RESIDENTIAL LIGHTING MARKET STUDY
TRENDS, SAVINGS, AND OPPORTUNITIES

With data provided by neea

May 2017
LIGHTING IS ...

3rd Largest Residential End-Use

6% of Total Regional Consumption

1/4+ of Residential Program Savings
AND CHANGING QUICKLY

More abundant and cheaper LEDs
Federal regulations
New market actors and channels
Divestment in CFLs
WHY WE TRACK MARKETS

1. Calculate Momentum Savings
2. Characterize the Market
3. Craft the Method
4. Collect Data
HOW WE KEEP UP

- Literature Review
- Interviews
- Analysis
- Modeling
INTERVIEWS

ON THE PHONE
14 Lighting Showrooms
10 RNC Builders
3 Online Retailers

AT ENERGY STAR PARTNER MEETING
10+ Retailers and Manufacturers

AT LIGHTFAIR
20+ Lamp, Fixture, and Controls Manufacturers
ANALYSIS

NIELSEN SALES DATA
NEEA SHELF SURVEYS
ONLINE SALES DATA
We used the **CHAIN LOGIC METHOD**
to develop representative market averages.
MODELING

Every Lamp Sold
(66 million)

Every Socket
(300 million)

Every Home
(5.6 million)
MODELING

MARKET SAVINGS

ACTUAL CONSUMPTION
WHAT DID WE LEARN?
SPECIALTY LAMPS

- LED: 25% (2015), 7% (2011)
- CFL: 17% (2012), 5% (2011)
- Halogen: 12% (2015), 12% (2011)
LESS ANNUAL CONSUMPTION

2011 2015

50 34
38 27
16 22

WATTS
kWh/YEAR
LUMENS/WATT
MEANINGFUL DIFFERENCE

$52 Annual Savings per Customer
THE AVERAGE LAMP ALSO LASTS **TWICE** AS LONG

- 4.4 Years (2011)
- 8.3 Years (2015)
LONGER LIFE = FEWER SALES

(Millions of homes)

(Millions of lamp sales)

LAMPS

HOMES

2009 2017
TOTAL MARKET SAVINGS
Total residential lighting energy consumption has fallen by over a third.
THAT’S THE EQUIVALENT OF...

330,000 HOMES

EVERY DRYER IN THE NW

THE HUNGRY HORSE DAM
PROGRAM ACTIVITY

Million lamps

2010: 15.3
2011: 18.2
2012: 13.8
2013: 14
2014: 18.2
2015: 16
ONLINE RETAILERS
Rapid Growth

Online sales make up ~4% to 10% of the total residential lighting market.

30+ dedicated lighting retailers serving all sectors with more expected.
SELL FEWER ENERGY STAR LAMPS

MASS MERCHANDISE  DIY  SMALL HARDWARE  ONLINE
OPPORTUNITIES TO REACH RURAL CUSTOMERS
LIGHTING SHOWROOMS
LIGHTING SHOWROOMS
SERVE BOTH SECTORS

RESIDENTIAL

NON-RESIDENTIAL
FIXTURES AND SPECIALTY LAMPS
NEW CONSTRUCTION
HOW DO BUILDERS CHOOSE THEIR LIGHTING?

- COST
- CODE
- AESTHETICS
- SUSTAINABILITY PRACTICES
WHO DETERMINES SPECS?
WHAT'S NEXT?
EISA 2020...MAYBE

45 LUMENS PER WATT
EXPANDED SCOPE

96% NOW COVERED

4% STILL EXEMPT

4% 8% 13% 71%

3-way lamps
Candlebra, Globe, and other niche base types
Reflector Lamps

Rough service, vibration service, and shatter resistant
KEY TAKEAWAYS
Consumers are buying MORE EFFICIENT LAMPS.
Total residential lighting energy consumption has fallen by more than a third.
EISA 2020, if it stands, will drive even greater efficiency gains.
The lighting model we developed is a resource for the region.
BETTER DATA = BETTER MODELS.

Update model with...

- NEEA’s 2016-17 RBSA
- NEEA’s ongoing retail shelf-stocking
- Market share reflecting emerging channels
COMMENTS OR QUESTIONS?

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