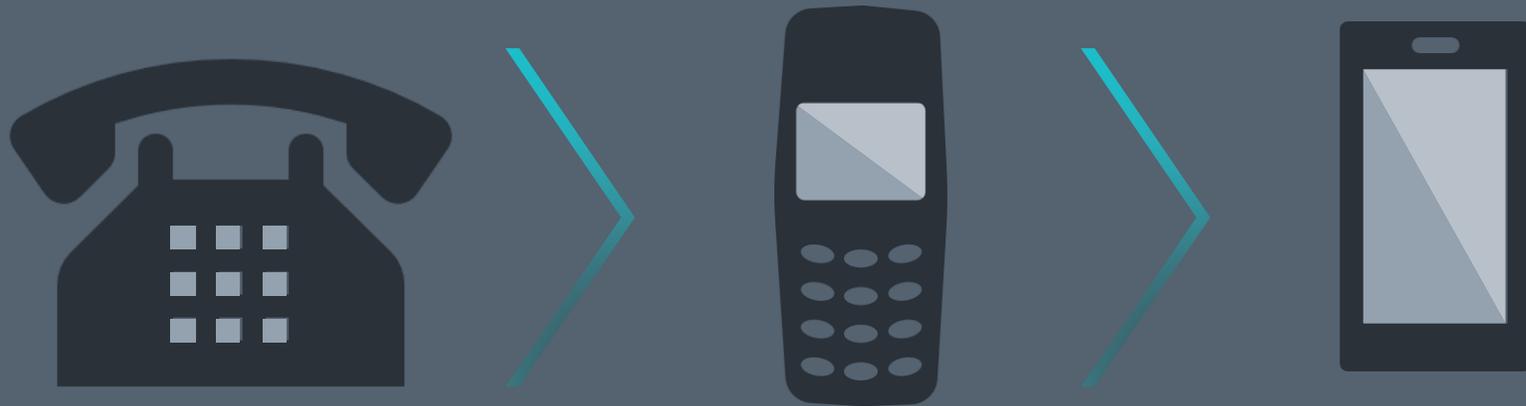
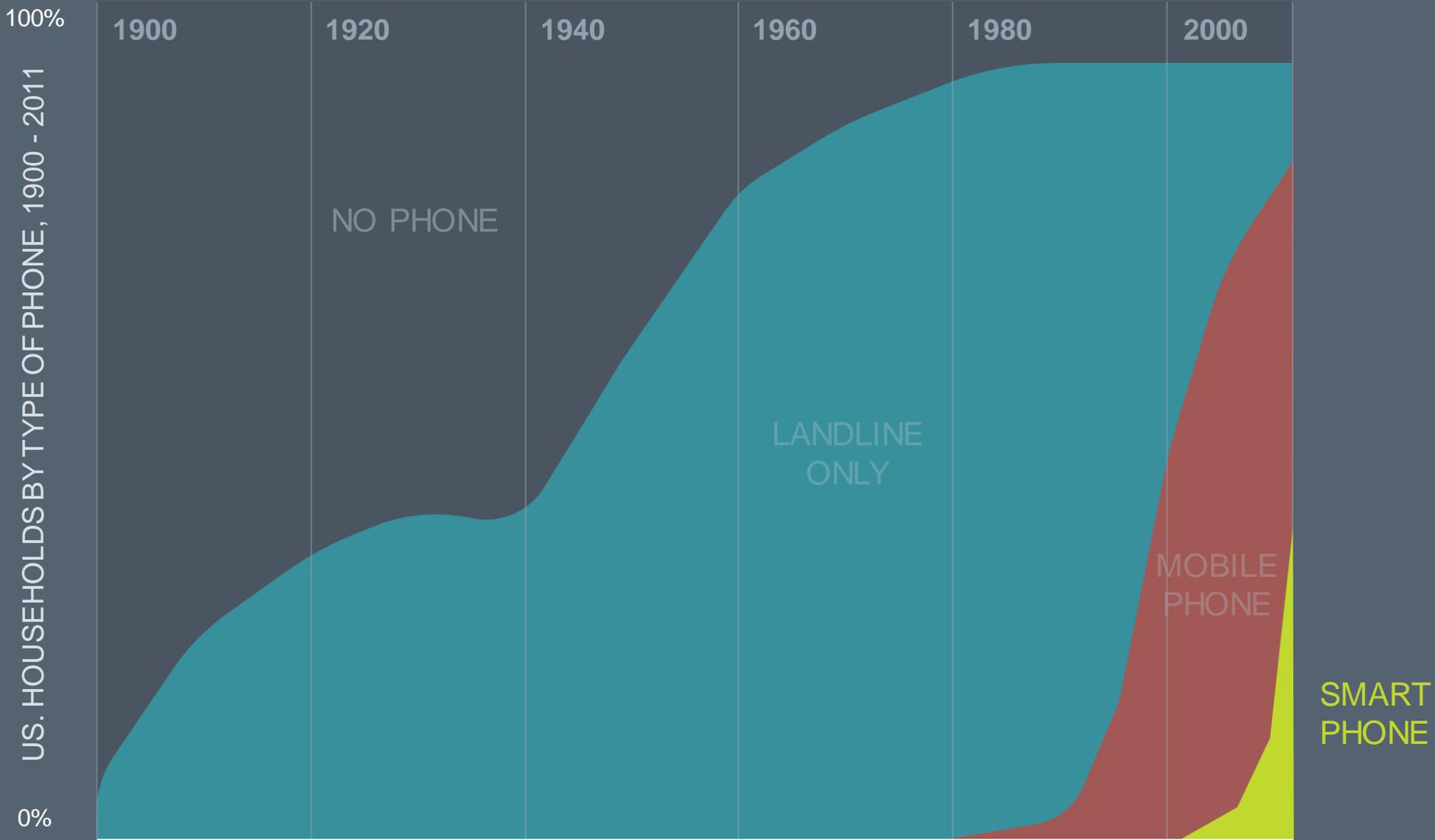


NORTHWEST NONRESIDENTIAL LIGHTING MARKET TRENDS

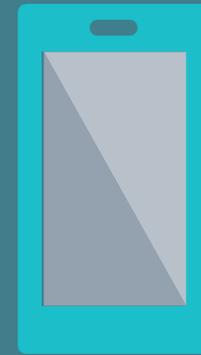
We'll get to lighting, but let's talk about **smartphones** first.



Smartphones have experienced a boom



The transition from mobile to smart phones introduced **new functionality**



In lighting, the **smartphone** era
is just beginning.



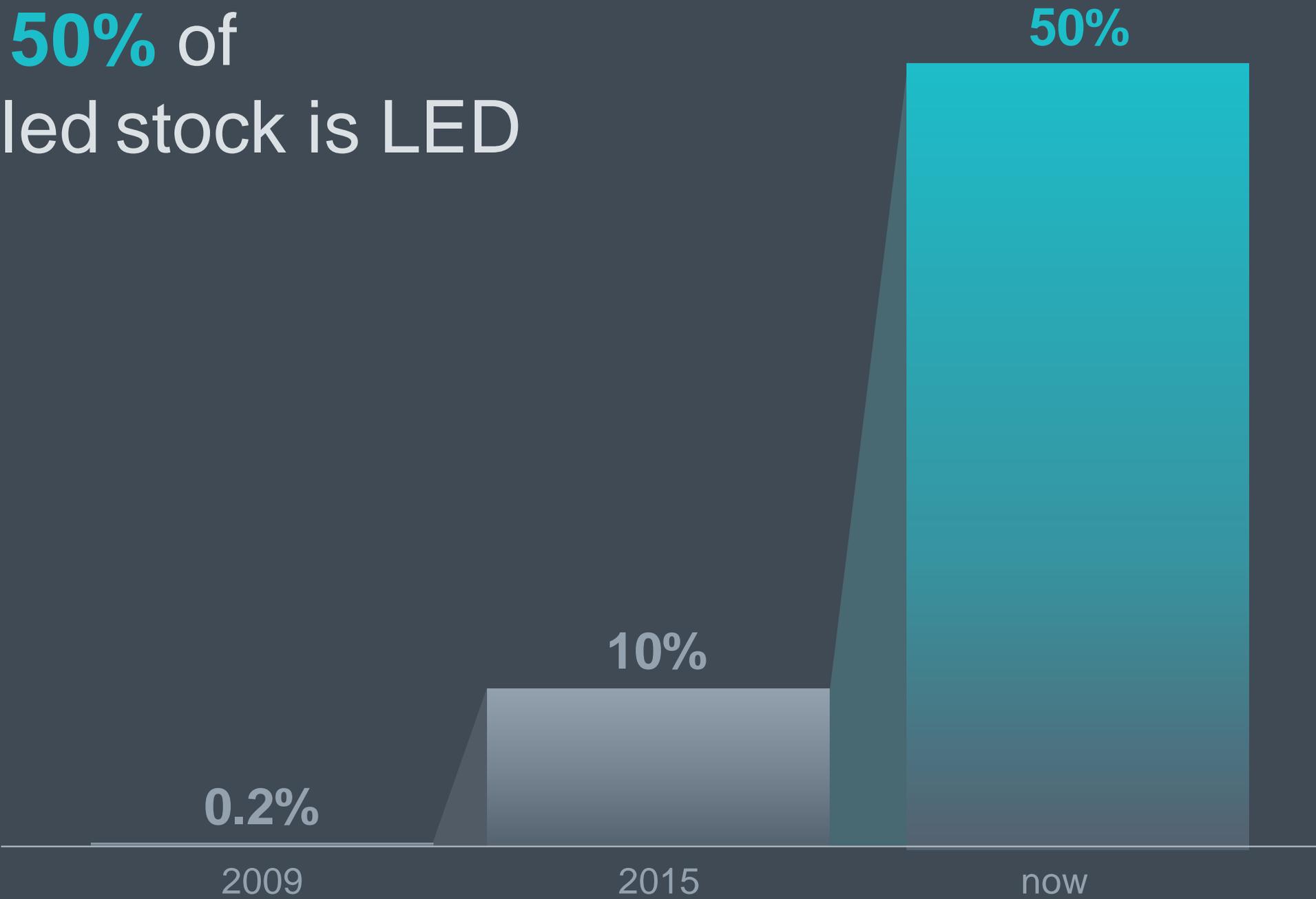
Adoption of LEDs facilitates addition of **controls**, introducing new functionality and savings



LED penetration increased by **over 45X** between 2009 and 2015 (installed stock)



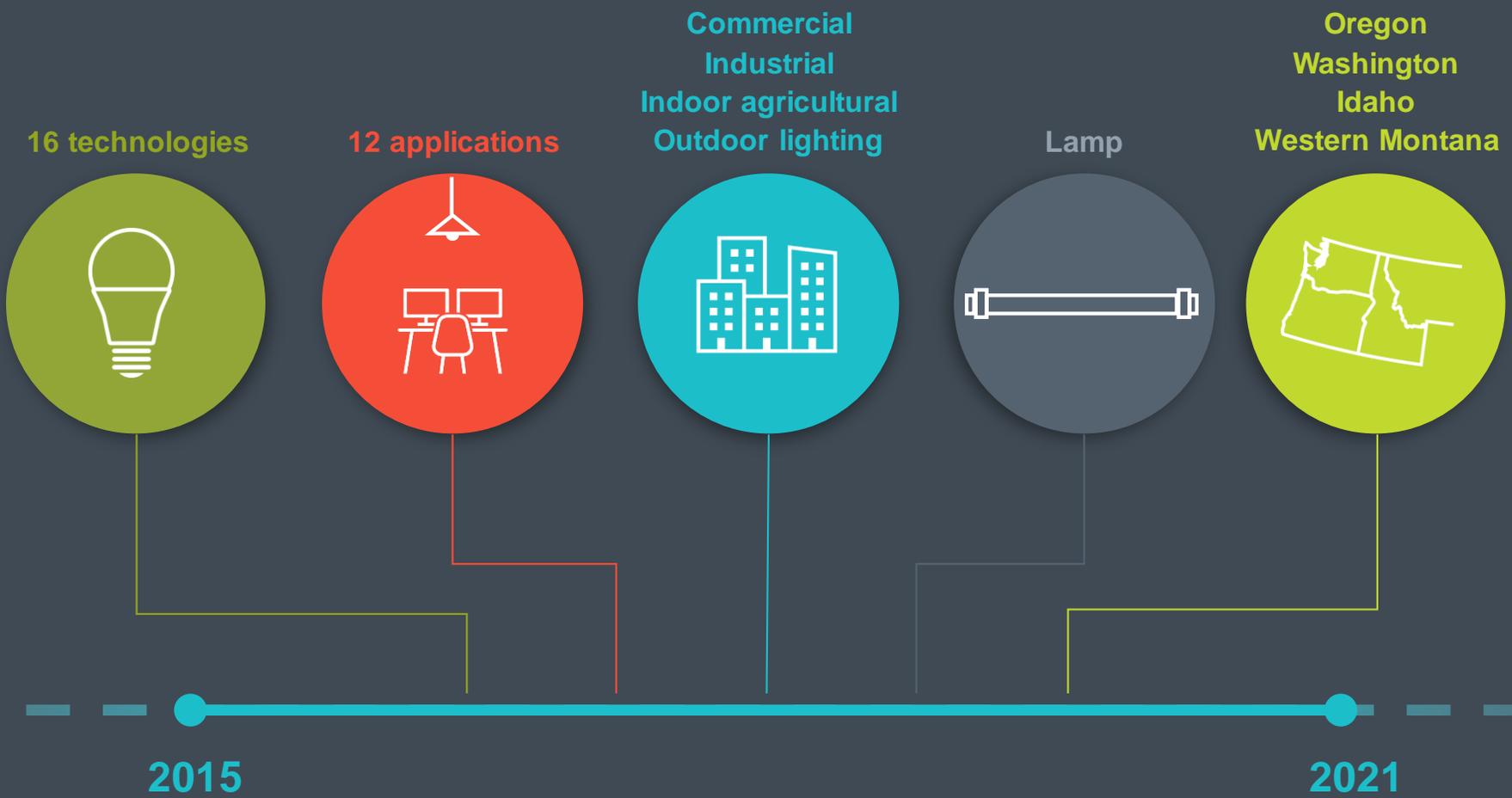
Now, **50%** of installed stock is LED

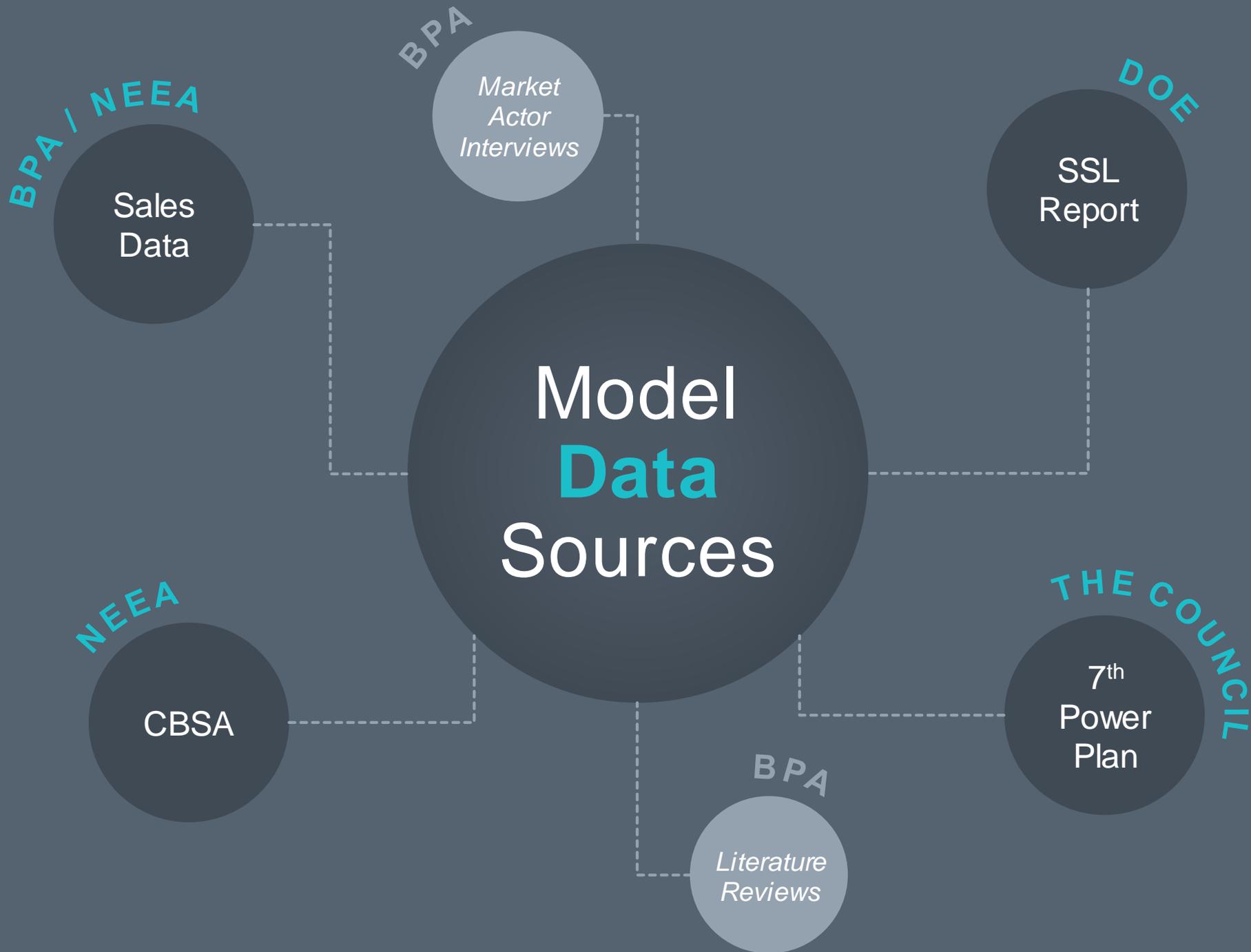


HOW DO
WE KNOW
ALL THIS?



What do we mean by the **Nonresidential Lighting** market?

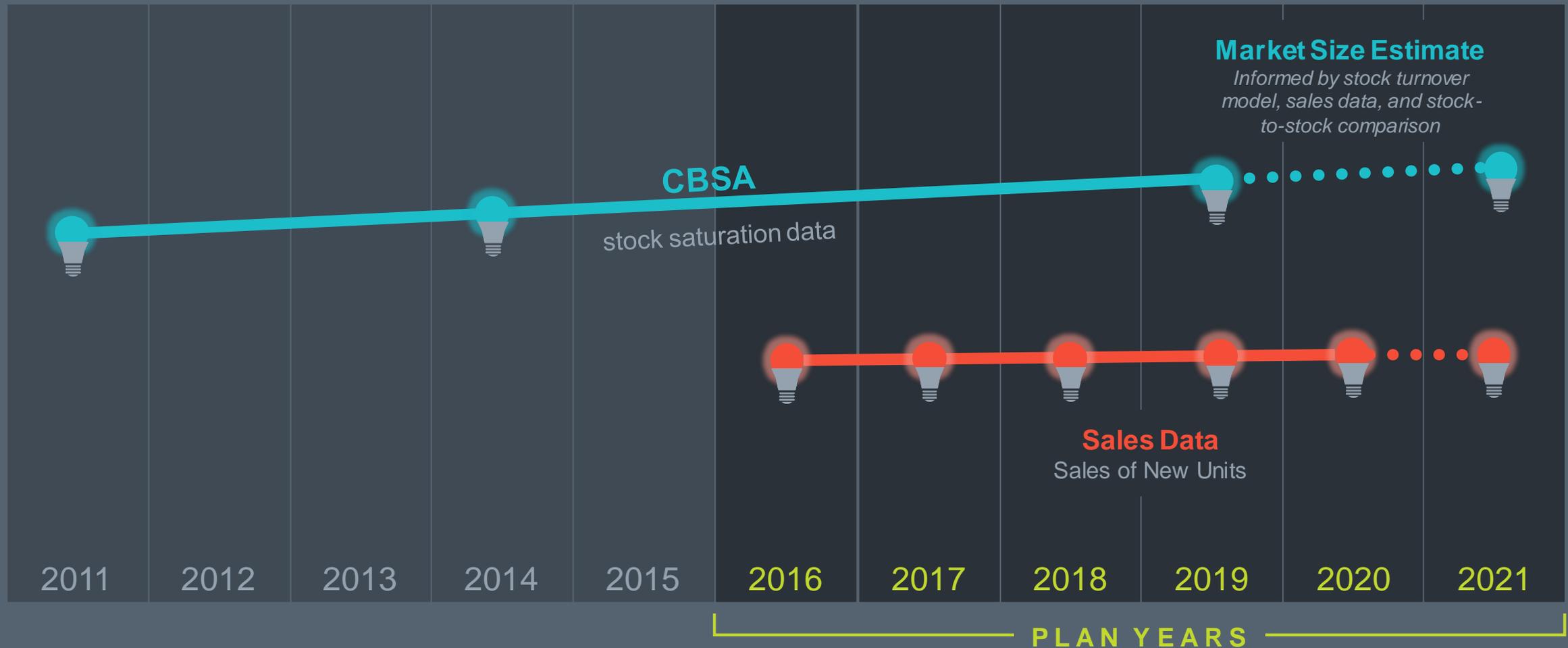




Innovative data sources improved the model.



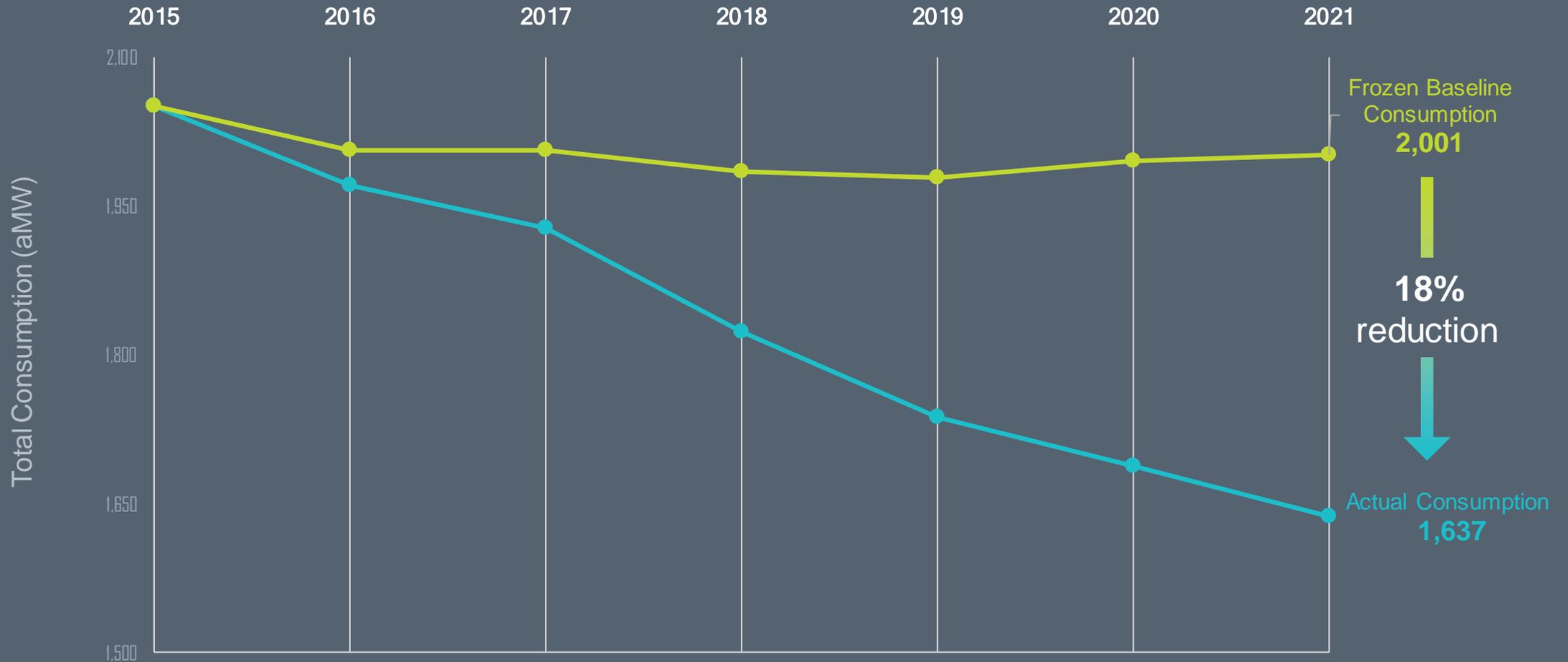
We used that regional data to build a **stock turnover model**.



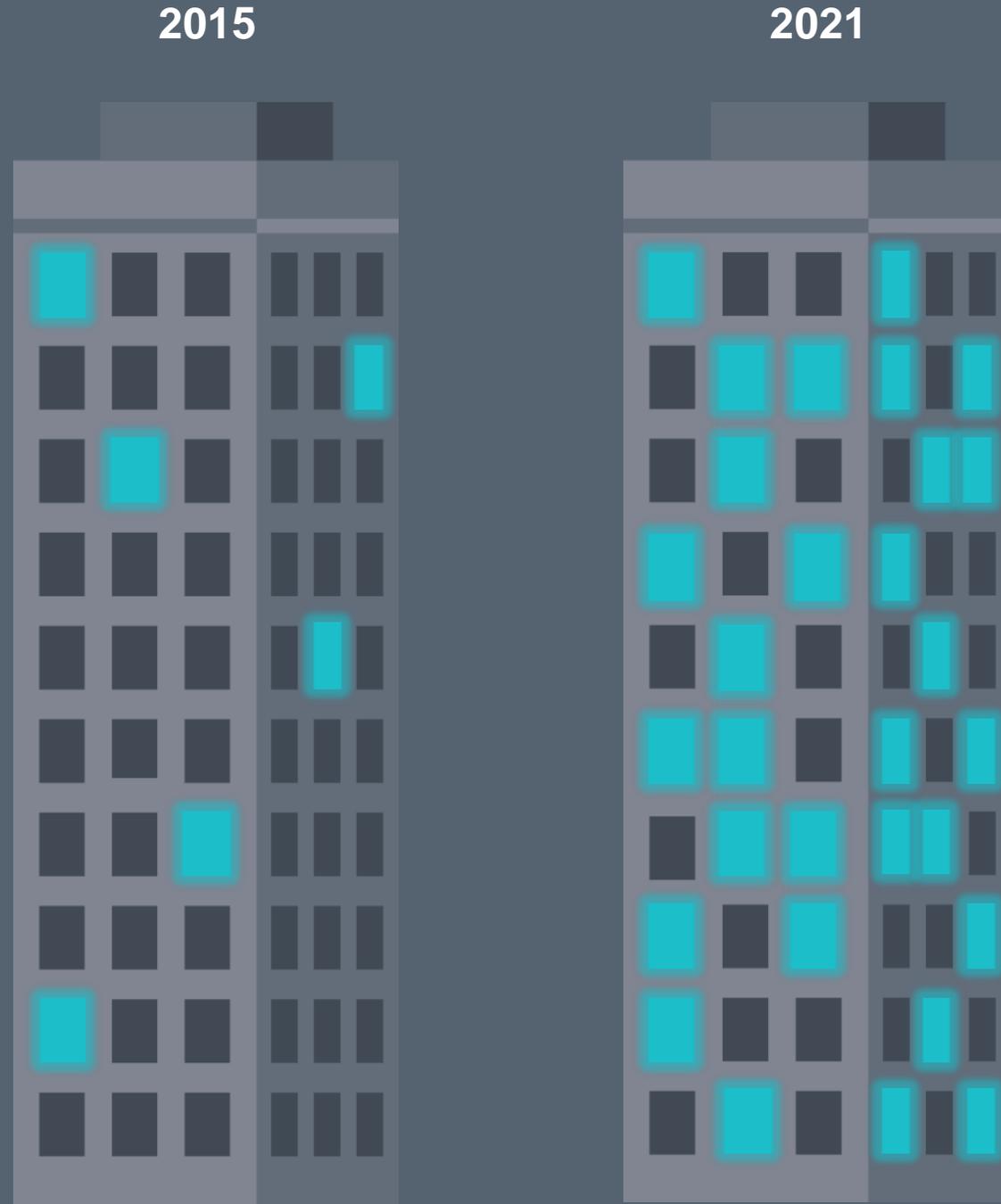
MODEL RESULTS



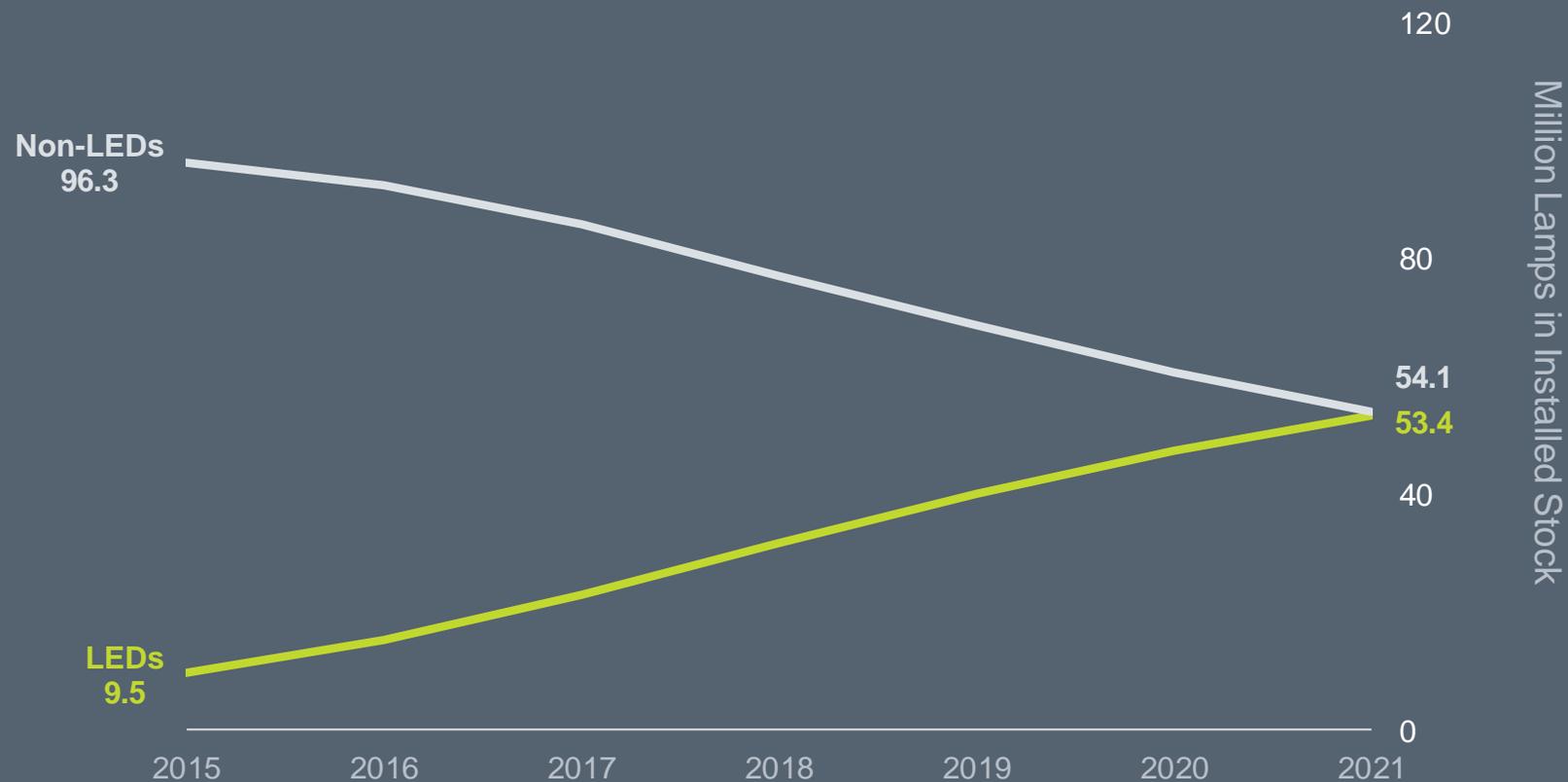
LED adoption continued to **save energy**



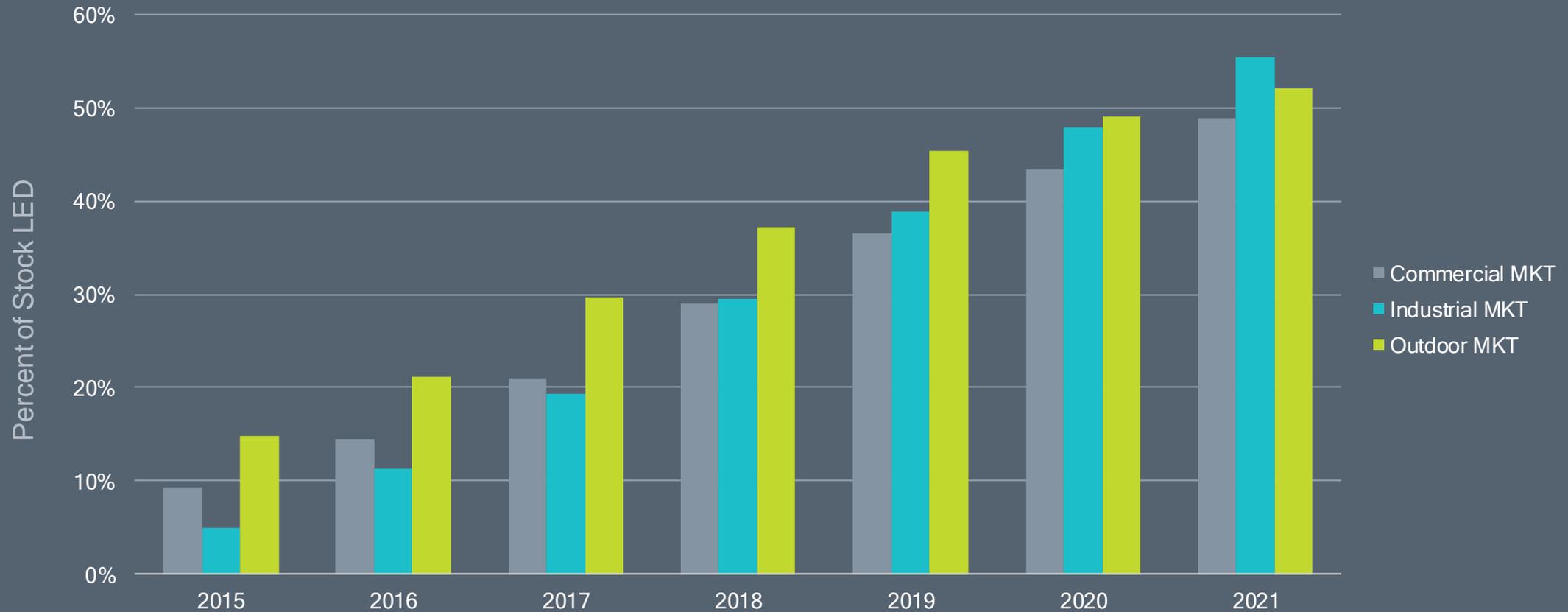
Stock
penetration of
LED
technology has
**grown
dramatically.**



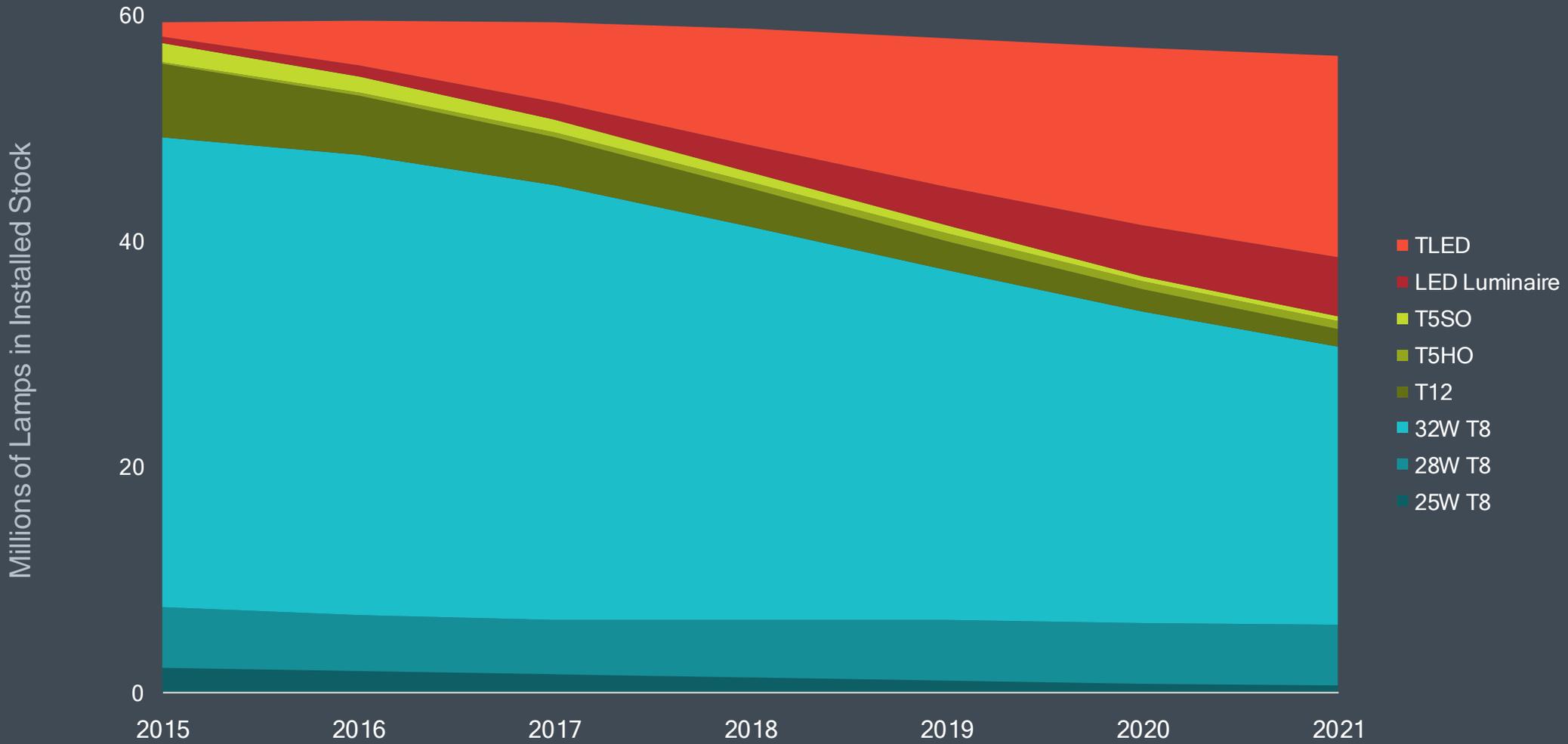
LEDs displaced less efficient technology in installed stock



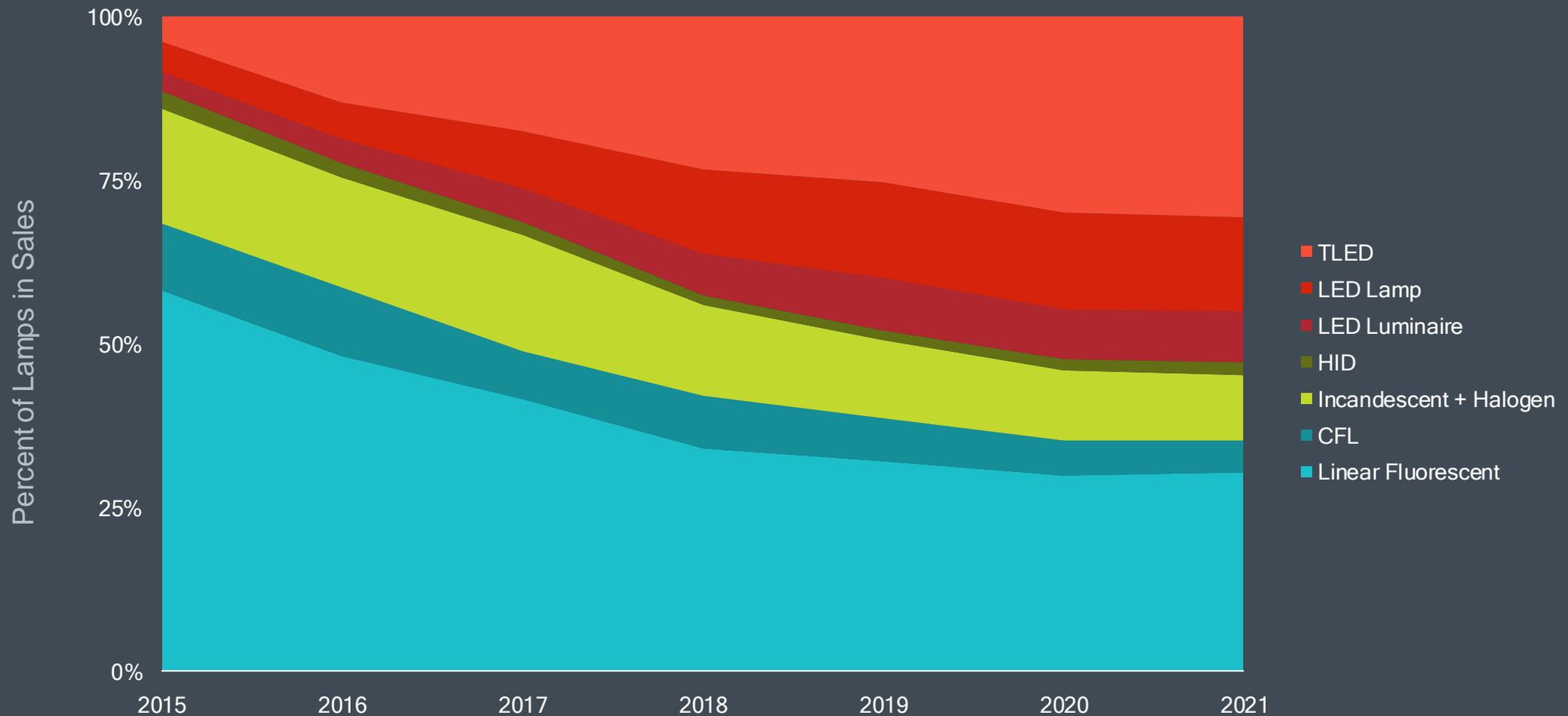
LEDs now dominant in the stock in **all sectors**



Ambient linear stock still dominated by fluorescent lamps, but **TLEDs gaining ground**



Sales mix shifting dramatically **toward LEDs**



LED sales grew **quickly**



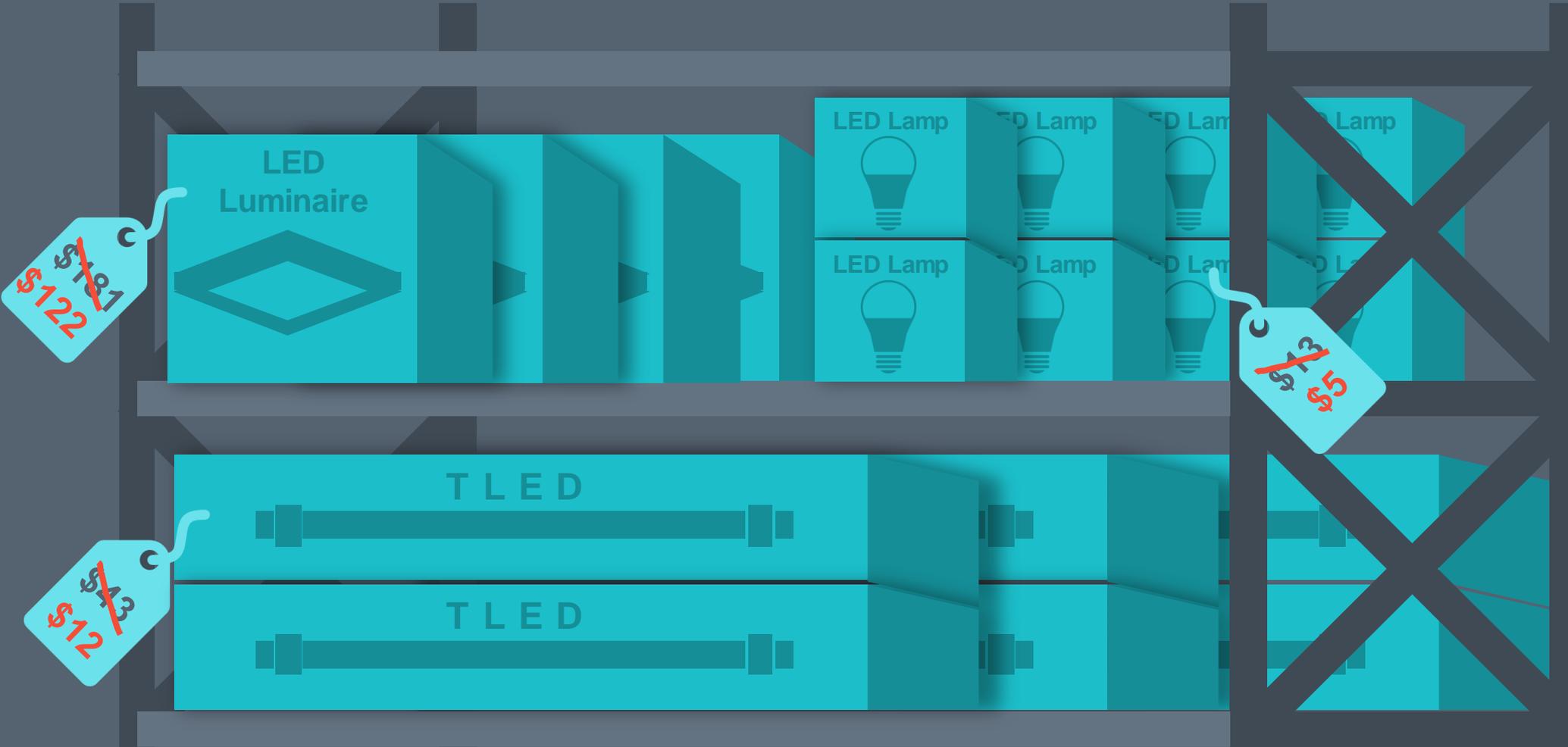
In 2021, a new non-residential LED product was sold every **2.6 seconds**

TLEDs showed **meteoric growth** in adoption

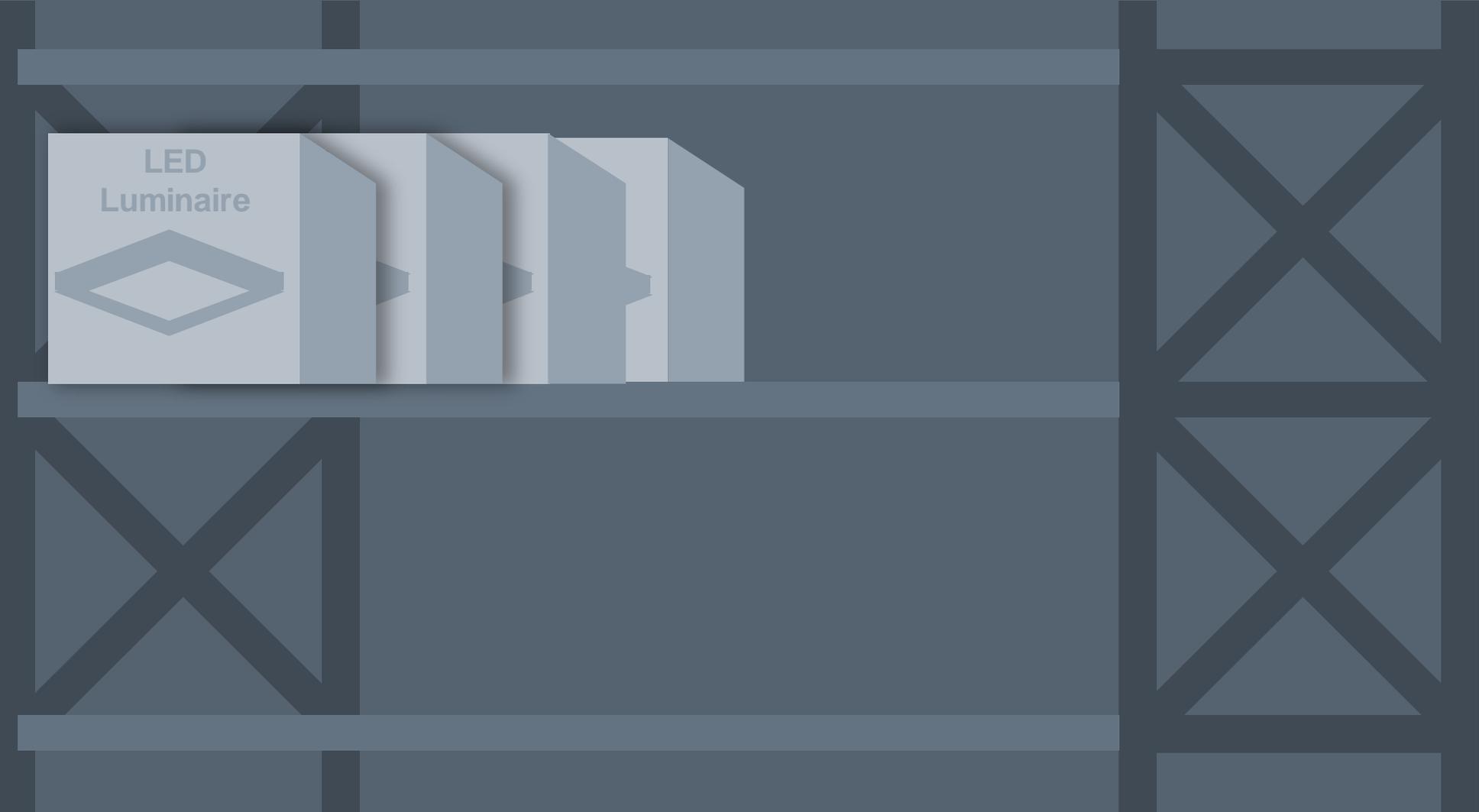
26 Million TLEDs were sold in the analysis period – enough to circle **80%** of the Earth's circumference



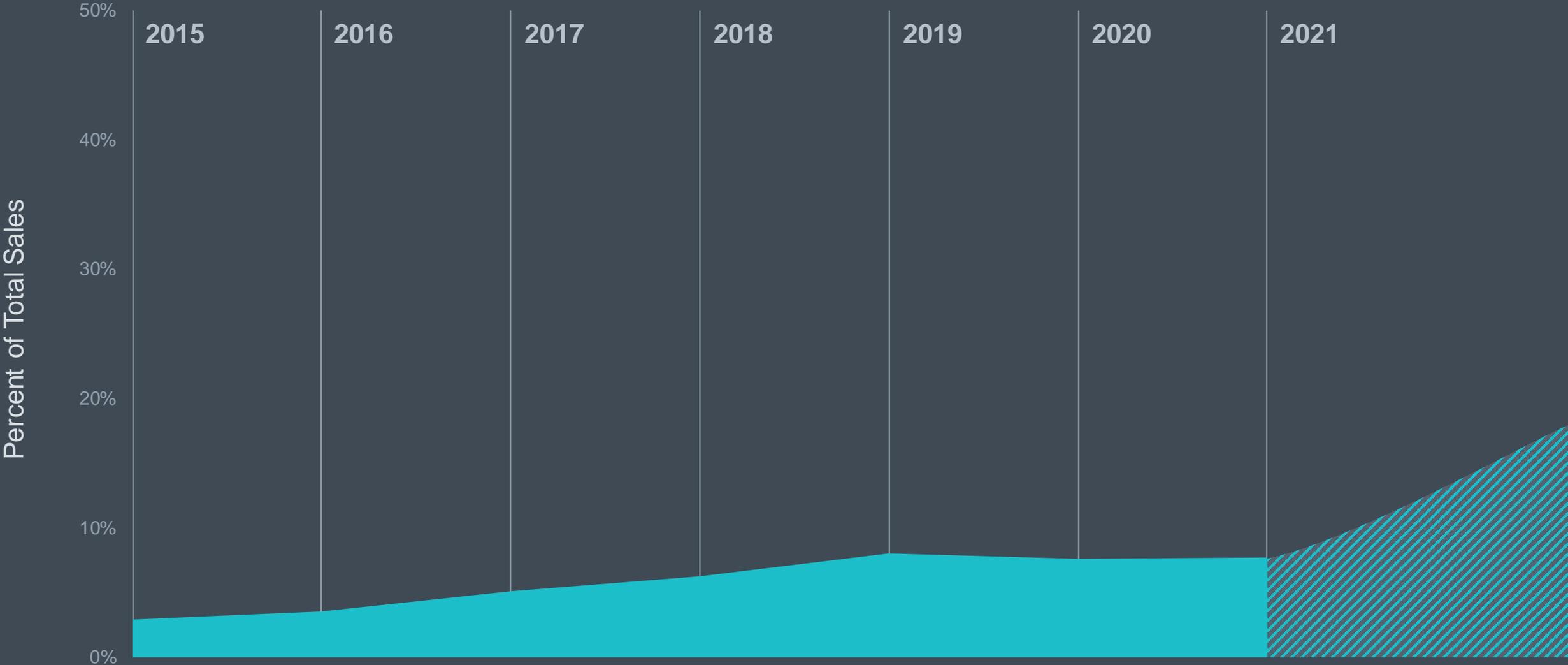
LEDs got **way cheaper** between 2015 and 2021



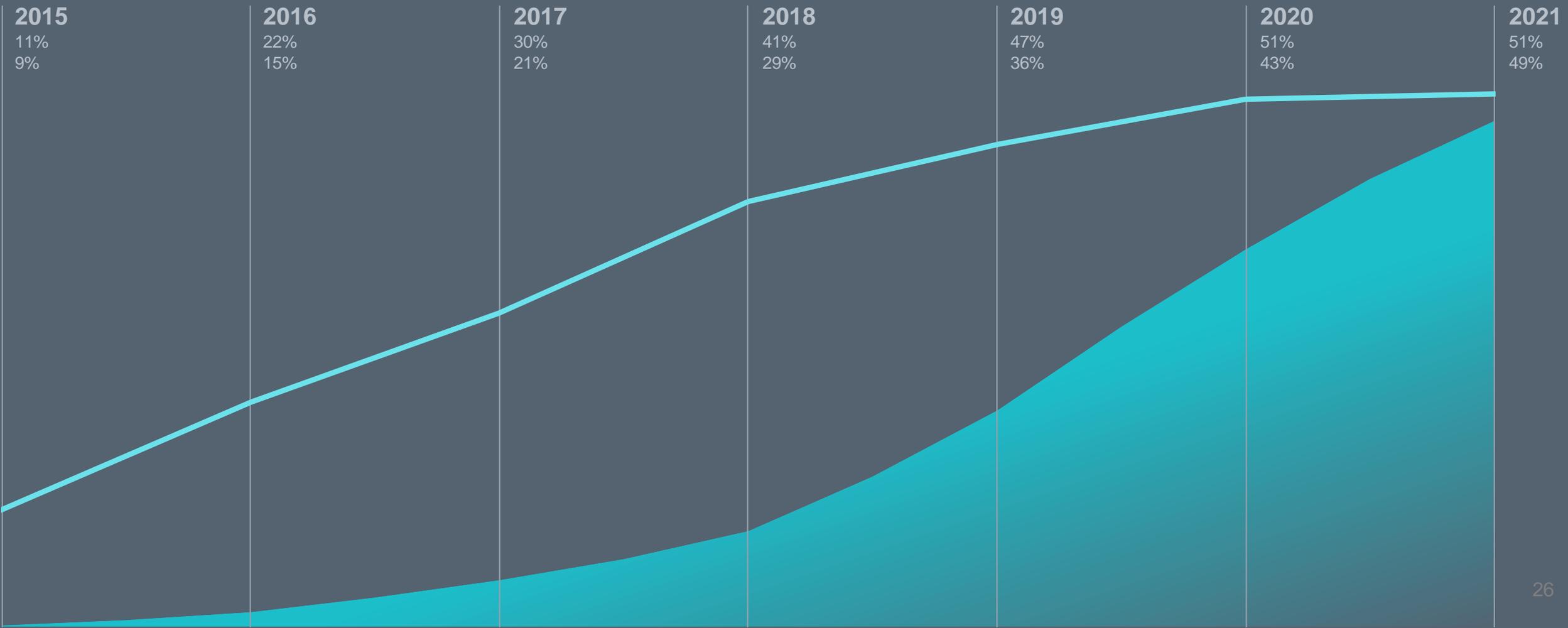
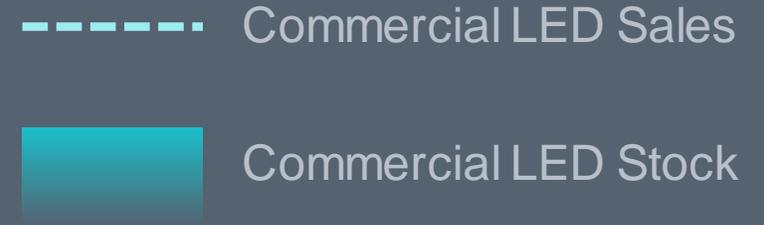
LED Luminaires are still in the **early days** of adoption



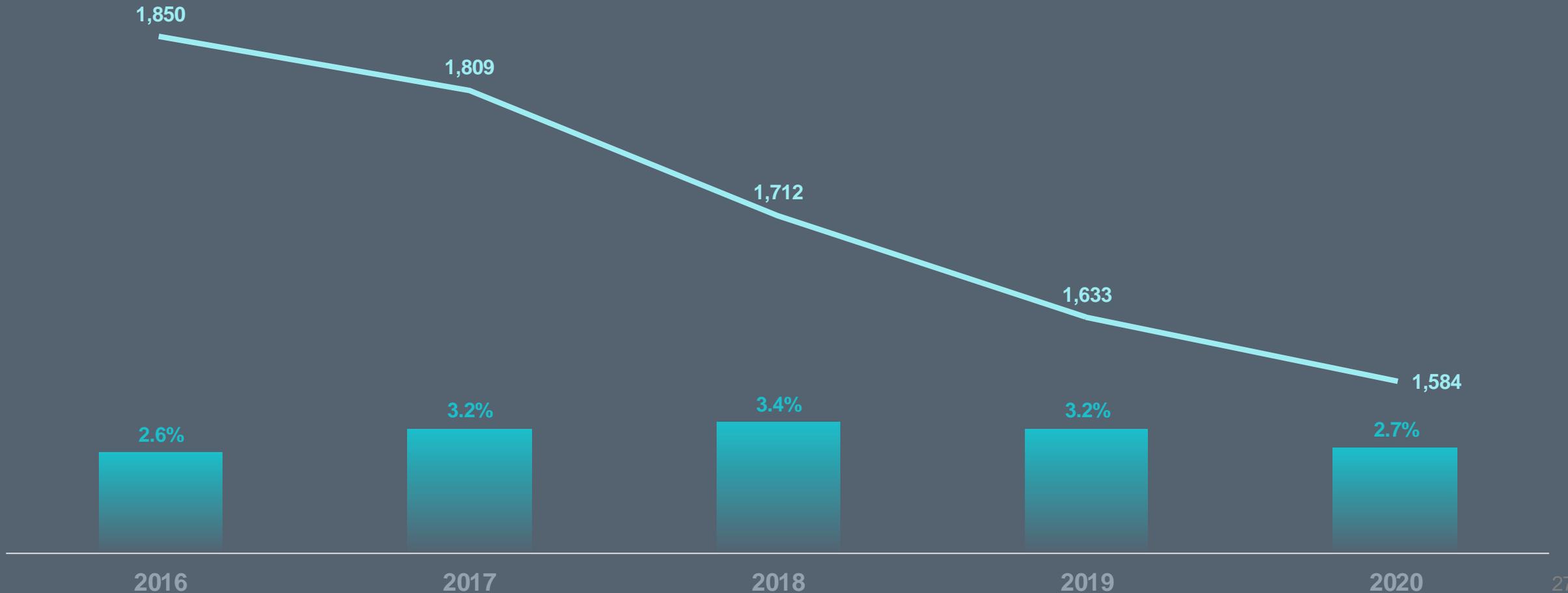
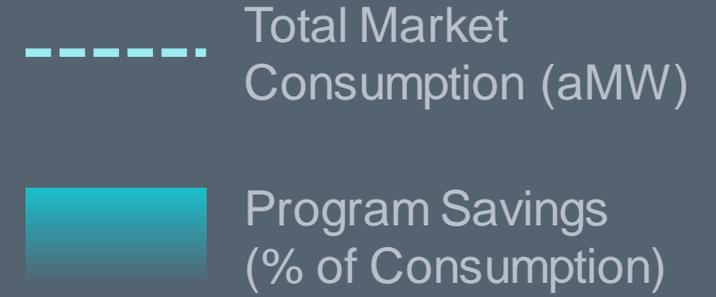
LED luminaire sales plateaued with COVID, but **growth will continue**



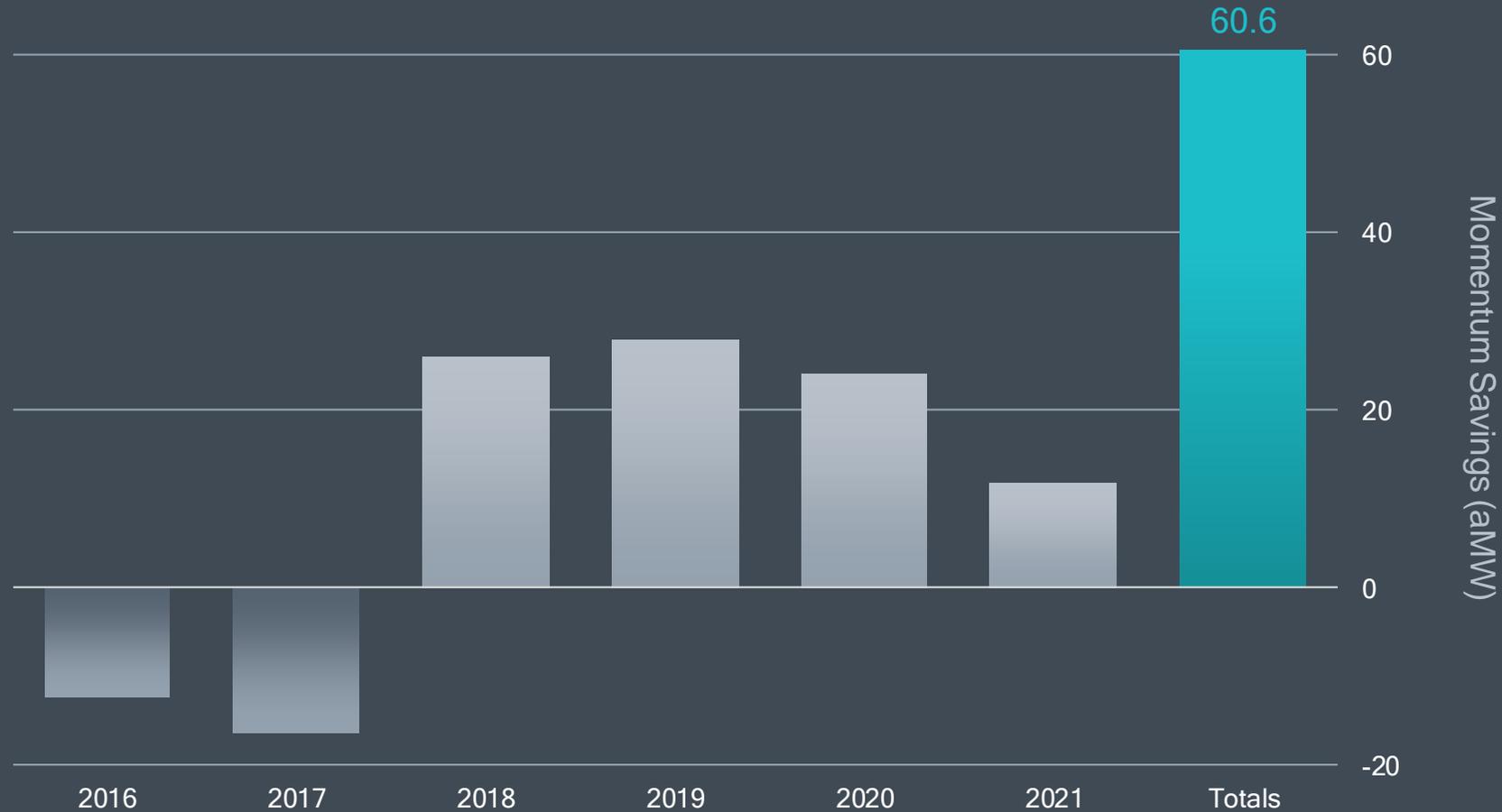
Even when LED sales cool off, LED **stock continues to grow**



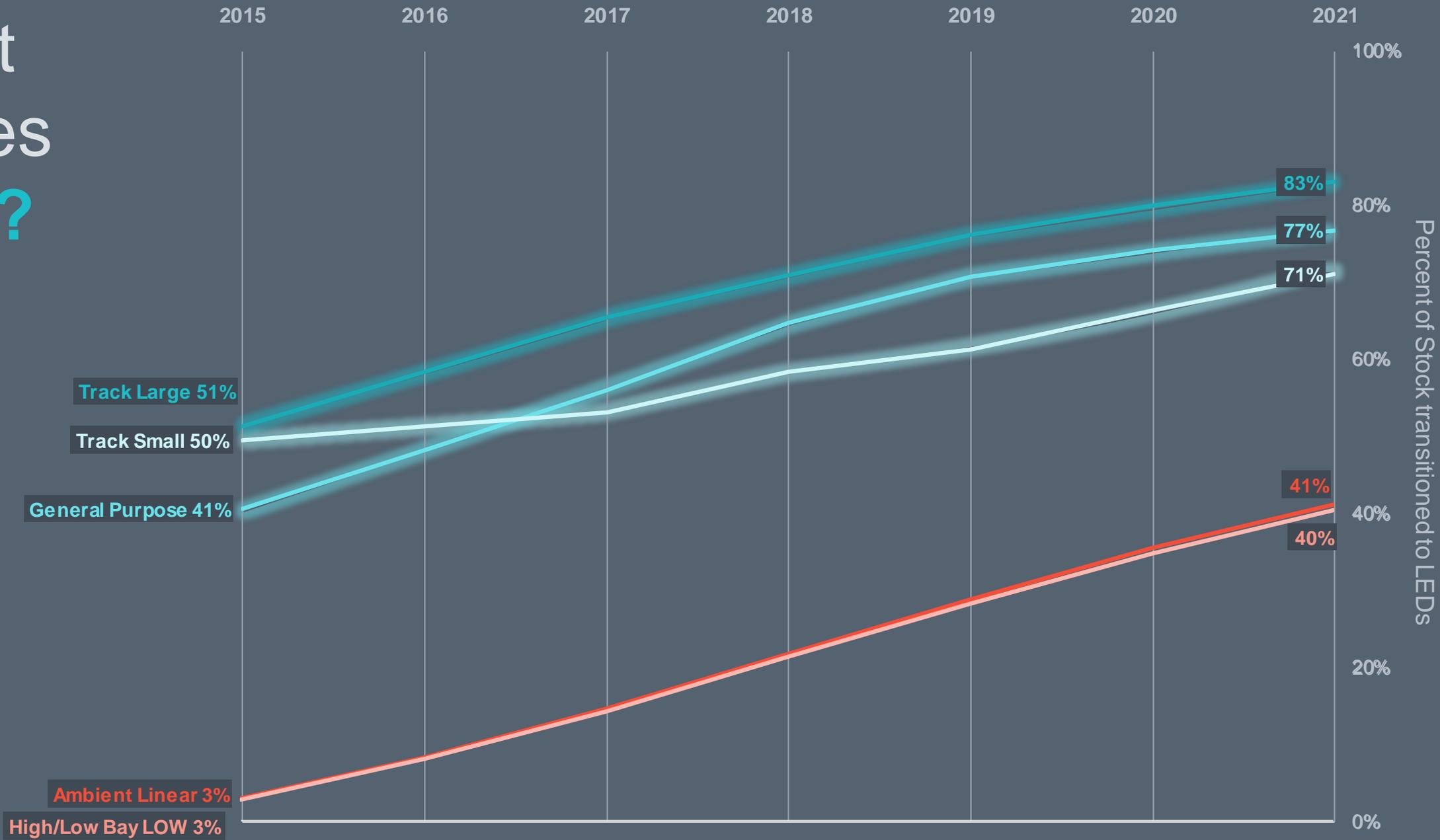
Program Savings are **holding steady** as consumption declines.



Efficient Lighting Created **60.6 aMW** of Momentum Savings since 2015



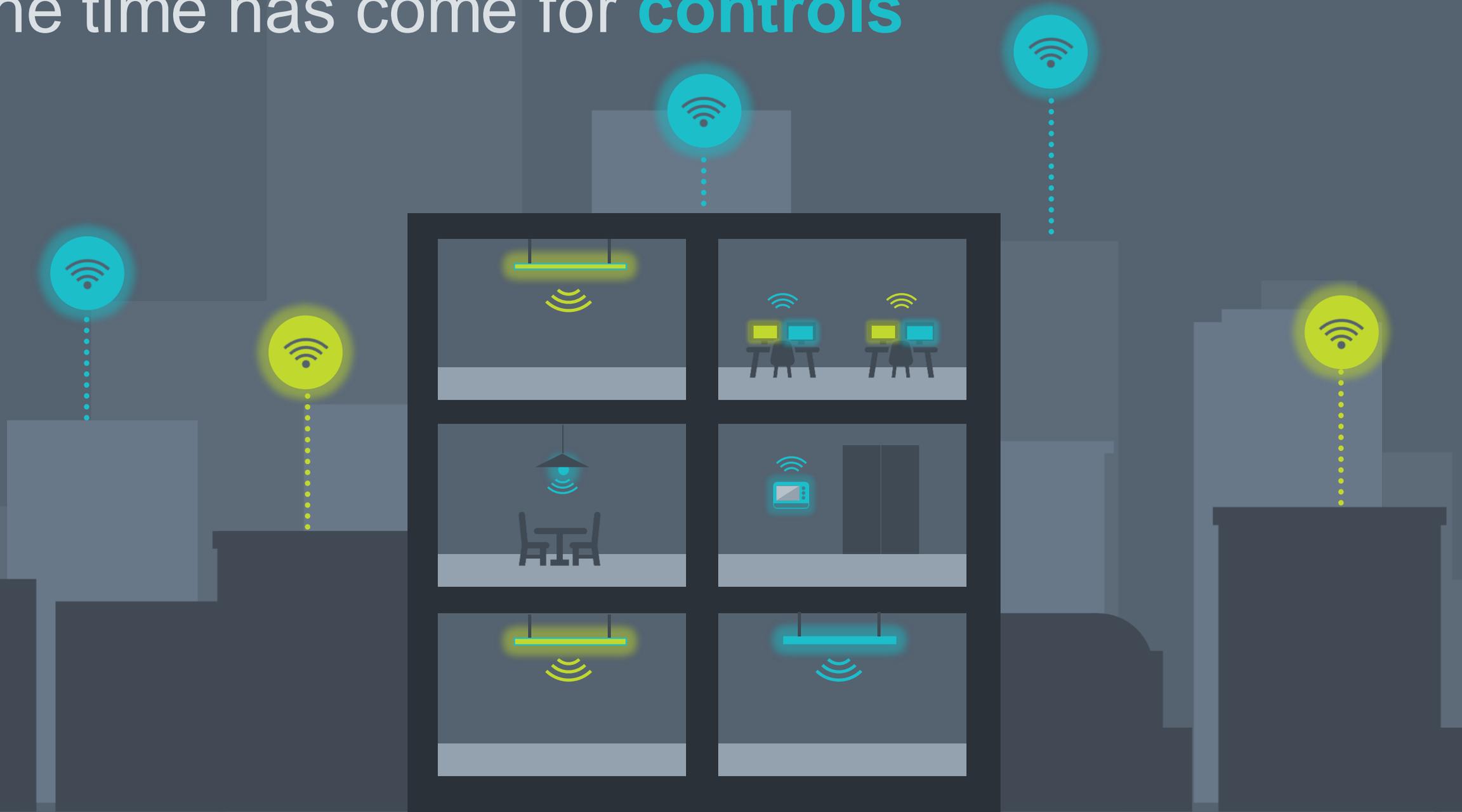
What comes next?



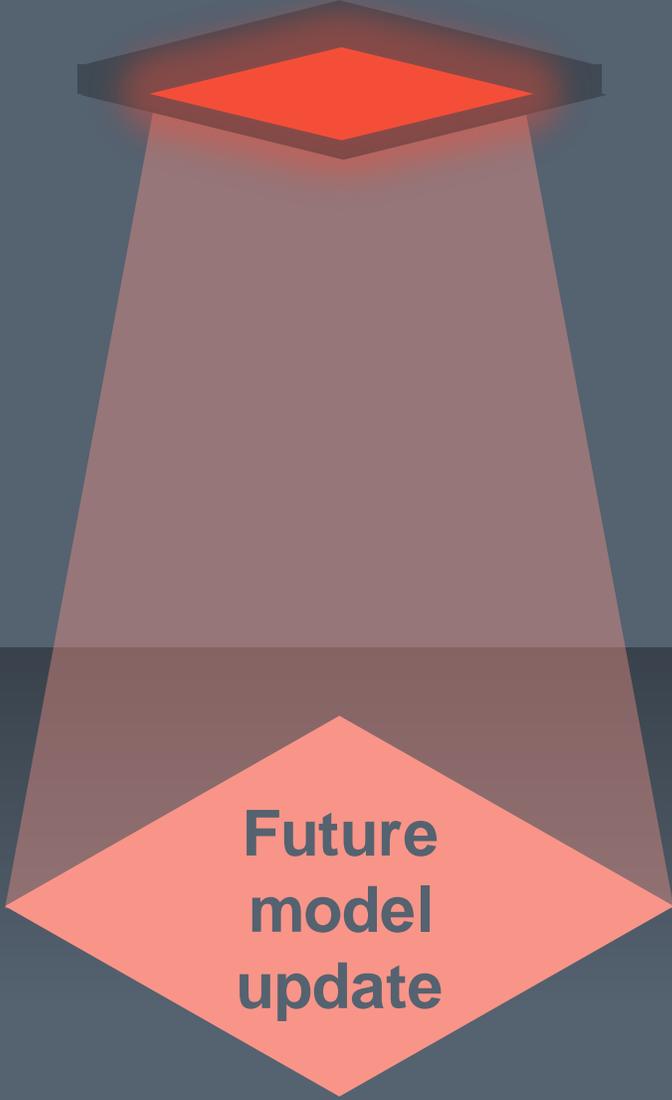
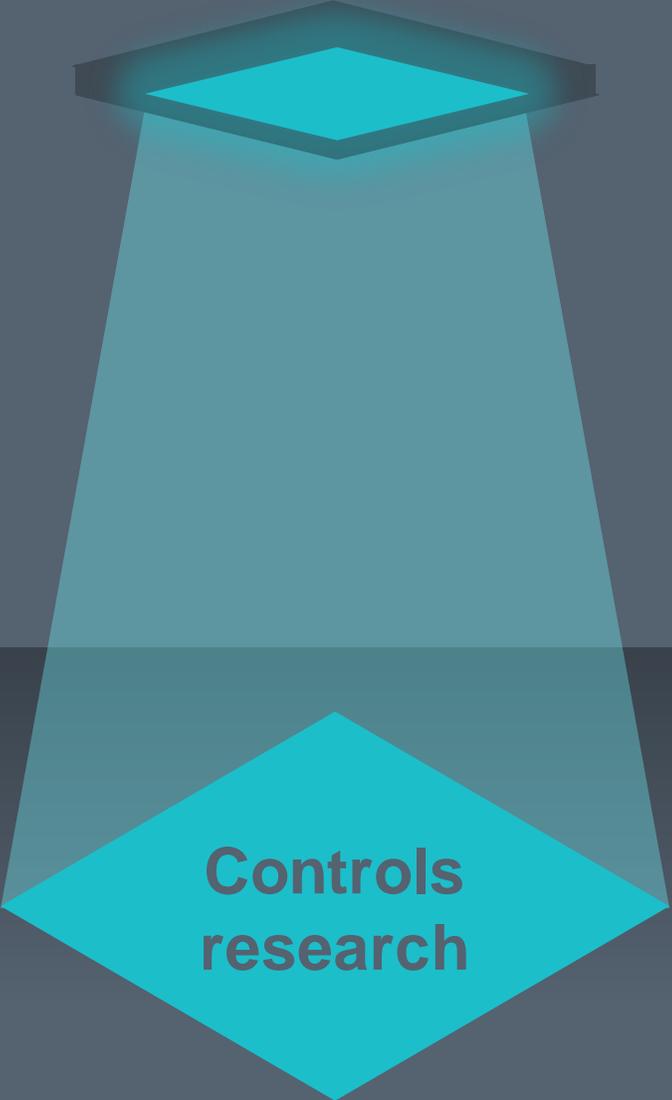
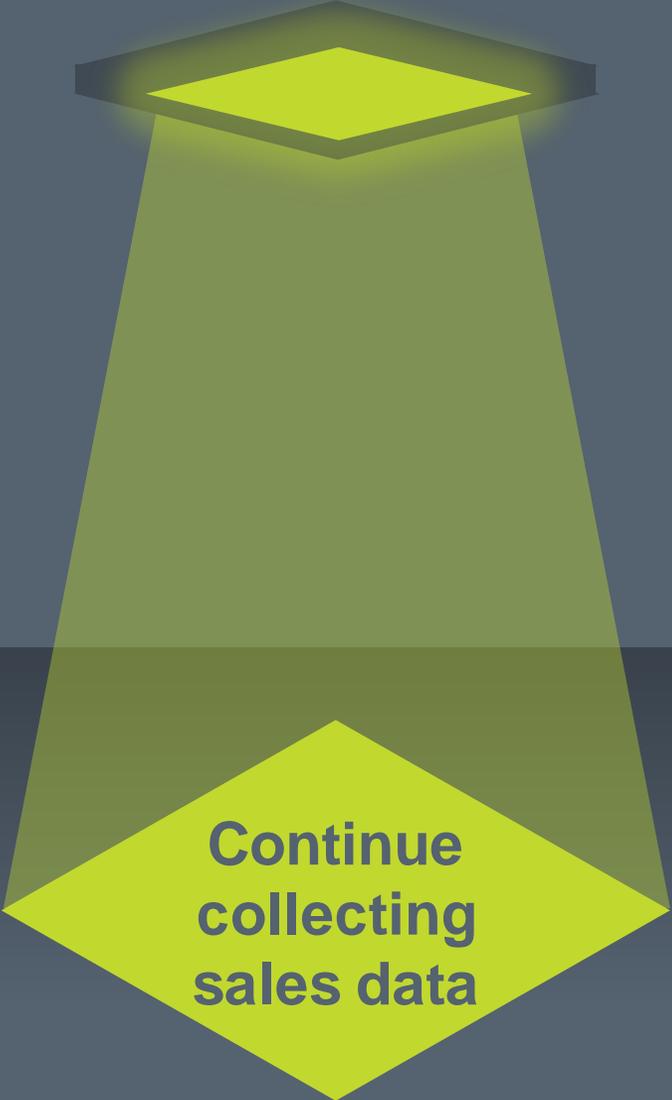
LED
luminaires are
**poised for
takeoff**



The time has come for **controls**



Future research plans



CONTACT

For more information, visit

www.bpa.gov/energy-and-services/efficiency/market-research-and-momentum-savings/lighting-market-research

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POWER ADMINISTRATION

