



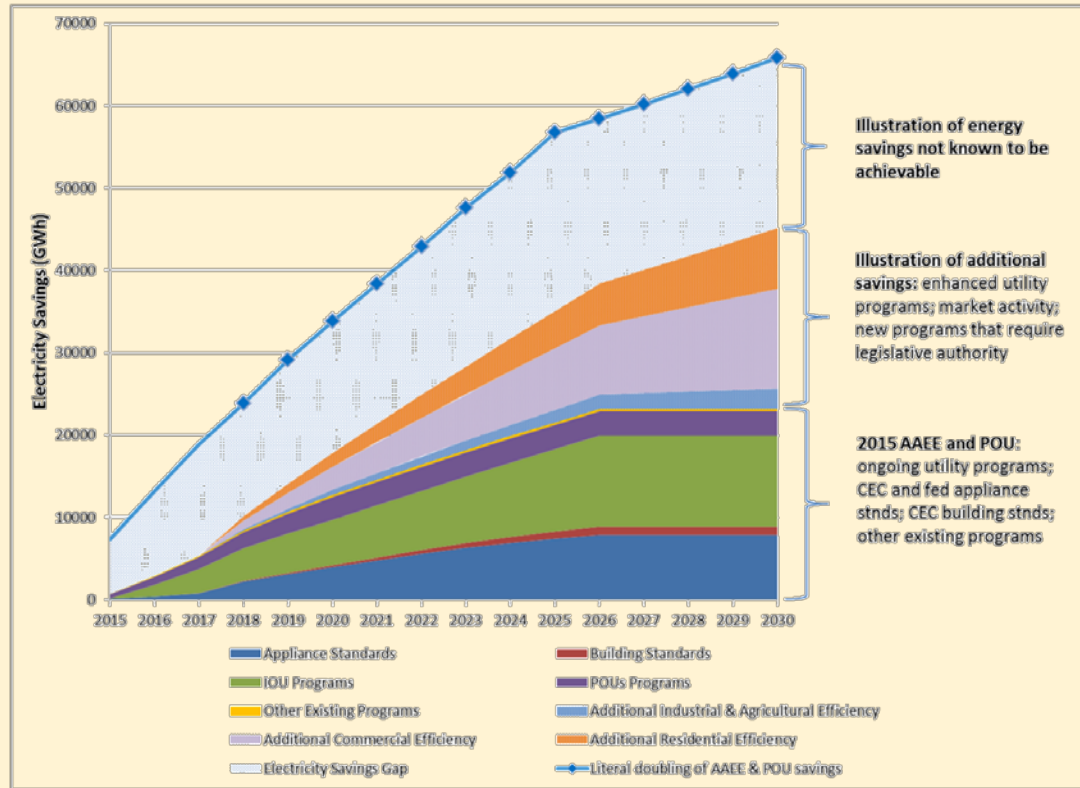
Look at Me Now! A Time Series Analysis of California Residential End Uses

August 21, 2019

2019 IEPEC Conference
Denver, CO

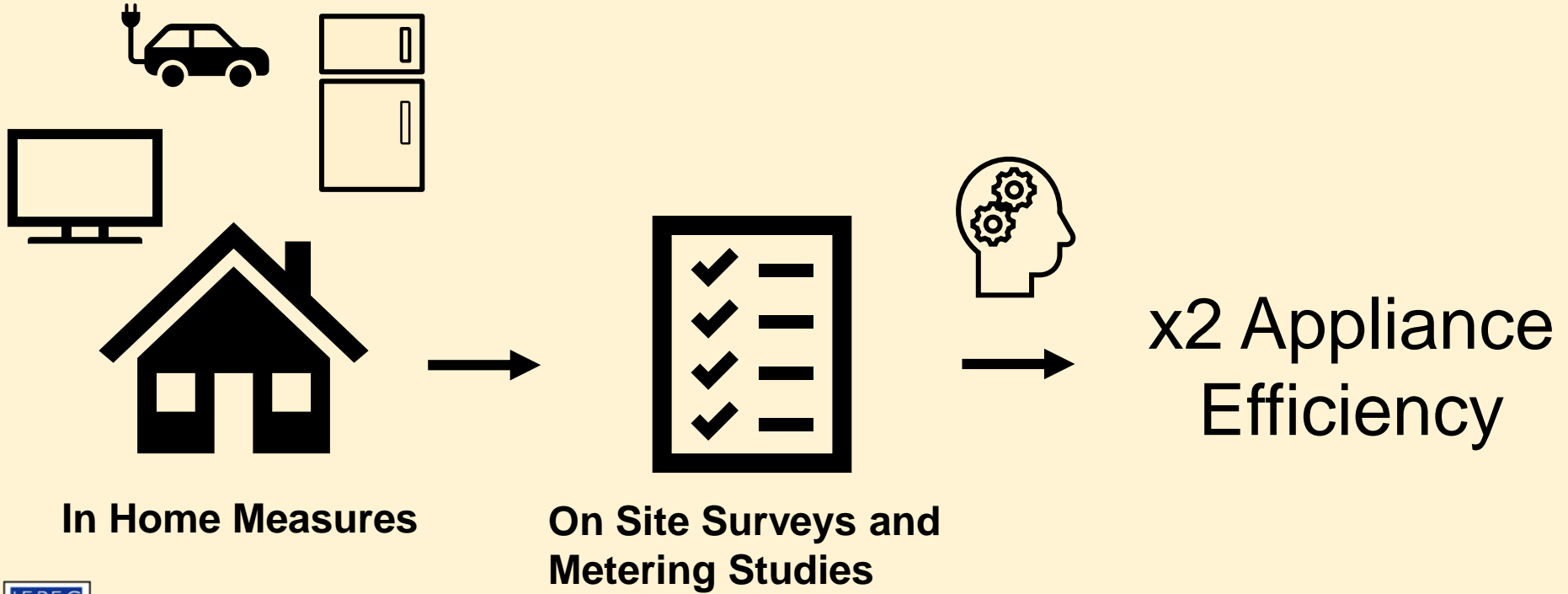
Ross Donaldson,
Evergreen Economics

Appliance standards will help efficiency goals





Onsite surveys are key to accomplishing efficiency goals





Two data sources were used to create a longitudinal study

California Lighting and Appliance Saturation Survey (CLASS)

- 1,987 homes
- PG&E, SCE and SDG&E
- Home characteristics, lighting and appliances



Home Energy Use Study (HEUS) 2016

- 1,000 homes
- PG&E
- Building shell, heating/cooling, water heating, major appliances, and plug loads



How were measures selected?

TVs

Generally replaced before end-of-life

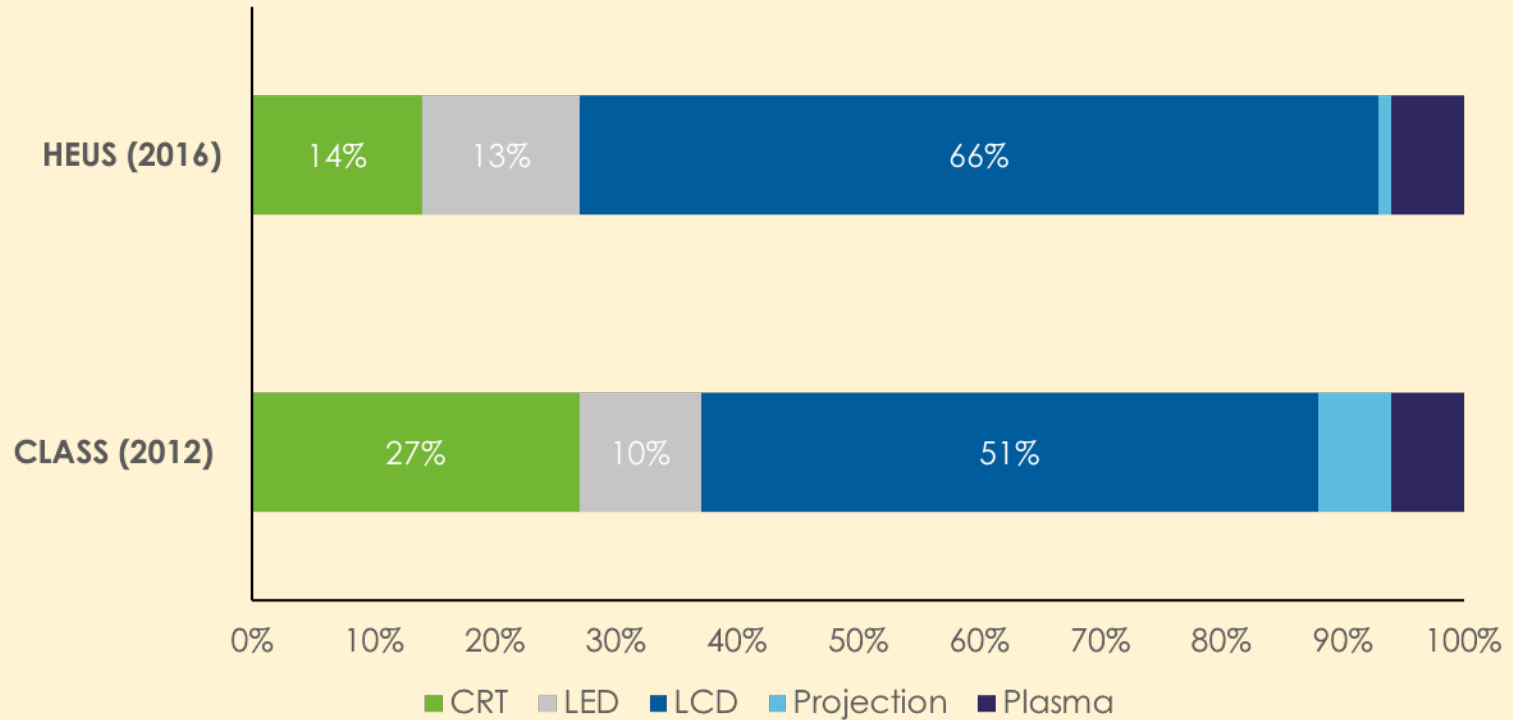
Refrigerators

Replaced at the end or after end-of-life

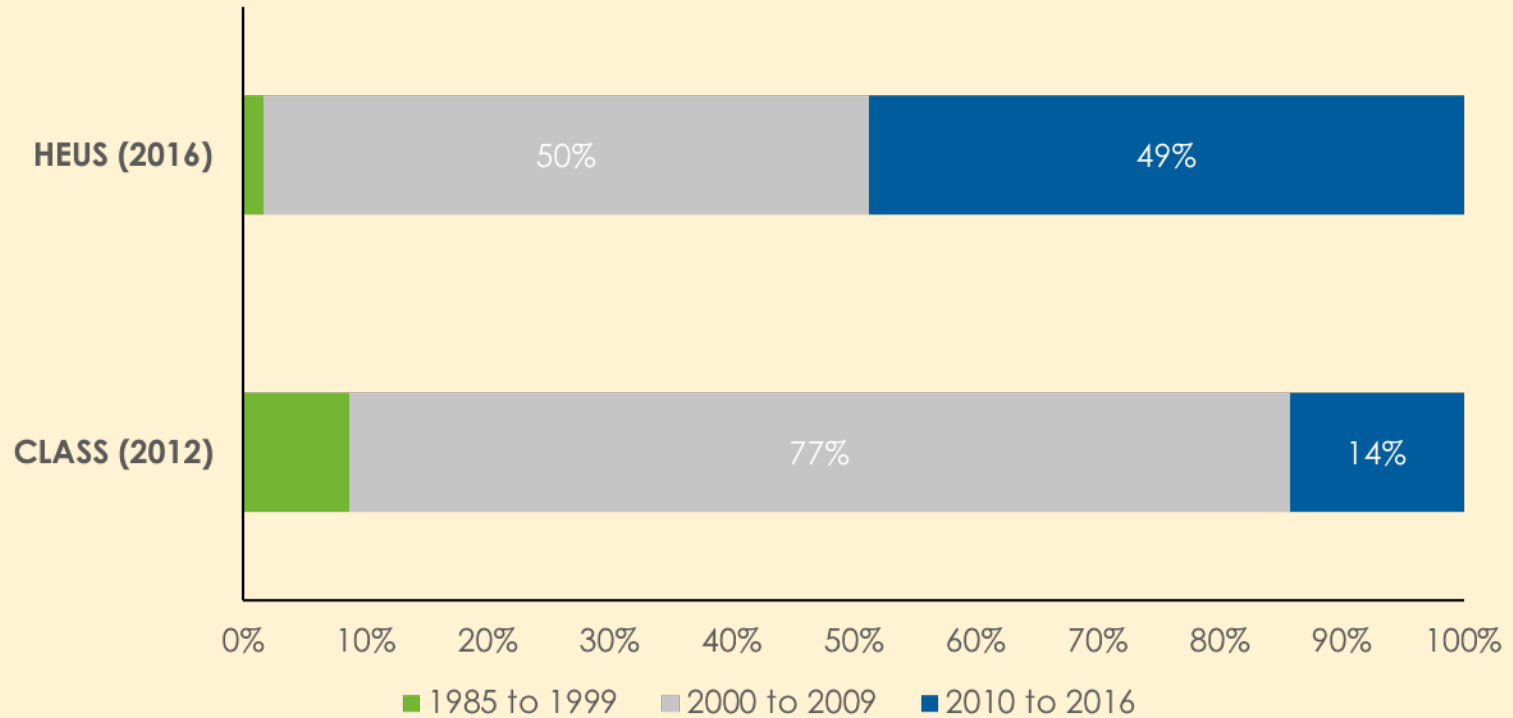
Electric Vehicle Chargers

An emerging technology that will be closely watched

Findings - Televisions

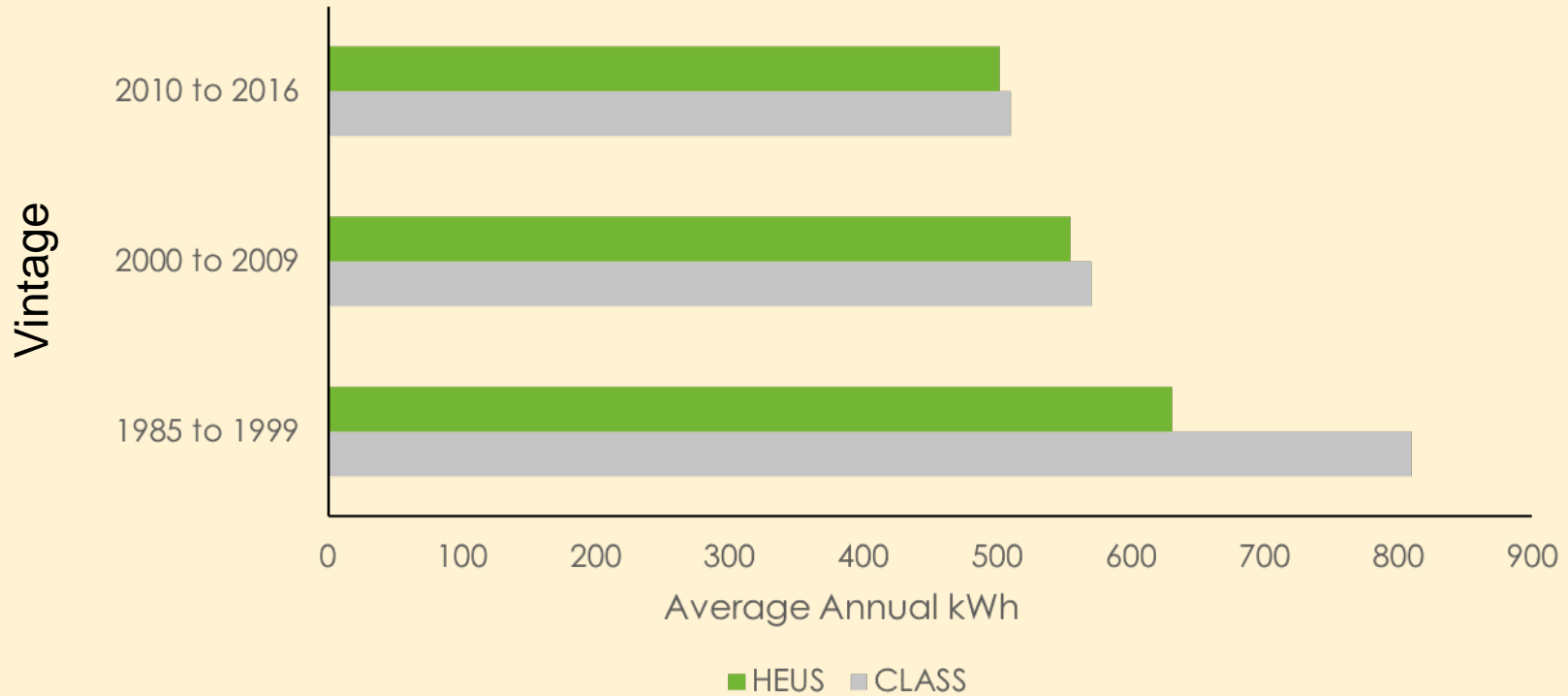


Findings - Refrigerators



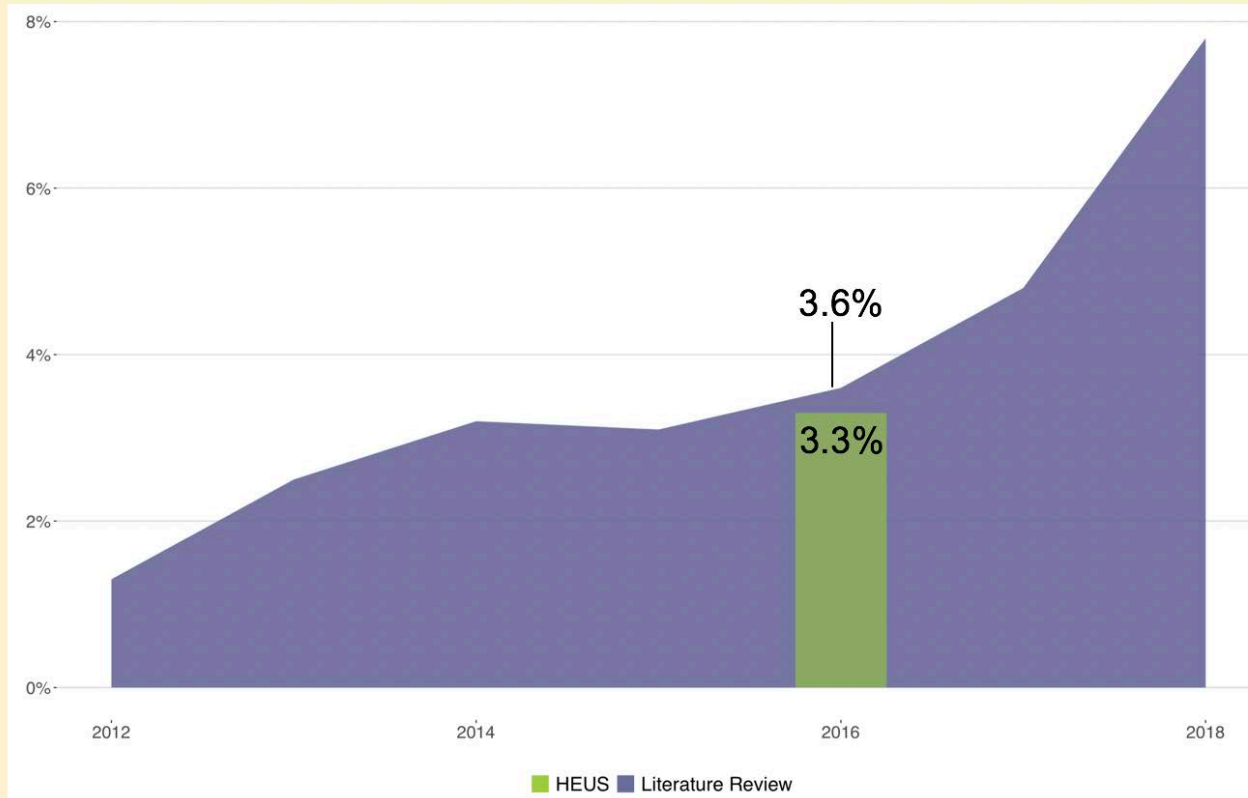


Findings - Refrigerators



Findings – EV Chargers

% of Homes with EV Charger



Conclusions



Broad and deep datasets can be used to uncover market wide trends

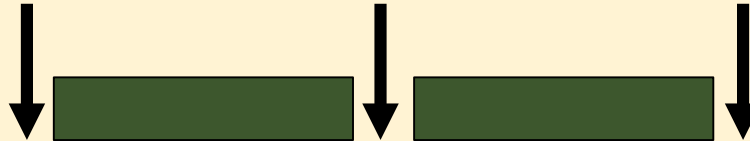


This data can be used to inform C&S and plan for the future

CLASS
2012

HEUS
2016

???





Questions





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Thank You

