Energy Efficient Lighting in the Residential Market

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Overview of Presentation

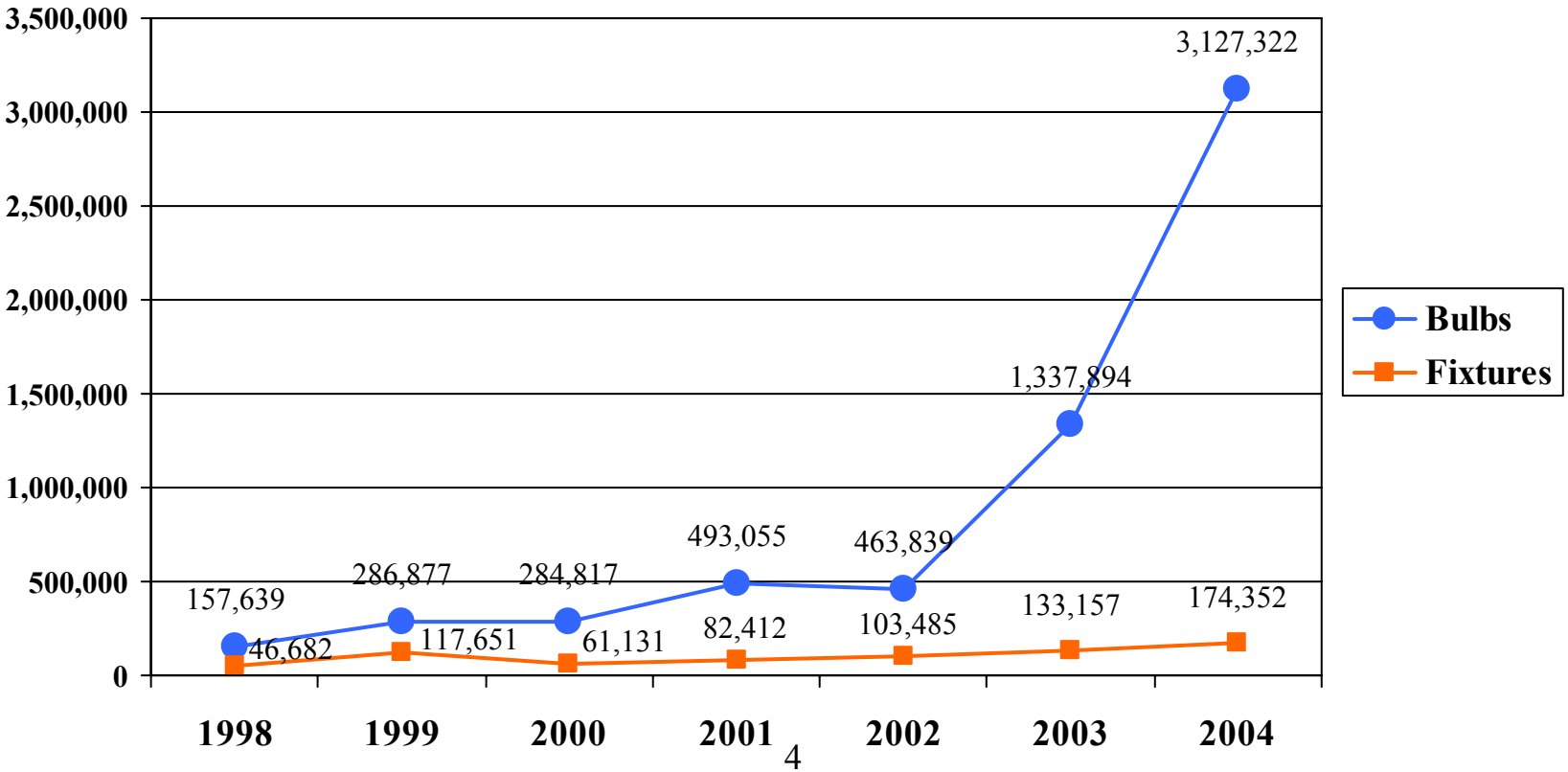
1. MA and CT are the focus
2. Lighting Sales
3. Success of Buydown Program Component
4. Projected Utility Savings
5. Why lighting saturation is important
6. Why partnership with manufacturers is so important

History of Program Efforts

- Late '80s » Originally, lighting programs were individually sponsored by Massachusetts IOUs
- 1995 » MA utilities make programs more consistent with each other
  - › Shared advertising
  - › Use of same qualifying product lists
  - › Same rebate levels
- 1998 » MA utilities form joint program through NEEP and collaborated with national EPA/DOE Energy Star program
  - › Catalog/rebates
- Fall '02 » Program undergoes a shift towards industry-sponsored initiatives/ITP (buydown process) involving market actors

The MA Lighting Market

The program resulted in the sale of over 3 million ENERGY STAR lighting products in Massachusetts in 2004 alone



Buydown Process

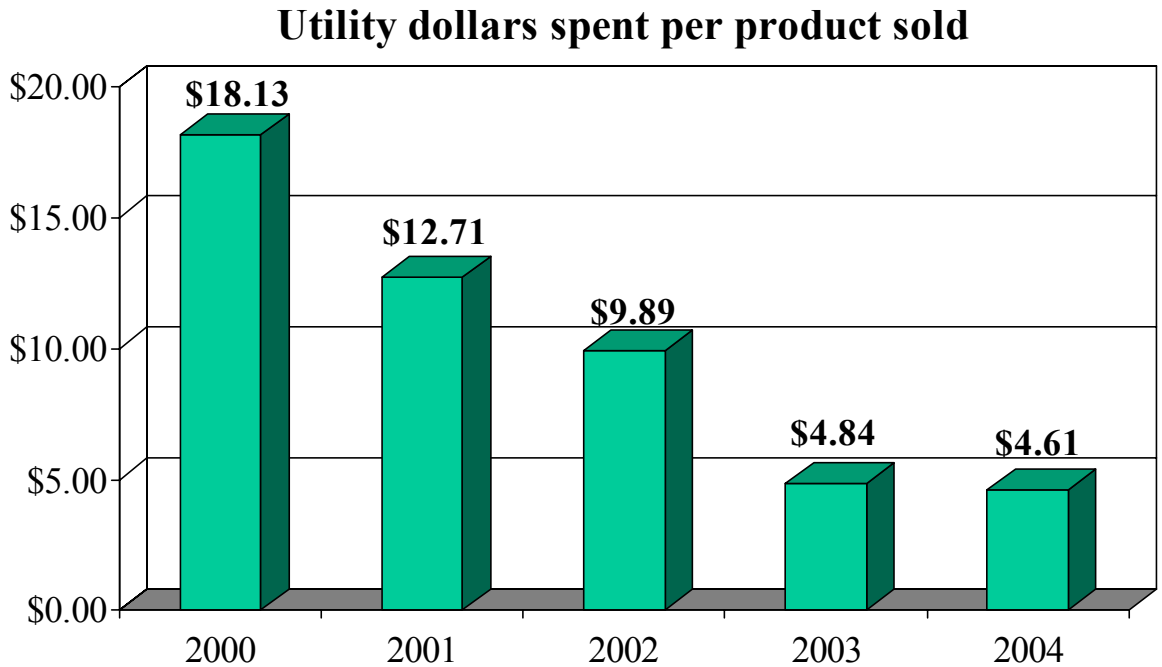
- Win–Win for all
  - Retailers and/or manufacturers collaborate together
  - Utilities have large volumes installed
  - Customers recieve savings (lower cost product & energy savings)
- Began Fall of 2002 in Massachusetts; by 2003 & 2004, the majority of sales through the program were through buydown effort
- Focus is on bulbs: ~ 94% of the units moved were bulbs
- Significant benefits outweigh drawbacks of buydown process

Buydown
Benefits & Drawbacks

Benefits	Drawbacks
Reduced administrative burden on retailers	Lead times are short
Manufacturers, retailers & utilities can build relationships through a mutual effort to promote products	Sales data very important but some retailers unwilling to provide
Easily match demand and supply (no limit on purchases or running out of rebate coupons)	Terms and conditions do not always fit the needs of large-scale retailers
Easily product selection	No year to year consistency

Buydown Process

- The dollars spent per energy efficient lighting unit moved dropped significantly as program effort shifted more towards industry-sponsored initiatives
- Buydown process has shown that it can move a high volume of product at a relatively low program cost



Utility Savings

- Program Impacts of Residential Lighting Programs Around the Country

Region/State	Target/projected savings overall portfolio	Achieved/ expected savings from res. lighting	% of total savings achieved
California	2,613 GWh	1,209 GWh	**48%**
Texas	150 MW	50 MW	**33%**
New England	1,409,000 MWh/year	310,000 MWh/year	**22%**
New Jersey	341,770 MWh	61,630 MWh	**18%**
Pacific Northwest	2800 aMW	>500 aMW	**18%**

- Energy efficient lighting programs considered among the most critical programs by impact as well in:
  - the Midwest and New York

Consumers

Experience with CFLs is remarkably high

	Massachusetts		Connecticut	
	Telephone Survey	**In-Home Visits**	**Telephone Survey**	**In-Home Visits**
Percentage of respondents that have at least 1 CFL in home	54%	61%	45%	63%
Mean number of CFLs per user (int. and ext.)	6.1	6.7	5.6	6.8
Mean number of interior CFLs per user	N/A	6.2	N/A	6.2

Consumers

Massachusetts				Connecticut
61%	«	households have at least one CFL	»	63%
6.7	«	avg bulbs/household among "users"	»	6.8
Result: **9.6 million**		**CFLs** in use in state		Result: **5.6 million**

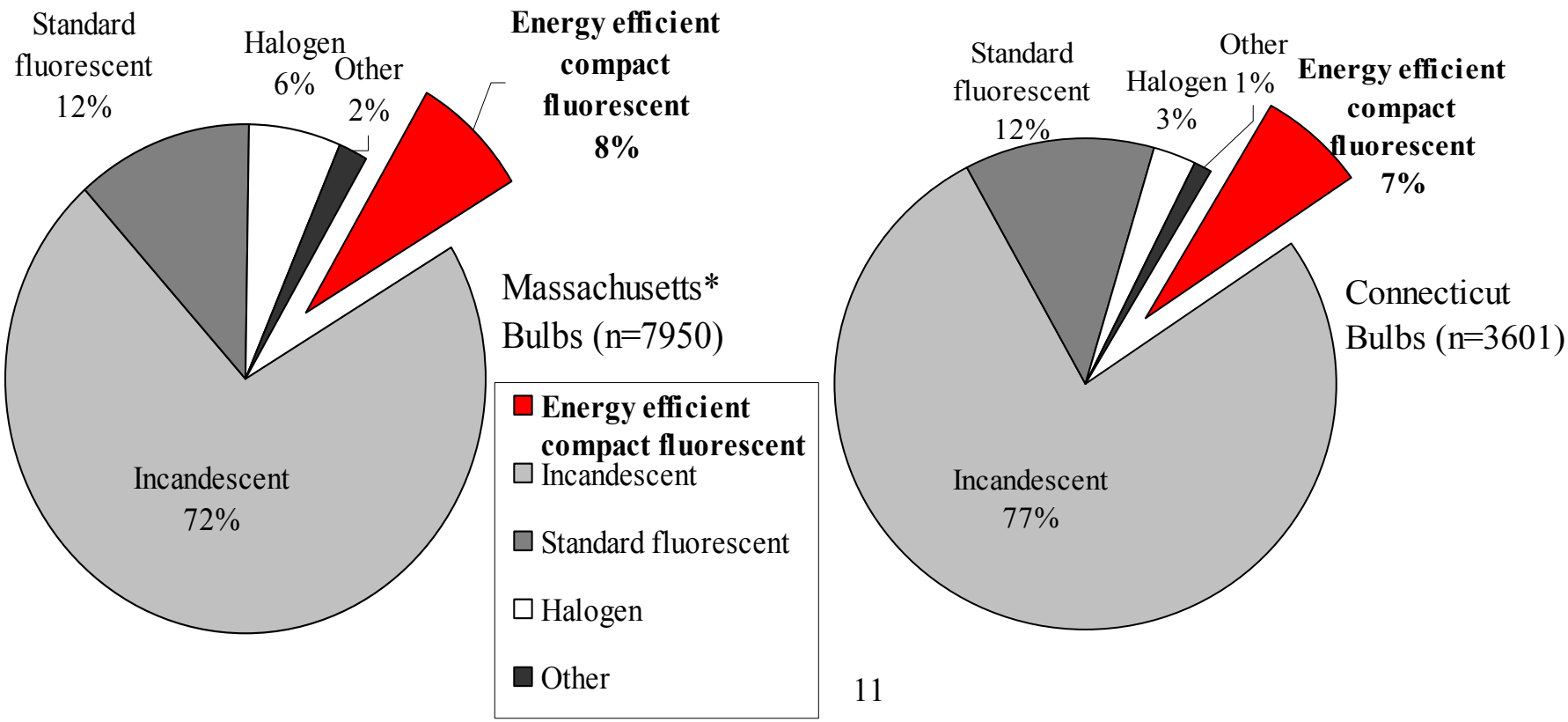
2.34	«	million households in MA/CT IOU territory	»	1.30
53.1	«	sockets or bulbs/household	»	61.2
Result: **124.3 million**		**sockets** in MA/CT		Result: **79.6 million**

8% of all sockets filled with CFLs in MA
7% of all sockets filled with CFLs in CT

Saturation of EE Lighting

8% saturation of CFLs within Massachusetts households

7% saturation of CFLs within Connecticut households



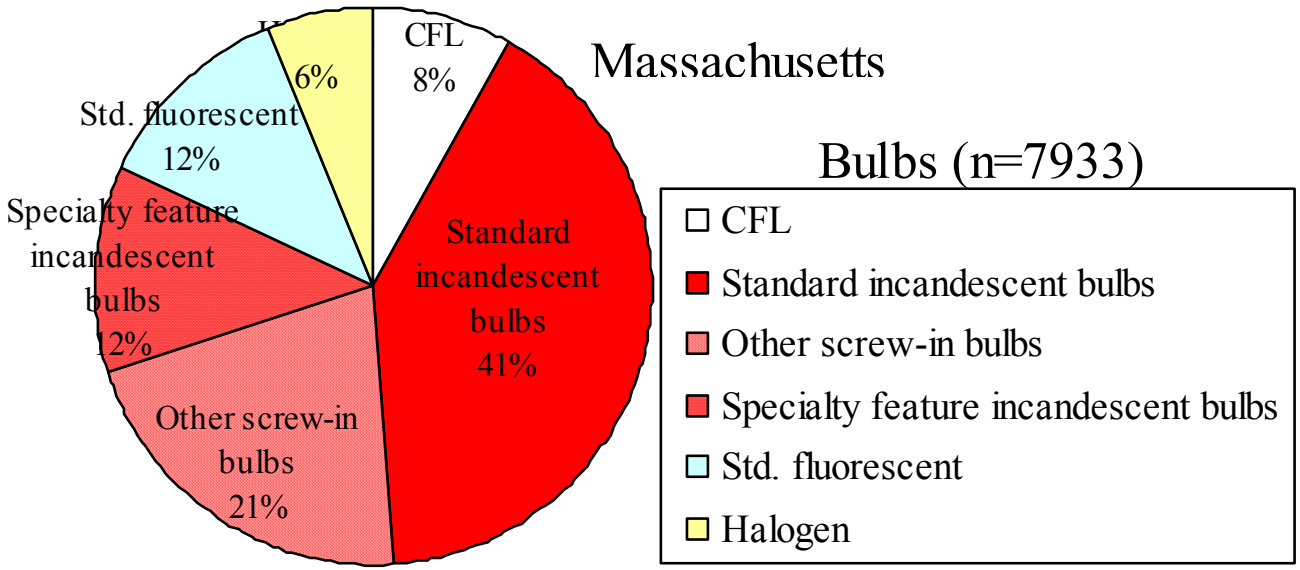
Where The CFLs Are

	Massachusetts	Connecticut
Bedroom	17%	15%
Living/family room/den	16%	16%
Kitchen	15%	16%
Basement	15%	15%
Hallway/Stairs	8%	6%
Exterior	7%	9%
Bathroom	5%	11%
Closet	3%	5%
Office	2%	3%
Garage	2%	2%
Dining room	1%	0.4%

Remaining Lighting Market

62% of sockets can be retrofitted with CFL's

With 105.5 million households in the US, this could mean as many approximately **3.5 BILLION sockets** can be retrofitted with energy efficient lighting!



Consumer Findings Re: Barriers

» *In 2004, despite lower costs through programs and greater availability and selection, respondents continue to cite these as barriers*

	Massachusetts
More expensive upfront costs	80%
Limited selection	52%
CFLs don't fit into traditional light fixtures	40%
Aesthetically not pleasing	43%
Does not provide enough light	25%

Manufacturer Comments

Which comments do you agree with??

- "Many states, they're doing a wonderful job of educating the consumers about what is Energy Star. I can see the people in CA, NJ, NY, and also WI, when they buy the appliance, whether it's an appliance or lighting fixture, they all look for the ES logo because they are educated. They know those fixtures give them energy efficiency."
- "I mean there's probably virtually no business outside of the incentive areas. To me, ENERGY STAR is almost synonymous with utility rebates."
- "There's too much of the rebates going on to drive price points down. So there's too much focus on rebates and driving price, and probably, I believe more focus needs to be put on awareness building and education, not just price."
- "The problem is once the rebate's off, the consumer is left with sticker shock of what it costs when it's off-rebate. So there's too much of a difference of the product when it's on-rebate and when it's off-rebate."
- "The only problem with [the rebates] is it's a…one-time benefit. You're not ultimately defining to the customer the progress that has been made in fluorescent technology, so you're getting a quick response and then as soon as you stop giving, handing out dollars, they're going to go back and buy the cheap $3.00 lighting fixture when they need to fill the next outlet in their house."

Ideal World

In an ideal world, manufacturers would:

- Provide sales data (national reporting protects confidentiality)
- Offer quality products that have passed PEARL testing
- Foster partnership between energy efficient community and manufacturers