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EPILOGUE: Selling CFLs at Wal-Mart

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Epilogue: CFLs at Wal-Mart

In 2011 consumer adoption of new lighting technologies was well underway, as sales grew and new technologies continued to come to market. Key developments for Wal-Mart's CFL program included:

WAL-MART'S ANNUAL CFL SALES VOLUME FELL DURING THE ECONOMIC RECESSION, BUT BEGAN TO RECOVER IN 2010.

Wal-Mart CFL unit sales (in millions)¹

| Year | Annual Sales | Cumulative Sales |
|------|--------------|------------------|
| 2007 | 137 | 137 |
| 2008 | 123 | 260 |
| 2009 | 90 | 350 |
| 2010 | 110 | 460 |

ON JANUARY 28, 2010, ANDY BARRON GOT A BIG PROMOTION.

"CEO Bill Simon announced the creation of an important new organization led by **Andy Barron**, Senior Vice President, Store Merchandising Execution, who will report to both Bill and to John Fleming, EVP and Chief Merchandising Officer. Andy's team will design merchandise strategies for each of Wal-Mart US's new geographic business units and translate those strategies into executable, customer-focused programs."²

POLITICAL CONCERNS ABOUT US GOVERNMENT REGULATIONS REGARDING CFLS MOVED INTO THE SPOTLIGHT IN 2011 BUT FAILED TO DERAIL PRIOR LEGISLATION.

"After a failed House vote yesterday to repeal new efficiency standards for light bulbs, the future . . . is a little brighter. . . . Manufacturers expect that sticker shock over the price of new bulbs will soon change due to economies

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of scale, efficiency regulation, and greater competition. . . . The improvements will come not so much from the technology itself, but from reducing the costs of production and assembly—like flat-screen TVs in terms of cost trajectory.”³

CONSUMERS FACED A MYRIAD OF NEW LIGHT BULB CHOICES IN 2011, AS RAPID INNOVATION BROUGHT NEW TECHNOLOGIES QUICKLY TO MARKET.

New halogen bulbs were similar to incandescent bulbs as they emitted light in all directions (omnidirectional) and were on the warm end of the spectrum. L.E.D. bulbs had a cooler color, emitted light in one direction (unidirectional), but had a very high retail price. Yet they lasted longer than any other bulb and contained a computer chip, which allowed for programming and could be used to create unique, customized home lighting designs.

All types of bulbs had expanded labels that indicated quality in two new ways—by “correlated color temperature index” (a higher number indicated more blue light; lower meant more yellow) and by “color rendering index” (which indicated how accurately the bulb displayed the color of the object it was illuminating; incandescent bulbs scored 100 on this index).

If US consumers studied these lighting technologies they could save significant money and time. But for most people, the new retail marketplace presented challenges. “Consumers generally bring habit, rather than intelligence, to their light bulb purchases,” pointed out Russell Leslie, a founder of the Lighting Research Center at Rensselaer Polytechnic Institute. “It’s really problematic.”⁴

Replacing an Old Standby

The 60-watt incandescent bulb is the traditional workhorse of home lighting. As the new federal lighting law gradually takes effect, what alternatives will there be to the old 60-watt standard? Which bulbs will furnish an equivalent amount of light, but with the greater efficiency the law mandates?

To understand the choices, buyers must learn a new language. The watt — a measure of electrical power consumed — will still be listed on light-bulb labels, but the emphasis will be on the lumen, a measure of the light the bulb emits. A traditional 60-watt incandescent bulb emits about 840 lumens; here is how it compares with other bulbs that produce roughly the same amount of light.

| BULB TYPE | APPROXIMATE AMOUNT OF LIGHT (IN LUMENS) | WATTS | AVERAGE PRICE PER BULB | EXPECTED LIFE (IN HOURS) | COST PER 1,000 HOURS* | PROS | CONS |
|----------------------------------|---|-------|------------------------|--------------------------|-----------------------|---|--|
| Traditional 60-watt incandescent | 840 | 60 | 50 cents | 1,000 | \$7.10 | That familiar, warm light | Inefficient and short-lived |
| Halogen | 750 | 43 | \$1.50 | 1,000 | \$6.23 | High-quality light like an incandescent, but more efficient | Less efficient than C.F.L.’s or L.E.D.’s |
| Compact fluorescent | 850 | 14 | \$3 | 6,600 | \$1.99 | Affordable and long-lasting, and the light quality is improving | Delayed illumination in some models, and many models are not dimmable |
| L.E.D. | 800 | 12 | \$40 | 25,000 | \$2.92 | Very long-lasting, frequently dimmable | High purchase price, color quality tends to be cool, most models generate unidirectional rather than omnidirectional light |

* Based on purchase price and the national average of 11 cents per kilowatt-hour

Source for data: American Council for an Energy-Efficient Economy

THE NEW YORK TIMES

CONSUMER ADVOCATES CONTINUED TO EDUCATE THE PUBLIC AS ONLY ONE IN FIVE LIGHTBULBS SOLD WAS A CFL.

Consumer Reports *2011 Guide to Lightbulbs* explained the choices and savings available to households who switch to new bulbs:

“You can still buy incandescent lightbulbs. But we’ve found few reasons you should. . . .

CFLs save money faster.

- It usually takes less than a year to recoup the cost of most CFLs. . . .
- You've saving money by using less electricity, about \$52 dollars per 60-watt equivalent over a bulb's lifetime. . . .
- Because of the high cost of LEDs, \$20 to \$60 per bulb without rebates, they can take four to ten years to pay for themselves.

CFLs now have less mercury. The amount of mercury in the bulbs we tested has dropped 60 to 75 percent, compared with the already low levels we found in 2008.

How to choose. It isn't socket science. . . . Energy Star-qualified bulbs meet high standards for brightness, color, and energy use."⁵

Endnotes

¹ Wal-Mart, *Global Sustainability Reports*, 2007-2010, www.walmart.com.

² Wal-Mart, "Organizational Change Memo from John Fleming," press release, January 28, 2010, <http://walmartstores.com/pressroom/9626.aspx>.

³ Umair Irfan, "Market for More Efficient Light Bulbs Moves on as House Vote Fizzles," *New York Times*, July 13, 2011.

⁴ Bob Tedeschi, "Almost Time to Change the Bulb," *New York Times*, August 11, 2011.

⁵ "Lightbulbs: LEDs and CFLs Offer More Choices and Savings," *Consumer Reports*, October 2011, p. 27-28.