



THE
CADMUS
GROUP, INC.

Energy Independence and Security Act of 2007 (EISA) Impact on CFL Programs

July 21, 2010

EISA Requirements

- Does not “ban the incandescent”
- Requires about 30% more efficiency (lumens/watt)
- Phase-in beginning 2012
- Exemptions, some not so clear
 - Less than 40 watts
 - Appliance lamps
 - 3-way, colored lamps
- In 2020 efficiency must match CFLs

EISA Requirements

Lumen Output	Typical Wattage: Current Incandescent Technology	EISA Requirements		
		Maximum Wattage	Minimum Lifetime (hours)	Effective Date
1490–2600	100	72	1,000	1/1/2012
1050–1489	75	53	1,000	1/1/2013
750–1049	60	43	1,000	1/1/2014
310–749	40	29	1,000	1/1/2014

Key Questions to Answer

- When will phase-in actually happen?
 - Natural failures and stockpiling effects
- Will there be a market ready intermediate technology?
 - Impacts on delta watts
 - Impacts on incremental cost

When Will Phase-In Actually Occur?

- Anecdotal evidence of stockpiling in other countries
 - Since September 1, 2009 Europe banned incandescents
 - Australia has also banned incandescents

When Will Phase-In Actually Occur?

- Maybe not as much as this woman
- “A pensioner has defied an EU ban by hoarding more than 1,000 traditional light bulbs - enough to see her 'into the grave'.”



When Will Phase-In Actually Occur?

- Sales of all bulbs may decline during phase-in of EISA
 - Incorporate into any program goals

Market Readiness for Intermediate Technology?

- Halogens and advanced incandescents
- Some are already on the market
 - Philips Halogena
- Some manufacturers are actively working on improving technologies

Market Readiness for Intermediate Technology?

- Ikea phases out incandescents but promotes halogens

“IKEA Halogen lamps which consume 30% less energy are also a great ‘white light’ alternative. And beginning fall,2010, IKEA will offer a halogen bulb which can be used in a standard light socket. This is called a retro-fit halogen bulb”

Market Readiness for Intermediate Technology?

- Big question: What will they cost?
 - Currently cost \$4-\$8/bulb, price will likely drop but by how much?



Philips 70W T60 White Halogen® Energy Saver, Dimmable 2PK

Model # 209692 Internet # 100633695
Store SKU # 904783 Store SO SKU # 904783

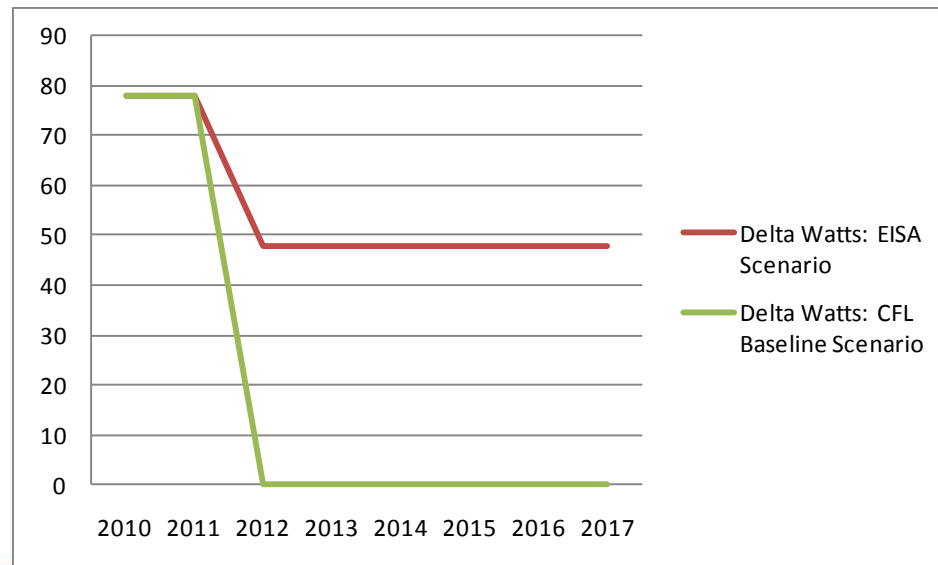
\$8.97/EA-Each

Impact of EISA on Programs: 2010-2011

- Currently no impact on first year savings or initial incremental
 - But should be incorporated into lifetime savings and costs
 - “Step function” to decrement the delta watts
 - If incremental costs includes CFL replacements also needs to be factored in

Impact of EISA on Programs: 2010-2011

- Example of Delta Watts
 - 100w bulb with 22w CFL replacement
- CFLs still likely cost-effective



Impact of EISA on Programs: 2010-2011

- Don't expect EISA to impact NTG
- Ongoing impacts on NTG from other factors
 - Retailer initiatives, recession, etc.
- Can minimize free ridership by emphasizing specialty bulbs

Impact of EISA Programs: 2012-2019

- Need to determine new baseline
 - EISA or CFL baseline?

Impact of EISA Programs: 2012-2019

- EISA Scenario
 - Still potential savings from CFLs
 - Could be less expensive than alternative (or less of price differential)
 - Price discounts would not be the barrier
 - Potentially very ***high free ridership***
 - Programs would need to focus on education & outreach
 - Maybe direct install

Impact of EISA Programs: 2012-2019

- CFL Scenario
 - Maybe LEDs?
- Transformed market?

Other Factor to Consider for 2010-2019 Lighting Programs

- Hours of use will drop substantially as CFL saturation goes up

