

Title 20 and meeting AB1109

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Michael Siminovitch

Huffman Bill (AB 1109)

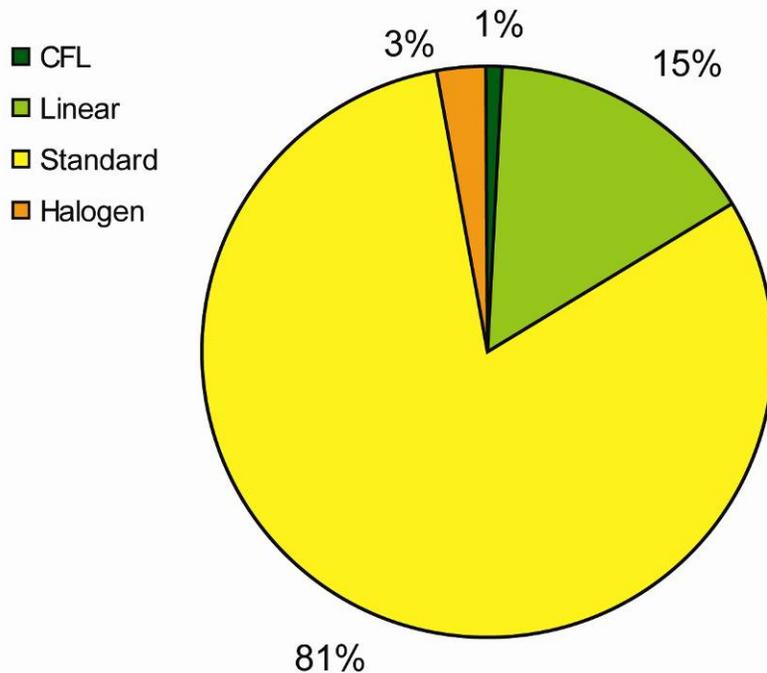
“reduce average statewide electrical energy consumption by *not less than 50%* from the 2007 levels for indoor residential lighting and *not less than 25%* from the 2007 levels for indoor commercial and outdoor lighting by 2018 ” (approved by governor 12 Oct 07)

How do we get there?

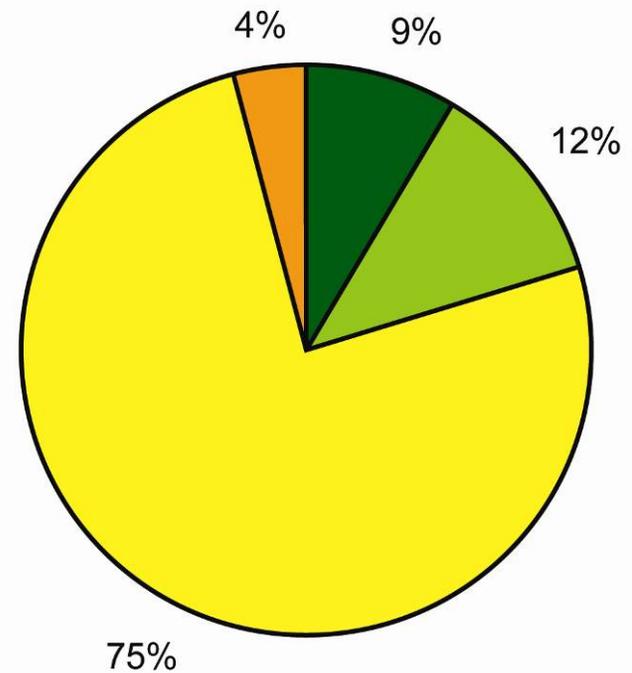
Residential Lamp Stock Breakdown

Estimate of California Residential Market

California Installed Residential Lamp Stock - 2000



California Installed Residential Lamp Stock - 2005



* Calibrated using RLW Analytics CLASS Study

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Residential Lamp Stock Breakdown

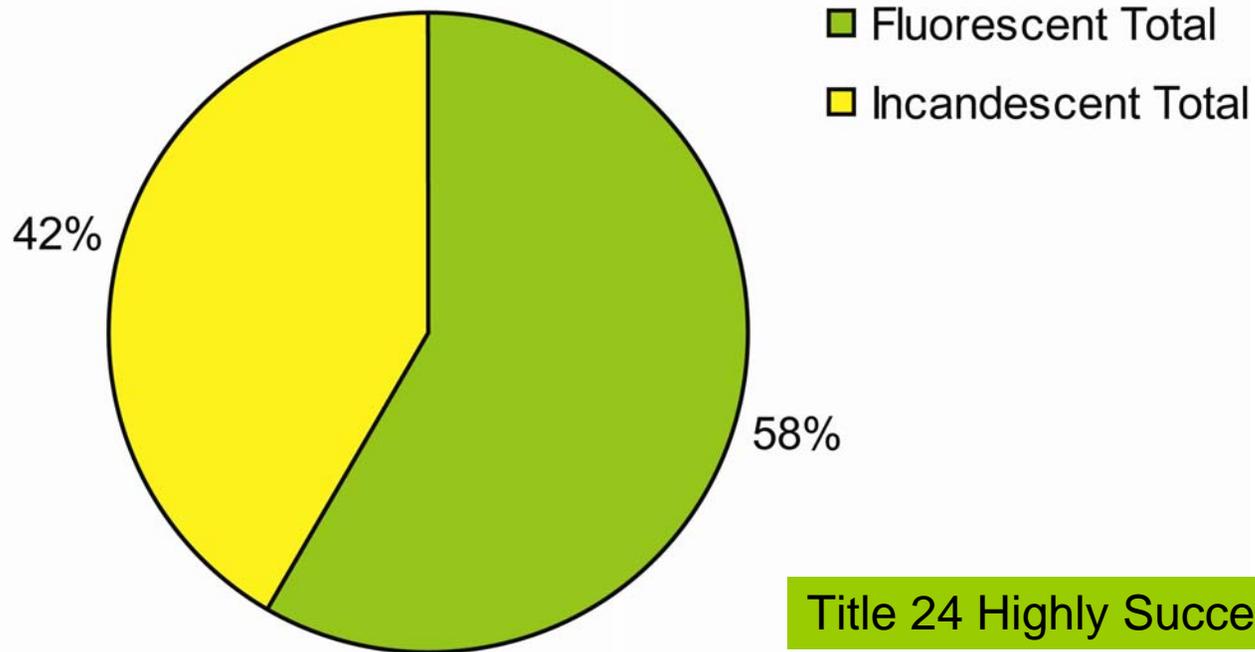
Estimate of California Residential Market

- 2007 - Estimates of as much as 15% CFL



Residential Lighting Survey

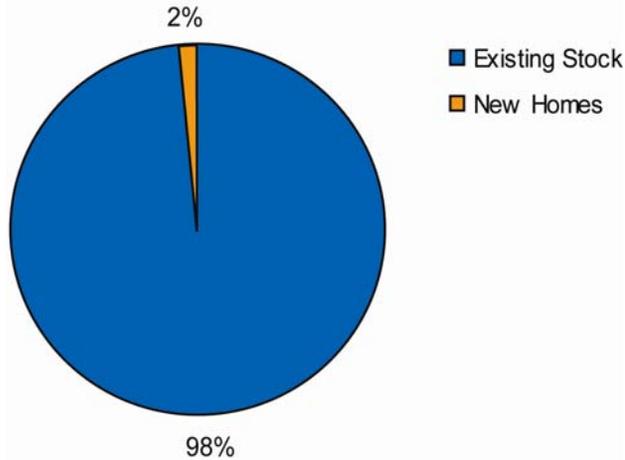
CLTC survey of new 2007 homes
(2-6 bedrooms / 2000-4500 sq ft)



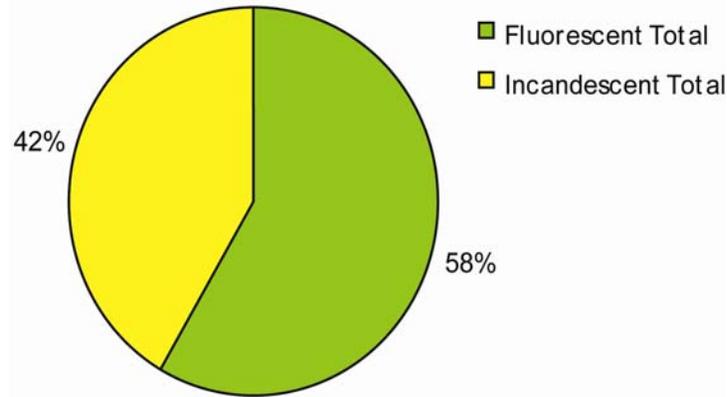
Title 24 Highly Successful!

Residential Lighting Survey - Analysis

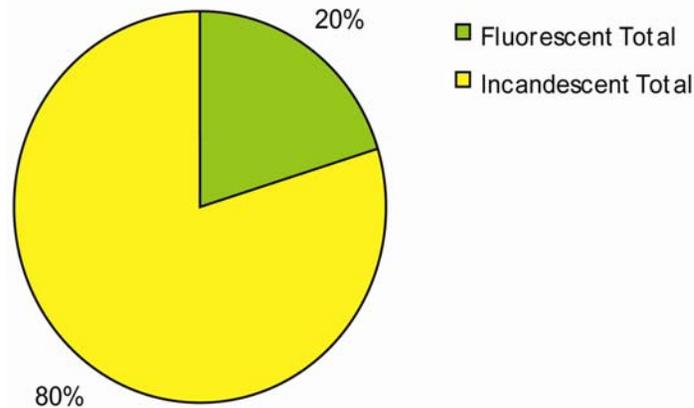
Existing Housing Stock vs New Construction



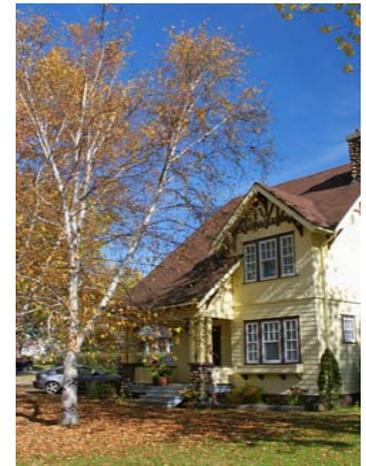
California New Construction Stock



California Installed Housing Stock



** Calibrated using RLW Analytics CLASS Study*



2007 Title 24 Homes Survey

- ~10 dimmers per home
- >90% of incandescent hardwired fixtures on dimmers



Average CA household lighting energy 2007-2018

No Action

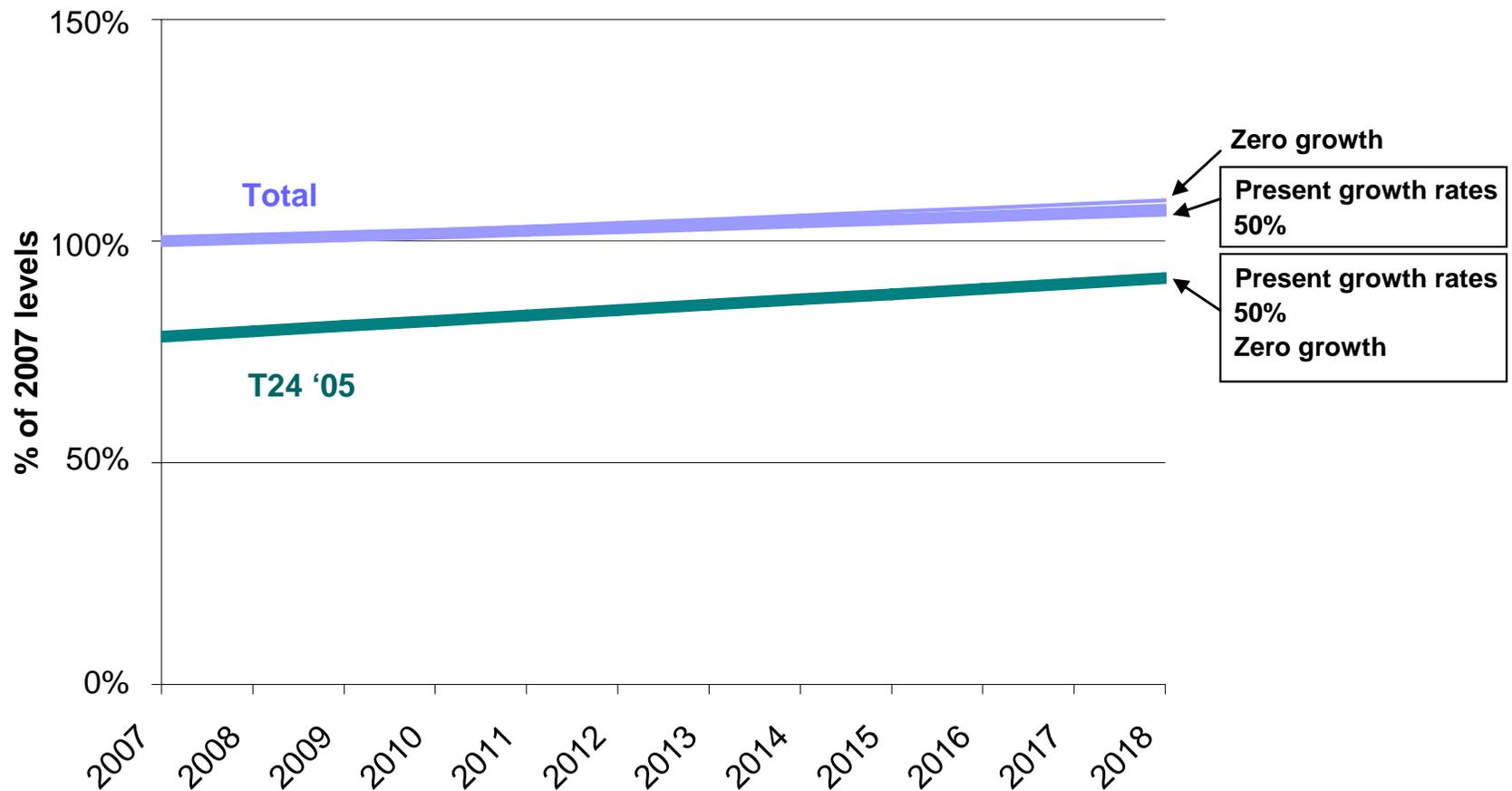


Figure 4B Lighting energy consumption per California household under current policy (projection)

Average CA household lighting energy 2007-2018

Industry-proposed incandescent wattage reduction

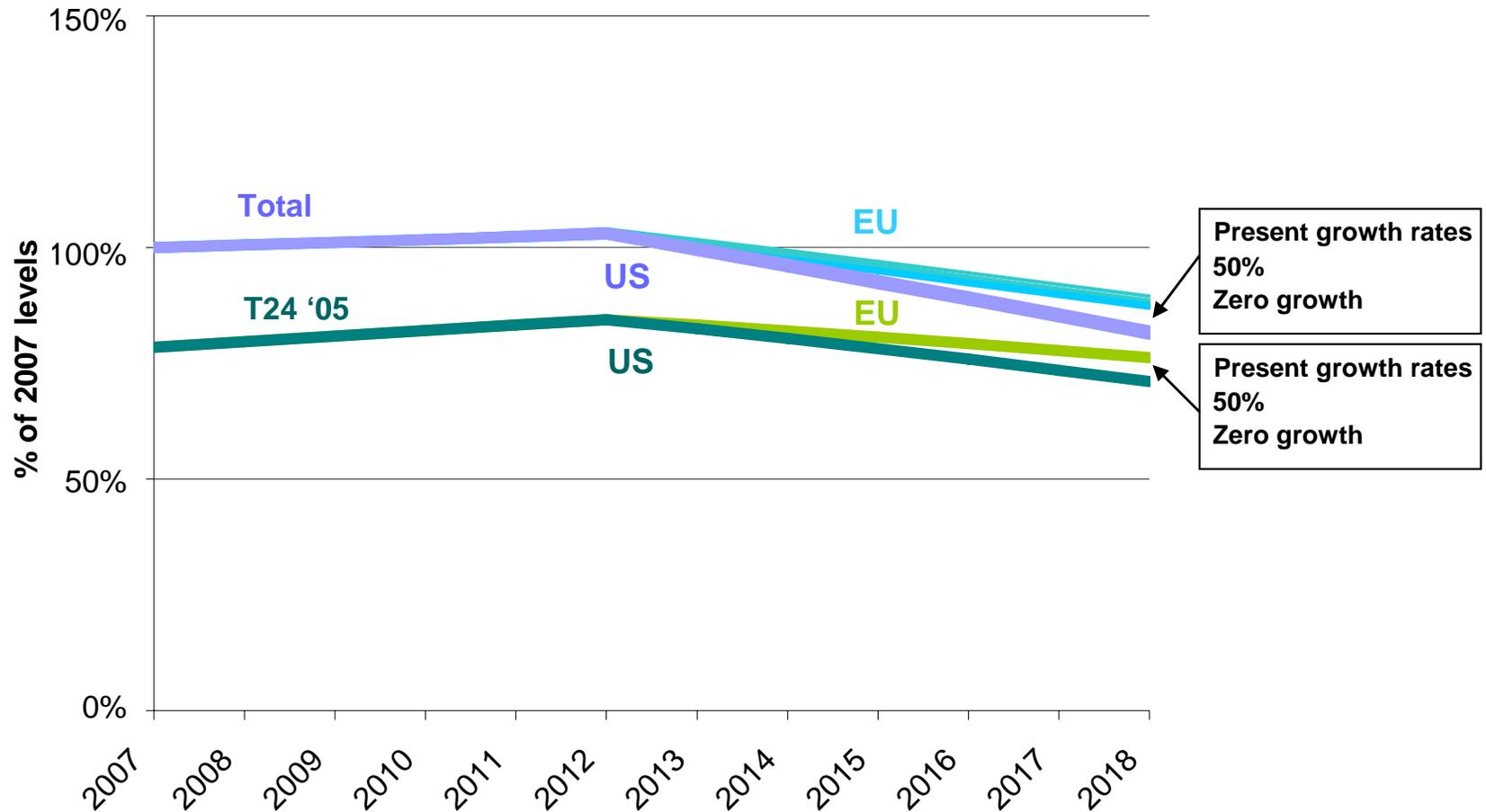


Figure 8B Average lighting energy consumption per California household with gradual wattage reduction between 2012 and 2018, according to US and EU industry proposals (projection)

Average CA household lighting energy 2007-2018

Incandescent ban in 2010

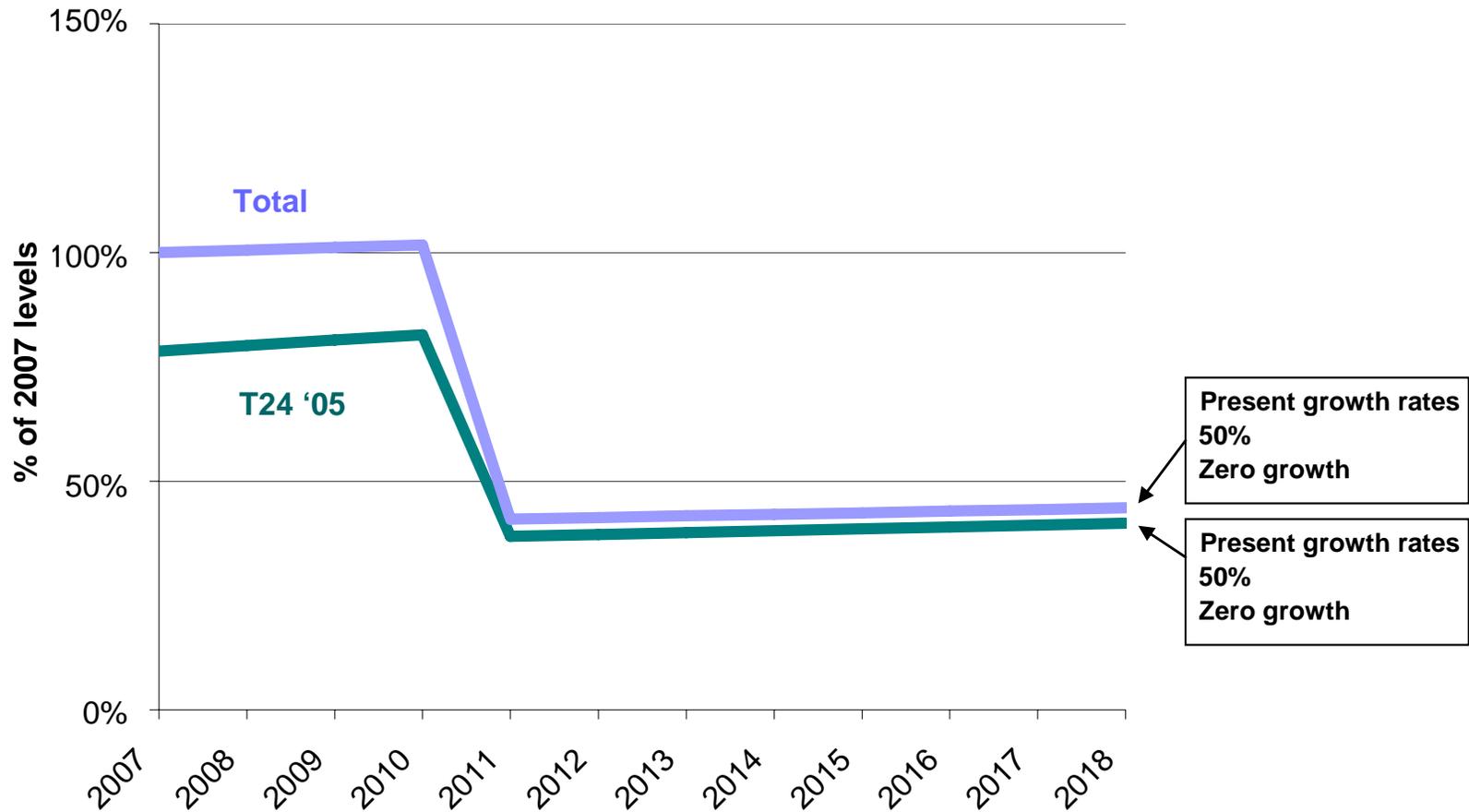


Figure 5B Average lighting energy consumption per California household under 2010 incandescent ban (projection)

Average CA household lighting energy 2007-2018 CFL (or equivalent) increases to 100% penetration

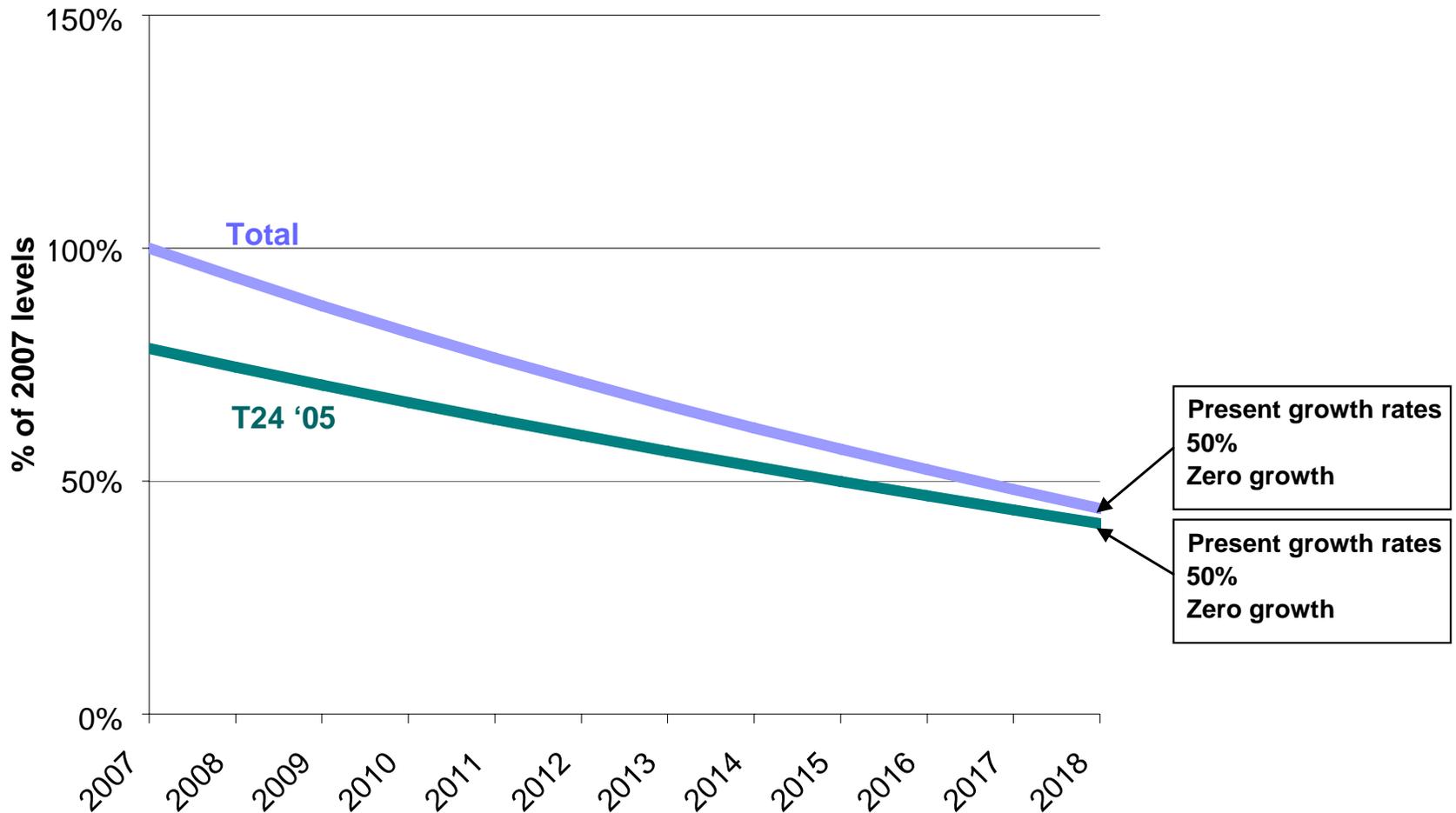


Figure 6B Average lighting energy consumption per California household with gradual achievement of 100% CFL or equivalent market penetration (projection)

Average CA household lighting energy 2007-2018

CFL (or equivalent) increases to 50% penetration

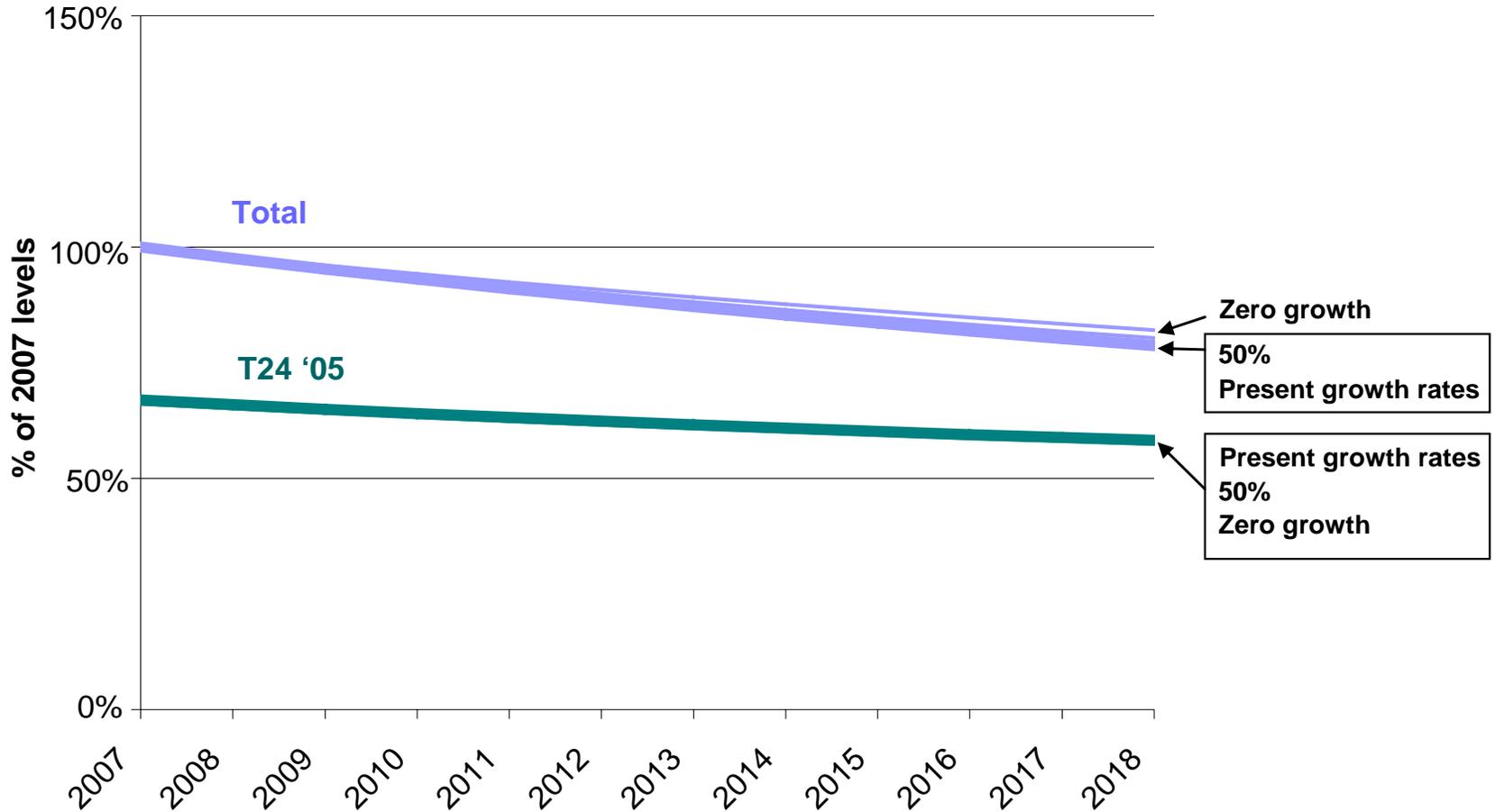


Figure 7B Average lighting energy consumption per California household with gradual achievement of 50% CFL or equivalent market penetration (projection)

Average CA household lighting energy 2007-2018

Zero-energy building code

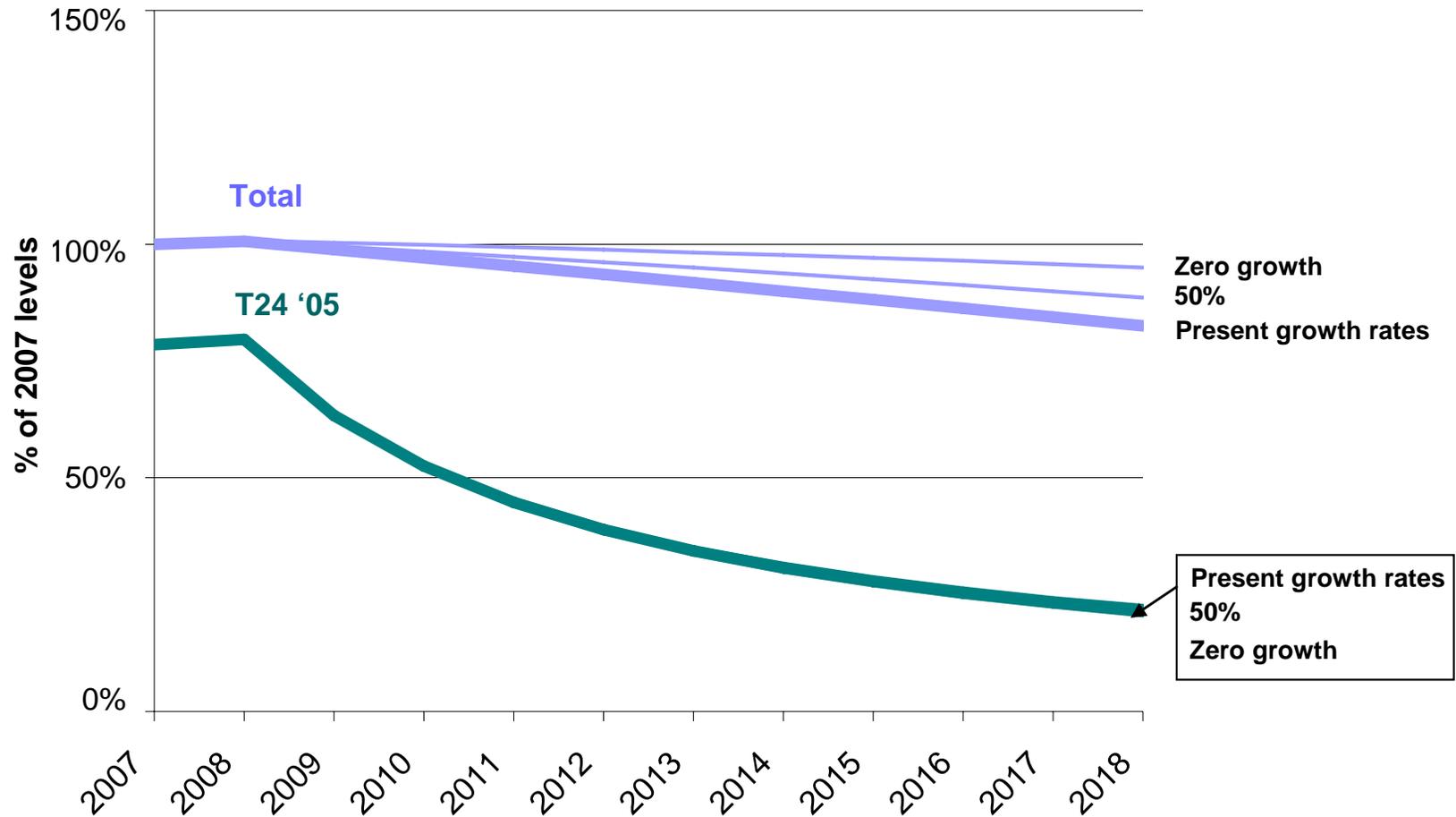


Figure 9A Aggregate lighting energy consumption by California households with zero-energy building code after 2008 (projection)

Goal is achievable

- Requires high adoption of CFL/other high-efficacy technologies
- Higher-efficacy incandescent can help but only part of the way
- Building codes are only effective in the longer term

