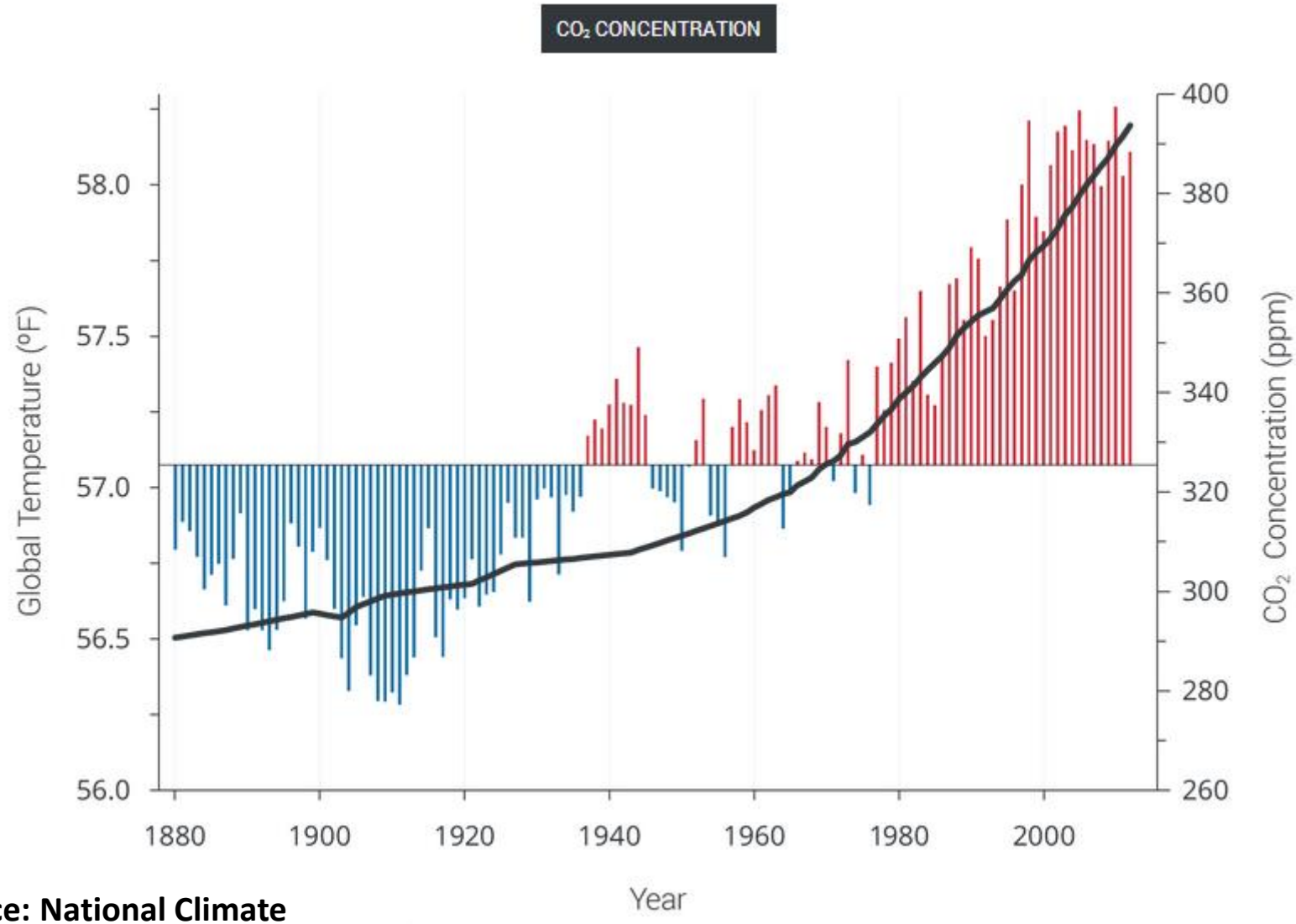
Solid-State Lighting Manufacturing R&D Workshop

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Mike Carr, Senior Advisor and EERE Principal Deputy Assistant Secretary

Global Temperature and Carbon Dioxide



Source: National Climate Assessment Report, 2014

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Climate Action Plan

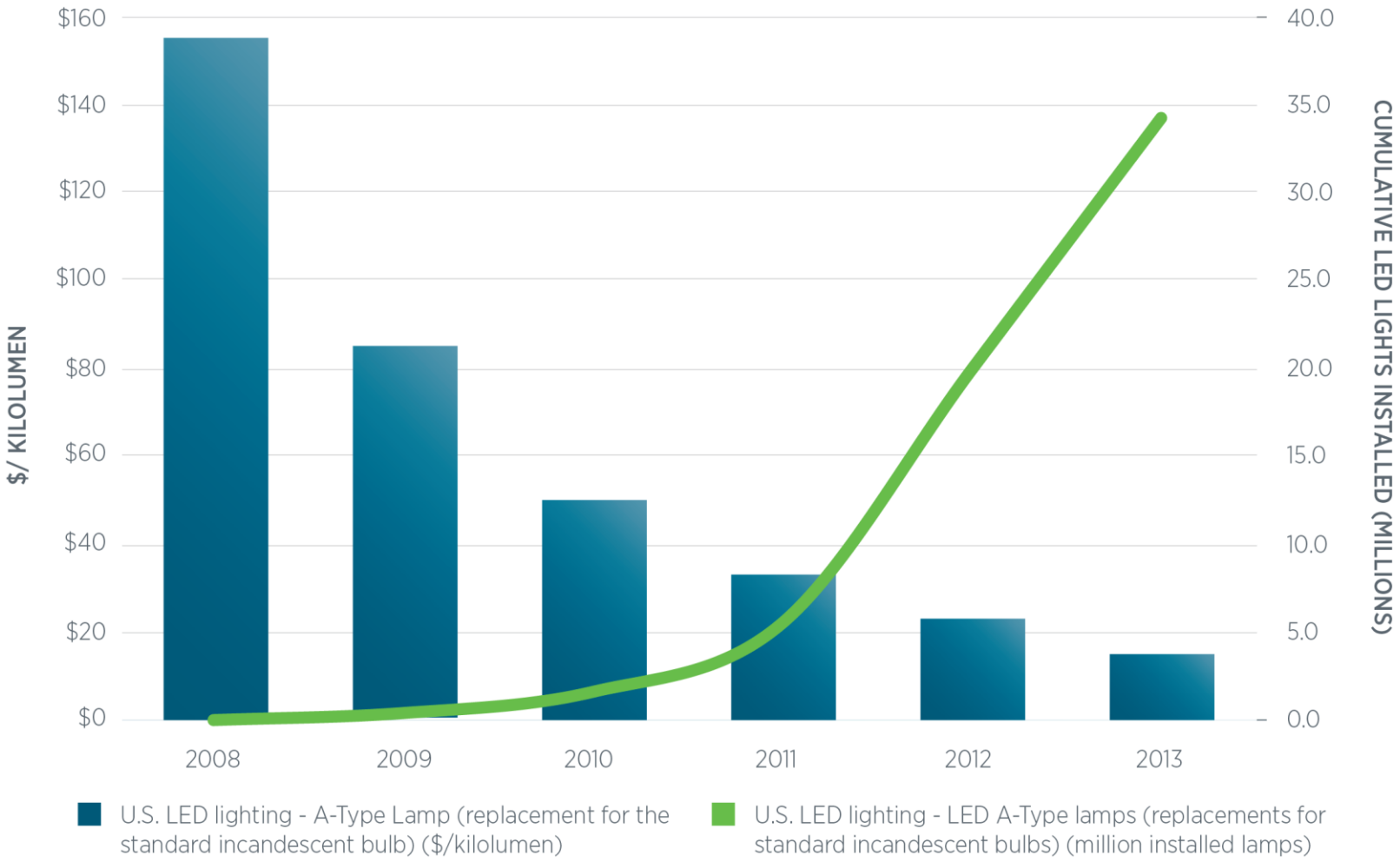
"We will respond to the threat of climate change knowing that the failure to do so would betray our children and future generations."

- President Obama, Second Inaugural Address, January 2013

The Climate Action Plan has three pillars:

1) Mitigation: Cut Carbon Pollution in America
2) Adaptation: Prepare the U.S. for the Impacts of Climate Change
3) International Cooperation: Lead International Efforts to Address Global Climate Change

U.S. Deployment and Cost for A-Type LED Lights 2008–2013



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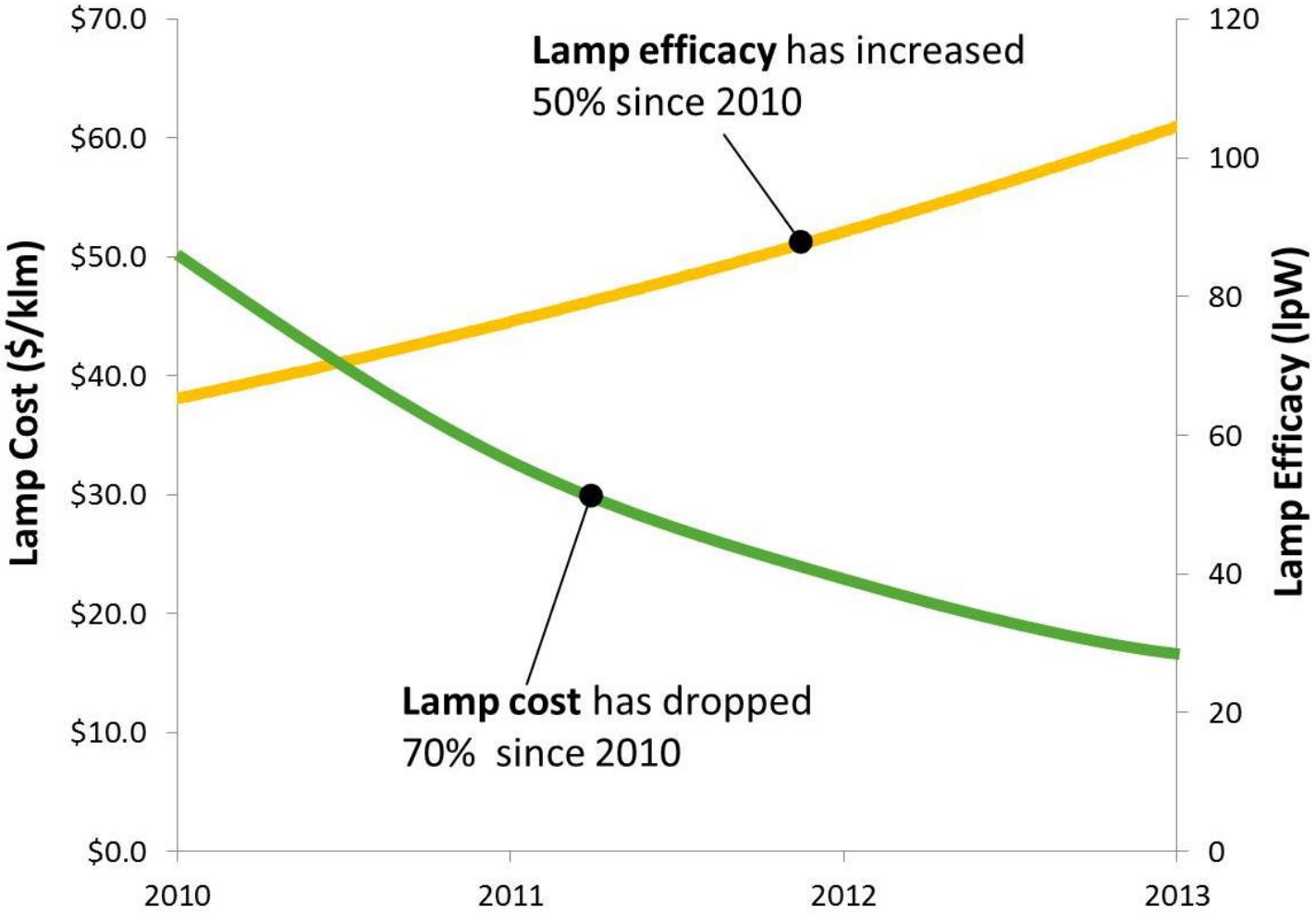
LED 60W Lamp Cost and Efficacy Trends

Similar trend lines emerging for other applications



Source: Navigant Consulting

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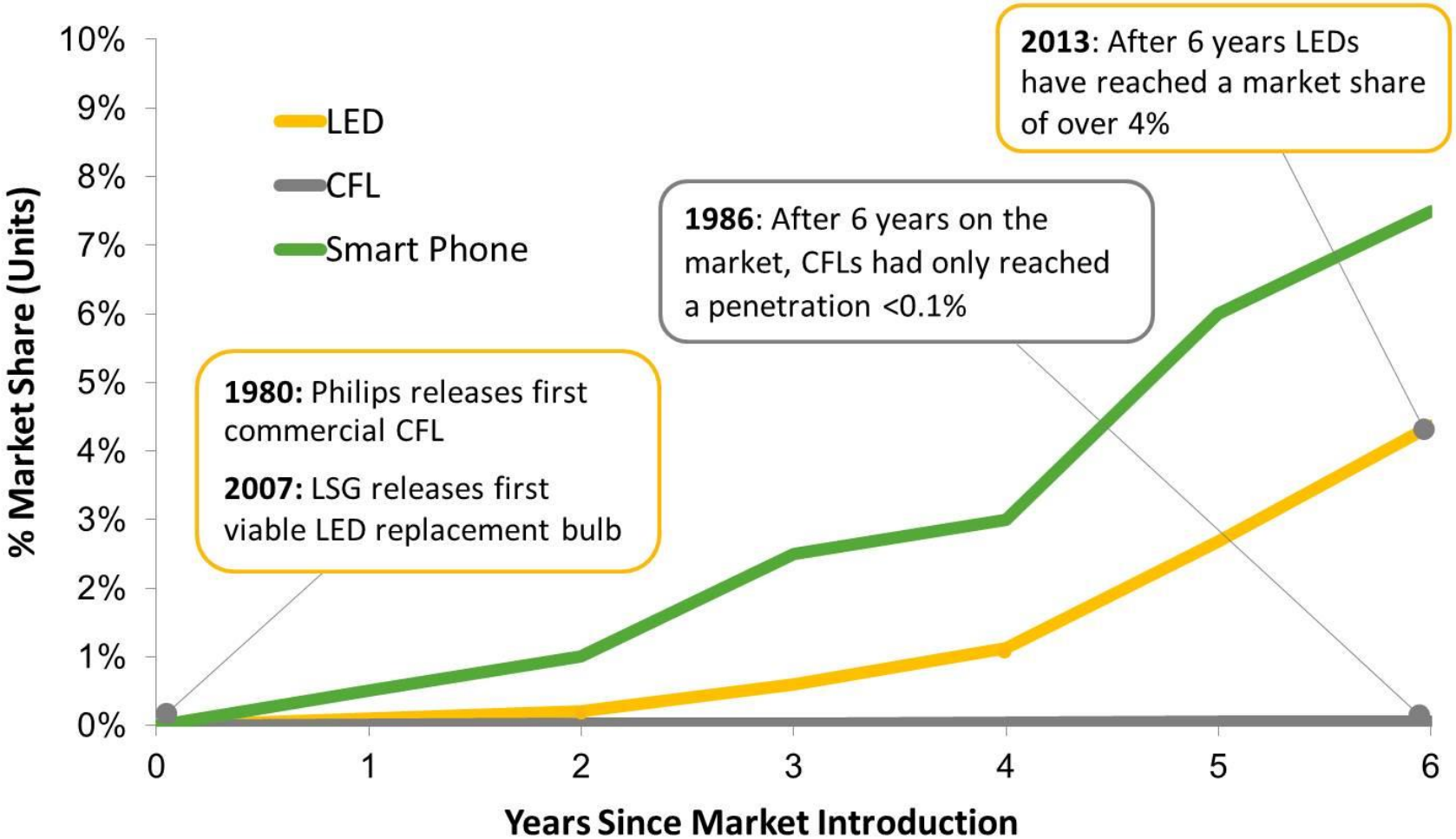
LEDs Tracking Ahead of CFLs

Market growth not mimicking that of the typical household product



Source: Navigant Consulting

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Rapid Progress

2003

Traffic signals, key chains

2015

LED products for just about every application

DOE Results-Oriented SSL R&D

200+ projects funded since 2003

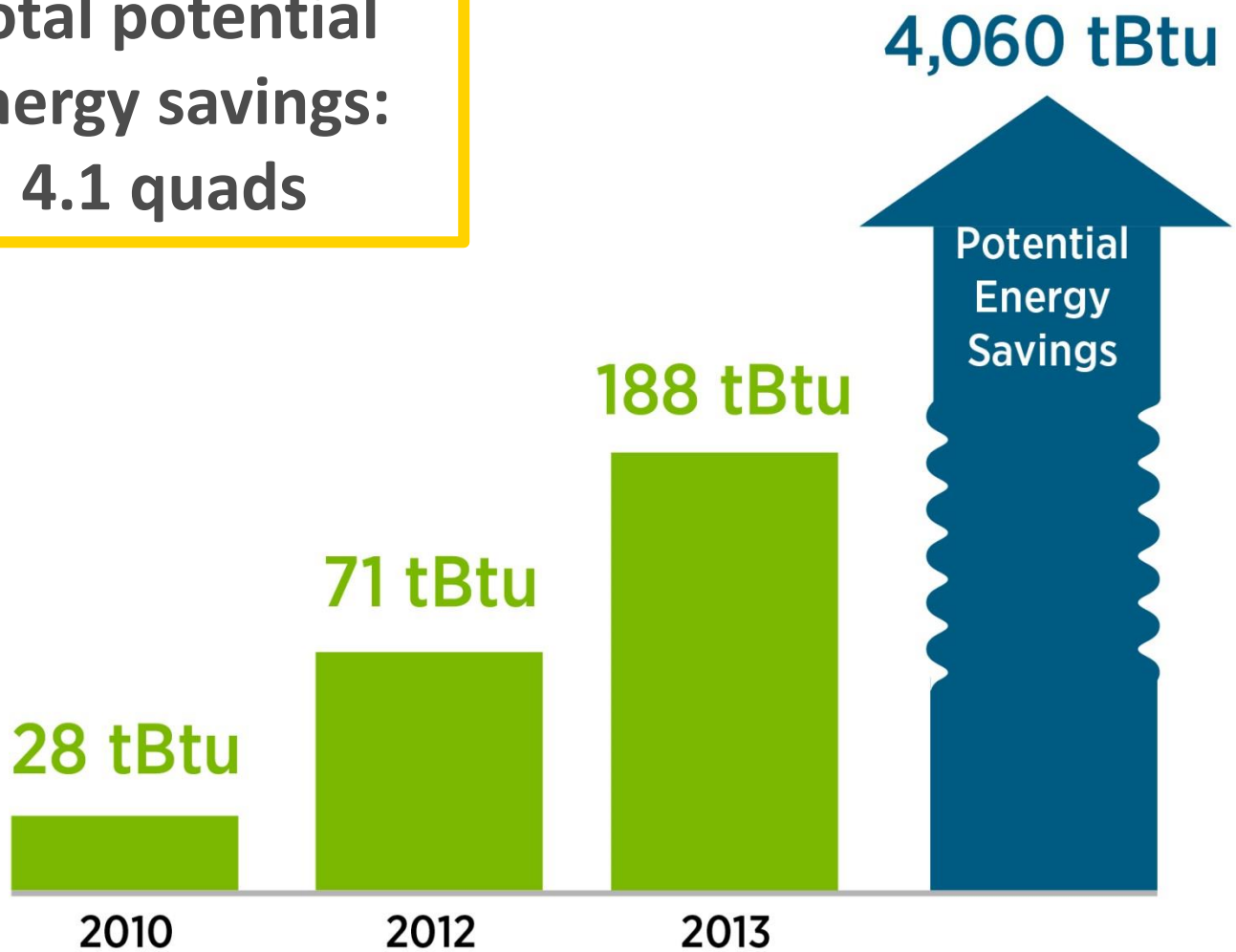
Broad mix of partners

More than 245 patents

Huge industry footprint

SSL Saving Energy Today

Total potential energy savings: 4.1 quads



Source: Navigant Consulting

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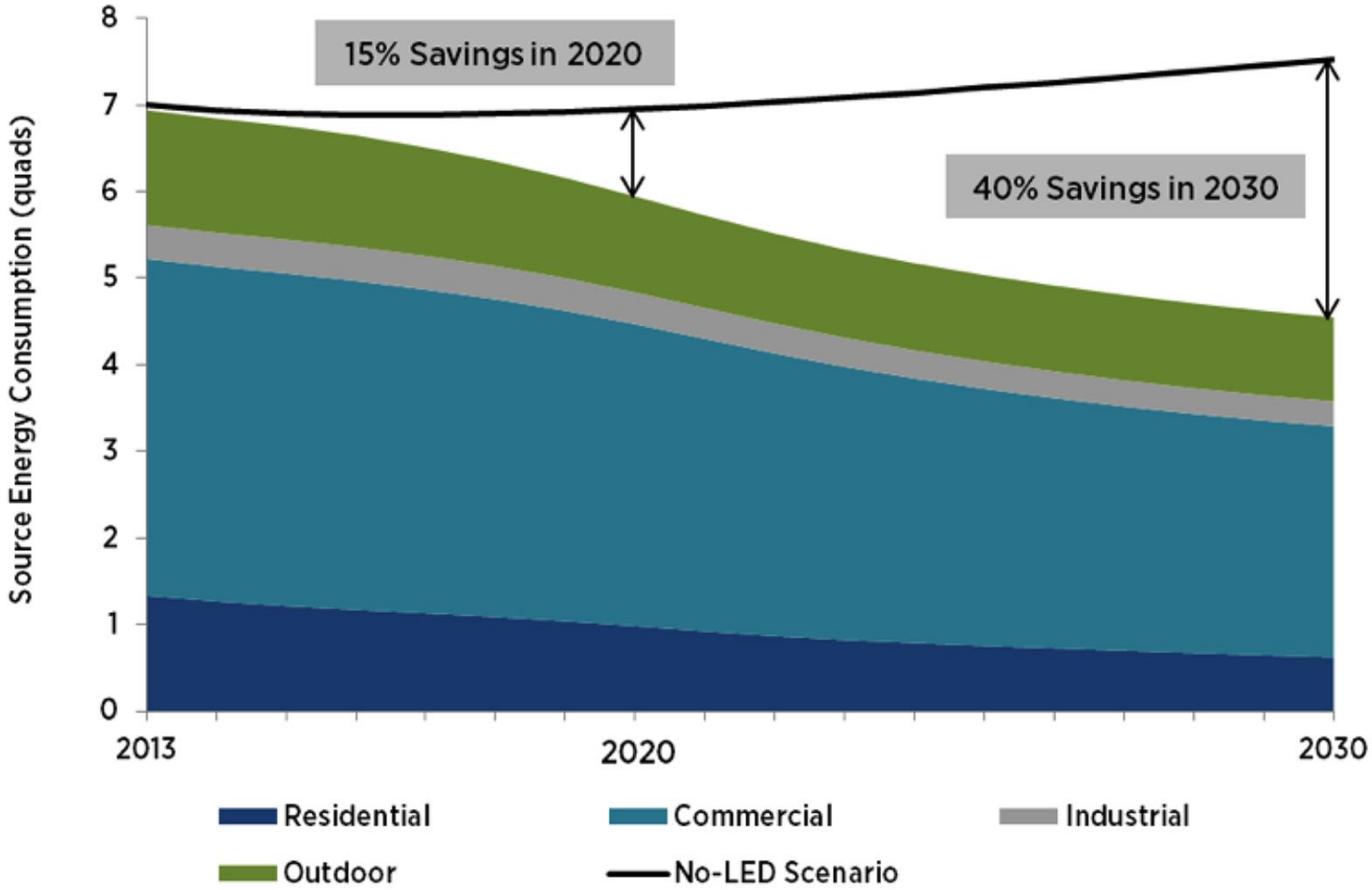
Energy Savings Forecast for SSL



Source: Navigant Consulting

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Super Bowl XLIX

Image from insidedigital.org

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THANK YOU