

Marketing Energy Efficiency: What I Learned from Betty White

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ABSTRACT

This paper argues that Energy Efficiency is currently mis-marketed. Efficiency is currently marketed on energy efficiency and savings, and facts. But an analysis of marketing in other fields suggests that we should approach our marketing efforts including issues of perception, motivation, and behavior. The results of the analysis note that a number of other factors may be far more successful in achieving high participation and uptake in energy efficiency, particularly in the residential sector. We provide examples of motivators from campaigns in consumer products (including Betty White and Tide®), and compare with the range of energy efficiency campaigns – the good, the bad, and the ugly. We use energy market research results to suggest better messages, and provide tips on approaches more programs *should* be incorporating to improve outreach.

Competing in a sophisticated advertising market with products that can (and do) spend millions on outreach is tough. We compare ads used to market traditional products with those used in energy efficiency to point out areas in which the marketing of efficiency measures and behaviors can be improved to improve uptake and retention.

This presentation, adapted from a “~switch”¹ presentation delivered recently, provides suggestions on how we can more effectively market energy efficiency to achieve more efficiency and savings.

Introduction

Energy efficiency (EE) marketing seems to be caught in the same space it has occupied for three decades. This paper reminds readers of principles from marketing, economics, and social / behavioral fields and muses on simple lessons that might help break through to the millions of decision-makers that are not currently being reached by the efficiency message.

Getting Noticed in the Marketplace

It has been said a million times; the market place is cluttered, fast-paced, and you have only seconds – or fractions of a second – to grab the consumer’s attention. Take a look at Figure 1, and ask which of these says “buy me”? Which of these has a hope of getting a message (could be a perception, or a feeling, but more about that later) across in a split second? For the most part, energy efficiency is being poorly marketed. EE messages focus on appealing to buyers on facts, and facts presented in a fairly boring way.

¹“~switch” is a venue for fast-moving, 5 minute speeches (timed, 15 seconds per slide) sponsored by AESP’s Rocky Mountain Chapter.



Figure 1. Getting noticed, communicating, and the effort needed to get the message.

The Fatal Flaw of Uni-Feature Selling

Energy efficiency is currently marketed on energy efficiency, and its cousin, “savings” – a “uni-feature” message. To buy this message – the core of most energy efficiency marketing – requires several things that may not be “givens”:

- The willingness (or ability) to pay more up front.
- Most importantly, a trust that the savings will really occur.
- Then, they must place a positive value on *future* savings that (might) occur, and this non-zero value will influence their simple (single-feature) internal benefit-cost analysis.

If energy efficient equipment wasn't more expensive up-front than less efficient equipment, it there would be no need for marketing. Economics would tend to argue that if one of two otherwise identical products had more features (energy efficiency) for the same price, it would “win” in the marketplace. In addition, to make savings meaningful and influential in the internal tradeoffs analysis leading to the ultimate purchase decision, there must be expected savings, and the customer must believe they will occur for them. There is far more doubt about actual savings in the marketplace than utilities might expect. Evaluations and interviews asking about Non-Energy Benefits (NEBs) make it clear that a surprising number of participants are skeptical they actually received savings (especially commercial customers, who seem to feel they experience so many fluctuations they can't tease out real savings). *And recall, the persons being interviewed are participants, who presumably believed in savings up-front. The non-participants never got even that far.* Convincing potential buyers / participants about energy savings is a crucial step in gaining participation (but as we note, is not sufficient – they must also believe they will continue, and assign value to them, as we describe next).

Finally, in addition to believing there will be a stream of savings (above), they must have a “discount rate” that allows them to place a value on savings that won’t occur until the future. A present-oriented customer discounts the future heavily and so has a high discount rate. If a customer has a high discount rate (like an interest rate), future streams of savings have little value in the present; others have low discount rates.² It is hard to influence these discount rates. Developers of newly constructed homes or commercial buildings are highly present-focused, as they will not be paying the bills or reaping savings; they are first-cost / lowest-price driven. Lower income households also tend to have high discount rates and are driven, by necessity, to focus on first costs. A focus on small savings continuing into the future, or multi-year paybacks, will not be very influential to developers, low income households or other groups of customers with unfavorable discount rates.

If any of these assumptions falls short, this uni-feature messaging will be ineffective.

NEBS as the Remainder of the “Bundle of Services” – and they are “Sellable” Features

Under the theory of the rational consumer, economists argue that customers make decisions based on maximizing “utility” subject to a budget constraint. The set of utility curves are the frontiers of tradeoffs that bring the same “value” based on the numerous factors that bring value to them (through the product³). Translated, that means that they seek to maximize their value (measured in “utils”), given their budget. In a practical sense, that means they conduct an internal benefit/cost analysis to determine which of the product choices gives them the maximum value or highest benefit-cost ratio, within their budget limitations. Each consumer has their own set of values, so their utility curves differ. Each makes decisions that are rational based on their underlying values and tradeoffs among perceptions of the same features. Although some refinements to the theory have been forwarded over the years, this remains the basic underlying understanding of how consumers work.

Put more simply, when people or businesses make decisions, they intrinsically value bundles of features and services, filtered through their perceptions and emotions. Tradeoffs between features and costs determine their internal “return on investment” that guides them in selecting or buying or participating. What are these factors?

One key bit of energy “market research” traditionally goes by the name “Non-Energy Benefits” (NEBs).⁴ NEBs are the net bundle of effects other than efficiency or the associated savings, and can be positive or negative. There are dozens of NEBs, including benefits to society and the environment, and many applications for NEBs beyond marketing, including benefit-cost and other uses.

In more than 20 years of research on NEBs (see Mahlgrem and Skumatz 2014, Skumatz et. al. 2010, and others), the literature has assessed the most valued features that customers perceive they get from energy efficiency programs, depending on the sector, program, and measures. Figure 2 illustrates some leaders (called out below), and Figure 3 shows the quantitative NEB results from a typical weatherization program analysis. NEB leaders for

² “Green” households tend to have lower discount rates; they place relatively higher value on future occurrences. Not surprisingly, these would be more likely to tend to be program participants, for multiple reasons.

³ For example, electronic controls are more valuable than color A, but less valuable than low noise, and so on.

⁴ Some recent researchers have introduced different names, without changing any underlying concepts (non-energy impacts, multiple benefits, omitted impacts, non-energy effects); however, our research in the field began in 1994, and we choose to use the name those who invented the concept applied – NEBs. We do call them “net” NEBs in most of our work.

residential weatherization programs include factors like comfort, higher housing value, fewer sick kids, fewer lost days from work or school, fewer maintenance calls, lower hassles in replacing lights, and lots of others. In appliance rebate programs, they include performance, maintenance, noise, and others. We find businesses owners value productivity benefits, reduced employee absence, fewer maintenance visits to deal with hot and cold offices, fewer light replacements, less glary lighting, and many other effects. In schools, NEBs of efficiency measures include better student performance, lower maintenance, and a host of other effects. As an example of the scale of NEBs, in research by the author, customer (or participant-side) NEBs in weatherization programs outweigh energy savings by more than 10% (more in low income homes), and in comprehensive commercial programs, the NEBs can exceed savings by similar ratios.⁵

The reason this is important is because it assumes that customers look at, and make tradeoffs among, a *bundle* of features they value in making a decision to purchase a product (or adopt a behavior). There are several important lessons for energy efficiency marketing:

- The decision-making is complex, and they do it in their heads, taking account of many factors.
- These decisions must be driven by perception of the value of the bundle of features, as they cannot have firsthand knowledge of all the elements (or perhaps even many of them).
- They do not look only at energy savings.
- One very strong indicator of the services they value from the equipment is non-energy benefits (NEBs). These services or features are part of the bundle they assess, and we have an extensive literature that has demonstrated ways to measure and value these features.⁶



Figure 2. NEBs / sellable features are not a mystery.

If trusted information sources bring these qualities forward, or if the qualities are advertised in a catchy or compelling way that appeals to the consumer’s values (or humor), or in a way that really grabs their attention, or in a way that links to their motivations and barriers, it is possible we might be able to “sell” energy efficiency more effectively. Perceptions are what matter in advertising. The Marlboro Man; a pretty enticing Winston woman; these images are

⁵ These figures cover only the participant-perspective NEBs. These multipliers exclude the societal NEBs (e.g., job creation, greenhouse gas reductions, which are large impacts) and utility NEBs (fewer line losses, bill payment improvements, etc., which are relatively small NEB values). See Skumatz et. al. 2010.

⁶ Many publications from 1997-present address measurement and typical values; see summary in Skumatz et. al. 2010

not random. Image and perception and emotion sell more than facts. Cigarette folks have known this a long time. The trick is to figure out how we incorporate this to sell energy efficiency.

This is the playing field; we have no choice but to figure out how to sell in the marketplace that exists. We can't wish it away or continue to sell as ostriches with our heads in the sand, unless we want to continue to use our program and advertising dollars in a less than efficient way. If we use these dollars more effectively (and, if we revised the cost-effectiveness tests to include NEBs and reduce the bias in the computations), our programs can only be more cost-effective.

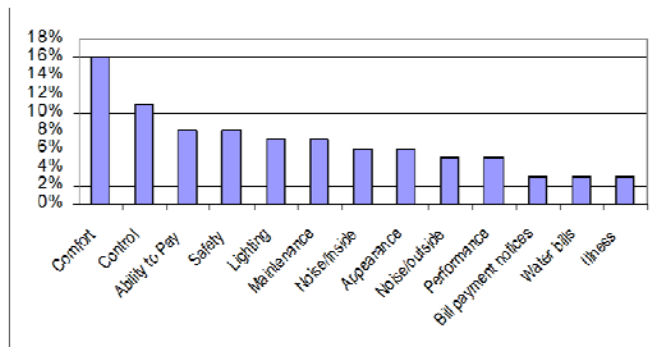


Figure 3. Participant-perspective NEBs results for a typical residential weatherization program (Source: Skumatz and Gardner 2005).

Information is Not Useful Messaging

Information alone is not motivating. A connection is needed. Granted, it is important to let people know where a Town's new drop-off recycling bin is, in order to get it used. But that doesn't motivate its use. Two ways to improve the content of our energy efficiency messaging are to incorporate:

- Social marketing, and
- Self-efficacy messaging.

Social marketing combines traditional marketing techniques with sociological and psychological tools as a way to influence a target behavior to benefit society / community and not just for individual gain. Classic social marketing campaigns include efforts to curb teen drug and alcohol use, anti-obesity campaigns, recycling, and many others. Elements that distinguish social marketing campaigns from traditional outreach campaigns include the identification of barriers and motivations, targeting specific sectors (rather than broad, generic outreach), and the use of tools such as social norms, prompts, and feedback. Community-Based Social Marketing (CBSM) proponents suggest the programs lead to strong, long-lasting impacts (Skumatz et. al. 2010). Briefly, hallmarks of social marketing campaigns in energy include (McKenzie-Mohr, 1999):

- Combining traditional marketing techniques with sociological and psychological tools to influence a target behavior, *participation, or purchase*; (italicized additions from author).

- Going beyond the awareness focus of most traditional outreach by incorporating the identification of barriers and motivations, targeting a specific sector, and the use of tools such as commitments to behavioral change, prompts, social norms, incentives, and communication / feedback.
- Working to incorporate multiple “touches” to try to change and habitualize behavior change (CBSM is seldom a one-off effort).
- Working to reach out through social networks (faith-based, neighbors, community partnerships, etc.) to make connections, aid in credibility and transfer, etc.

Social marketing literature purports to have strong impacts on energy and recycling behaviors. In Colorado, where a control group was compared to CBSM participants who did and did not receive door-to-door (DTD) social marketing interventions, an evaluation found differences in uptake of energy behaviors, as shown in Figure 4 (Skumatz 2012).

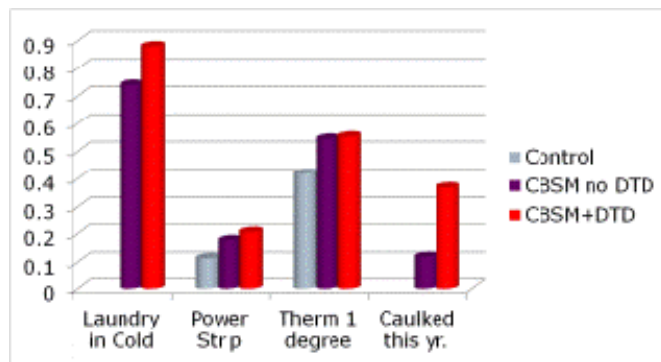


Figure 4. Increases in energy efficiency behaviors from Colorado Social Marketing Program (Skumatz 2012).

Self-efficacy research leverages on the concept that perception of the impact of personal actions – or internalized feelings of self-empowerment - affect behavior. Those individuals that have been caused to feel greater feelings of self-efficacy tend to undertake more “green” actions, including energy efficiency. If the messaging can play off this feeling, or move those with slightly lower feelings of self-efficacy to get more engaged in his way, greater energy efficiency choices might be encouraged. Figure 5 provides indicative support for the point, showing students with higher self-efficacy scores took more new program-encouraged actions than did students with lower feelings of self-empowerment.⁷ Households with higher self-efficacy scores:

- Participate more (Peters and Feldman 2001), as demonstrated by a TVA renewable study. The study found that among early program sign-ups, 90%+ agreed/strongly “my actions can make a difference”; 57% disagreed with the statement that what I do “only makes a difference if others do it too”.
- Conserve energy (Woods and Skumatz 2004), as demonstrated by a study in the Northeast in which self-efficacy scores were higher for participants in both a renewables program and an Energy Star appliance purchasers program, compared to non-participants
- Recycle more (Woods and Skumatz, 2004), as demonstrated by a study in Utah, in which recycling was 11% higher for households that agreed with high self-efficacy statements.

⁷ Tests for statistical significance for this particular project were not conducted.

Cool the Earth Project (Source: Skumatz and Freeman, 2008)

Self Efficacy / Empower	# Green Actions Pre	# Green Actions During
High scores	5.5	7.7 (25% increase)
Low scores	4.3	4.8 (12% increase)

Figure 5. High self-efficacy scores led to greater program action uptake.

Quantitative results from both these enhanced types of motivational approaches are encouraging, and their regular incorporation into energy efficiency messaging could very possibly improve results, and probably considerably beyond basic “informational” approaches.

Perception is Reality

Unless a person actually experiences something first-hand, perception is what they base value decisions on. Figure 6 illustrates this point. Joshua Bell, one of the most renowned concert violinists, took part in an experiment, performing as a subway busker in L’Enfant Plaza in DC. During his 43 minute performance, using his 1713 Stradivarius, he made \$32.17. Some people paid in pennies, and of the 1,067 passersby, only seven stopped for one minute or more (Weingarten 2007). The prior week, he had played at Boston’s Symphony Hall, where tickets exceeded \$100, and he made over \$1,000 per *minute*. The difference here is perception, not “facts” about quality or value of his playing. Could a \$70,000 bottle of wine be sold for that price if the wine was in a box? The same “quality” of wine in a traditional corked bottle is perceived as better than one in a screw top or a box. Studies show that bottle appearance has repeatedly fooled sommeliers and wine literati. Cigarettes don’t make you look at all like the Marlboro man. Perception affects the value people assign to the product.



Figure 6. Perception is one of the drivers in decision-making.

Whether we like it or not, perception cannot be a dirty word to us; it is reality, as far as decision-making and tradeoffs analysis goes. This has several follow-ons:

- For the savings message, we need to influence the perception about the level of savings from measures. And while we prefer savings be perceived as high, they at least need to be perceived as real. That is, message to make perceptions of savings real, and if possible, high.
- We need to consider not just the data or “facts”, but the deliverer, and the form of the message. Trusted messengers are important; catchy messages are important.

- Sell the bundle. The value of the product depends not just on the future stream of energy savings, but on the array of (other) features associated with the product. Certainly the list of objective product features on the box matters. However, non-energy benefits also provide a clue to the important elements of this “bundle” of services and features. Perceptions about these NEBs are critically important to influencing the decision.⁸
- Focus on measuring perceptions. Non-energy benefits based on surveys measure customer’s perceptions about the non-energy factors. We should not necessarily want to measure the actual temperature in a home to measure comfort; the person’s perception is their reality about their comfort (and what they base decisions on), and surveys are the proper way to gauge this. Objective metrics, no matter how fancy they get (temperature plus draft plus whatever else) cannot take these metrics and run them through the participant’s value system like a survey can.

Perceptions can be measured, and pretty easily, using surveys, focus groups, and other market research techniques. Facts and metering aren’t “all-important”. In this arena, facts don’t rule. Perception is the right thing to measure for market research. The bottom line is that people decide based on perceptions or perceptions of facts. Thus, perception of the savings, or the features, or the value of the features, is what is critical to their internal benefit-cost analysis. To be effective, we must use every chance to influence that perception.⁹

In addition, social marketing argues strongly that the purchase decision is influenced by motivations and barriers; consumer marketing also argues similar concepts. Augmenting NEBs-based valued service and feature research with research to understand cultural or other motivating factors can help in the tradeoffs assessment, as can identifying any barriers (physical, cultural or other). Having the message come from a messenger (or endorser) trusted in the target group is also important. Facts may or may not be necessary, but they are definitely insufficient, at least for reaching beyond “already believers”.

Selling on Whose Values?

Surveys and focus groups can help drill down on these missing elements of motivations, barriers, and NEBs. For this, and for other reasons, it is important to do primary field work within your target audience. Program managers or stakeholders that believe they can identify motivators and barriers from the armchair may be surprised.

Take a recent example from Colorado in the recycling field. Any self-respecting recycling professional “in the know”, knows that the reason to recycle is the saved embedded energy and the associated climate change implications. Solid waste professionals know that filling up landfills is not a problem, as landfill space as it is plentiful and relatively inexpensive (at least in Colorado!). However, in focus groups, our “informed” rationale was not the least motivating; households wanted to recycle to save landfill space. To grab the attention and motivate on behavior change, the program used the message / motivation that resonated, not the one that fell flat. The resulting behavior change was remarkable (Skumatz 2012).

⁸ Studies indicate that NEB values among participants are higher than for non-participants. Presumably these perceptions about the “bundle of features” has influence the participation or purchase decision. (Bicknell and Skumatz 2004, among others by the authors). It is possible that this could have positive and negative effects for the program implementer, and the source of the information on NEBs could affect installations and program attribution.

⁹ Not that measuring both perceptions and facts wouldn’t be even better (and very interesting)!

We “experts” can be too smart for our own good. Remember who is making the assessments. Test your messages on your target audience, and market on their values, motivations, and barriers, not on your values. You’re not trying to sell to yourself.

How Tide™ Sells – and Doesn’t Sell

Tide does not sell on one feature. They don’t tout facts about the relative cleanliness of their results for clothes compared to others (those types of campaigns died out years ago). Review the advertising options presented in Figure 7. The first illustrates how Tide does not sell... Tide does not market using the reasons it wants to sell Tide – high revenue and maximum profits. They find a high Q value messenger (Betty White, here; many others in the past). I doubt it is the life mission of P&G executives to see more clean clothes in the world. Yet WE insist on selling energy efficiency on FACTS and what WE care about (e.g., little beyond the basic “buy energy efficiency because it saves energy”). *We trip ourselves up.*

The bottom line is, Tide does market research to identify what customers think they value from and want to get from Tide. Based on a review of their past advertisements, apparently people want clothing miracles, huggy boxes, whiter whites, and to have laundry-time make people dance. These are not random images; they’ve used market research and the resulting message has been very, very well tested. They probably DON’T make whiter whites, but who cares. *Who actually compares?* Perception, not facts, is what matters in the marketplace. Arguing perception feels like cheating, or feels dirty; facts feel holy. However, facts are not the whole game, and facts are not what decisions are based upon. Holy turns out to be expensive because it is not terribly effective. With public funds, we may not have that luxury; however, on the other hand, I doubt the public would appreciate its money being spent on totally frivolous images or daring challenges that have small print that says “don’t try this at home”. In addition, the EE messages from public funds don’t promote single brands, which may sometimes lend themselves more easily to creative campaigns. We may have a fine line to tread here.



Figure 7. How tide does and does not sell.

Sell What People Want

One key lesson is that we need to sell on the features people want to buy, or what they think they want to buy, not what we want to sell – and definitely not making them buy for the reasons we want to sell it! Tide / Procter and Gamble and other retailers sell what people think they want – or what they can make people think they want. Does anyone *need* Axe Body Spray?

It is worth a reminder that it is not highly effective to lecture or talk down to customers. Selling doesn't require lecturing or educating to try to convert to our values – and if educating is important, it still requires getting their attention first on something that matters to them. If they want to buy for the “wrong” reason, that is their right – and their choice. We want them to BUY the efficient machine for whatever reason compels them. Imagine a GI Joe air conditioner or a Hummer furnace. If consumers like yellow refrigerators, sell energy efficiency equipment that is yellow, or brand “energy efficiency yellow”. Selling requires appealing based on their valued features, not ours. And to be effective going forward, we must reach the consumers that are NOT attracted by energy efficiency -- we can pretty much count on customers who are engaged with energy efficiency already (thanks to years of marketing on that message, and their embedded beliefs and valuations of future streams of energy savings)!

Conclusions

After 30-plus years trying to get households and businesses to prefer energy efficient equipment, we find reasonable saturation of energy efficient models in the homes of our friends and like-thinkers. The values used to market are those of the long-term, the liberal, and the do-gooder. The field may need to incorporate more marketing maturity. There are, perhaps, eight comments that seem obvious in marketing, but ones that energy efficiency marketing seems to ignore over and over again.

- Information is not motivation(al) → Work on researching and incorporating motivations and barriers, *a la* social and better consumer marketing. Information is not marketing, or knowledge, or generally effective. Do the needed primary research. It may move some of us, but really very few think of energy use as much as we in the industry do. Consider motivations through social marketing approaches or enhancing feelings of self-efficacy.
- Perception matters → That's all people have up-front. Let's say that again – it is all people have up front, and that's what they use to make decisions, whether or not their perceptions are entirely true or based on / supported by facts. You had better influence (and use) that. As a corollary, if savings are your only message, you'd better be sure they believe savings will occur (and last); assertions generally won't do it.
- Buyers make tradeoffs on packages of services → Energy efficiency is only one component of the equipment, and whether positive or negative to them, that factor is traded off against other features like cycles, noise, aesthetics, color/finish, footprint, cache / “cool factor”, cost (of course), and many other features.
- Buyers buy based on their values; they are not irrational because the values may differ from yours → If buyers purchase a refrigerator that is a nice pink, even though it is not energy efficient, they are not irrational – they have a different value system than you do. They must believe savings will occur, and they also may have a different discount rate than you do, causing them to value any stream of savings from energy efficiency quite differently.
- Segment the market and conduct NEBs market research → More realistically, consider which NEBs are most attractive to target groups. NEBs work can function as the market research for our field. Focus groups can be your friend. Those who care about energy efficiency (as you do) are already “sold”; you need to find the other features that attract

those for whom that feature is not the driver. Do not assume you know what's attractive to potential customers; do the primary market research and use it.

- Sell what they want to buy / what attracts them, not what you want to sell → Use the market research. If a key valued feature is pink, consider making your energy efficient model in pink. If another group wants brown, sell brown (which also happens to be energy efficient) to them. Do not lead with what you want to sell (yes, we know it is a more holy reason; quit preaching, already), but what they want to buy. Basic marketing.
- Selling is not selling out → Selling is not a dirty word, it is your goal. Learn to sell; train the relevant staff in sales techniques. Selling is listening and leveraging, not lecturing.
- Selling to the same people over and over gets you purchases from those people → Given the lifetime of the investments, this is a recipe for decades of lost opportunities for savings. Get your product endorsed by Jeff Gordon rather than Ira Glass.

Certainly, this still leaves big challenges. Getting the message to those making purchases at the right time – which tends to be periodic for most of our products (furnaces, appliances, and equipment) – is a major challenge, unlike the much more constant purchase of consumer goods like Tide. Identifying strong allies and messengers (that are there when the next round of purchases need to occur) is important, and producing compelling information that provides assurance about savings and other features will be needed.

However, generally, it seems (past) time to put ourselves in the customer's shoes. Move beyond Portlandia and National Public Radio, and instead, visit NASCAR for a change. Millions of our *potential* customers do. We need to get off our "green" high horse. To reach the next group, to cut through the media clutter, and to move the needle forward, we need to sell on the *other* features the people want – beyond energy efficiency. If they want to buy because Jeff Gordon endorses it, what's so wrong with that? It isn't *selling out*, it is *selling*. Ask Betty White. It's marketing!

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