. (HB)
- It's a green message. It says you have something to do. You have to become more energy efficient. (HB)
- It's a big picture message. Don't cross Mother Nature. (HB)
- It's an invitation to have a direct dialog with nature. (CP)
- It's about conserving the earth's resources. (CP)
- It's a non-technical message. (CP)
- It's memorable and direct. Good karma will come back to you. (CP)
- Mother Nature is efficient. The more energy efficient you are, the more you'll be in alignment with nature. (CP)
- It's a reference to health and clean air. (CP)
- It's linear. It's direct. (BDM)
- It's a short slogan. It's memorable. (BDM)
- It's a 'warm & fuzzy' message. (BDM)
- If we don't have an energy efficient space, we're harming Mother Nature. (BDM)
- It's an appeal to use less resources. (BDM)
- It's about renewable resources. It's about recycling. (BDM)
- It's about doing something good for the environment. (BDM)
- It's about being a good citizen. You'll be personally recognized. (BDM)

Most Appealing EE Messages: - *All Audiences* (Cont'd)

#38 It's not about conserving resources for future generations. It's about better living today.

Homebuyers
<u>Appealing</u> <u>Top 3</u>
18 6

Comm'l Potpourri
<u>Appealing</u> <u>Top 3</u>
15 4

Business
Decision Makers
<u>Appealing</u> <u>Top 3</u>
12 3

- It is about conserving resources for future generations and it's about better living today. (HB, CP, BDM)
- I want both. I want to conserve today and live better today. Eliminate the negative first phrase. (HB)
- Living right today assures success for the future. It's a 'here & now' message. (HB)
- It's a message for me. It says what's in it for me. I get something out of this. (HB)
- The 'me' factor is the key motivator. It counters environmental extremism. (HB)
- There's immediate gratification. You see the payoff now. (HB)
- It makes my life better now. It appeals to my greed. I don't have to sacrifice anything. (CP)
- It's an environmental message, but it's different than talking about the 'greenhouse effect' and glaciers melting. (CP)
- It says you can do things right now. You don't have to wait for the future. (CP)
- It's good, because I'm tired about hearing about hurting future generations. It just makes me feel guilty. (CP)
- It says that there's something in it for me. It's not just something I should do for future generations. (BDM)
- We should preserve for the future and for now. (BDM)

Most Appealing EE Messages: - *All Audiences* (Cont'd)

#12 The one style that never goes out of style – energy efficiency.

Homebuyers		Comm'l Potpourri		Business Decision Makers	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
15	6	8	5	1	0

- It says that energy efficiency is forever. It's stable. (HB)
- It's a quick hit. It's a memorable phrase. (HB)
- It's catchy. Being energy efficient is always in vogue. (HB)
- Energy efficiency is always in style. (HB)
- In the past, energy efficiency has been faddish. It's a message that says it's good again. (HB)
- It says energy efficiency never goes out of style. It's always progressing. You always want to save money. (HB)
- It's catchy. It's a good play on words. It's true. (CP)
- It's a positive statement. It says energy efficiency is always in style. (CP)
- Both 'energy efficiency' and 'style' are long-term concepts. They never go out of style. (CP)
- It's a message for today. Energy efficiency is brought back to mind. (CP)

Most Appealing EE Messages: - *All Audiences* (Cont'd)

#9 Because your environment doesn't stop at your walls.

Homebuyers		Comm'l Potpourri		Business Decision Makers	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
18	4	10	3	7	4

- It refers to the outside environment. No, it refers to indoor air pollution. (HB)
- It's plain and simple and to the point. It's about both the inside and outside of your home. (HB)
- It's a message that goes beyond your home. It includes the entire environment. (HB)
- Your home is your refuge at the end of the day. It says your air will be clean. It says you need to think about your environment. (HB)
- It goes beyond just me. It's a message for the greater good of all. (CP)
- It's an unselfish message. (CP)
- It puts energy efficiency on both a personal and global level. (CP)
- Is the message about 'inside' your walls, or 'outside' of your walls? It could be interpreted either way. (BDM)
- It makes me think about needing to do something about the external environment. (BDM)

Most Appealing EE Messages: - *Homebuyers*

#8 One world. One planet. How does your house fit into the picture?

<u>Homebuyers</u>	
<u>Appealing</u>	<u>Top 3</u>
20	12

- It's simple. It's a global message. It says, what you do can affect the entire planet. (HB)
- It looks at the big picture. It asks, are you doing your part? (HB)
- It's all-inclusive. It's a philosophical message. It says we're all responsible. We all can help. We can all affect the larger environmental picture. (HB)
- It poses the question, 'Is your house ready'? Is it energy efficient? (HB)
- It's about the ecology and environment. It's a 'Greenpeace' message. (HB)
- It makes you stop and think. It makes you more conscious of our earth. (HB)
- It says, don't waste. It's about recycling, 'Earth Day' and save the earth. (HB)
- It says, take the time to think about the limits of our environment. You need to think beyond only flipping off the lights. (HB)

#67 Think of an energy efficient home as a savings account with a really great interest rate. For every \$1.00 energy efficiency lowers your monthly energy bill, the resale value on your home increases \$21.00.

<u>Homebuyers</u>	
<u>Appealing</u>	<u>Top 3</u>
18	7

Only presented in Boise & Bozeman:

- It makes you stop and think. It gives you some facts and information. (HB)
- Is it true? Where did it come from? It's hard to believe. (HB)
- It's a current message. It's timely. It's good to talk about interest rates. (HB)
- It's a message about the bottom line. It's about saving money. (HB)
- It offers a great return on investment. Everyone would be interested in this. (HB)
- It provides me with an incentive to do it. (HB)

Most Appealing EE Messages: - *Homebuyers*

#47 Energy efficiency doesn't mean you have to do it with the lights off.

Homebuyers
Appealing Top 3
15 9

- It's attention grabbing. It's cute. It's humorous. It's not threatening. But, there's a lot of sexual innuendo. And, it's a message that's only related to lighting. (HB)
- It says you don't have to suffer. You don't have to do things in the dark to save on energy. (HB)
- It's about turning the lights off in the rooms you're not using. (HB)
- If your home is energy efficient you can leave the lights on and it won't be wasting things. (HB)
- I can relate to it. I grew up worrying about having to turn the lights out in rooms I wasn't using. (HB)

#46 Only shower with someone because you want to.

Homebuyers
Appealing Top 3
16 8

- It's attention grabbing. It's humorous. It's frivolous. It's cute. It would make a good ad campaign. (HB)
- It's a message about using less water, because you shower together. (HB)
- If you save water, you help the environment and you save on heating bills. (HB)

Most Appealing EE Messages: - *Homebuyers*

#7 Is your house part of the problem or part of the solution?

<u>Homebuyers</u>	
<u>Appealing</u>	<u>Top 3</u>
26	7

- I can relate to it. It's a phrase I regularly use. (HB)
- It's a quick hit. It says we can do something about this. (HB)
- It says that we can make a choice to be energy efficient. The energy efficiency of all houses can be improved. (HB)
- It's a good philosophical statement. It says you have the control to change things. (HB)
- If you have a home with poor energy efficiency, you're just adding to the problem. (HB)
- It's a big picture message. It says we're all in this together. (HB)
- It gets you to thinking that you can be part of the solution. (HB)
- The question style is good. It creates awareness and makes you think. It's better than a smart-ass statement. (HB)

#65 (Visual of tree with dollars in it) Hey! Money does grow on trees! As few as three trees around your home could save \$150-to-\$250 in energy costs depending on the cost of energy where you live.

<u>Homebuyers</u>	
<u>Appealing</u>	<u>Top 3</u>
12	6

Only presented in Boise & Bozeman:

- It's a good message. I like trees. It promotes tree planting. It's a green message. (HB)
- Communicating hard facts is important. (HB)
- Everyone can do this. Everyone can plant a tree. It an environmental, economic and aesthetic message. (HB)
- It ties energy efficiency into saving money. You would save money through the energy savings of a wind-break and shade. (HB)

Most Appealing EE Messages: - *Commercial Markets*

#33 A place where people actually want to come to work.

<u>Comm'l Potpourri</u>		<u>Business Decision Makers</u>	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
19	9	12	5

- That's what I want – a place where people actually want to come to work. (CP)
- It's a message that includes energy efficiency, but so many other things pertain to making it a place where people actually want to come to work. (CP)
- It's a very positive message. It says the building is properly heated. It's comfortable. The air is good. It's a good message for selling the property. (CP)
- It's a simple message. It makes a workplace sound attractive. (CP)
- It says you'll be happy to come to work. It's a message about workplace comfort. You'd feel comfortable. You'd feel good. (BDM)
- You could use a high quality environment as a recruiting tool. (BDM)
- It's a message about workplace efficiencies, teamwork, and productivity. (BDM)

#4 Good business that's good for the planet.

<u>Comm'l Potpourri</u>		<u>Business Decision Makers</u>	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
11	5	13	6

- It's a positive message. It's important that it focuses on business. (CP)
- It's both an environmental and a money savings message. (CP)
- It's a message about the environment. Companies want to do both. It needs to be good for business first and then it can address good corporate citizenship. (BDM)
- It's about environmental issues, cost efficiency and social responsibility. (BDM)
- It shows concern for both business and the community. (BDM)

Most Appealing EE Messages: - *Commercial Markets*

#18 This is the way we always do it - Isn't a reason to always do it that way.

<u>Comm'l Potpourri</u>		<u>Business Decision Makers</u>	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
13	4	5	4

- I can relate to this phrase. It fits my way of thinking. I use this phrase a lot. It's one of my slogans. (CP)
- It draws attention to energy efficiency. It says you need to re-think things. (CP)
- It says you need to accept change. (BDM)
- It's a phrase you hear all the time. It's familiar. (BDM)

#40 You negotiated for: A fat salary. A laptop. A company car. A cell phone. A parking space. Childcare. And, fresh coffee. Did you ask for clean air? Better lighting?

<u>Comm'l Potpourri</u>		<u>Business Decision Makers</u>	
<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
13	4	5	4

- It's a positive message. It's funny. (CP)
- It's a health message. But messages about 'sick building syndrome' are passe. (CP)
- It says that energy efficiency is as important as the other benefits. It applies to everyone. (BDM)
- It's humorous. We just take clean air and lighting for granted. (BDM)
- It's not believable. Energy efficiency does not equate to better air quality. (BDM)
- You're not going to negotiate for a new job and ask them to change their HVAC system. (BDM)

Most Appealing EE Messages: - *Commercial Markets***#71 (Visual of energy efficient building) Put in a dollar. Get two back.**

	<u>Comm'l Potpourri</u>		<u>Business Decision Makers</u>	
Only presented in Boise & Bozeman	<u>Appealing</u>	<u>Top 3</u>	<u>Appealing</u>	<u>Top 3</u>
	13	4	5	4

- It justifies the cost of building an energy efficient space. (CP)
- It's a good message for a building owner. It talks about the return on investment. (CP)
- It's a clever message. It speaks to both owners and tenants. (CP)
- It could also be a message about the added productivity of employees. (CP)
- It's a simple message. (CP & BDM)
- It speaks to profitability. It's a 'win / win' message. (BDM)
- It's important if you're building your own space. (BDM)
- You have to spend money to make money. (BDM)
- You might get the payback in terms of something other than monetary benefits. (BDM)
- Will it really payback like that? Will it double your return? It's not credible. It's not believable. How can it be substantiated? (BDM)

**One-on-One Interviews
Summary of 16 interviews**

Summary

The Energy Efficiency Players

- There is a substantial relationship and many communications problems between the players.
 - In the circle of finger pointing, they're all telling the truth.
- Building owners are the key – everyone else will meet their needs.
- The architect and the owner have the most influence over the design process.
- Developers drive the process.
 - They're the top of the food chain on the supply side.
 - Get EE on the list of desired items for people buying from developers.
 - Tenants do expect that they're getting it, which is one reason they don't ask for it. They're taking it for granted.
- Technology sector is promising.
 - They have a lot of highly paid people working a lot.
 - The more highly paid, skilled and valued the employees, the more likely the tenant will care about this.
- Convince the 500 largest companies and the 30 largest local governments, then everything else will fall into place.
- What it takes is a counselor. Everyone needs to be involved in early meetings, but that is on the developer's bill.

Code

- Code officials are part of the problem
 - But they're getting better (more flexible).
 - Under pressure to make it easy on businesses.
 - They don't seem very involved.
- EE not a priority because it's already there thanks to code.
- People know codes are higher here.
- Increasing codes here is impossible – not well received by local governments.
- Increased demand would elevate EE on code officials' list.

Conclusions

Marketing

- There's a real "green war" starting to take place in the marketplace.
- Make it the desired office environment:
 - When most of your money goes to pay your people, paying for productivity should be a no-brainer.
 - The way to take care of your employees.
 - A business advantage.
 - Here's comfort, a better place to work.
 - Here's an opportunity to have more control.
 - It's why Dilbert is so attractive.
- Provide a way for builders to take credit if they've done a good job.
- Give the consumers something to assert demand with: a checklist.
- Sell warm feet not energy efficiency.
- Out of concern for healthy buildings, schools are not going with the low bidder anymore.
- Recycling works because the bins were provided to people to make it easy; peer pressure encourages everyone to participate; and because the recycling service has been standardized: it's the same everywhere in the city, every day.

Successes

- REI Building
- Norm Thompson
- Portland City Hall
- Belmont Dairy
- Kitsap
- PECI (Portland Energy Conservation Inc.) – is focusing on building commissioning. They may be a good source of examples.

Sustainability

- It is worthwhile to expand the imagery from energy efficiency to something broader.
- Environmental politics are not appealing to most people.
- Too many people are trying to latch onto it – often with old environmental issues.
- The problem is in the definition of this word, not the concept. It doesn't communicate well.
- It's a great word in small circles, not a great word in public circles.
- It's a "we" word not a "me" word.

Conclusions

Benefits and Barriers

Barriers

- There isn't any demand.
- Old stigma problem.
 - EE features (tight buildings) contributed to sick buildings.
- Systems design is an area of untapped potential.
- The different players don't work with each other.
- Cost is insurmountable unless they understand the benefits.
- Benefits
- Commercial:
 - Productivity
 - Employee satisfaction
 - Employee retention
 - Good lighting system = performance, more pleasant work environment.
- Building Commissioning – we should have our projects commissioned.
 - It's upfront.
 - It can prevent unexpected equipment breakdowns – saving more than its cost.

One-on-One Interviews
Karen Messmer Interview
March 10, 1999

Background

- She works for the Washington State University Cooperative Extension Agency. (**Steve?**)
- The Energy Ideas Clearinghouse acts as the vehicle to transmit data to people with questions. WSU provides the technical expertise to back it up from staff in their buildings, standards and science group.
- Karen has a code background, with a state and local government view.

The Energy Efficiency Players

- Policy makers, e.g. mayors, city council officials.
- People who provide information to the policy folks, going all the way to the staff level for elected and code officials.
- Public works officials, energy departments.
- None of these people necessarily see themselves as promoters of energy efficient buildings.
- The local code official can help or hinder.
- Code officials say if this isn't connected to life, health or safety, then they consider it an add-on. It really comes down to policy leadership at the local level. If the mayor or someone on the city council says, "This is your role, you will pay attention to it," they will. If not, code people decide it's not important.
- When it's a government-driven building, such as a school or municipal facility, the policy leader is key to saying, "You will meet a higher standard on this building."
- Whoever makes the design decisions on multiple home developments is key.
- People in multi-housing developments or cookie cutter developments have very little input, very little way to exercise demand.
- On private side it is all bottom-line driven.
- A big piece of residential development is multi-family. When they use a standard design for a massive, multiple housing development, it's hard to tell who is responsible for changing it, the architect or the developer.
- What happens to the lower end of the market, i.e. with developers who just do the minimum? New ideas generally come out in a higher quality product.

Karen Messmer Interview
March 10, 1999

Codes

- NW was ahead code-wise in mid-'80s. We're not way out ahead any more.
- Other states have adopted similar codes, although they may not be getting the compliance, because they don't have enforcement.
- We haven't kept moving our code forward.
- Code enforcement is a sticky part, but not the big driver.
- EE not as critical as the other parts of the code. It's an add on. We don't have to pay as much attention to it.
- Developers and building owners have a minimal understanding about the energy code.
- The general public has no understanding at all.
- WSU just did a study for USDOE on "Barriers to Residential Energy Efficient Buildings," by Chuck Murray and John Divine. They found that some technologies and techniques are not getting incorporated. They explore whether it's the code itself, or language of the code.

Marketing

- Environmental to a degree, but some of it is perception rather than reality.
- The EE term appears from time to time in a long list of quality features.
- NW nuclear problem initiated the energy and environment gains we've made.
- Sticker shock might make a difference.
- How did we get recycling to happen? Recycling has turned into a "religious experience" because people think of saving the world by recycling. We need to turn energy efficiency into something people can do proudly.
- Recycling is still consumption; it's more work, but people do it because it's cool.
- Is it too easy? Compact fluorescents aren't great if there is still too much lighting.
- Emotional thing yes. Positive – yes. Shaming them into it – no.
- Give the consumers something to assert demand with: a checklist.
- WashWise verses Energy Star. Broad versus narrow.
- Sell warm feet not energy efficiency.
- Out of concern for healthy buildings, schools are not going with the low bidder anymore.
- A quality environment for employees is a concern and could be tapped.

Karen Messmer Interview
March 10, 1999

Sustainability

- A lot of near-false marketing blurs the perception of what EE or environmentally friendly is.
- Builders are fueling the confusion.
- EE doesn't come through in surface level sustainability.
- Public buildings aren't getting there.
- Starts at the global warming level.
- In Olympia, local master builders organize the Parade of Homes. To them, "environmentally-conscious" features mean compost bins, pullout drawers for recycling, special deck material and skylights. If this is what they think sustainability is, we've got a long way to go.
- The local Planning Commission is very big on sustainability right now. But developers are concerned with balancing first cost with sustainable design.

Benefits and Barriers

- Lighting is untapped on new construction (residential).
- Bottom-end of pricing is not a good place to start.
- We're over-lighting tremendously.
- Technology is way ahead of what we're doing.
- Lighting is not part of code.
- There is a lot of information out there, in the form of training, conferences, books, and reports. The problem is there is no centralized source. The Clearinghouse is starting to become the place people approach.
- There's no current consumer worry about the supply, quality or cost of energy. With new SUVs getting 12 miles per gallon, people don't seem too concerned. What we need is a crisis. Now that people are worried about a Y2K problem, they think of adding generators to their homes.

One-on-One Interviews
Ken Baker, Ken Ecklund Interview
April 5, 1999

Background

- Ken Baker is Conservation Bureau Chief and Ken Ecklund is Conservation Specialist for the Idaho Department of Water Resources in Boise.
- The legislature sets policy and their directive is to work with energy efficiency and renewables; they are not as interested in enforcement.
- Their Department offers training, education and technical assistance.
- They work with localities and trades people.
 - ICBO, training sessions, CEU's for training.
 - There is no builder licensing in Idaho – thus no training CEU's.
 - Builder training will be part of voluntary training.
- Ken Baker deals more with communities.
- Idaho has a residential energy standard. Localities can affect codes at that level or higher.
- They promote the 1995 Model Energy Code.
- They have approval to develop a commercial code and are promoting it on a local basis; only one jurisdiction has adopted the code.
- What's unique about Idaho:
 - Rules and regulations aren't popular.
 - Idaho has a low state residential standard (compared to Oregon and Washington).
 - Codes are a creature of local jurisdictions in Idaho.
 - State code only applies to state building code.
 - They work on a local level for code development.
 - Carrot approach:
 - Super Good Cents was the former carrot; we provided the training; BPA paid incentives to achieve NW energy code.
 - Model Energy Code still supported; it's a living code.
 - Education and training are a big part.
 - Localities motivated by economic development, and energy codes are part of that.
 - People are wondering how to replace the previous utility incentives.
 - Builders are driven by market differentiation.
 - Taking standards up a level requires a paradigm shift in the practice, more builders need to be on board to reach critical mass.

Ken Baker, Ken Ecklund Interview
April 5, 1999

The Energy Efficiency Players

- The finger pointing results from not having a clear and mutually agreed to standard for EE. If there were a standard with specifics, people would be more accountable.
- A different ruler and standard is needed to change the paradigm.

Codes

- Energy component always loses in a conflict with another code driver.
- Idaho Department of Commerce and Industry opposed code last time; now they're more supportive.
- Association of Idaho Cities endorses code.
- ICBO endorses.
- ASHRAE doesn't seem supportive.
- Builders would just as soon not hear about codes.
- In places where the code exists, builders are supportive. They had to be to get the code passed.
- Code is a preventative measure for builders who know how to do it.

Marketing

- GemStar has not been promoted very much so far.
 - Primarily through one-on-one discussions.
 - Need to pull in a lender.
- It still has to be self-motivating; not nobility motivated.
- Comfort (a self-motivating factor) was the primary leverage for Super Good Cents.
- Every dollar saved on EE generates 30x that much benefit to the community.

Successes

- Energy Star washers.
- Energy Star lights have not been that successful; in the home they are definitely not successful.
- Windows have been successful.
- The successful ones have a standard that can be verifiably met.
- Super Good Cents/Natural Choice homes are successful.

Ken Baker, Ken Ecklund Interview
April 5, 1999

Sustainability

- Ken Baker likes the word a lot.
- Rebuild America – Department of Energy program, now called Rebuild Idaho here
 - Sustainability
 - Community Economic Development
 - Developing a resource use action plan
- Ken E.: Not sure if it conflicts with other benefits – comfort, value.
- Builders may not be receptive.

Benefits and Barriers

- Barriers
 - Time and training issues.
 - They have a certification program for architects, engineers and code officials on the commercial side.
 - Efficiency is easy to support as an abstract idea.
 - HVAC contractors oppose doing duct work right.
- GemStar home energy rating system
 - 5 star rating.
 - Lots of builders have Watson computer programming.
 - Developed by WSU in Olympia.
 - Name not yet known by builders in Idaho.
 - Energy Star home programs don't work here; no standards.
 - In Idaho it's GemStar plus a heat pump.
- Benefits
 - Productivity.
 - Comfort.
 - Resale value.
 - Market value for renting or leasing.
 - Financial payback.
 - Healthy – air quality.
 - Durability.
 - Safety.
 - Stimulates local economy.
 - Tax-free return on EE money.
- Cost is insurmountable unless they understand the benefits.
 - Energy efficient mortgages

One-on-One Interviews
Matt Emlen, Dave Tooze Interview
March 18, 1999

Background

- Matt is Energy Program Coordinator and Dave is Energy Program Manager for the City of Portland Energy Office.
- The Energy Office works with low income energy assistance and weatherization programs.
- They provide energy policy counsel to the City regarding CO2 emissions, of which transportation is the biggest piece at 45 percent.
- Recycling is another responsibility, in coordination with Metro. In 1992, 30 percent of residents recycled curbside; in 1999, it's 80 percent. Recyclables now comprise 50 percent of the total waste. The total volume of garbage taken to landfills is down on a per capita basis.
- Recycling works because the bins were provided to people to make it easy; peer pressure encourages everyone to participate; and because the recycling service has been standardized: it's the same everywhere in the city, every day.
- Energy is challenged in this area: Very little clarity of program – so many geographical variances.
- This makes it difficult to promote.
- In the area of water conservation, water use per capita is down 10 percent since 1992, due to more efficient showerheads and toilets. Metro is taking on a bigger role on water.
- Their department works closely with other City Bureaus: Environmental Services, Transportation, Water and Urban Forestry.
- Right now the Energy Office, Planning Bureau and Bureau of Buildings are looking at policy options to encourage green buildings, both for city buildings and others. There is no policy structure in place to guarantee city buildings will be Earth Smart (from PGE), or follow any other EE program.
- When they can get an EE agenda specified early on, say for all new fire stations, then they have better success. Features such as a creative storm water management system, lights that are easy to use, fuel cells at the wastewater treatment plant, are all recent accomplishments.
- There is no official sustainable building program in Portland.
- They're trying to define the municipal role in green building
 - Effort kicking off in April
 - There will be a new policy within 3 months
 - Trying to improve the dialogue with other city departments
 - Trying to identify resources
 - Staff may be made available to help private interests figure out "green" answers they're currently giving up on because they don't have time.

Matt Emlen, Dave Tooze Interview
March 18, 1999

The Energy Efficiency Players

- It's the architect and design teams who make the important decisions. If the design team says they don't have the resources, a building might end up "light green" instead of "dark green."

Marketing

- Home comfort is what works. Reduced health risks.
- Offer something free, e.g. technical questions or advice.

Successes

- Norm Thompson
- City's water pollution control lab underneath St. John's Bridge
- City Hall
- A lot of residential is EE for Street of Dreams construction
- City Life homes
- Belmont Dairy

Sustainability

- The sustainability message needs to get out there. The problem is there are so many vastly different concepts about what it means. The term leads to confusion. There is the natural resource version vs. a broader social theory of equity.
- If we're ever going to sell the concept of sustainability, there needs to be a metaphor for it. Global warming won't work; it's not on people's agendas. Power is pretty clean here, with not much coal-fired generation. There is little consciousness about energy as an action. It all started out with energy defined as a shortage.
- Huge difference between what's reported in the green press and what's in the regular press.
- Even environmental impacts of energy are not very personal, tangible, real. It seems kind of distant.

Matt Emlen, Dave Tooze Interview
March 18, 1999

Benefits and Barriers

- People aren't aware of resources. Matt and Dave hadn't heard of the Energy Ideas Clearinghouse.
- Multi-fuel and multi-utility makes energy efficiency more difficult. Twenty-five percent of Portland homes are heated with oil.
- No one is promoting the benefits of insulation and weatherization anymore. It needs to be sold as quiet and warm.
- There are too many competing programs.
- No one has put together a financing package to pay for everything you can do in your house, and the costs aren't cheap. There's a big barrier at the financing level.
- With all of the electric utility restructuring, it's going to be more difficult to pick a greener/earth friendly form of electricity.

One-on-One Interviews
Mike McCourt Interview
April 7, 1999

Background

- Mike is local government liaison for the Montana Energy Office.
- In Montana we don't build very many large buildings.
 - Most are 2-3 stories tall.
 - A lot of concrete block construction – usually not very energy efficient.
- Mike can help with communicating to local government officials in Montana.
- Used to run housing program at DEQ.
- Mike works energy full time, not half time.
- The state is more conservative north and east.
- 56 counties, 125-130 cities in the state: Mike works with most of them.
- Montana is the only state that has passed deregulation – this is on the local governments' radar screens.
- Utility tax situation being negotiated now.
 - Lowering the revenue for some counties very drastically.
 - This is much higher on the screen than EE.
- Mike usually knows of a couple of councilmen who are champions of EE.

The Energy Efficiency Players

Contractors

- There are contractors doing EE, mostly as a result of the conservation programs in the '80s and early '90s.
- There are a few champions.
- It may be that the best EE builders are building higher quality homes.
- Home Builders Associations and DEQ recommended compiling a booklet of EE home plans for contractors to steal from.
- Brian Green at DEQ, in Helena has his finger on the home builders.

Architects

- He doesn't deal with them or engineers much.

Mike McCourt Interview
April 7, 1999

The Energy Efficiency Players, cont.

Elected officials and key staff people

- Need to rekindle the awareness of EE.
- Need to have a program/structured game plan for communicating with them.
- WashWise
 - It has taken two years to make officials aware of the benefits to their water, waste water and other facilities.
 - WashWise was extremely effective in terms of displays and promotional products.
- Have to work hard to get their attention. They're occupied with a lot of things that are more important than EE.
- They're moved a lot more by personal visits from people like Mike.
- Elected officials always respond to a positive message better and especially one that will have an obvious, positive result for their constituents.
- Brochures and collateral are helpful with communicating to elected officials.

Marketing

- Likes the idea of a brand with tools.
 - Gives people a place to turn.
 - There's a tangible product.

Successes

- Super Good Cents was an excellent program for bringing builders and homebuyers together to get EE done.
 - An outgrowth of demonstration projects in the '80s.
 - The problem was that it was incentive driven. Once the incentives go away, the program hurts.
 - Incentives are not necessary, especially on the residential side.
- Commercial is harder to peg.
- Messages haven't been delivered very well.

Mike McCourt Interview
April 7, 1999

Sustainability

- Wish we could use a different word.
- It's a great word in small circles, not a great word in public circles.
- It's a "we" word not a "me" word.
- The whole message doesn't have to be "me" but it needs to take the lead.
- The concept is good; but it's not easily understood.
- Sounds bureaucratic.
- What can I do or where can I go to make this happen – give them a place to turn to.

Benefits and Barriers

- It's hard to convince people in a state with this much land and this few people that there really is an "or else" consequence.
- We're still pioneering out here on the frontier.
- Regional plan review should be a tool.
 - Utilities that support Alliance still have staff.
 - Program communications need to inform staff and take into account their expertise.
 - This may be an opportunity to link government officials and utilities together.
 - Could also unite city and county people around the cause.
 - Utilities could do better at working with local government
- A program with tools is easier to sell to local governments.
- The program needs to take into account the regional variances.

Conclusion

- Mike puts out a newsletter
 - He has promoted Back-Gen in this.
- What do they read?
 - Local newspapers.
 - National League of Cities, county equivalent.
 - Ask Nybo.
 - Statewide association newsletters.
- NEEA
 - Has a tendency to step into a market and then step out too soon.

One-on-One Interviews

Richard Conlon

March 10, 1999

Background

- He is a member of the Seattle City Council.
- He has been involved in energy conservation since 1973 and the sustainability movement for the past eight years. He serves as Vice President of the Utilities and Environment Committee, which oversees Seattle City Light's energy conservation programs.
- He is a leader in writing Seattle's Sustainable Action Plan.

The Energy Efficiency Players

- Architects and designers know EE as an intellectual abstract. But they don't do anything about it because developers don't ask them to. My impression is they've given up.
- Developer/owners have more incentive to make EE steps than developers who don't own their projects.
- Get EE on the list of desired items for people buying from developers
- NW Policy Center at University of Washington

Marketing

- In commercial buildings, owners could emphasize the positive benefits of energy efficiency: enhanced productivity and employee satisfaction. Comfort, health and safety are important in the retention of good people.
- In residential, builders could focus on comfort and security. "This is a safe place to live."

Successes

- Key Tower
 - Used Seattle City Light energy conservation program technology
 - Unfortunately invisible
 - City now owns it
 - One of lowest maintenance costs downtown.
 - Norman Miller, City of Seattle facilities manager, Executive Services Dept.

Sustainability

- The problem is in the definition of this word, not the concept. It doesn't communicate well.
- It's difficult to be sustainable over a long period of time, from a financial standpoint.
- Energy efficiency is a fairly minor component.

Richard Conlon Interview
March 17, 1999

Benefits and Barriers

- Cost: there are financial constraints in getting up-front capital to make energy efficient investments.
- Lack of knowledge of technologies and other possibilities.
- Seattle City Light had success because they were a known entity.
- It's a challenge to get the attention of commercial customers.
- The savings aren't very big in the scheme of things; EE doesn't command enough importance for people to devote the time necessary to make choices.
- You're not just avoiding and preventing, you're creating something positive.
- Commercial
 - Productivity
 - Employee satisfaction
 - Employee retention
- Residential
 - Comfort
 - Security (nesting; things are good; the house won't hurt you)

Other Contacts:

- Clean Washington Center, David Doherty, Director. Promotes recycling and materials conservation.
- Energy Outreach Center, Paul Horton, Director, 360/943-4595.
- Northwest EcoBuilding Guild, Chris Stafford, 360/622-8350.
- Western Environmental Trades Alliance, Elizabeth Daniels. Energy and environment resource technology.
- Sarah Patton at the NW Energy Coalition 621-0094, used to be at Seattle City Light.

One-on-One Interviews

Stan Price Interview

March 16, 1999

Background

- He's executive director of the Northwest Energy Efficiency Council, an association that represents 70 members in the energy products and services industry.
- Their mission is to grow the market for the industry at large and for their individual members. There is an 11-person board from member companies.
- Their focus is on the commercial and industrial sector, including consulting engineers, design firms, manufacturers, contractors, product suppliers and distributors.
- There are three legs to the Council:
 - provide business opportunities and professional development for their members;
 - offer a building operator certification program, which is directed at commercial and institutional space and will be self-supporting by the end of the year. This is a voluntary program, with 75 certified building operators so far. Clients have ranged from Boeing to the U.S. Navy to school districts;
 - advocate for policies and programs to local, state and national governments.

The Energy Efficiency Players

- The architect and the owner have the most influence over the design process.
- To achieve code compliance, there needs to be a "compliance enforcement imperative" underneath everything. For building design to move beyond code, we need to change the way we do things. Right now, the engineer and the architect, the main players, are not motivated to change.

Codes/Certification

- There is not a good, uniform third-party system for energy plans examination, inspection and certification. The Washington Association of Building Officials had 250 people in 1997 with an official designation; in 1999, it was down to 175 people. This organization is now getting out of the certification business.
- The International Codes Council is trying to offer a uniform code across the country and Canada. They do testing and certification. The problem is the International Energy Code model has not been adopted by anyone.
- There are 800 people in the state of Washington, from architects to consultants, who want to get certified as energy plans examiners.

Stan Price Interview

March 16, 1999

Codes, cont.

- Stan's group would like to work with building owners and architects to advocate to contractors to add a special plans officer to their team. This person would approve the energy components of their plans. Architects benefit by saving time and getting a faster permitting process. Getting energy expertise inserted early into the process will take a building's design far beyond the energy code. This also benefits the building owner, the tenant and the region.
- There are already consultants out there who could easily add this energy certification process to their expertise.
- Time savings of forced plans examiner more than compensates for the \$500 fee.
- Who's certified: Keith Elder, Kaufman Engineering, other mainstream folks.
- Right now we get 75-80% code compliance; it's higher with the third party.
- The goal is a relationship; the result will then be as good as it can be.
- In Multnomah County and the City of Portland, large projects are required to have their plans submitted for approval, including energy plans. Total code compliance is reviewed, including the energy code compliance.
- Increasing the stringency of the code is a complicated process and not the answer.
- The REI building is an example of a great new building that doesn't comply with the energy code for lighting. The building owner was already motivated to achieve energy efficiency, but the architect didn't bring in any additional lighting expertise. The architect had no resources and no incentive to find the extra expertise. This is an example of a market condition that didn't work, where a certified energy plans examiner who knew the code could have made the difference.
- A Schuck's Auto Parts building is another example that did not meet the energy code. An energy plans examiner sat down with the manager and showed him how they could modify their plans to meet and exceed the energy code.

Marketing

- If market transformation is the end goal, energy efficiency can't be looked at as "boutique."
- He wants to make market-based energy efficient design expertise an integral part of the design process, a value-added service. He'd like to see a "professional standard of care" as the highest common denominator where energy efficiency is concerned.

One-on-One Interviews
Steve Benner Interview
April 5, 1999

Background

- Steve is an architect with CHSQA in Boise, where he has lived for 22 years.
- Moved here from Florida.
- Early '80s: Worked at IDWR from 1983-94.
- Most of IDWR work was residential oriented.
- Now works on commercial projects:
 - College campus buildings.
 - Nursing homes.
 - Did some residential projects before that.
 - Did an adaptation of a Boise warehouse from 1905:
 - Mechanical systems
 - Lighting

The Energy Efficiency Players

- More demand for EE needs to come from owners and developers.
- We're in the business of doing what our client wants to do.
- If they asked for it more, it would fit in our problem/solution approach to work.
- Mechanical engineers and electrical engineers play a big role. Architects can't know everything about EE.
- Architects lay out the conceptual. Engineers get it done.
- Engineers need to stay up on stuff.
- Architects are generalists compared to engineers.
- Developers of speculative office building projects:
 - Most are just thrown up.
 - A good code could fix this problem.
- Developers are not progressive.
- Building owners aren't either.
- They do expect that they're getting it, which is one reason they don't ask for it. They're taking it for granted.

Steve Benner Interview
April 5, 1999

Marketing

- If there is a label it has to have some meaning.
- It has to outline standards that are actually met.
- Branding works better in residential.
- In commercial, it's even further down the list of priorities.
- In speculative, it's nearly impossible.
- Can you show them they'll get more rent?
- Tools are needed:
 - It's not simple.
 - A how-to book may not be relevant.
 - Web-based tools may have more of a possibility.
 - Most professionals do have connections to the web.
 - Manufacturers are starting to do some of this but it's not objective and independent.
- The issue of certification:
 - Perceived value needs to be clear.
 - Paying for this inspection would be a bit of a barrier.
 - Could this be a utility subsidy?

Successes

- Liberty Elementary School: done by his firm before Steve got here.

Sustainability

- Materials used in a building.
- Embodied energy.
- Off-gassing.
- Director of a group called the "Livable community group." Attempting to be the same as Sustainable Seattle.
- Can be a hard concept to grasp and to define in terms of what it means in your everyday life.
- Not a good term.
- It turns off people; they don't fully understand what it means.

Steve Benner Interview
April 5, 1999

Benefits and Barriers

Barriers

- Priorities vary by client.
- Time is usually at the top.
- Time equals money; it compounds quickly.
- Budget is usually second.
- Client (as in owner) satisfaction is the most important.
- EE is at the bottom of the list.
- EE has to be thought of upfront, or it's limited.
- Client dictates the importance of tenant satisfaction.
- Again, the client assumes he's going to get tenant satisfaction.
- Clients aren't aware of what could be done, so they don't ask for it.
- Clients won't pay more for an EE design. They expect that from the professional in the first place.
- If the client wanted EE, the architect could work it into the bid. It seems more like the architect is responding to the client demand that way.
- Architects and engineers need to be more up-to-date on technologies:
 - AIA's continuing education program is a good example.
 - Ongoing training is becoming more of an accepted norm. It didn't used to be that way.

Benefits

- There is no one answer.
- Each person has different hot buttons.
- Some people are motivated by environment.
- Most are self-motivated.
- Comfort – heating and cooling; more uniform temperature.
- Good lighting system = performance
 - Day lighting, looks, etc.
- Productivity.
- Health – air quality
 - Sick building syndrome is something that got a lot of press a few years ago.

One-on-One Interviews
Sue Anderson Interview
March 22, 1999

Background

- Sue is Director of the City of Portland Energy Office.
 - Sue thinks that what the city is doing on green buildings might tie in. They have a report due to City Council in late summer.
- The city can help by:
 - Distributing public information
 - Acting as a regulator
 - Offering incentives (shorter permit approval time frames and lower fees)
 - Being a model
 - Serving as facilitator (bring people to resources that can help them)

The Energy Efficiency Players

- Make the margins better for suppliers, e.g. lighting program incentives from utilities in the past.
- You need to affect the main purchasers.
- Change the basic ethos of the people with the power to make the large purchases.
- Convince the 500 largest companies and the 30 largest local governments, then everything else will fall into place.
 - That gets everything but housing, including apartment buildings.
- Focus on the small group at the top, the early adopters.
- Eighty percent of both city councils in Portland and Seattle are left of center. Not necessarily true in Idaho and Montana.
- Politicians actually listen to the early adopters, not the larger public.
 - They also care about things like low-income areas and affordable housing.
- Local governments are a big market for the institutional buildings.

Marketing

- Challenge the top end to take action.
- Consider the Natural Step approach.
- People who participate can get recognition, companies or individuals.
- Turn it into a business advantage – a way to define their product differently.
- Make it like keeping up with the Jones's.
- Salmon has been a good learning experience.
- Air and water quality are what people care about.

Sue Anderson Interview
March 22, 1999

Marketing, cont.

- ISO 14,000
 - ISO 9000
 - Standards for running your business.
 - More common in Europe.
 - Eventually, companies that want to do business in Europe will need to.
 - Biggest companies do this first because it is expensive.
 - International approach.
 - 200 companies in NW will be participating over next 3-4 years.
 - Kurt Nichols on staff knows a lot about this.
 - There are consultants who help companies implement this.

Sustainability

- Public doesn't understand it yet.
- Green is better term than sustainability.

Benefits and Barriers

- Lots of money will be spent to educate the public on salmon. You could almost tack EE on.
 - We have their attention.
 - Designers are freaking out about storm water run-off.
 - It could keep it from being a bad news only thing.
 - All these cities will be putting money into public information campaigns.
- Recycling happened because every city in the state had to come up with a plan thanks to a state law. There was a big stick out there first.
- Model building programs are taking shape in larger cities.
- Commercial is where you really save energy/money.
- Multi-family is growing in importance, but there are huge disconnects between decision-makers and energy bill payers.
- How do you market to renters, get this on their list?
- We've got to make EE easier for people to ask for.

One-on-One Interviews
Ted Haskell Interview
March 22, 1999

Background

- Ted is an energy agent with Oregon State University Extension Office.
- He provides technical training and assistance.
- Every county in the country has an extension office.
 - It was part of the Land Grant arrangement.
 - There are seven people in Oregon; they all work statewide.
 - Subject matter leads what they do.
- Ted's background
 - Worked for OSU for 15 years.
 - Energy extension has been modified a great deal over time.
 - They tried to reach professionals through utilities in past.
 - Getting homebuilder associations on board is tricky; they tend to see extension offices as wolves in sheep's clothing
 - But it will lead to more / stronger codes

The Energy Efficiency Players

- Developer has most control.
 - If he is just after the best price he can get for the building, he becomes the biggest obstacle.
- Architects and engineers are potentially the best EE sales peoples. They're naturally inclined that way, but they have to come up with things that appeal to the developer.
- The bigger the building, the more likely the developer is going to be the owner.
- In the circle of finger pointing, they're all telling the truth.
- What it takes is a counselor. Everyone needs to be involved in early meetings, but that is on the developer's bill.
- Developers who want EE just want the result. They don't want to make decisions item by item.
- EE gets lost in the conversation, even though everyone goes in with good intentions.

Ted Haskell Interview
March 22, 1999

Marketing

- Symbol at POP
- Contractor certification
- Selling kits for contractors
- Brochures
- Utility-driven support
- Sales materials in residential development projects
- Sales video for home owners

Codes

- The positive outweighs the negative.
- In terms of risk management, we've shown codes work. This is particularly important in commercial, where there is so much money on the line.
- The downside: we've already done what we need to do.

Successes

- PECE (Portland Energy Conservation Inc.) – is focusing on building commissioning. They may be a good source of examples.

Sustainability

- A bit slippery.
- Right now it means something good to everybody.
- Dangerously vague.
- Personally, I think it's great because it fits my politics.
- Right now it even appeals to conservatives.
- Conservatives are good stewards when it matches their pocket books.
- Could twist into a bad word for some people depending on how debate proceeds.
- Potentially very inclusive – a strength.
 - Everyone has opportunities to contribute towards it.
- If you can hang strong words onto it – how good of a coat rack is it?
- Downside potential – the next spotted owl.

Benefits and Barriers

- You could put together a book that might work for a lot of residential – things are repeated often and problems/solutions are generic
- This isn't as true in commercial – strip malls are the exception. Otherwise, each one is unique.
 - Therefore they need a lot of individual attention.
 - They need an approach and a place they can go to get their questions answered.
 - The problem is that their questions don't always require short answers. Sometimes they need a crash course on a topic.
 - Commercial more intensive, more custom.
 - Pressures are huge in construction – it's challenging to overcome the risk management issues.

Ted Haskell Interview
March 22, 1999

Benefits and Barriers, cont.

- You might end up with competitively sticky situations.
- Clearinghouse approach may help solve the competitive problem – hook people up with others who won't be their competitors.
- Building Commissioning – we should have our projects commissioned.
 - It's upfront.
 - It's analogous to a ship, they test it out with a set procedure.
 - Because it's not life and death, people don't pay as much attention as they should.
 - It can prevent unexpected equipment breakdowns – saving more than its cost.
- Residential barriers:
 - Cost – primary barrier for end users.
 - Other features are more desirable.
 - Builders know how to lay tile whether it's cheap or expensive.
 - Some EE components require a change in the building process, which increases a contractor's cost. They'd rather have a homeowner put their money into extra things than EE. They won't have to learn or find something new.
 - The people who make the decisions are not the ones who have to pay the energy bills.
- Benefits
 - Some studies show higher productivity in EE environment.
 - Rocky Mountain Institute is a resource for this data.
 - Health – commissioning can help with this a lot.
 - Which way does the air flow from the parking lot?
 - Controlling air flows is crucial.
 - Sick building syndrome.

One-on-One Interviews
Teri Ottens Interview
April 5, 1999

Background

- As Executive Director for ICBO, Teri manages building officials.
 - Code and government officials.
 - One-third are independent folks who contract rather than work full-time.
- Manages consulting engineers association.
- Been in Idaho since 1988.
- Worked as a city administrator for first six years.
- Then worked in Debbie Bloom's job for the Association of Idaho Cities.
- Nobody wants to be green.
- Environmentalist is a bad word – we have "closet" environmentalists.
- Things have to be "me" focused; "money" focused; "economy" focused.
- People here resist rules and regulations; it's worse outside of Boise.

The Energy Efficiency Players

- Engineers know their clients are conservative; they won't push them at all.
- Architects (some) will push a little for change.
- Schools and universities could do more to train their architecture and engineering students in EE
 - University of Idaho Architecture School, Bruce Haglund is possible contact

Codes

- For code officials the main question is whether or not it's a life safety issue. Energy isn't.
- Considering a position white paper supporting code implementation and acceptance.
- Idaho energy code is diluted and means nothing:
 - Self complying.
 - Not very high goals.
 - Residential.
 - "Voluntary" code is a commercial code:
 - Building owners resisted; legislature passed on it.
 - Now trying to get a few, key rural districts to adopt the residential code – training their people.
 - FEMA helped – because of Hurricane Andrew. But they don't mandate that it includes energy.
 - Again, the argument was money not energy.

Teri Ottens Interview
April 5, 1999

Marketing

- IDWR has a real good reputation for being an information source, not a regulation agency.
- Web is a good idea, but there needs to be something in hard copy too because so many people aren't on-line yet.
- The hard copy thing can be more top-line oriented. It should help direct people to the web site.

Sustainability

- There was a big push in 1994-95, but not a lot lately.
- Some resistance to the word.
- Idahoans are independent – they don't like the use of "buzzwords."
- Concept has some recognized benefit/value.

Benefits and Barriers

- Comfort and quiet sell to end users, but not the trades so much.
- The trades think in terms of payback, building operating costs and lifecycle costs.
- They make the argument for a "good" engineer being worth the 10 percent fee vs. 3 percent for a cheap one. The expensive one pays for himself over time.
- If they can bill for it, they'll be interested in adding EE to their skills.
- A big hurdle, but it's the card you have to play to be able to sell EE.
- The goal in construction is build it cheap and get out fast.
- We have builders who come to Idaho because they can get away with stuff here.

Conclusion

- What do engineers read:
 - ACEC (American Consulting Engineers Council) monthly magazine
 - Also reaches cities and counties
- Building officials read anything from ICBO (International Conference of Building Officials)

One-on-One Interviews
Tim Nogler, Judy Darst Interview
March 10, 1999

Background

- Tim and Judy are code specialists with the State of Washington; previously they were energy specialists with the state.
- They spent time answering a hotline and doing field work; now they deal with some bigger issues; not just energy focused.

The Energy Efficiency Players

- There is very active energy outreach in Olympia.
- Others have tried focusing on realtors in the past. It's starting to take hold.
- As a whole builders don't want to be progressive.
- Architects want total flexibility, but code can be limiting.
- Architects just throw stuff at engineers, but it's getting better. In the past, they've been told, "Just figure it out." Relying on old, tested products is safer than risking new technology.
- Realtors have their finger on the pulse of demand, but EE is rarely mentioned in real estate listings.

Codes

- Other code issues aren't thought of until there is a problem. Why should EE be any different, e.g. guard rail height.
- Substantial resistance to EE as part of code – it doesn't fit.
- Complaints about code. Ventilation doesn't seem to make sense.
- Bill in legislature this past year to roll back the EE code.
- Inspectors tend to be prescriptive – doesn't allow for flexibility even if it is allowed in code.
- Building code is not as difficult to meet as some other constraints that a builder may encounter.
- People just want to know that their building/design meets code.
- The ideal code would be flexible and simple.
- Increased demand would elevate EE on code officials' list.
- Limits on jurisdiction is an issue. Solar doesn't count.
- Proven technologies are needed.
- People don't know if their house is up to code or not. They assume it is, but they don't really know.

Tim Nogler, Judy Darst Interview
March 10, 1999

Marketing

- In non-residential, mechanical systems and indoor air quality have become a huge issue. Human health is a fundamental issue. Could be motivating.
- Healthy buildings.
- Whole building approach.
- Freezing in the dark.
- There's a strong feeling that EE is not worth it. People think of lights on in their house, but that's kind of trivial.
- People would think about it if they got a really big or small bill.
- Labels on appliances.
- Pink panther, Owens Corning; other manufacturers might be an advocate.

Successes

- REI building had many cool features, not just EE.
- Hard data is hard to come by.
- Following the hurricane in Dade County, Florida, there was no damage to the neighborhood project that followed code. EE is a sign of a well-built house.

Sustainability

- For the leading edge you have to talk about more than EE.
- This is a tough word. People think they know what it means but they can't define it. Definitely can't quantify it.
- It's so big that it doesn't mean anything.
- The hook is in more than just EE, but sustainability isn't it.

Benefits and Barriers

- Technology is growing so fast, no one knows how a technology might work.

One-on-One Interviews
Victoria Lincoln Interview
May 5, 1999

Background

- Victoria is state liaison for the Association of Washington Counties.

The Energy Efficiency Players

- Everyone has a role.
- Real estate people could use it more; some are doing it now.
 - People are starting to ask about EE – they're leery of huge power bills.
- Architects and engineers, if they're sold, can make it happen.
- Local elected officials have too many other issues.

Codes

- EE not a priority because it's already there thanks to code.
- People know codes are higher here.
- Increasing codes here is impossible – not well received by local governments.
- It's taken a long time to get where we are.
- We were the first to adopt codes – there are far more homes here than in Oregon that are built to an EE code.
- Commercial code has been around for six years.
- Residential codes have been around for 10 years.

Marketing

- Give people little things to do.
- The big things are asking them to do too much.
- Talk to people about what they're going to save:
 - Stacked bottles of water for WashWise.
 - Visual, graphic representations.
- Benefits that are most powerful are multifaceted.
- Hitting emotions are more powerful.

Victoria Lincoln Interview
May 5, 1999

Successes

- Super Good Cents was a successful format.
 - People could ask for the sign.
 - Signs were posted in houses and in neighborhoods.
 - TV had impact.
- WashWise has been a big success.

Sustainability

- City of Seattle has a sustainability campaign that has been running for a couple of years.
 - Lawn watering.
 - Pure marketing.
 - Use of pesticides on lawn.
 - Tie in with the salmon.
 - Mulching mowers.
 - Torchiere lamps (tall lights with halogen lamps)
 - There's a program to turn in your old ones; get a discount on a new one.
- Sustainability is the pie in the sky goal.
- This is the way society is going – people are starting to understand the interconnectedness of things, but it's still hard for most people to get their arms around it.
- Talking about benefits behind EE seems the most effective, but the Seattle program did a good job of talking about sustainability in a meaningful, connected way that focused on community more than environment.

Benefits and Barriers

- People don't think we have an energy problem.
- No media coverage.
- No new EE ideas.
- Confusion around issues – taking dams out.
 - Contradictory, confusing messages coming from various sectors.
- You can definitely overcome the cost issue.
- Done wrong, cost will be insurmountable.

One-on-One Interviews
Byron Roberts Interview
April 7, 1999

Background

- Roberts is Executive Director of the Montana Building Industry Association.
- They have something called a Plan Book:
 - There's an EE component in each plan.
 - Montana Board of Housing and HUD are some of their partners.
 - They received a \$100,000 grant from DEQ, plus others have contributed money to fund this project.
 - They offer a small book that includes:
 - Starter home plan book, aka "Plan of Attack."
 - 40+ plans.
 - Affordability is the #1 criteria.
 - No plan review is necessary, except for things like site review.
 - Detailed plans are available for sale at cost.
 - It comes with a 4-hour consultation.
 - We look at it as a marketing tool, and use it with people like realtors.
 - There is competition among builders/architects to be included in the book.
 - They are pre-approved by a plans committee.

Marketing

- If you educate builders, you'll increase your chances of getting things done above standard.
 - The consumer has to want it and to pay more for it.
 - Generate demand and builders will do the extra things.
 - But don't position the standard house as uncomfortable.

Benefits and Barriers

- Cost.
 - Buyers are screaming about price, so builders do, too.
- Most builders provide the maximum, reasonable EE steps.
- Our biggest problem here is affordability.
 - Housing has doubled.
 - There's a housing shortage.
 - Lots have tripled.
 - Salaries are stagnant.
- What is it that isn't being done?
 - Needs to be identified.
 - Builders are building up to the cost-effective ceiling.

One-on-One Interviews
Darlene Nemnich Interview
April 5, 1999

Background

- Darlene is a Steering Committee member from Idaho Power.
- People in Idaho don't want anyone telling them what to do.
- We won't get too far by aligning with environmentalists.
- Keep in mind the "Western" perspective.
- At the same time, progressive is good.
- Be wary of preaching to the choir.
- Maybe we're being too broad and complicated about our approach.
- Some people think we're moving faster than we are.

The Energy Efficiency Players

- Consider vendors, such as sellers of HVAC systems.
 - A good contact is Debbie Johnson with Climatech Corp. in Idaho.

Sustainability

- Not the best message.
- Nobility is a hard sell.

One-on-One Interviews
David Johnston Interview
April 7, 1999

Background

- Been working on energy efficient buildings since the late '70s.
- Worked in Washington, D.C., on several government buildings.
- Founder of the Passive Solar Industries Council in D.C.
- Currently owns his own company, What's Working.
- Co-author of the Green Builder Certification Program in Boulder, Colorado.

The Energy Efficiency Players

- Manufacturers
 - The market is opening up for them everywhere.
- Builders
 - They have a built-in captive audience – their clients – who will listen to their stories and buy into the energy efficient benefits.
- Developers/architects
 - They also have a built-in captive audience.
- Community
 - Keeps money in the community.
- Realtors
 - Can specialize and focus on homebuyers who want energy efficient homes; realtors are always looking for a niche.
- Utilities are also an important player.
- The ultimate beneficiary is the homeowner or commercial building occupant.
- The important point in building energy efficient buildings/green buildings is to look at each player and the whole set of disciplines, then identify their individual self-interests. Play off of that.

Codes

- Codes have led the green building effort in Boulder. They have many people in their county and city government who care about improving building practices. Therefore, they have passed measures and codes in the past few years that don't really give the builder a choice in the matter.
- In Boulder, if you want a permit, you have to commit to certain energy efficient building practices to even obtain that permit.
- Code officials definitely have contributed to energy efficiency in Boulder.

David Johnston Interview
April 7, 1999

Marketing

- Don't sell "energy efficiency." The public is oblivious to that. Instead, sell:
 - Comfort
 - Affordability
 - Health
 - Durability
 - Quiet
- Low maintenance
- There are many products available that green builders can use. Many builders are already using them; they just aren't using this as a marketing tool for themselves.
- If builders will just tell their story about their green building, people will listen – especially the press. It's free press for a builder. People like news stories.
- The Green Points Building Program, as an example of a user-friendly and straightforward program, offers builders resources, workshops, everything to enable them to market themselves as green builders.

Successes

- Green Points Building Program in Boulder.
- McStain Enterprises in Boulder is a large participant, building tract homes and multi-unit complexes.
- Built Green in Denver.
- City of Austin.

Sustainability

- Healthy environment.
- Comfortable homes.
- Durability– lasting.
- Better future for the environment.

David Johnston Interview
April 7, 1999

Benefits and Barriers

- Energy efficiency is **not** motivating to the public. They are oblivious, even in Boulder. Builders and the building industry – who are often led by the government, must lead the public. The public must be spoon fed this information. You have to tell them what they want before they know they want it.
- His “best” advice was to just sell comfort, quiet, durability, affordability, health, and low maintenance.
- Typically, there is between 1% and 2% additional cost for a “green” home or building.
- However, the energy savings outweigh the cost.

One-on-One Interviews
Doug Oblitz Interview
May 24, 1999

Background

- Oblitz is a partner with Shiels & Oblitz developers in Portland.
- All of their newest projects are urban, infill, mixed-use.
- The Belmont Dairy was a major project of his firm. Key features:
 - PGE's EarthSmart program contributed \$400/unit as an incentive.
 - Electric heat.
 - 1-bedroom lofts in the old dairy building go for \$1,200-1,300/month in rent.

The Energy Efficiency Players

- Lending community is very slow to adapt to change.
- Generally, our architects push us.
 - We depend on them to lead us.
 - We're doing about the most we can do, EE-wise.
- Engineers are really up on technologies.
- Design/build contractors are more motivated by cost.
- Mainstream developers are resistant to doing more.
 - Suburban developers are different.
 - They're building a commodity.
 - Price is tight.
 - They have everything figured out down to a \$2 difference on building costs, or a 2-cent difference in rent.
- Market is over-competitive.

Codes

- A high percentage of code is achieved in Portland.
 - The City is strict; even mass developers are careful to follow code.

Sustainability

- Comes up as an altruistic issue.
- It's a bonus, but far down the list.
- Recycling of construction materials, and concern for carpets and paints make good news stories.

Benefits and Barriers

- Comfort and health are assumed.
 - We promote it, but we're preaching to the choir; the people who are interested in our projects already care about it.
- Location and price are first.

One-on-One Interviews
Jim Grossman, Frank Martin Interview
April 6, 1999

Background

- Grossman and Martin developed a residential community in Hidden Springs, Idaho.
- Their development is unique for several reasons:
 - They owned the property for 20 years.
 - It was a great piece of land.
 - Half the property is dedicated to open spaces.
 - People like open spaces; only 15% of residents of golf communities actually play golf.
 - They're protected from too much development around them.
- They created an entire community with minimal impact to surroundings.
- They were insulated from competition.
- This exact development is hard to replicate in a more conventional setting.
- The community feeling translates to higher resale values.

The Energy Efficiency Players

- Educating subcontractors is important, too.

Marketing

- "Environmental" can sell in Boise or Treasure Valley, but not necessarily other places.
 - "Energy efficient" is a better phrase.
- A new brand could be confusing with what is already out there.
- Articles have 10 times the value of an ad.
- Try to capture politicians at all levels to support our program.

Benefits and Barriers

- Local lenders don't know about national lending programs that would allow people to afford more house.
- It's sometimes hard to have physical evidence of EE steps; you can see a granite countertop.
- Contractor is often unwilling to downsize equipment.
 - Cost of equipment is higher here.
 - Oversized equipment fails faster.
- On the benefit side:
 - Comfort.
 - Improved air quality
 - Generally a better quality home.
 - More structurally sound.
 - "Smart makes it acceptable."

One-on-One Interviews
Jim Wyse Interview
May 11, 1999

Background

- Wyse is a professor and researcher at Washington State University.
- He is a member of the U.S. Green Building Council.
- He developed the survey instrument that is being used to evaluate LEED.

The Energy Efficiency Players

- I give an entire semester's course on the relationships between the different players.
- There is a substantial relationship and many communications problems between the players.
- The innovative and mainstream groups run in different circles without much influence on each other.
 - It's unfortunate, because there are a lot of reciprocal skills on both sides.
 - They each have what the other wants but neither knows it.
- AIA is a good example of the contradiction within just one group.
 - They're doing a lot of good things.
 - Their training in EE is lacking.
 - There is too much variation in terms of the way people get trained within the region.
 - The four major schools at least need to come up with a regional training program.
- People who've tried to participate in this activity before have been burned by the infighting from the different groups behind the different standards which are supported by and supporting different manufacturers.
- In the latest issue of HPAC Magazine:
 - Theme of editorial: it's time to stop the finger pointing.
 - Trying to be a leader.
 - Critical of the building industry.

Jim Wyse Interview
May 11, 1999

Marketing

- There's a real "green war" starting to take place in the marketplace.
 - Different manufacturers are lining up behind different standards of what is green.
 - Major manufacturers are lined up with different environmental groups.
 - They're starting to create unhealthy alliances designed to create market advantage, but not with an equal playing field.
- People on the demand-side will turn to the supply side and ask for it.
- Communications and automations are finally at a level to support the economic expansion.
- When most of your money goes to pay your people, paying for productivity should be a no-brainer.

Sustainability

- It is worthwhile to expand the imagery from energy efficiency to something broader.
- We should embed it in something larger.
- I'm not convinced sustainability is the way to go.
 - A lot of people can't get their heads around it.
 - Environmental politics are not appealing to most people.
 - Discussions like population control are very tricky.
 - Gender politics come out of this discussion.
 - Some even argue that accepting sustainability means accepting feminism
- It is a growing term.
- Too many people are trying to latch onto it – often with old environmental issues.
- Sustainability is a word that is a turn-off to engineers.
- It would be nice to attach EE to something chic, say Santa Fe style.
- Green Power works to the degree that it does because it's a badge.

Jim Wyse Interview
May 11, 1999

Benefits and Barriers

- There was a classic study that looked at encouraging people to save energy.
 - One of the most successful strategies was providing feedback – putting something visible in the house.
 - Make it sensual; make it visual.
 - A challenge with energy efficiency.
 - The most success always comes with tying EE to sensual parts of their personal environment.
 - Attach it to things that people are already aware of.
- There is a lot of desire to link up pollution and energy.
 - It's easier to discuss than energy; you can mentally visualize it.
 - P2E2 linkage.
- Health is a key benefit. National Institutes of Health is just starting a new study on healthy buildings and healthy people.
- In a survey of what people wanted in a building:
 - Thermal comfort.
 - Internal air quality.
 - Same magazine as noted above.
- HPAC refers to it as Superior Building.
- There isn't demand on either the commercial or residential side.
 - Too many people think you have to give up something for it.
 - People got burned with early energy efficiency strategies. They didn't work or had negative side effects.
 - EE ending up taking the blame for some problems that it didn't directly cause.

One-on-One Interviews
John Hogan Interview
March 16, 1999

Background

- Hogan is an energy analyst for the City of Seattle.
- He worked on the first energy code for Seattle.

The Energy Efficiency Players

- Mechanical engineers have a lot of knowledge about products.
- Capable of meeting the objective if it's given to them.
- Architecture margins are thin.
- Engineering fees are a % of total engineering equipment costs.
- Few people are involved in the decisions: homeowners and tenants are not on the list.

Codes

- Codes set a fairly solid baseline.
- More aggressive EE codes in the Northwest.
- In other parts of the country architects and engineers have to track EE down on their own out of their own value system; here they figure someone else has already done the work and EE isn't their deal.
- There's a lot more EE to be gained.
- Wouldn't like code+ being 10% (not enough) and getting promoted as a real accomplishment.
- Likes the idea of setting a high benchmark.
- Have a tiered system, but don't let the bottom be too low.
- It would be nice to have an absolute scale, but code is going to keep improving, just like Windows 95, Windows 98.

Marketing

- Labels like Energy Star can be beneficial to homeowner if they got to make the choice.
- Provide a way for builders to take credit if they've done a good job.
- Promote what's been done, e.g. consumers can buy a window today that uses 1/3 of the energy of old windows.

John Hogan Interview
March 16, 1999

Successes

- Paramount Hotel on Pine (7th and Pine).
- BuiltSmart apartment buildings, buildings go on the website.

Sustainability

- Some cities are interested in more than EE; they want total resource efficiency.
- It's nebulous enough that people can support it without knowing exactly what it means.
- The questions you have to answer are pretty broad.
- Achieving real sustainability is murky.

Benefits and Barriers

- Quieter, more comfortable.
- Productivity, but hard to quantify.
- More pleasant to work in, especially with daylighting.
- Barrier: risk and trust of new technologies.
- Systems design is an area of untapped potential.
- The different players don't work with each other.
- Trust in each other and in the technologies is a problem.
- Need to find a way to share risks and benefits.
- More automatic light controls in commercial buildings would make a difference.
- Cheap EE stuff works like all cheap stuff, not as well as the higher end stuff.
- 10-20% more energy savings is achievable without incremental first cost.
- Payback is a term to stay away from. Why is the energy field saddled with this? What's the payback on the granite countertop?

One-on-One Interviews
Lynne Barker Interview
April 15, 1999

Background

- Barker is a developer with Sellen Construction in Seattle.
- They work on large and small projects; small is their bread and butter.
- All commercial, no multi-family, some institutional, some public sector.
- They try to avoid "lowest-bidder" projects.
- They want to add value to their projects with:
 - Better quality.
 - Better management.
 - Better scheduling.
 - Better sustainability.
 - Lifecycle cost analysis.
 - Indoor air quality.
 - This is hard to quantify, but we know the sources of poor quality.
- Barker is on the Board of Directors of the U.S. Green Building Council and the LEEDs Council. An update on LEEDs:
 - In pilot phase right now; will be launched next spring.
 - Involves commercial and high-rise residential; other residential in the next 18-24 months.
 - Large Fortune 500 company buy-in gives credibility to LEEDs.
- Working on supply side tools:
 - Something to simplify the process.
 - Make DOE2 more straightforward.
 - Tools will come later than spring.
 - Offer technical support to accompany.
 - Will be somewhat self-certified, but documentation will be substantial.
- Could NEEA certify LEEDs buildings?

Marketing

- Salmon recovery is front and center.
 - Energy and water conservation should increase in importance.
- What we need is pull.
 - Market is so highly competitive, the slackers will have to get on board.
 - Early adopters always respond.
 - Provide tools that help the demand side express their demand; get them to ask for performance verification.
- Show people how they can differentiate their building.
 - Attract and retain workers.
 - Increase employee satisfaction.
 - Gain public recognition.
 - Building owners are looking for something new.

Lynne Barker Interview
April 15, 1999

Sustainability

- The broader attributes of sustainability are attractive.
- It may be easier to motivate people with the whole picture.
 - The market is more sophisticated.
 - It's hard to deal with one of 12 individual things.

Benefits and Barriers

- How big a deal is EE? It may be a significant part of the national green building scene, but here we're hampered by low energy costs and clean energy perceptions.
- All the different programs produce confusion.
- Issues are not separate; they're integrated.
- It's human nature to resist change.
- Spec buildings are a problem, but there are opportunities.
 - You have to change your view to tenant recruitment and retention.

One-on-One Interviews
Peter Hurley Interview
May 5, 1999

Background

- He's been in charge of the Sustainable Action Plan for Seattle City Light.
- Interested in EE since early '70s and the energy crisis.
- Worked at the Washington Environmental Council.

The Energy Efficiency Players

- Developers drive the process.
 - They choose all the other supply side players.
 - They're the top of the food chain on the supply side.
- Technology sector is promising.
 - They have a lot of highly paid people working a lot.
- The more highly paid, skilled and valued the employees, the more likely the tenant will care about this.
- More architects than you would think are a problem.
- Stores like Eagle Hardware will be good vehicles for getting the word out.
- Service employee unions are becoming increasingly powerful.
 - Members' health is an issue.

Codes

- Codes in Washington and Oregon are somewhat ahead of the rest of the country.
- The problem is that things don't get done to code.
- I'm a commissioning fan – just as important as the underlying code.
- Code officials don't seem very involved.

Marketing

- Smaller builders are starting to market the healthy home idea.
- There's the new Environmental Home Store in Seattle.
- Green isn't as motivating as health – the health market is bigger
- EE not a real concern.
- Other environmental concerns also fairly low.
- Whatever's quickest and easiest, particularly in a hot building market.

Peter Hurley Interview
May 5, 1999

Marketing, cont.

- EE not motivating enough; other issues go more to the heart.
- Four primary components of a successful program:
 - Education
 - Incentives
 - Regulatory
 - Technical assistance
- Cultural change is led by a small group of leaders and early adopters.
- Recycling: don't underestimate the value of making it easy to do the right thing.
- Don't make them work too hard.
 - The mainstream will never work hard.
- The anti-tobacco movement is somewhat analogous:
 - Put it on their radar screen.
 - Give them something to do.
 - A process of social change.
- Environmental movement offers examples of what not to do:
 - Originally focused on human health.
 - Changed to birds and bunnies.
 - Lost tons of ground at that point.
- Our effort needs to be more market driven:
 - Self interest first.
 - Hearts more than minds.
- If Pepsi and Coke can sell carbonated sugar water, can't we sell this?
- Comfort, better places to work; I want to be able to open my window.
- Here's an opportunity to have more control.
- It's why Dilbert is so attractive.

Peter Hurley Interview
May 5, 1999

Successes

- Seventh Generation building at Friday Harbor
- REI
- Kitsap
- NW Federal Credit Union Building; daylighting
- Amsterdam: MNB Bank productivity studies; daylighting
- 4 Times Square
- Folks are attempting to carve out the niche:
 - Tom Paladino
 - Debby Allen
 - Jim Sackett from the Seventh Generation
 - Kathleen O'Brien

Sustainability

- Sustainability can bring a package of benefits.
- Healthy is the leading benefit.
- Probably wouldn't call it a "sustainability" effort.
- The bigger package that sustainability brings is more motivating than any one of the components.
- People like things packaged.
- The package yields bigger financial gains than the individual components, even EE.
- Me issues are definitely more motivating.
- Community is a step closer to motivation than environment.
- It's a matter of concentric circles:
- Immediate Family; Extended Family; Neighbors; Community; Environment

Benefits and Barriers

- Obstacles:
 - Everything is piecemeal.
 - Nothing is like the old Super Good Cents.
 - No comprehensive programs except in a couple of little cities – Kitsap.
 - People don't want to learn something new.
- The budget is the major driver:
 - Value engineering tends to cut out sustainability measures.
 - Payback: you can motivate some people, but definitely not spec developers.
 - Innovative financing programs (e.g. the Energy Star Mortgage) sound interesting – a way to overcome the up-front cost problem.
- Social change doesn't occur in little baby steps; it happens in waves.
 - One barrier is the efforts are often too small to get to critical mass.

One-on-One Interviews
Rick Kunkle Interview
March 15, 1999

Background

- Kunkle is a research engineer with the State of Washington; he works with the Energy Ideas Clearinghouse.
- This was a follow-up interview held in addition to the group interview with EIC staff.

Marketing

- We need to look at building "quality":
 - What does that look like?
 - What makes a quality building?
 - Contrast it with a "default" building.
 - What movements are afoot in the industry to address quality?
- Why does a green building happen?
 - There needs to be goal setting up-front, when someone says, "We want a building that does X."
 - This will keep EE from getting dumped along the way.
 - The whole team has to buy in with this approach.
- At some point a budget gets faxed:
 - Bids come in higher, things have to be dropped.
 - Only a connection to the higher goals keeps EE measures alive.
- How much can the green building movement drive the definition of a quality building?
 - Flip it around: A quality building is an EE building.
- There is a process people go through to buy a product.
 - We need to make EE part of the social process people go through, not an appendage; make it unlike the energy label.
 - We need to change what we have into something people want to buy.

Benefits and Barriers

- Traditional views of EE and costs are not relevant anymore.
 - Operating savings don't always go to the person who makes the investment.
 - Operating cost is not the only benefit.
- We need to get out of the old energy paradigm.
 - Most consumers are still in the energy shortage/national security/saving money mindset.
- Energy labels:
 - Haven't been successful.
 - Have been misinterpreted.
 - Trivialize energy.
- There aren't enough feedback mechanisms for building performance.

One-on-One Interviews
Rodney Olsen
May 6, 1999

Background

- Rodney is program coordinator for EWEB in Eugene.

The Energy Efficiency Players

- Commercial buildings vary a great deal from building to building.
- With design build, so much happens without architects and engineers.
 - Majority are local contractors.
- Building owners are the key – everyone else will meet their needs.
- The programs that take advantage of EE are more often than not owner-occupied.

Code

- Residential: responsible for EE code.
- Commercial side: the city does it.
- Code officials are part of the problem, but they're getting better (more flexible).
- Code officials are under pressure to make it easy on businesses.
- Whole building approach has really been discouraged.

Marketing

- "Contact your local utility" can be confusing when each utility offers something different.
- Put together shell ads for local utilities to tie in with.
- Some program recognition, such as happened with Energy Smart Design, would be great.
- Make it the desired office environment:
 - The way to take care of your employees.
 - Control over their environment.

Sustainability

- Likes the broader package.
- It's a better health package.

Rodney Olsen
May 6, 1999

Benefits and Barriers

- There isn't any demand.
- All cost-effective measures are already part of code by law.
- Payback doesn't work against first cost when there is a tight cap.
- Disconnect between builder/developer decision-makers and the potential benefits.
- People still focus on payback.
- Less than 10% of buildings are owner occupied.
- New Eugene public library:
 - EWEB has a hard time getting the city to do the right thing – they've got to worry about getting the books in the right place.
- Old stigma problem.
 - EE features (tight buildings) contributed to sick buildings.
- The big decisions aren't energy based; you've got to focus on the other benefits.
- 35% tax credit is very beneficial, but people aren't taking advantage of it as much as is available.

Conclusion

- Likes NEEA's support of the Lighting Design Lab.
- Wishes NEEA would step up and take a leadership role.
- A good recruiting tool.

**One-on-One Interviews
Standard Discussion Guide
March 22, 1999**

Introduction

Introduce ourselves.

Explain our challenge with and goals for the PIP and introduce our overall pursuit of the benefits and barriers to energy efficiency (EE).

Ask them to tell us their background relative to EE.

Question #1: The Energy Efficiency Players

What's your perspective on who in the process has the most opportunity / responsibility for the implementation of EE measures?

Who influences who in the process and how?

Question #2: Cost

How do financial considerations affect the process?

Where are the areas where cost isn't a problem or at least not an insurmountable problem?

Which of the problem cost areas could be resolved with increased demand for EE and a resulting increase in volume for key products?

Question #3: Codes

How do code approvals affect the implementation of EE?

Is a code building an EE building?

How do code officials contribute to or hinder EE?

Question #4: Different Components of a Building or Home

Which components have the most realistic potential for EE savings or gains?

Which have the least potential or face the biggest obstacles?

Question #5: Marketing

Do you see any competitive or marketing advantage to EE?

Question #6: Priorities

How do you see the hierarchy of priorities in a building project?

- Budget
- Time
- Design/Looks
- Sound Structure
- Energy efficiency
- Other environmental concerns
- Tenant/user satisfaction
- How cool is your subdivision

Question #7: Successes

What projects that you know of stand out as EE successes?

Do you know any of the people involved?

Are there any other organizations you can think of that are particularly helpful or resourceful or progressive in terms of helping EE projects come to fruition?

Question #8: Sustainability

What does sustainability mean to you?

Question #9: Other Benefits and Barriers

Can you think of any other barriers or benefits we haven't discussed yet?

Can you think of any tools, existing or not, that would help deliver the benefits or minimize the barriers?

Conclusion

Give them an idea of timing and how these interviews fit into the whole project?

Thank them and promise a follow-up letter at the end of the interviews.