



April 5, 2016

With data
provided by



RESIDENTIAL LIGHTING

MARKET UPDATE

ENERGY STAR 2.0, EISA 2020,
AND NEW MARKET ACTORS



LIGHTING IS IMPORTANT

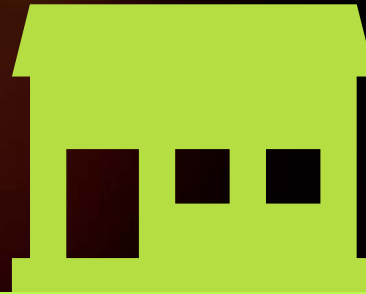
Lighting accounts for more than
1/3 of the region's residential energy
and demand savings.

START WITH THE HOUSES...



Single Family

4,023,937 homes
(74%)



Manufactured

543,730 homes
(10%)



Multi-family

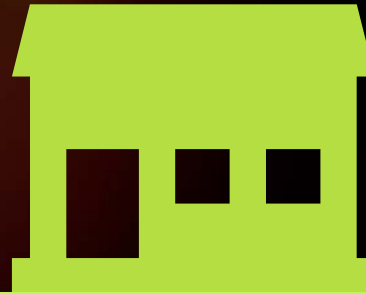
863,104 units
(16%)

ADD THE LIGHTS...



Single Family

Average: 63 lamps
and 40 fixtures



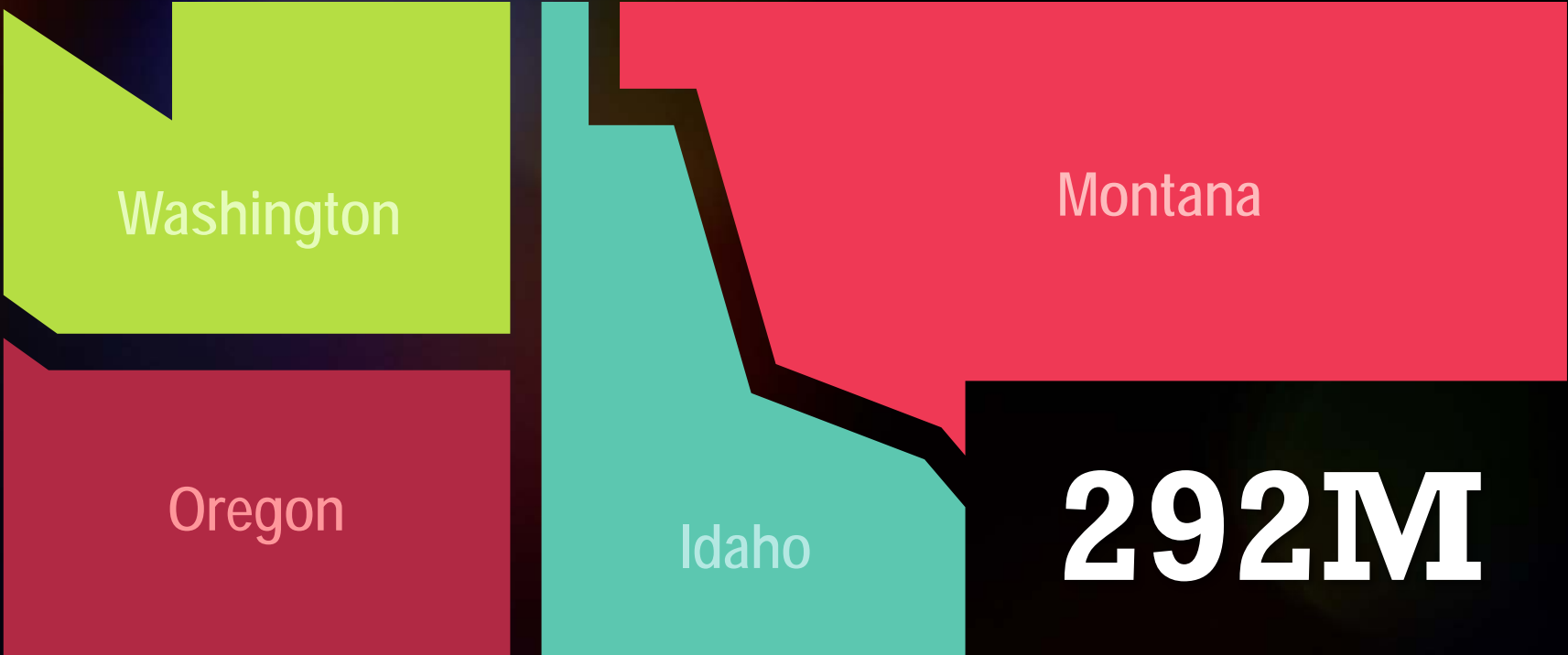
Manufactured

Average: 35 lamps
and 21 fixtures



Multi-family

Average: 23 lamps
and 14 fixtures
(per unit)



Washington

Oregon

Idaho

Montana

292M

AND THE MARKET IS CHANGING (REALLY) FAST



Technology



Regulation



TO TRACK THE TOTAL MARKET



We track market trends



We analyze sales and shelf data



We conduct interviews

We model Momentum Savings



We're going to talk about

SALES TRENDS
ENERGY STAR 2.0
SUPPLY CHAIN
EISA 2020

INSTALLED STOCK

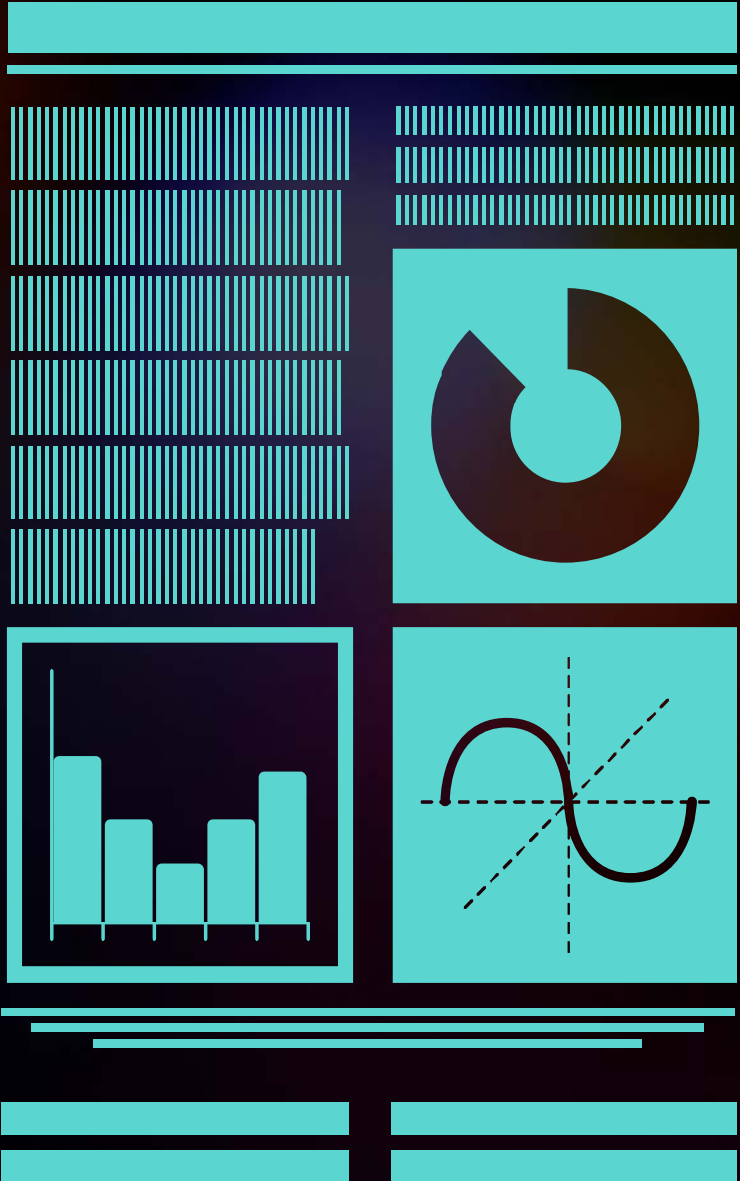
Reflects Past Decisions



PRODUCT FLOW

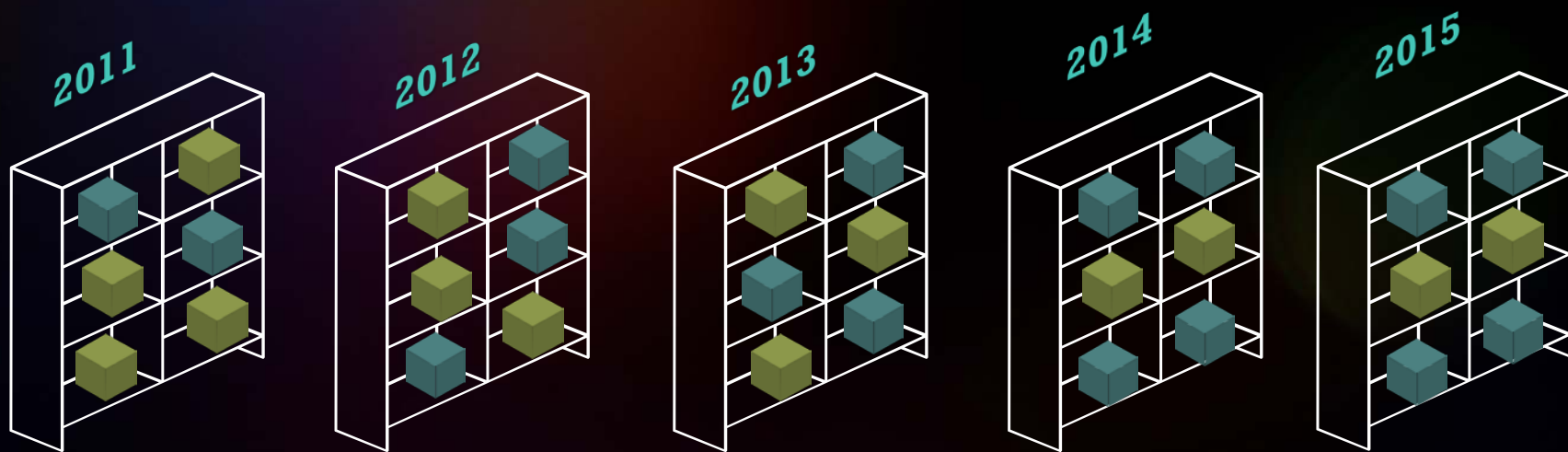
Tells Today's Story





NIELSEN SALES DATA

NEEA's RETAIL SHELF SURVEYS





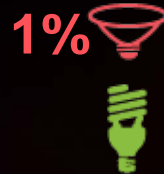
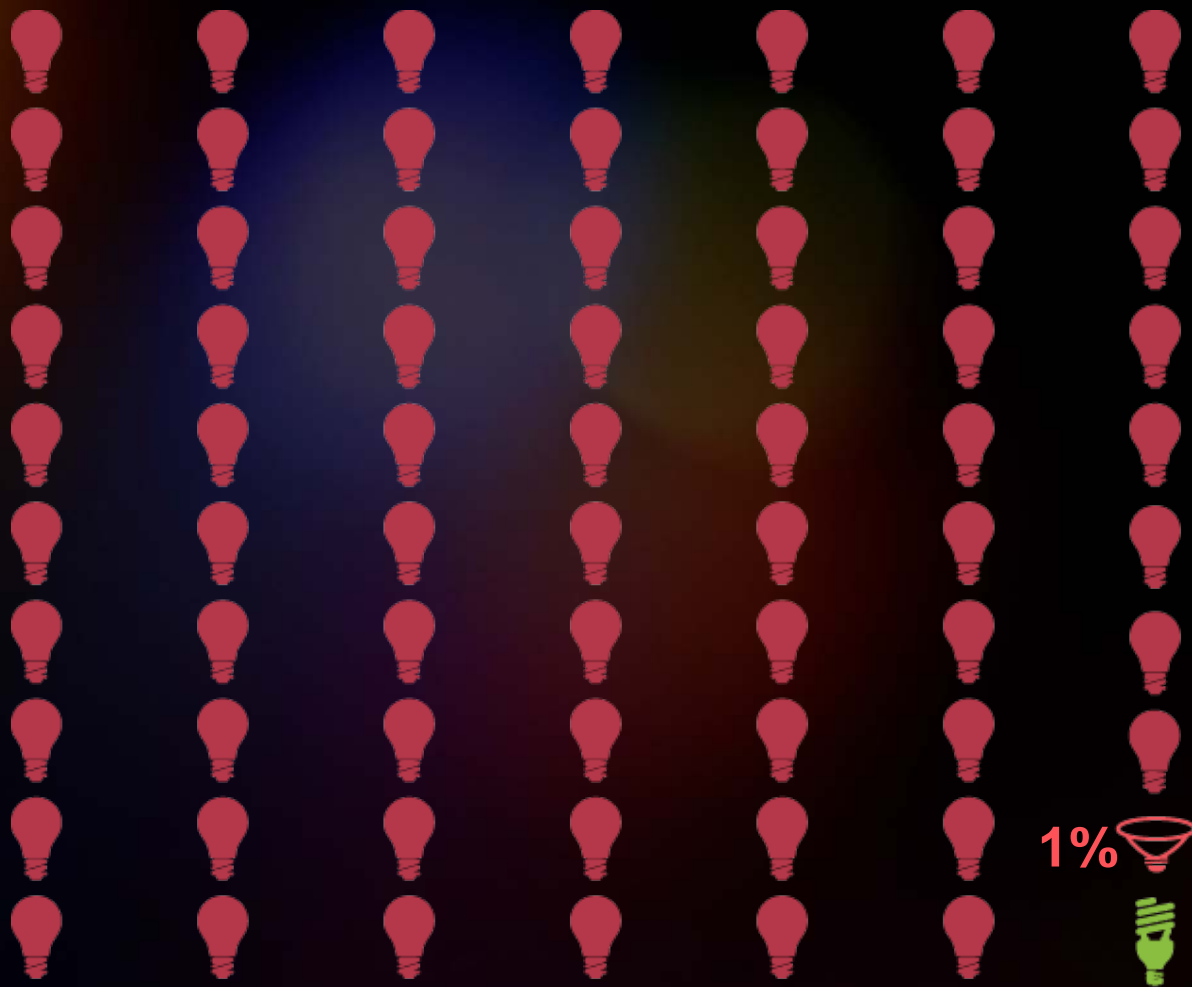
What do the

DATA TELL US?



68%

31%



2011

 INC

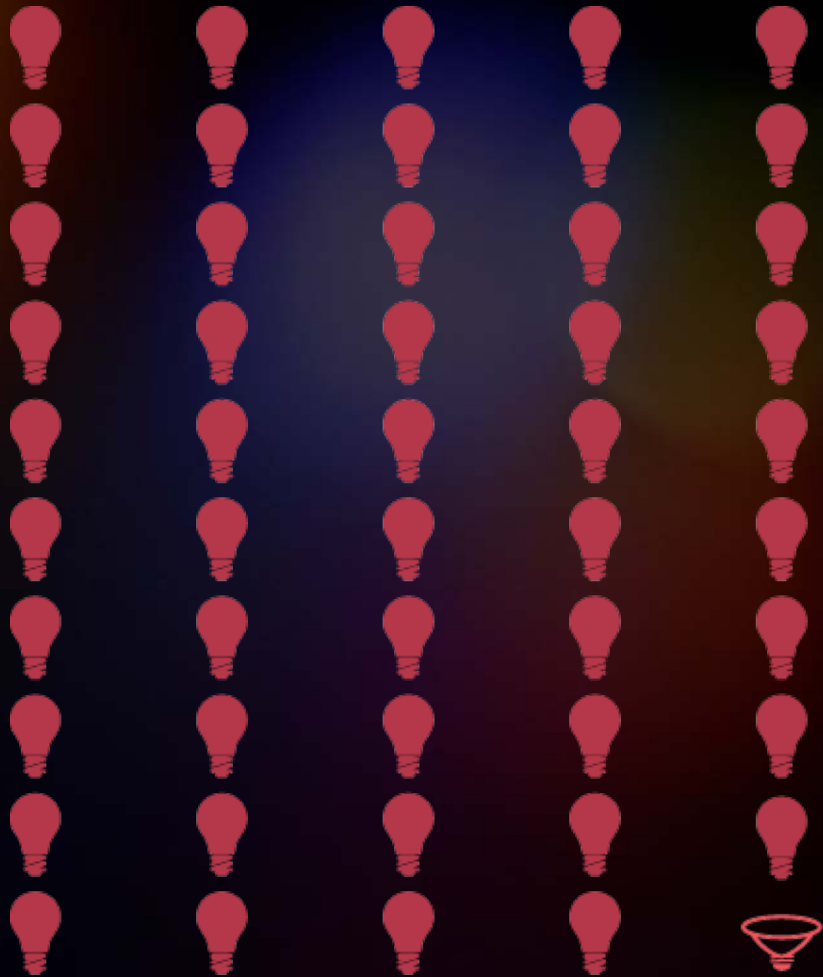
 HAL

 CFL

 LED



49%



7%



43%



2%



2012





38%

18%

36%



2013

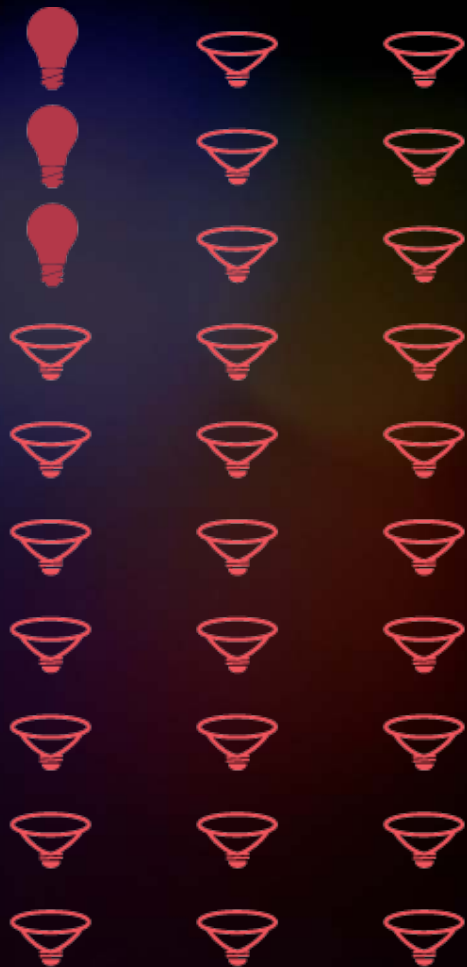




23%



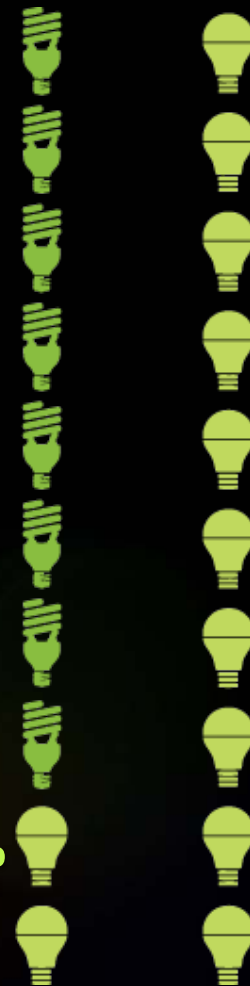
30%



35%



12%



2014



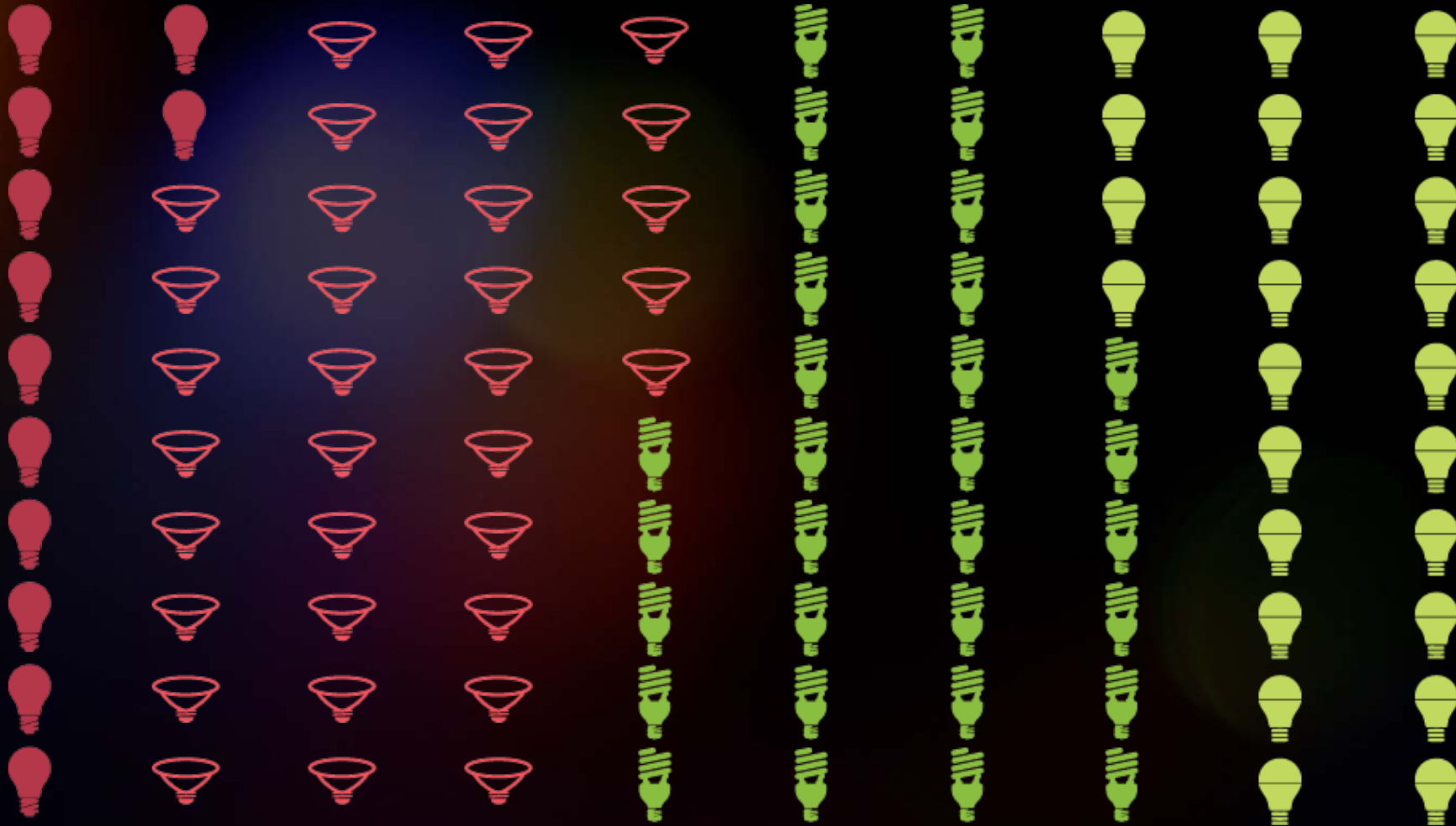


12%

33%

31%

24%



2015

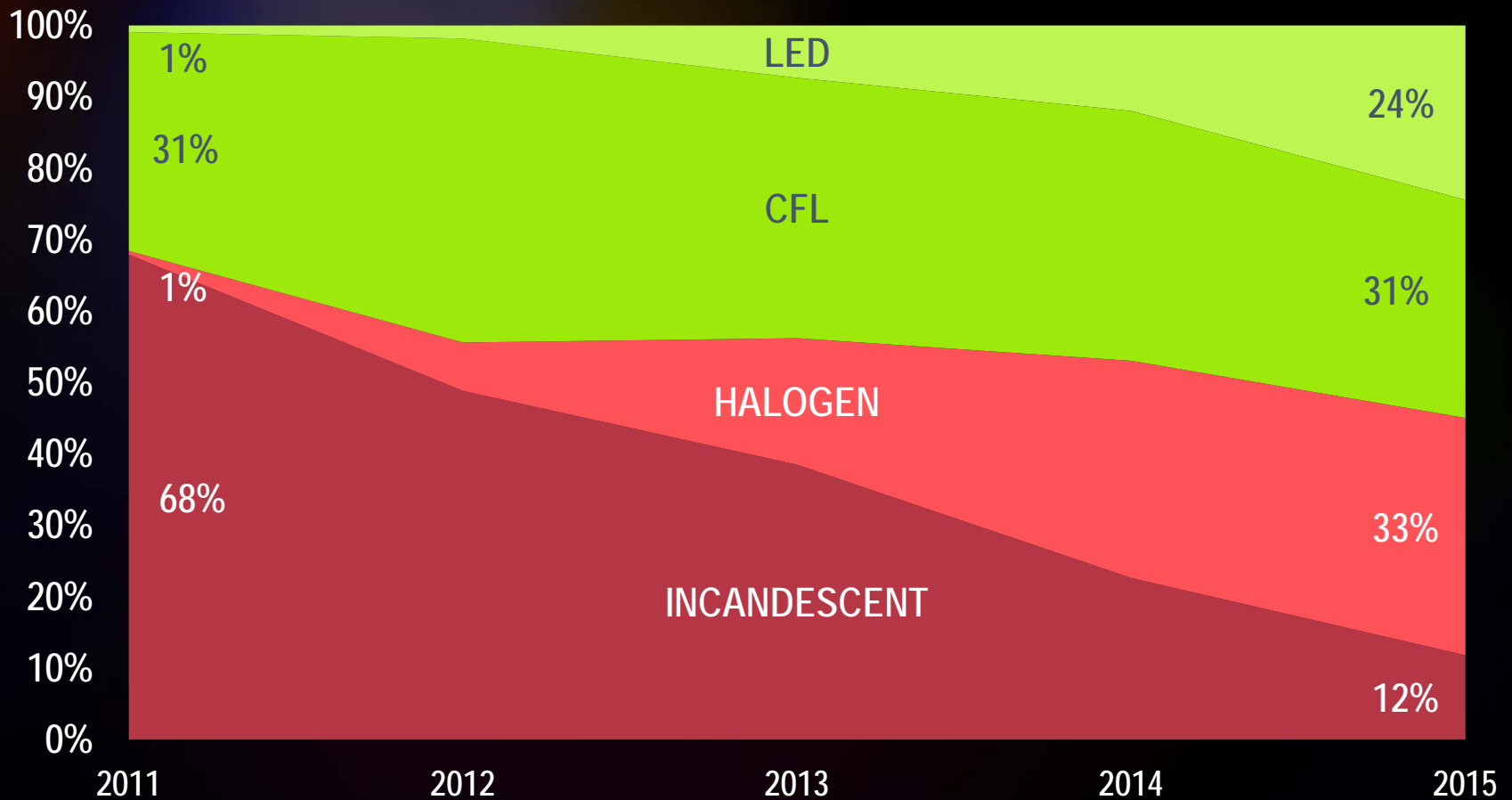
 INC

 HAL

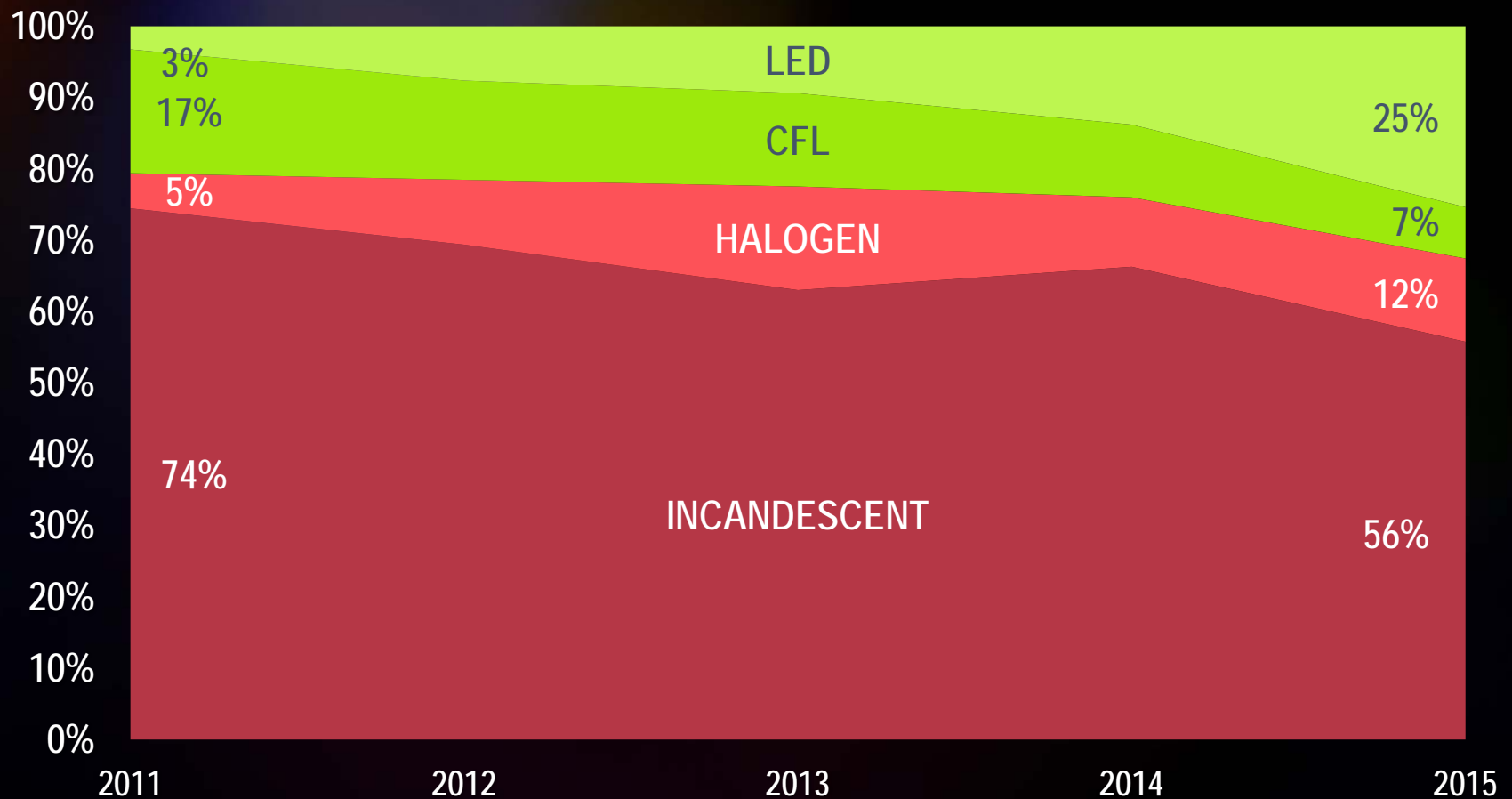
 CFL

 LED

GENERAL SERVICE LAMPS

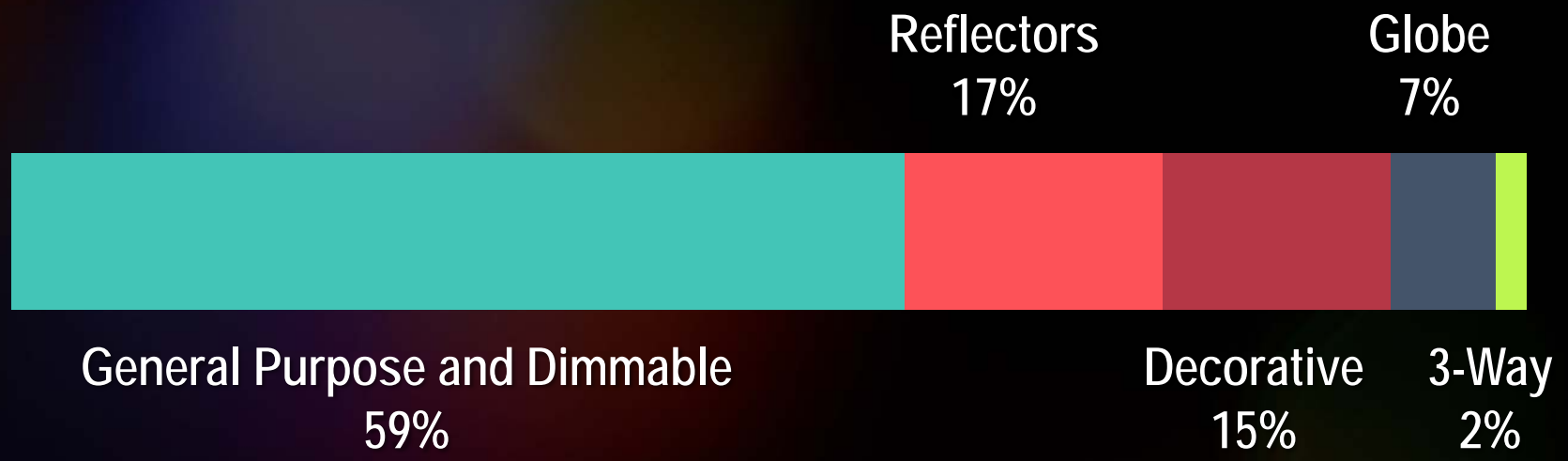


SPECIALTY LAMPS

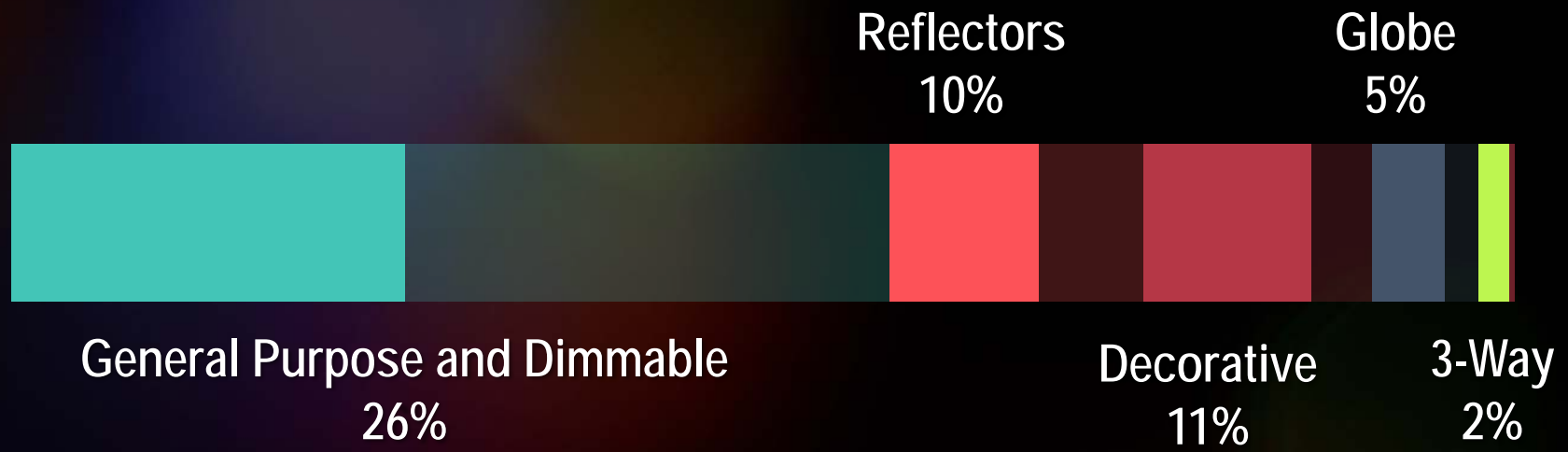


Where are the

**REMAINING
OPPORTUNITIES?**



Source: Unit sales by application. Weighted analysis of NEEA shelf-stocking and Nielsen sales data; 2015

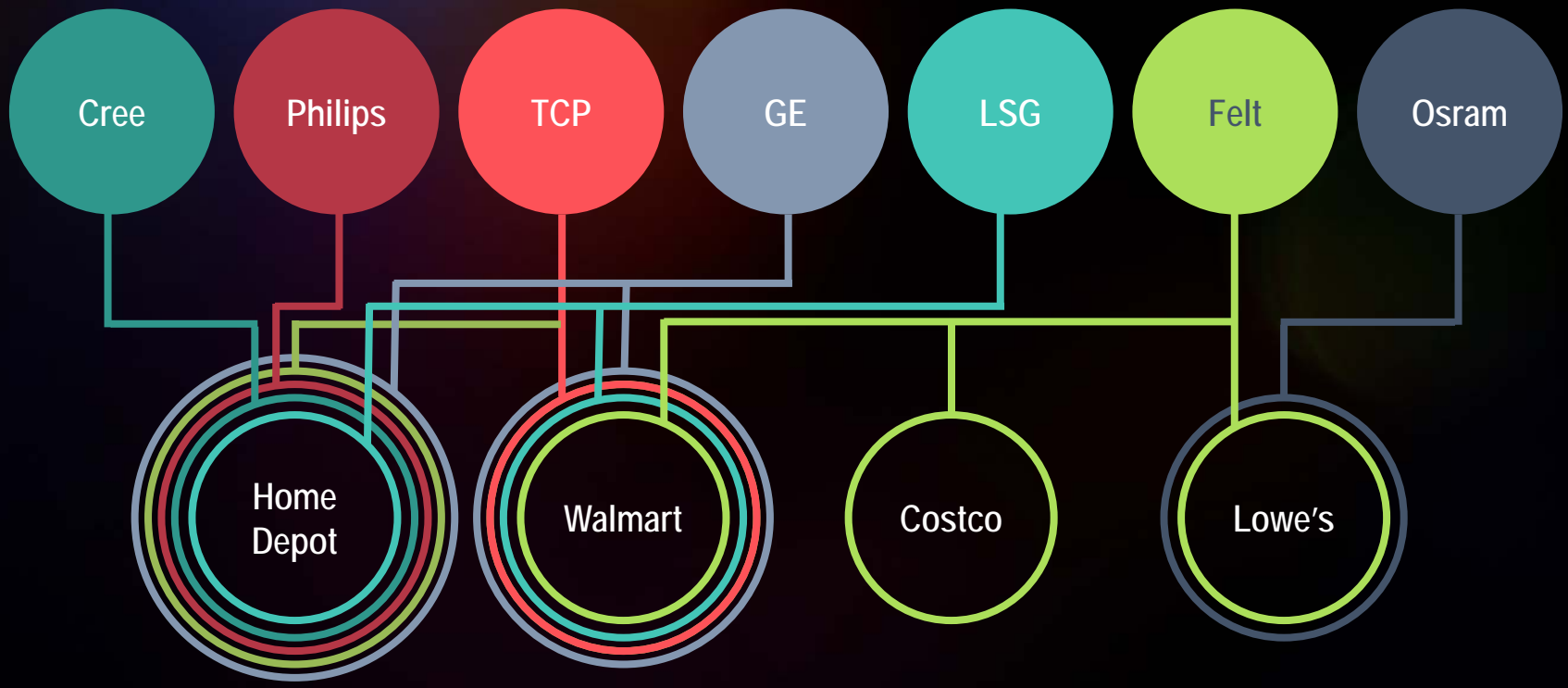


Source: Unit sales by application. Weighted analysis of NEEA shelf-stocking and Nielsen sales data; 2015

BIG-BOX IS BIG LIGHTING.

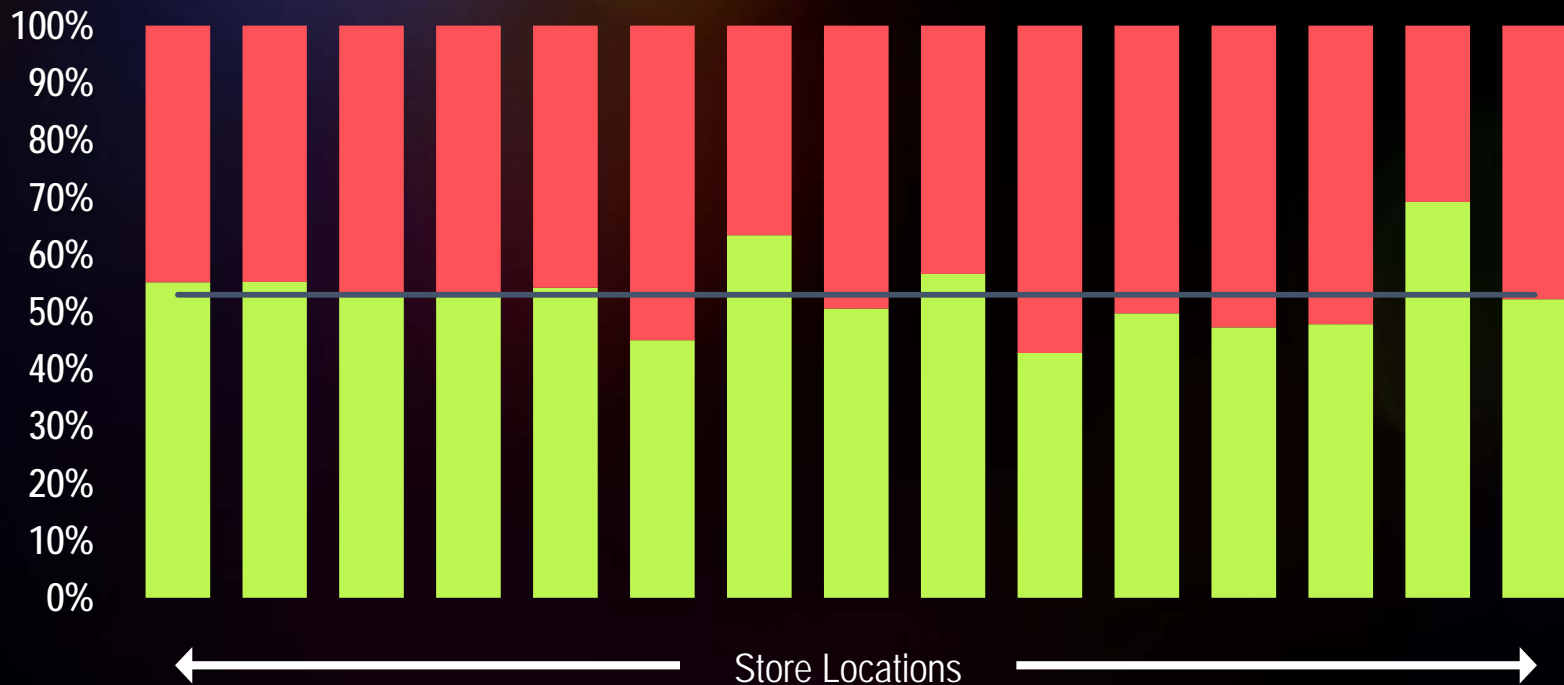


FOUR RETAILERS DOMINATE RESIDENTIAL LIGHTING



SHARE OF EFFICIENT LAMPS STOCKED BY STORE LOCATION

DIY Retailer 1



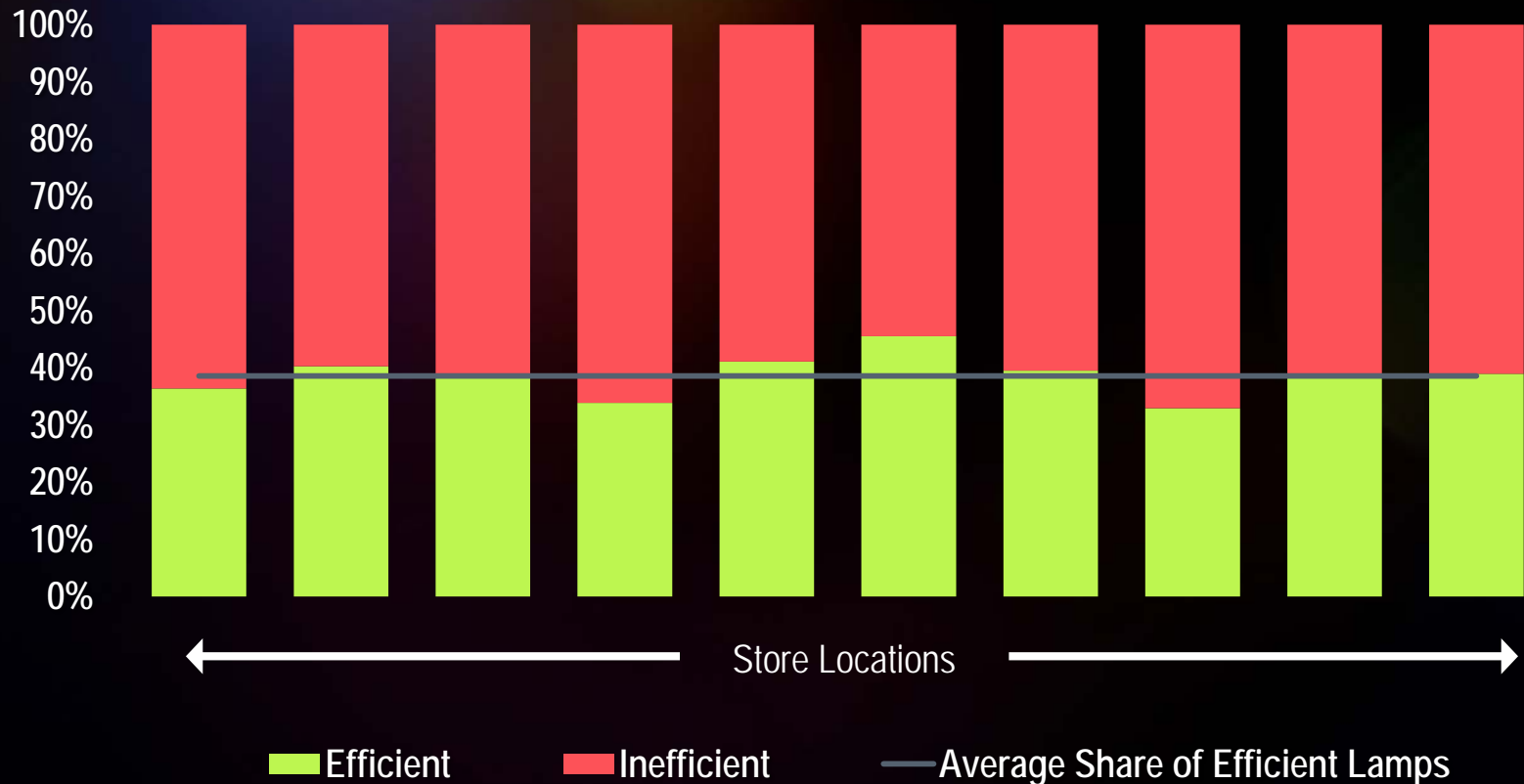
Efficient

Inefficient

Average Share of Efficient Lamps

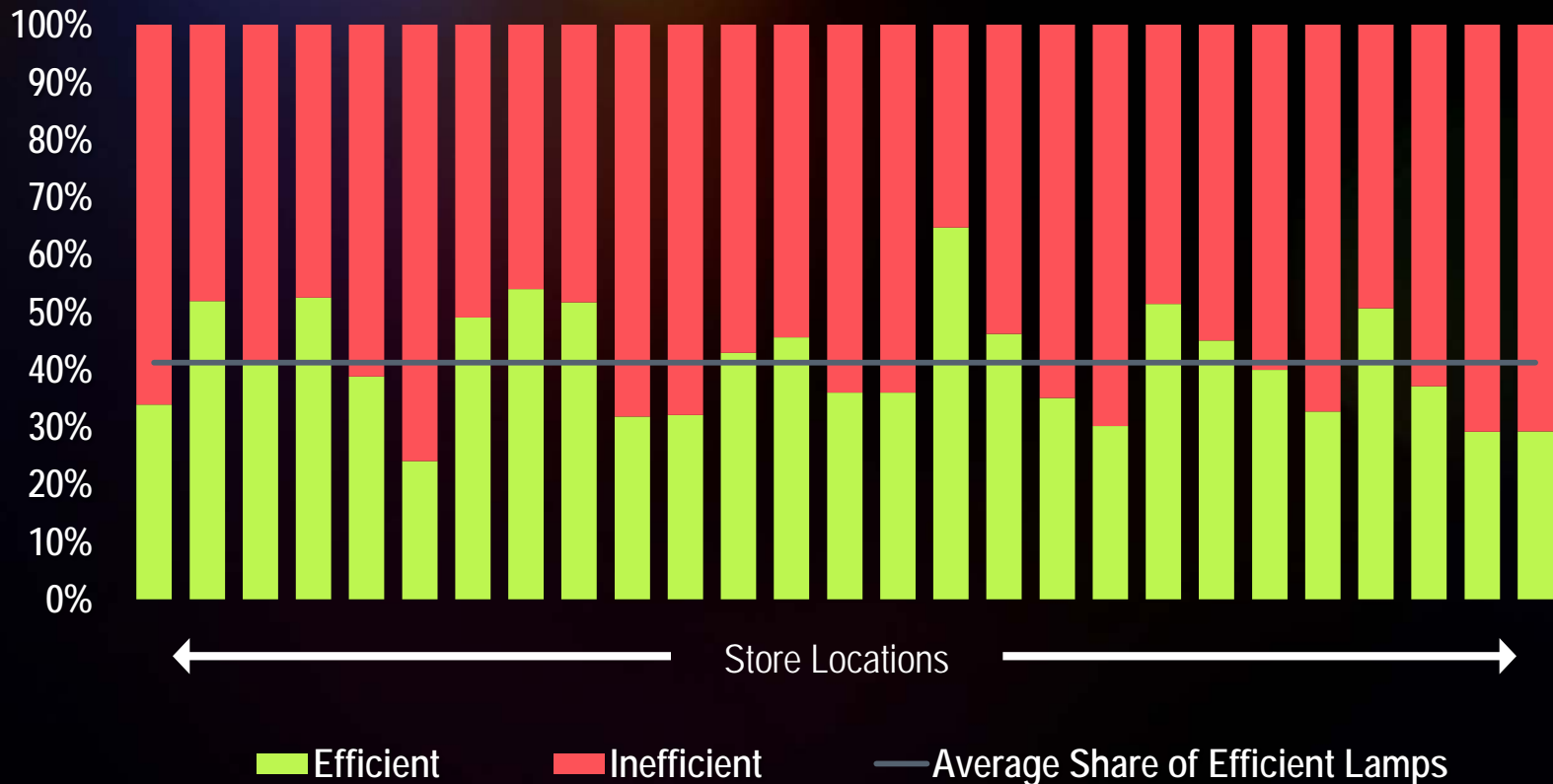
SHARE OF EFFICIENT LAMPS STOCKED BY STORE LOCATION

DIY Retailer 2



SHARE OF EFFICIENT LAMPS STOCKED BY STORE LOCATION

Mass Merchandise Retailer 1





What's going on with

ENERGY STAR 2.0?



Energy Saving &
Incandescent
Light Bulbs

Save
Live

A photograph of Britney Spears and Justin Timberlake. Britney is on the left, wearing a strapless, floor-length denim dress with a corset-style bodice, a wide beaded necklace, and a matching denim belt. Justin is on the right, wearing a denim suit (jacket and pants) over a denim hat, a denim shirt, and a chain necklace. They are standing in a dark setting, possibly a stage or a red carpet event.

Some manufacturers thought the original ES2.0 specification was

**TOO STRINGENT
AND OUT OF STEP**

with current consumer preferences and awareness



Other manufacturers

DISAGREED.



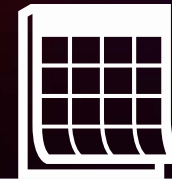
**They built their business model
on high-quality ENERGY STAR lamps.**

VERDICT: COMPROMISE

MORE LEDs WILL QUALIFY



Less stringent
dimmability testing



~~25,000 hours~~
15,000 hours



THE
SUPPLY
CHAIN
IS CHANGING.

Major Manufacturers



GE, Osram Sylvania, CREE, Philips

Contract
Manufacturers



MLS, San'an Opto

Small & Mid-sized
Manufacturers



MaxLite, TCP, Lighting Science Group

Traditional Retailers



Home Depot, Lowe's, Walmart, Costco
ACE Hardware, Fred Meyer

Online Retailers



1000bulbs.com, LampsPlus.com,
LightingDirect.com

THE PLAYERS

THEN.



NOW.



LESS OF THESE



10 years

22.8 years



**MORE
OF
THESE**


A19 Indoor
Interiores

 **9w**
60w Replacement
Reemplazo de 60 W


 **750**
Lumens
Lúmenes

4.6 years

Años de vida útil de la bombilla

 **\$28⁰⁵**
Lifetime Savings
Ahorro de por vida

WHAT'S THE IMPACT?

Type of LED	 Efficient	 Dimmable	 Longer Lifetime
ENERGY STAR	YES	YES	YES
NON-ENERGY STAR	YES	NO	NO



RETAILERS ARE PHASING OUT CFLs

With cheaper, more popular LEDs,
why sell CFLs?

**OK,
WHAT'S NEXT?**





EISA 2020

**In February, DOE issued a
notice of proposed rulemaking
for general service lamps**

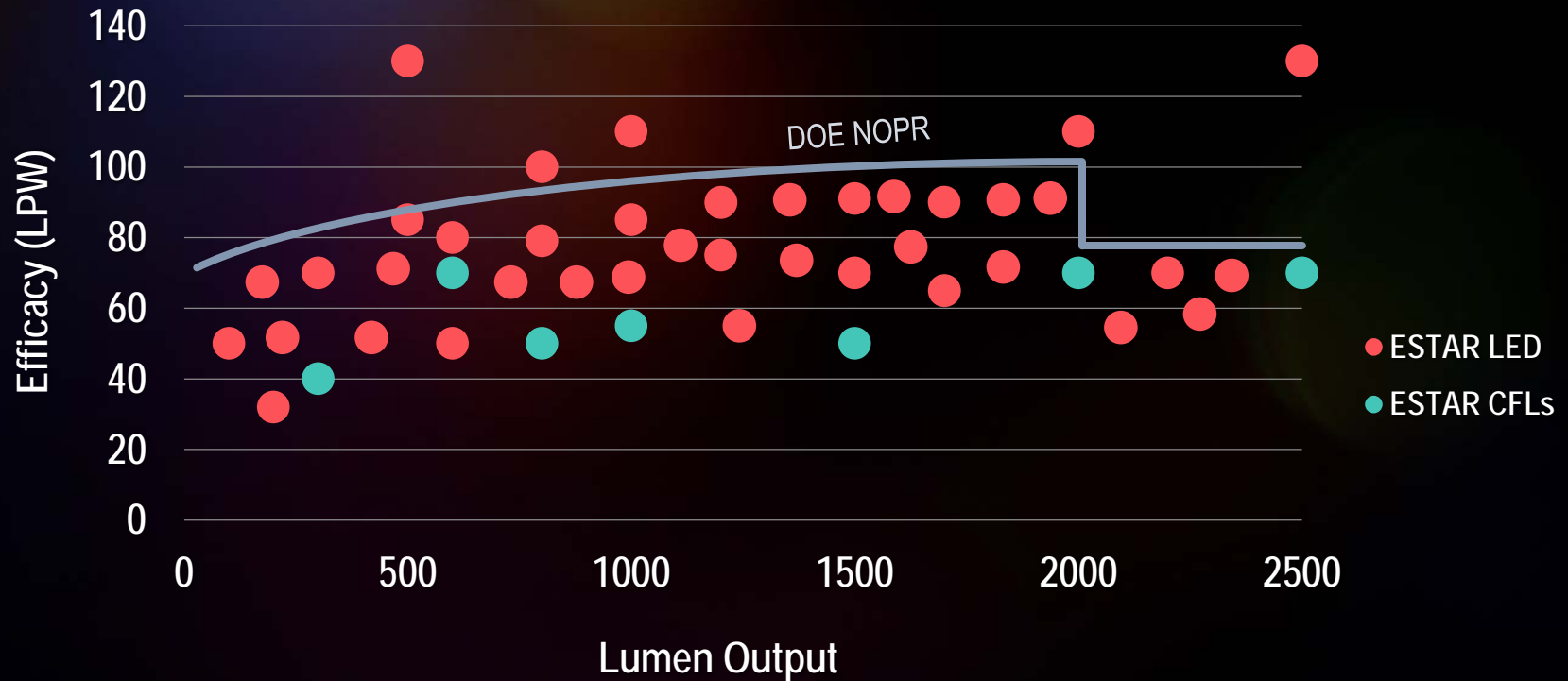


Proposes a minimum efficacy
of 70 lumens/watt, which

ONLY SOME LEDs

can currently meet.

MOST ENERGY STAR LAMPS WON'T QUALIFY





HOWEVER....

Manufacturers still do not consider
EISA 2020 to be set in stone

U.S. job loss – four halogen plants



45 LUMEN/WATT BACKSTOP

Even if it does not pass as proposed,
EISA requirements will increase

WHAT HAPPENS NEXT?



DOE seeks
public comment



DOE issues
Final Rule



Covered lamps to
comply 3 years after
Final Rule issued



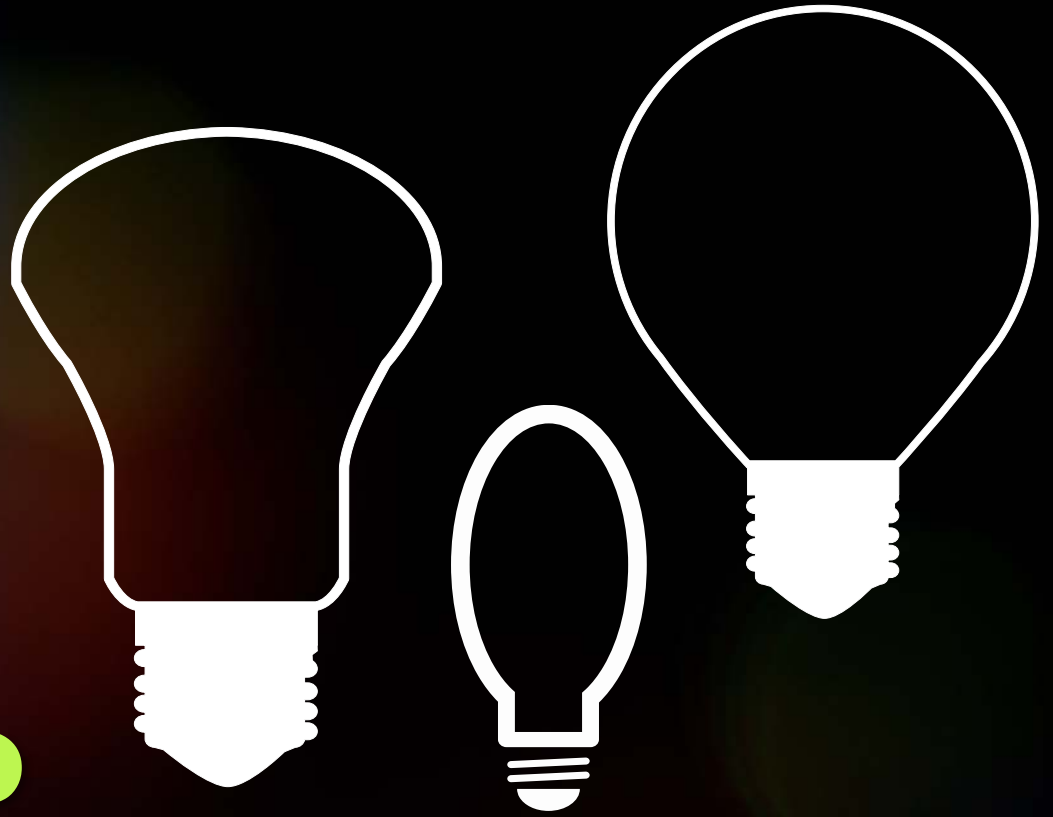
RECAP

Sales data help programs watch
a changing market.

RECAP

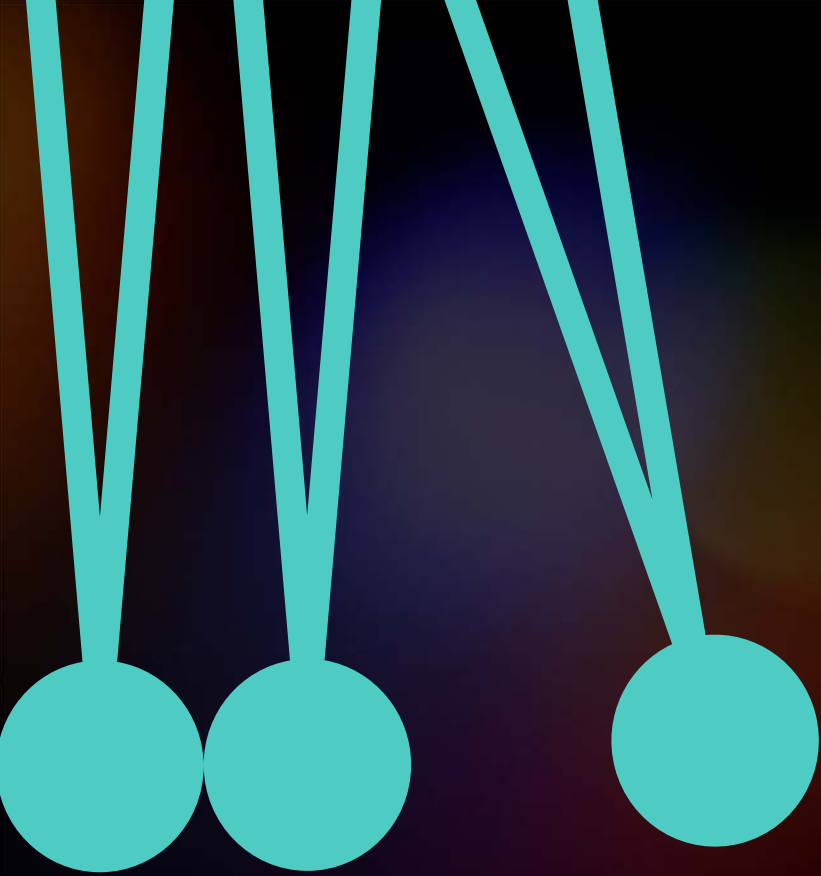
Halogens have assumed much of the
incandescent market share;
LEDs have done the same for CFL.





RECAP

Specialty lamps present
different opportunities



RECAP

Supply chain shifts have impacted market offerings and program dynamics

RECAP

EISA 2020 may
transform the market,
but uncertainty exists





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CONTACT INFO

The background features a collection of light bulbs of various shapes and sizes, including incandescent and LED types, arranged in a pattern. The bulbs are rendered in a dark, semi-transparent style against a green-to-yellow gradient background. The word "APPENDIX" is centered over the image in a bold, red, sans-serif font.

APPENDIX

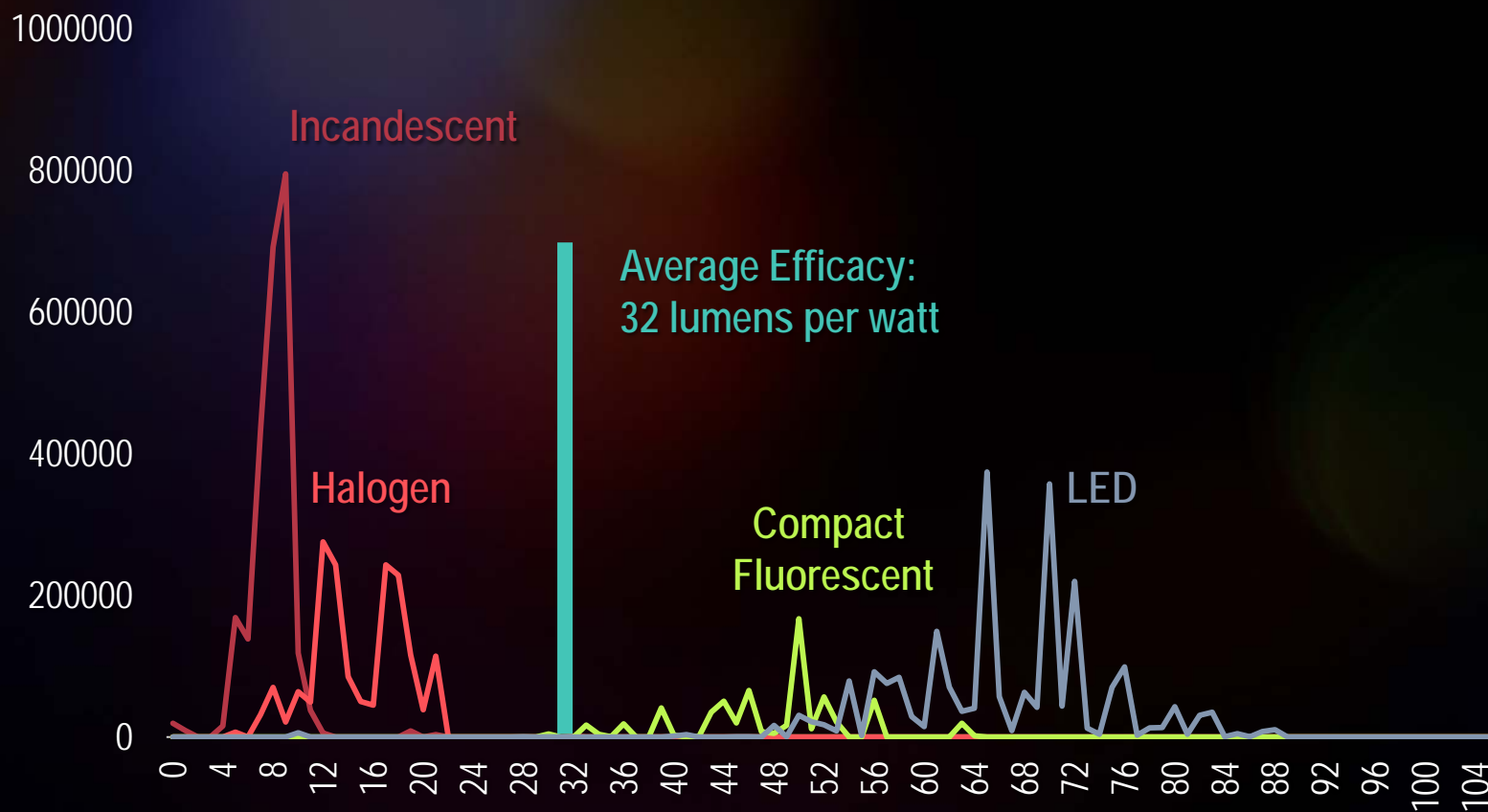
THANK YOU



neea



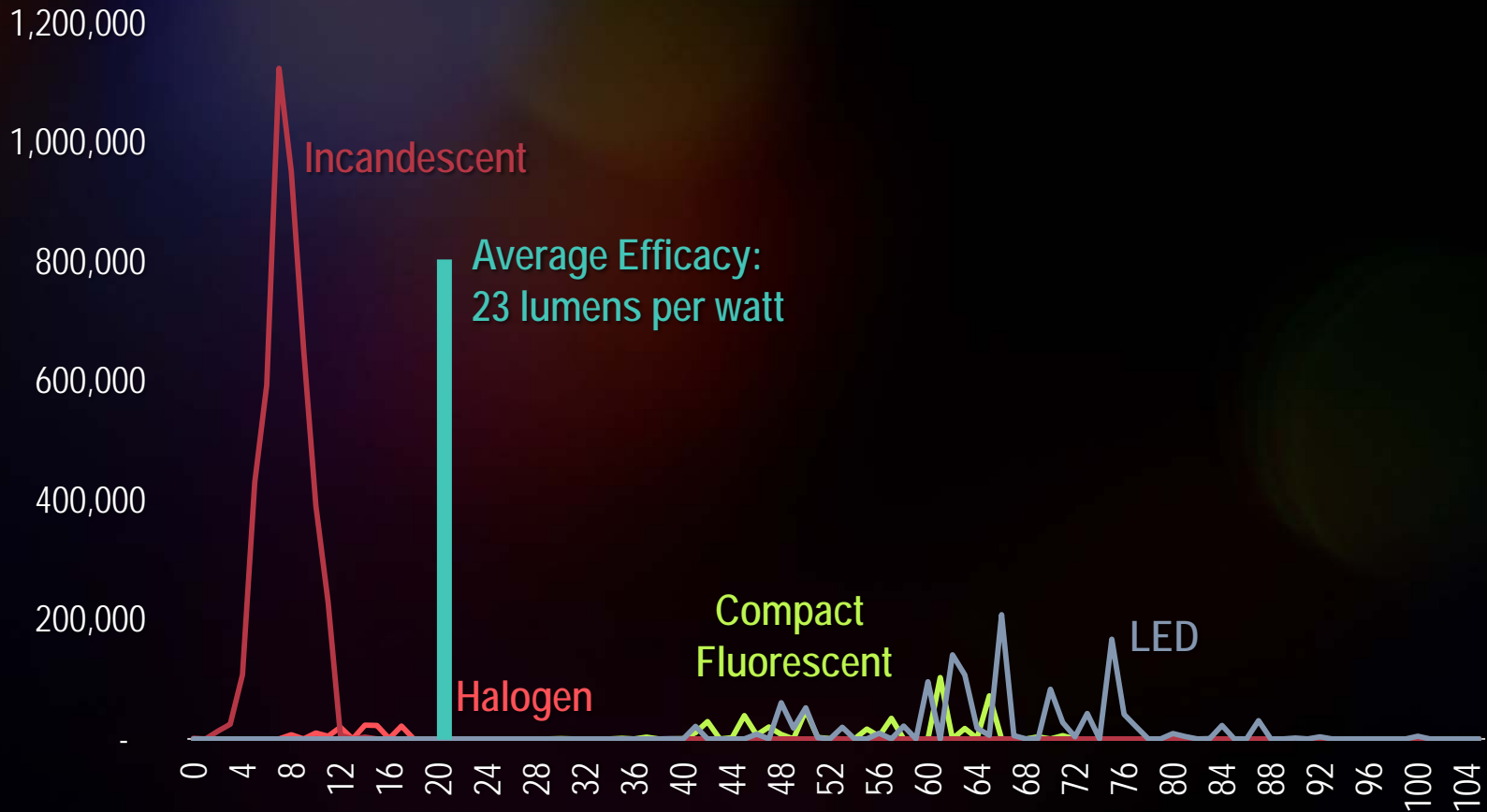
REFLECTORS (17%)



Source: Unit sales by technology and application. Analysis of NEEA shelf-stocking and Nielsen sales data; 2015



DECORATIVE AND MINI BASE (15%)



Source: Unit sales by technology and application. Analysis of NEEA shelf-stocking and Nielsen sales data; 2015

A row of colorful Victorian houses in San Francisco, including the 'Painted Ladies'. The houses are multi-story with ornate architectural details like bay windows and balconies. The colors are vibrant, including yellow, blue, and red. The sky is a clear, bright blue. The overall scene is a classic view of San Francisco's historic architecture.

What is the state of

RESIDENTIAL LIGHTING?

HOW BIG

is the regional market?



900 MILLION LAMPS

Estimated 2014 National Shipments

4.2 PERCENT

PNW as % of National Population

92 PERCENT

Retail Lamps Purchased by Residential Customers

34.4 MILLION LAMPS

Top down estimate of 2014 PNW residential lamp market

HOW BIG

is the regional market?



15.7 MILLION LAMPS

2014 Nielsen Sales Data for PNW

23.5 PERCENT

% of Total PNW Sales Captured by Nielsen

92 PERCENT

Retail Lamps Purchased by Residential Customers

61.3 MILLION LAMPS

Bottom-up Estimate of 2014 PNW residential lamp market



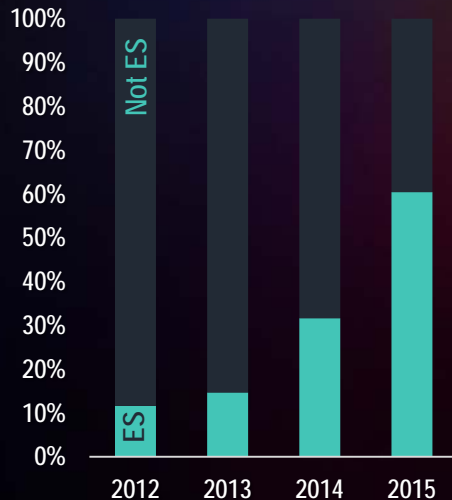
But what's on the

SHELVES?

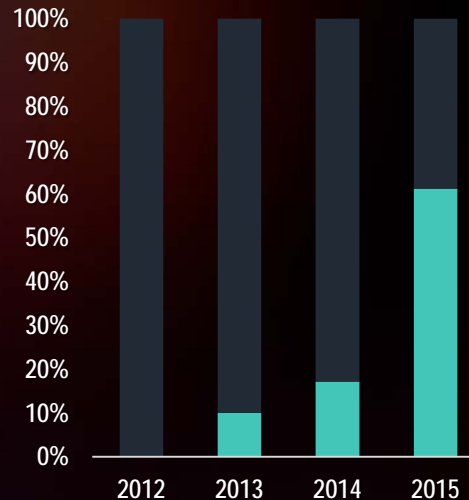
EFFICIENCY MIX

(ENERGY STAR v. NON-ENERGY STAR)

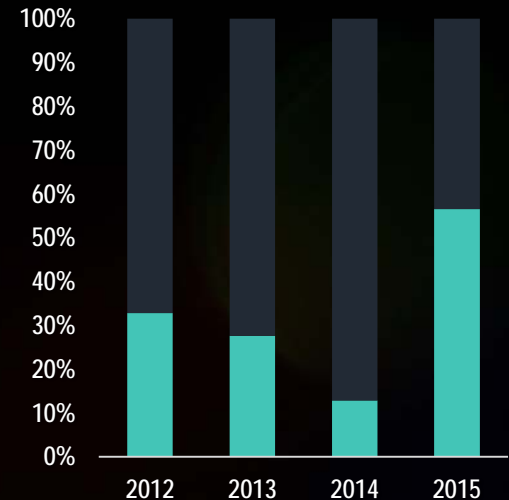
DIY Retailer 2



Mass Merchandise Retailer 1



DIY Retailer 1



% General Purpose ENERGY STAR LEDs