ENERGY STAR® Guide for Residential New Construction Lighting Programs

CHANGE FOR THE BETTER WITH ENERGY STAR

Updated on March 14, 2003

ENERGY STAR® GUIDE

Residential New Construction Lighting Programs

On average there are approximately 1.3 million new housing starts per year in the United States. The connected load for lighting in these new homes equals approximately 1,820 megawatts. This represents a great opportunity for ENERGY STAR® qualified lighting fixtures. If only 10 percent of these homes installed ENERGY STAR qualified fixtures where applicable, 99,700 kW and 88,900,000 kWh could be saved.

This guide is intended to assist regional program implementers in the development and implementation of residential new construction lighting programs. This guide is divided into the following sections:

I. Overview of the Residential New Construction Lighting Industry

Section I provides details on the market actors, design practices, and budget issues. This information is necessary to understand many of the distribution channels and how and when different market actors will work together. In addition, this section describes how products are specified and what influences purchasing decisions.

II. Designing Effective Residential New Construction Lighting Programs

Section II outlines important steps for developing a residential new construction lighting program, from initial research and industry contact, to full implementation and follow-up. Because the residential lighting market is built on long-term relationships and is slow to embrace change, understanding the market and developing a strategic plan that conforms to current market activities is critical. The steps outlined in this section will help regional program implementers establish credibility with industry players, yielding a higher penetration of ENERGY STAR qualified lighting products.

While this guide is intended to provide general assistance with the development of effective market transformation programs, each region of the country will have unique market players, challenges, and barriers. The majority of lighting distributors/showrooms, which play a critical role in the new home industry, are small local or regional market players. This fact, in combination with the vast number of small regional builders and large national builders, demands that any given outreach strategy be customized for each region.

I. OVERVIEW OF THE RESIDENTIAL NEW CONSTRUCTION LIGHTING INDUSTRY

Market Players and Distribution Channels

Residential lighting is a two billion-dollar per year industry. The industry is comprised of approximately 500 residential lighting manufacturers and more than 3,000 lighting showrooms and distributors. While the relationship between the manufacturers, distributors, and builders may seem straightforward, the wide variety of distributor sales methods and manufacturer offerings makes this relationship more complex than it seems.

It is critical for the regional program implementer to be familiar with the builders, distributors, manufacturers, and their interactions to effectively impact the market place. The importance of researching the market cannot be underestimated. The following sections provide an overview of the market players, their role in the industry, and the distribution channels they follow.

It is critical for the regional program implementer to be familiar with the builders, distributors, manufacturers, and their interactions for successful program implementation.

Manufacturers

Manufacturers are responsible for developing products, establishing price points, and selling products to other market players. An ENERGY STAR utility program should first identify manufacturers that have a wide selection of ENERGY STAR qualified products. Two manufacturers that can offer builders a complete line of ENERGY STAR qualified residential light fixtures include:

- Sea Gull Lighting Products
- Progress Lighting

Other manufacturers who offer a wide variety of ENERGY STAR qualified residential light fixtures[1], though not a complete line, include American Fluorescent Corp., Lithonia Lighting, Technical Consumer Products, Cooper Lighting, and Good Earth Lighting Inc.

Manufacturers market to lighting distributors, do-it-yourself stores, and, depending on their size, directly to builders. Manufacturers that sell to lighting distributors often offer a complete line (cover-to-cover) of lighting products including decorative, utilitarian, portables, recessed, and track lighting. In some cases the manufacturer may sell to or do the bulk of the business with do-it-yourself or hardware outlets, under the same or different brand names (e.g., Home Depot sells lighting fixtures under the *Hampton Bay* brand name). It is important to note that although the manufacturer may market their products directly to builders, the material the builders buy is almost always purchased through local distribution.

Manufacturers typically reach builders and distributors by one of the following means:

1. *Factory representatives:* Represent only one manufacturer and may work with both builders and distributors.
2. *Independent representatives:* Self-employed salespeople who may represent several lighting and accessory lines.

[1] *For a complete listing of ENERGY STAR qualified residential light fixtures see the ENERGY STAR Web site at www.energystar.gov.*

Figure I, on the following page, shows how a cover-to-cover manufacturer reaches the builders and interacts with distributors. Generally, the factory or independent representative will present a lighting package, or "house pak," to the builder at a negotiated price. The lighting would be comprised of inexpensive but decorative styles that would appeal to the homeowner. When a manufacturer is the primary contact with the builder, the contract will generally include all of the home's decorative lighting. The lighting will be sold and serviced through a local distributor, with builder prices and markup preset by the manufacturer. The manufacturer will typically try to "lock up" a builder's lighting business, using this contract to leverage additional business through distribution.

Distributors and Retailers

A number of distributors cater to the new construction single family market, and in a *distributor-to-builder* relationship, many interactions are possible. Sometimes a personal or professional relationship between distributor management and the builder may exist. At other times, the distributor may have outside sales people or independent representatives calling on the builder on the distributor's behalf. When attempting to influence the builder's choices, the distributor (working with an outside sales representative) calls the builder, determines price and mark-up, and may decide to use more than one manufacturer. Types of distributors are as follows:

Electrical Distributors

Wholesale electrical distributors generally sell to builders and electrical contractors. Electrical distributors usually do not have a showroom but instead rely on catalogue sales; typically a cover-to-cover line such as Progress Lighting or Sea Gull Lighting. Because electrical distributors offer both electrical hardware and fixtures, an electrical contractor will often go through them when responsible for the entire lighting and electrical package (decorative lighting, recessed, switches, receptacles and wire). The electrical contractor's lighting budget can be as low as $250–$300, which typically includes eight to 10 lighting fixtures. Because ENERGY STAR qualified fixtures cost 25–50 percent more, including these fixtures requires an increased budget. This may present a challenge that regional program implementers must address with builders and electrical distributors.

Combo: Lighting Showroom/Electrical Supply

A combo distributor sells to both wholesale trade and retail markets, and may offer staff who provide design or consultation services. A builder may have an account with this distributor and have worked out a pre-selected list of lighting. Custom builders will often send homeowners to a combo distributor with a moderate allowance (typically ranging from $350–$1,000) to choose their own fixtures. Homeowners have the option of exceeding this allowance at their own cost.

Stand-Alone Lighting Showroom

A stand-alone lighting showroom sells only lighting, and may have one or more people on staff who can provide design or consultation services. The stand-alone showroom will sell to either builders or the retail market, but electrical contractors usually will not buy from a stand-alone showroom, as it does not offer the electrical hardware they need. As with combo dealers, custom builders will often send homeowners to the showroom with a moderate allowance to select their own fixtures.

Builder Lighting Showroom

Builder lighting showrooms provide a high level of service to their builder clients and may have one or more people on staff that can provide design or consultation services. Though they are not open to the public and do not sell retail, they are open to the builder's customer to shop for a selection of lighting for their new home, relying on a builder-established budget for the lighting. The showroom will stay within this budget while allowing the homeowner to select their own styles, with product selections limited to just a few different manufacturers. Builder lighting showrooms usually offer a cover-to-cover line and products from niche manufacturers, and may handle recessed lighting.

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FIGURE I. COVER-TO-COVER MANUFACTURER CONTRACTS DIRECTLY WITH BUILDER

Cover-to-Cover Lighting Manufacturer
(any manufacturer who offers a complete line of residential lighting fixtures)

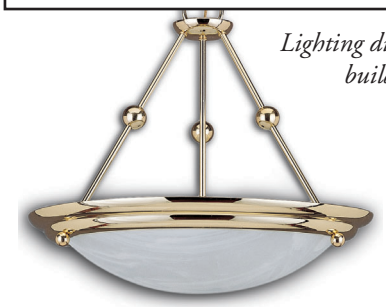
Brings manufacturer/builder contract to distributor to fulfill builder's needs.

Factory or Independent Sales Representative

Contracts with builder for lighting package.

Lighting Distributor
(Electrical Wholesale Supply, Lighting Showroom, Combo, Lighting Broker)
Becomes manufacturer's distributor in addition to securing builders' business. Now stocks additional inventory from manufacturer, displacing other vendors' products.

Lighting distributor delivers lighting, services the builder, and handles the paperwork.



National or Regional Builder
National Builder (over 1,000 homes per year), Regional Builder (plus or minus 1,000 homes per year), or Local Builder (5 to 200 homes per year).

Lighting Broker

Similar to builder lighting showrooms, lighting brokers deal only with builders and do not sell retail. Lighting brokers, however, have no showroom and thus the builder typically offers homeowners their choice of two or three lighting packages. Lighting brokers will often mix and match product offerings from a wide variety of manufacturers to maximize profit.

Lighting Showroom/Plumbing Supply House

Similar to other lighting showrooms, a lighting showroom/plumbing supply house may have one or more people on staff who can provide design or consultation services. The lighting, plumbing supplies, and plumbing fixtures are displayed in a showroom setting. While the lighting is available at retail, the plumbing and fixtures are usually only sold to plumbers (customers may pick out certain fixtures, but the plumbing contractor will purchase them). The lighting selection is generally limited to a few manufacturers and inventory is light.

Do-It-Yourself

This channel is used primarily by the homeowner for a variety of reasons. If there is no allowance for lighting or the budget is minimal, the homeowner may be looking for the least expensive lighting, or may not require or want product assistance. Some homeowners do not realize that there are different levels of quality, or are unaware of local specialty stores in their area. The builder might also opt to go through a do-it-yourself outlet when no relationship exists with a distributor, or when the builder wants nothing to do with the decorative lighting.

Designers

There are several types of lighting practitioners that may call themselves lighting designers, but their knowledge, experience, and formal training will vary greatly. Generally, lighting designers encountered in the residential new construction industry will fall into one of the following groups:

1) Independent - works outside the typical distribution channel, but are employed by the homeowner, builder, or other market player to design and select lighting for the home.

2) Showroom employee - works for a lighting showroom or distributor to help select lighting for the builder.

Independent lighting designers, including architects, generally have a relationship with a high-end lighting distributor. They work with the distribution channels to ensure that the design and layout of the lighting is adhered to, and to prevent substitutions that may have a negative impact on the integrity of the design. Independent lighting designers and architects tend to be very loyal to lighting manufacturers with whom they are familiar. Convincing an architect to specify ENERGY STAR qualified residential light fixtures, if they are not familiar with the manufacturer, can be difficult.

Lighting showroom employees that influence new home lighting can range from salespeople to accredited Certified Lighting Consultants[2]. The showroom lighting designer works with builders to select lighting. In this scenario, variations in style, quality, and price come into play. The builder and homeowner benefit from the lighting showroom's ability to provide design assistance and offer a wide range of lighting styles and price points.

Builders

How and when the builder interacts with a distributor or manufacturer has many variables. In large developments, this interaction begins early in the planning phase, prior to construction and, in some cases, during the design process. In smaller developments, or individually built homes, the interaction between the builder and distributor or manufacturer may not happen until the homes are nearly complete. This interaction is dependent on the manufacturer or distributor contacting the builder, as the builder will wait until lighting is needed before interacting with a lighting supply source.

Figure II, on the following page, shows how a distributor interacts with the builder. Generally the outside sales person will present a lighting package or "house pak," to the builder.

When builders are influencing the lighting choices, they are likely to pick a basic lighting package with just enough fixtures for the Certificate of Occupancy, comprised of very inexpensive lighting that meets the basic needs of the homeowner. Builders will handle purchasing directly through a distributor. An electrical contractor may also assist the builder in selecting the entire lighting package. This lighting package, typically from a cover-to-cover catalogue, would be an upgrade in decorative style from the basic lighting a builder might choose independently. Electrical contractors usually go

[2]A Certified Lighting Consultant is one of several credentials that lighting practitioners may obtain. Although the credential does not necessarily determine the person's knowledge of ENERGY STAR qualified lighting or interest to work with ENERGY STAR qualified lighting products, it is advantageous for regional program implementers to know the different designations when interacting with the industry.

Descriptions of several lighting credentials are listed in Appendix A.

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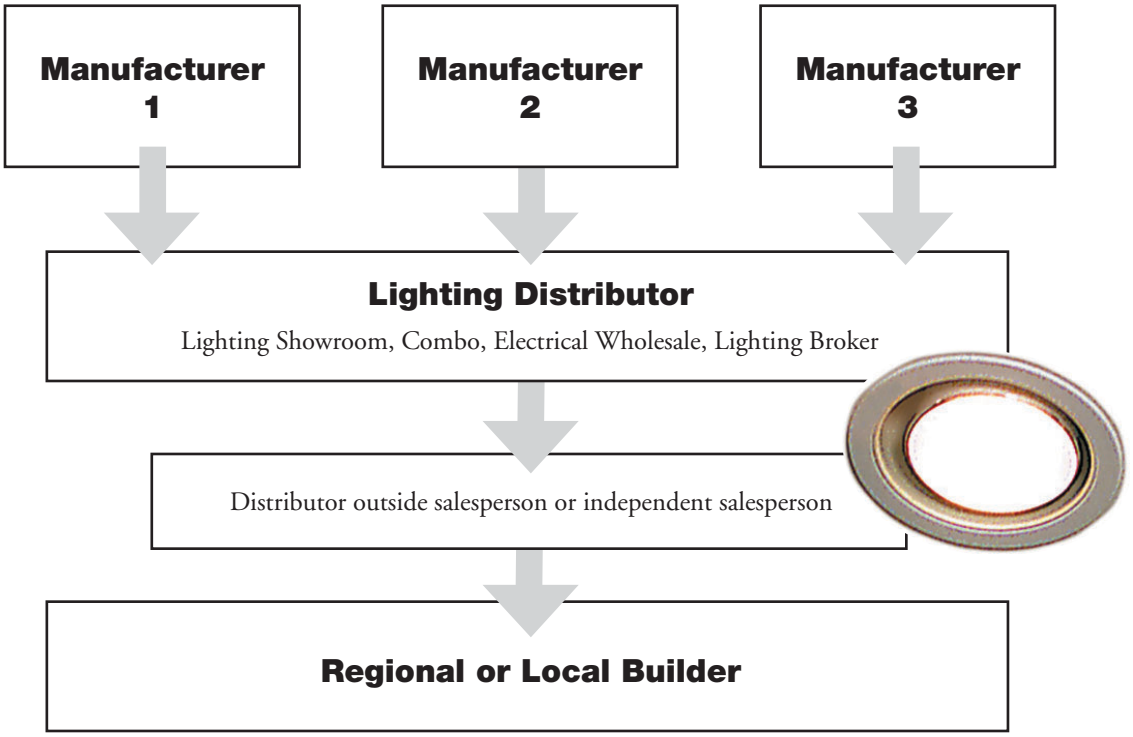
FIGURE II. LIGHTING DISTRIBUTOR SELLS ONE OR MORE MANUFACTURERS' PRODUCTS TO THE BUILDER



through an electrical wholesale supply to purchase the lighting.

Determining the scope of a builder's work depends on an understanding of both the builder's geographic coverage and the builder type:

Builder Geographic Coverage

National builders are large corporations, working in several markets and building several thousand homes a year. Regional builders may also be large corporations, working within a particular region and building as many or fewer homes as a national builder. A local builder will generally be a smaller company and work in a very specific market, building from five to 200 homes a year.

Builder Types

Tract homebuilders are one of three primary builder types. These builders, who may be national, regional, or local in scope, develop a large tract of land by building many homes of one or two styles (sometimes more), ranging widely in price, size, and amenities.

Custom homebuilders build on a smaller scale and typically offer a full range of choices and selections, although in some cases they offer only one or two upgrades in choices of lighting (and other features). Custom building generally involves an architect, lighting designer, and interior designer, with the budget determined by the homeowner in conjunction with the architect or builder.

Speculation homebuilders are local in nature and do not pre-sell homes but rather build a basic, no-frills home, assuming, based on knowledge of the market, that the property will sell after construction begins. Custom homebuilders often choose to build "spec" homes on lots they feel will be more marketable and profitable after the home is built.

The Lighting/Electrical Budget

Lighting budget allowances vary greatly, ranging from no allowance in cases where the builder pre-selects a lighting package for the homeowner, to thousands of dollars. There is no "typical" allowance, as it varies from builder to builder and is dependent on a number of factors, such as home size, type of home, and market influences.

The lighting package, or house pak, is generally considered to be all of the decorative flushmounts, wall sconces, bath and vanity lighting, and outdoor lanterns. In some high-end homes, the recessed lighting may be included in this lighting package. However, recessed lighting is usually part of the electrical package and supplied by the electrical contractor.

The budget for this decorative lighting package is determined by square footage and established by the builder. Although there are no established guidelines in the building industry for determining a lighting allowance, the lighting industry generally recommends 1.5–3 percent of total built cost to cover lighting (many specifiers argue that is not enough). Regional pricing influences will include costs associated with local code requirements or "piece-work" versus time installation labor costs.

The electrical package includes controls (switches, dimmers), receptacles, porcelain sockets, outdoor floods, wire, boxes, service, and recessed lighting. The budget for the electrical package will be determined by the square footage of the home, as national and local codes will have minimum requirements for placement of these items. The recessed lighting may affect this budget if the number of cans exceeds a certain quantity determined by the builder and contractor.

If an architect or lighting designer is involved, the budget is determined during the bid process. The architect and/or designer will design a lighting layout, but may not necessarily choose specific luminaires, although a specification might read as:

Type A: downlight 50MR16 black alzak

Type C: wall mounted 2x18DTT uplight

The contractor, homeowner, or showroom salesperson may be the one to choose a specific brand and type fitting the description, but it is the homeowner who will ultimately determine the budget.

The lighting industry generally recommends 1.5–3 percent of total built cost to cover lighting.

Steps for Designing a Residential New Construction Lighting Program

Designing effective programs requires extensive research. Effective program design is dependent on the various influences within the market. Understanding the relationships between builders, distributors, and manufacturers, and designing a program around the needs of the builder or the distributor, will prove crucial to the success of any market transformation initiative. It is recommended that a residential lighting specialist be used for program design and marketing to identify the key criteria of an effective program, and to help establish credibility with distributors and builders.

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Determining the most effective implementation of a residential lighting program is an iterative process, requiring some degree of trial and error to determine what works and what does not. Regional program implementers must research the various players, their activities, and interactions, and learn which builders and distributors are the players in a specific market. The process of finding an appropriate partner (whether builder or distributor) is not straightforward—after much research, an appropriate partner may not be interested in participating.

As a regional program implementer moves further along in the process of working with builders and distributors, it will become increasingly apparent which builders and distributors are the most likely candidates for inclusion in the program.

The steps outlined on the following pages demonstrate one process for researching and determining which market actors to target. Due to the iterative nature of the process, the regional program implementers may need to revisit early steps as necessary to narrow-in on the most effective market actors willing to promote ENERGY STAR.

As the program is designed, it is important to remember that long-term success is dependent upon homeowners' satisfaction with the use of ENERGY STAR qualified lighting. Involving a lighting specialist in planning can ensure that lighting choices will prove satisfactory in the long run.

In addition, EPA has developed the ENERGY STAR® *Labeled Light Fixtures Builders' Kit* as a tool for builders to educate, promote and sell ENERGY STAR qualified lighting to homeowners. The kit has two uses. First, it can be used to sell a builder on the ENERGY STAR program. Second, it can be used by builders to "upsell" lighting to homeowners.

Resource Tool: ENERGY STAR® Labeled Light Fixtures Builders' Kit

Step 1: Establish Your Credibility

Credibility is important in any business. However, in the residential lighting and new construction industries it becomes crucial because these industries are built on long-term relationships; the majority of the players in the industry are not open to change or receptive to working with a new outside influence. Developing the initial relationships with the builders and lighting distributors/showrooms will be difficult; therefore establishing your program's credibility becomes even more crucial.

Before "hitting the street" it is important to gain a thorough understanding of the market players and activities.

Before "hitting the street" it is important to gain a thorough understanding of the market players and activities. A few items the regional program implementers need to know are:

- Who are the major builders in the target geographical market?
- Who are the major distributors/show-rooms in the target geographical market?
- Which manufacturers supply to the target geographical market?
- Who is the predominant manufacturer supplying to the target geographical builder market?
- What are the specifying influences?
- What are the specific distribution channels (e.g., manufacturer representative sells directly to builder, distributor sells directly to builder, etc.)?

Section I, Overview of the Residential New Construction Lighting Industry, provides general information to help answer some of the questions above. Additional research will be required to answer all the questions, which may involve interaction with industry players.

Step 2: Research and Identify Target Builders, Key Distributors and Manufacturers

Identify Target Builders

Target builders are those who will be receptive to ENERGY STAR qualified lighting programs. The first tier of target builders should be those who have participated in a regional or national energy-efficiency new construction program, such as ENERGY STAR Homes. These builders are likely candidates, as they will understand the program's benefits and promotional value. The primary determining factor for a target builder will not necessarily be the size of the builder, but rather that builder's impact in the market.

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The following criteria should be considered:

- Is the builder promotionally-oriented (i.e., does the builder advertise)? Through what medium?
- Is the builder a member of the local or regional Builders Association, and is that builder involved administratively?
- Is the builder a member of the Chamber of Commerce?

Identify Key Distributors

The next step is to identify key lighting distributors. These distributors generally handle the bulk of the builders' accounts in any one market. The type of distributor serving these accounts varies greatly. A key distributor will have the following attributes:

- has builder accounts,
- is willing to promote and sell ENERGY STAR qualified lighting,
- deals with an ENERGY STAR qualified lighting manufacturer,
- has an outside sales person or staff,
- has access to ENERGY STAR qualified lighting,
- has a warehouse adequate to inventory products for builders, and
- can service the builders' needs.

The entire process of targeting builders and distributors will be one of continuous trial and error. As this process unfolds, the regional program implementers will be able to narrow the search for appropriate builders and distributors open to program involvement.

A credible program MUST work with distributors.

Determine Key Manufacturers

Implementation of ENERGY STAR residential lighting initiatives requires an understanding of the capabilities of the manufacturer and distributor to supply ENERGY STAR qualified lighting to the residential new construction industry. A key manufacturer will have the following attributes:

- is an ENERGY STAR RLF partner,
- has ENERGY STAR qualified lighting suitable for residential new construction,
- has a catalogue,
- has lighting distributors in the market to deliver and service ENERGY STAR qualified lighting products, and
- currently supplies distributors and/or builders with lighting for residential new construction.

Step 3: Determine the Distribution Channel and Purchasing Influence

Once the target builders have been identified, it will be necessary to determine who influences the builders' purchasing decisions, such as the distributor, manufacturer, or designer. Mapping the distribution channel will help establish the best ways to access the builder. Note that you will need to work within the existing residential new construction lighting infrastructure—this is an industry built on long-term relationships and is slow to embrace outside influences. Programs may have difficulty introducing new manufacturers or suppliers. It can be more effective to work with existing suppliers to integrate ENERGY STAR qualified lighting into house paks.

Programs should not attempt to introduce new suppliers, but rather work with existing suppliers.

Interacting with distributors will require much more legwork and may require more inventive methods. First steps would include:

1. Identify the ENERGY STAR lighting manufacturer partners with whom they work.
2. Coordinate with manufacturer reps to determine which ENERGY STAR qualified products would be available and suitable for the program.
3. Understand the distributor's motives. What will induce them to promote, stock, and sell ENERGY STAR qualified lighting? These motives may include:
   - A desire to be known for lighting expertise.
   - A promotional orientation that leads them to seek advertising opportunities.
   - Profitability.
   - Differentiation in the market. "The Only Distributor Carrying ENERGY STAR Qualified Products In Town"—would appeal to distributors with this motive.

Step 4. Review Existing Lighting Package

Engage a lighting professional to review each builder's current lighting package to determine appropriate alternatives to non-ENERGY STAR qualified lighting. Some examples include:

- Kitchen: Replacing incandescent downlights with compact fluorescent downlights; specifying ENERGY STAR qualified decorative linear kitchen fixtures in place of standard decorative linear ceiling-mounted fixtures. See *ENERGY STAR® Kitchens Lighting Guide* for more information.
- Outdoors: Utilizing ENERGY STAR qualified CFL-based outdoor lanterns, or ENERGY STAR qualified incandescent lanterns with motion sensors.
- Bath: Using linear decorative bath bars to replace "Hollywood" style bath lighting.

Builders prefer to work with one distributor or source for lighting.

Manufacturers' catalogues that offer a realistic selection of available lighting can help both the builder and homeowner recognize that viable ENERGY STAR alternatives are available. The catalogue should be a "single source" for meeting all of the builder's lighting

needs. Builders will not be interested in a plan that forces them to work with more than one distributor, so producing a catalogue that does not address all applications—both ENERGY STAR and non-ENERGY STAR—can be detrimental to the success of the program. There are currently some applications, *particularly at the high-end* that do not have viable ENERGY STAR alternatives.

The ENERGY STAR package should be presented as an "upgrade" similar to upscale counter tops and carpets. The following categories have viable ENERGY STAR alternatives:

- Downlights
  - Cans (rough housings) IC/NON IC and AT
- Utilitarian
  - Interior, usually flush-mount
- Decorative
  - Interior: linear fluorescent decorative, decorative flush-mounts, pendants, and sconces.
  - Outdoor: wall-mounted lanterns and post lights.

Step 5: Consider the Use of Incentives

Incentives have to be carefully applied to the residential new construction lighting industry. Misapplication of incentives can have an adverse effect on the existing market, angering and sometimes alienating the key market actors who need to be influenced. A good first step for developing an incentive program is to hold industry focus groups with lighting manufacturers, distributors, and builders to gather feedback on different types of proposed incentive plans and what the regional market will accept.

The most effective incentive programs allow normal market activities to take place.

Understanding the various roles, interactions, and influences in each market will help determine what incentives to implement, and when and how to implement them. Market transformation is a long-term goal, indicated by a change in both a consumer's initial purchasing habits as well as repeat purchasing habits. The most effective incentive programs are those that allow normal market activities to take place, such as advertising to create consumer demand, educating sales people within the distribution channel, and standard inventory (stocking) methods for products. Three categories of incentive plans are:

A. *Manufacturer incentives* may include design competitions, new product development, or wholesale buy-downs.

B. *Promotional/advertising incentives* may include cooperative advertising with manufacturers and/or distributors, point-of-purchase materials, and employee spiffs.

C. *Direct rebate incentives* may include mail-in rebates for consumers, retailer instant rebates, torchiere turn-in events, and subsidized retail prices.

The goal of incentives should not be to price ENERGY STAR qualified products at the same level as non-ENERGY STAR qualified products, but rather introduce the product to the market and provide an incentive for the builder to try ENERGY STAR and realize the other benefits—longer life, lower lifetime cost, less heat. During incentive availability, programs should teach builders how to "upsell" ENERGY STAR qualified fixtures based on benefits outlined in the *ENERGY STAR® Labeled Light Fixtures Builders' Kit*. Over time, as program success builds, rebates can be lowered and phased out, as they have been for many ENERGY STAR qualified screw-based compact fluorescent lamps.

Step 6: Educate the Consumer

As an alternative to, or in conjunction with, monetary incentive programs, regional program implementers should consider running workshops and producing marketing material that creates awareness of energy-efficient lighting fixtures and educates the consumer on the benefits of energy-efficient lighting. The more knowledgeable and comfortable a consumer feels with a product, the more likely he or she

is to buy it. Possible forums to conduct consumer education include home-shows, local retailers that supply ENERGY STAR qualified products, and lighting showrooms.

At the 1995 Illuminating Engineering Society's Annual Conference, the paper, "Homeowner Acceptance of Energy-Efficient Lighting Patterns: A Field Evaluation," by Rita N. Kolati and Russell P. Leslie of the Lighting Research Center in Troy, New York, was presented. The paper was the result of a side-by-side field comparison of two identical model homes, but for the lighting. One home used standard incandescent fixtures while the other used energy-efficient lighting. The energy-efficient home "scored higher[3] in lighting comfort and attractiveness and had higher illuminance and lower annual operating costs. Ninety-seven percent of the observers said they would pay more for the energy-efficient lighting." Regional program implementers, working together with local builders, distributors, and retailers, can conduct similar consumer outreach.

Step 7: Creating and Implementing the Sales Plan

At this point, all builder and distributor research is complete, a new lighting package has been created, and decisions about incentives have been made. It is now time to create and present the sales plan. There are three steps in this process:

The regional program implementer and distributor together create a sales plan that meets the needs of the target builder and the builder's customer base.

• Step 1: *Create the Sales Plan*
The regional program implementer and distributor create a sales plan with a lighting package(s) that meets the needs of the target builder and that builder's customer base. The sales plan will address the following issues:

- price points,
- program incentives (these may be indirect incentives, such as advertising, manufacturer buy downs, model home buy downs),
- service, and
- market influences, such as style.

• Step 2: *Present the Sales Plan*
Present the sales plan to the builder in one of the following ways:

- As a joint presentation by the regional program implementer and distributor. The program representative presents the ENERGY STAR program and the distributor representative presents the lighting package(s).
- By the distributor alone, after creating the plan with the program representative.

• Step 3: *Move on to the Next Target Builder or Distributor*

Step 8: Follow-up

Follow-up will be particularly useful in determining if the lighting package selection is appropriate and if mid-program changes are needed. Builder satisfaction with the program will be essential to gain the interest of other target builders. A number of factors can influence builder satisfaction, including program promotional activities available to the builder, the program's ease of use, level of service from the distributor, and the perceived quality of ENERGY STAR qualified lighting.

Builder satisfaction with the program will be essential to gain the interest of other target builders.

[3] The "score" was based on consumer responses to questionnaires that were placed in each model home. See appendix B for information on how to locate this paper.

As mentioned previously, homeowner satisfaction is particularly critical and requires that the lighting be both aesthetically pleasing and represent an equivalent or improved range of quality (measured against non-ENERGY STAR qualified lighting). A lighting designer can be helpful in developing proper lighting packages, which may include both the lighting layout and product selection. The function of the lighting must meet the general consumer perception of "quality" illumination, with good color characteristics and proper light levels. The homeowner will also need to realize measurable energy savings. Overall satisfaction is achieved when the homeowner doesn't perceive a difference between their new ENERGY STAR qualified lighting and previous less-efficient lighting.

This guide represents a starting point for regional program implementers. The residential new construction market presents many challenges and will require a coordinated multi-year effort. The information in this guide provides a sound framework for residential new construction lighting programs. We look forward to hearing from you about your successes in the field.

APPENDIX A:

Certifications and Credentials for Lighting Practitioners

While interacting with the lighting industry the following certifications and credentials may be mentioned. They are included here for reference.

Lighting Specialist (American Lighting Association designation) - An employee with a good grasp of lighting applications and some technical knowledge. A lighting specialist has studied lighting, attended seminars, and passed an exam.

Certified Lighting Consultant (American Lighting Association designation) - An extensively trained expert who has attained Lighting Specialist designation, which involves passing a rigorous examination of technical and practical design application after accumulating over 50 credit hours of training, and/or 10 years experience in the lighting industry.

LC - A person who is "Lighting Certified" by the National Council of Qualifications for the Lighting Professions. An LC will have several years of experience, a formal design degree, and will have passed a rigorous certification exam. An LC may be on staff at a showroom, work for a design firm, or be independent.

APPENDIX B:

Resources

1. Lighting Research Center Web Site

Offers useful design guidance.

Home page: www.lrc.rpi.edu

Specific residential applications and information:

www.lrc.rpi.edu/indexres.html

2. ENERGY STAR Web Site

For updates on the most recent qualified product lists and partner lists.

Home page: www.energystar.gov

Partner List and Qualified Product List:

Visit www.energystar.gov, choose "products" then choose "lighting." Choose a lighting type from the right-hand side of the screen for links to relevant product and partner lists.

3. ENERGY STAR Contacts

David Shiller

ENERGY STAR Residential Lighting Fixtures Program Manager
United States Environmental Protection Agency

shiller.david@epa.gov

Jeff Schwartz

ENERGY STAR Program Contractor
ICF Consulting

jschwartz@icfconsulting.com

- builder and manufacturer outreach information

Paul Vrabel

ENERGY STAR Program Contractor
ICF Consulting

pvrabel@icfconsulting.com

- manufacturer and industry outreach information

Meghan Hoye

ENERGY STAR Program Contractor
ICF Consulting

mhoye@icfconsulting.com

- manufacturer and industry outreach information

Milanga Abeysuriya

ENERGY STAR Program Contractor
ICF Consulting

mabeysuriya@icfconsulting.com

- manufacturer outreach

Reference Materials

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Other Tools

ENERGY STAR® Labeled Lighting for Kitchens

For more information contact:

• **David Shiller**
ENERGY STAR Residential Lighting Fixtures Program Manager
United States Environmental Protection Agency
shiller.david@epa.gov

• **Ian Todreas**
ENERGY STAR Program Contractor
The Cadmus Group, Inc.
itodreas@cadmusgroup.com

ENERGY STAR® Labeled Light Fixtures Builders' Kit

For more information contact:

• **David Shiller**
ENERGY STAR Residential Lighting Fixtures Program Manager
United States Environmental Protection Agency
shiller.david@epa.gov

• **Meghan Hoye**
ENERGY STAR Program Contractor
ICF Consulting
mhoye@icfconsulting.com