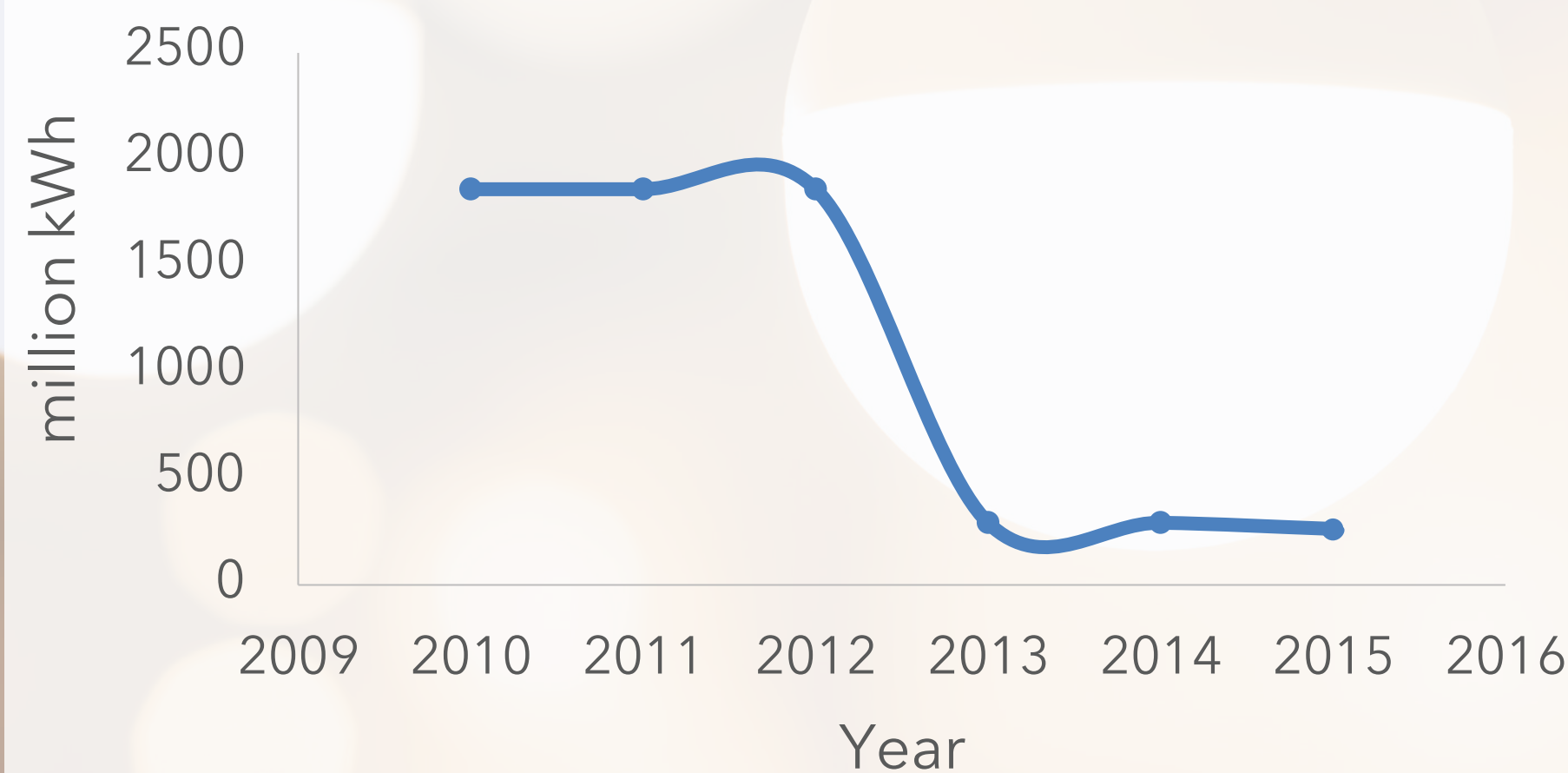


Loss of Lighting Savings Getting You Down? It's time to CHEER up!

Selena Bell Heise, Rosemary Mullane, and Stephen Bickel, D+R International and Alex Araiza, SMUD

Nationally, residential lighting used to account for almost half of all residential energy savings

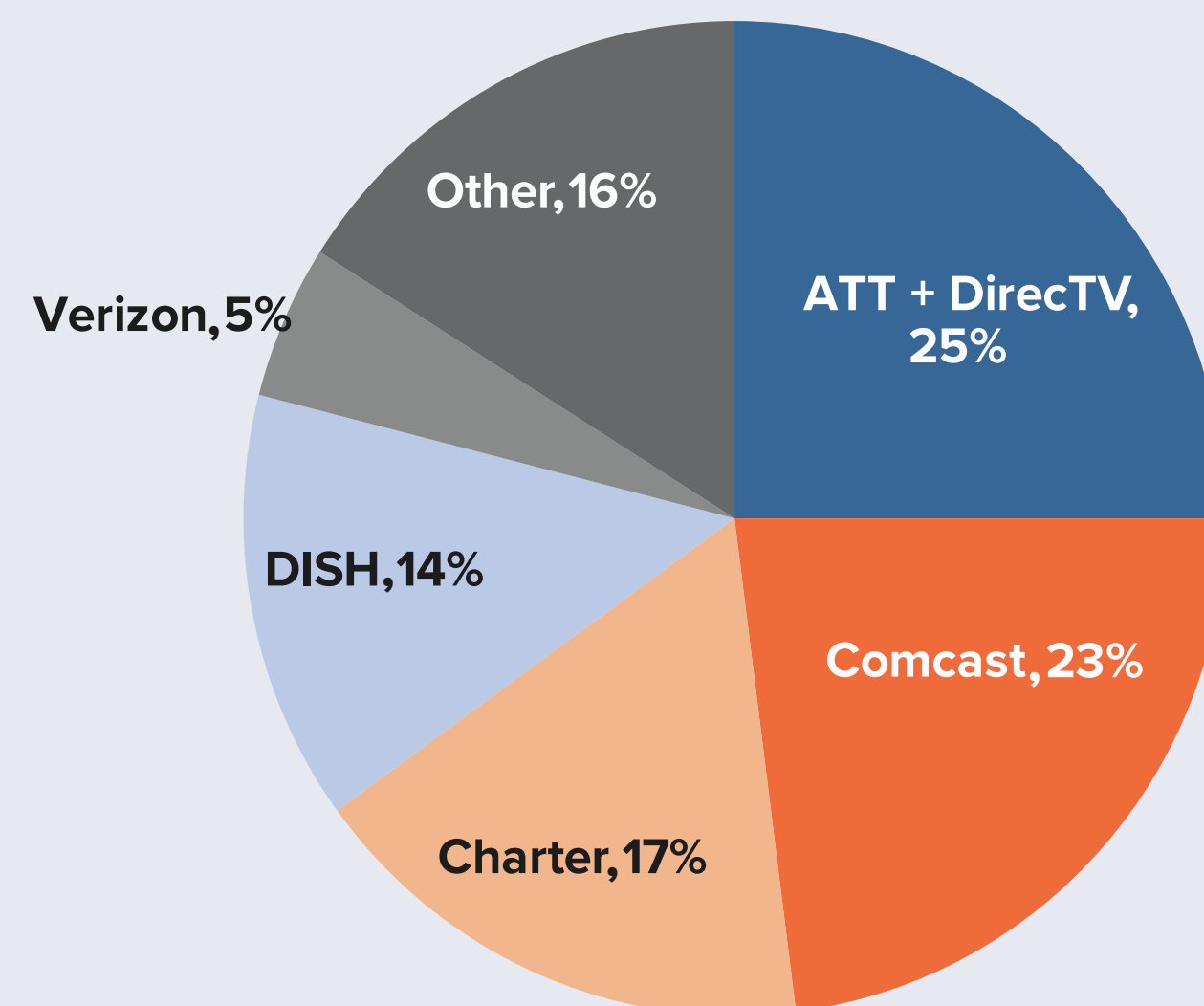
CA IOU Residential Lighting Evaluated Net Savings



Where can we get scale at low cost to replace lighting?

Pay TV Direct Install

99.4M subscribers



Techs visits millions of homes

Tier 2 Advanced Power Strips

Shuts down TV and controlled peripherals

60-75 min

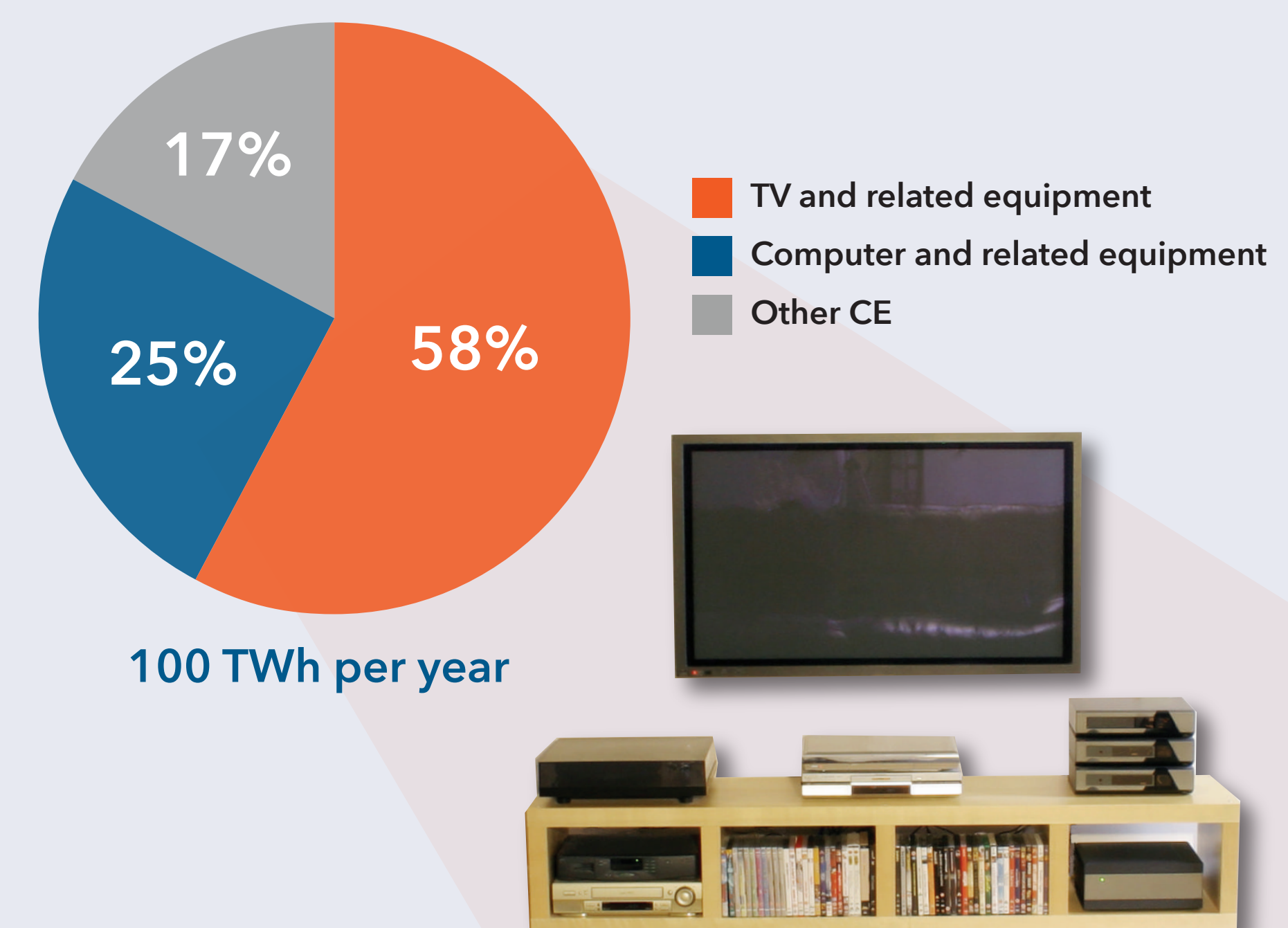
Leaves set-up box and other designated product on



125-350 annual kWh
625-3000 lifetime kWh
25-40 aW peak load reduction

Coalition for Home Electronics Energy Reduction (CHEER)

Consumer Electronics Electricity Consumption



CHEER Because Everyone Wins

STAKEHOLDER VALUE PROPOSITION

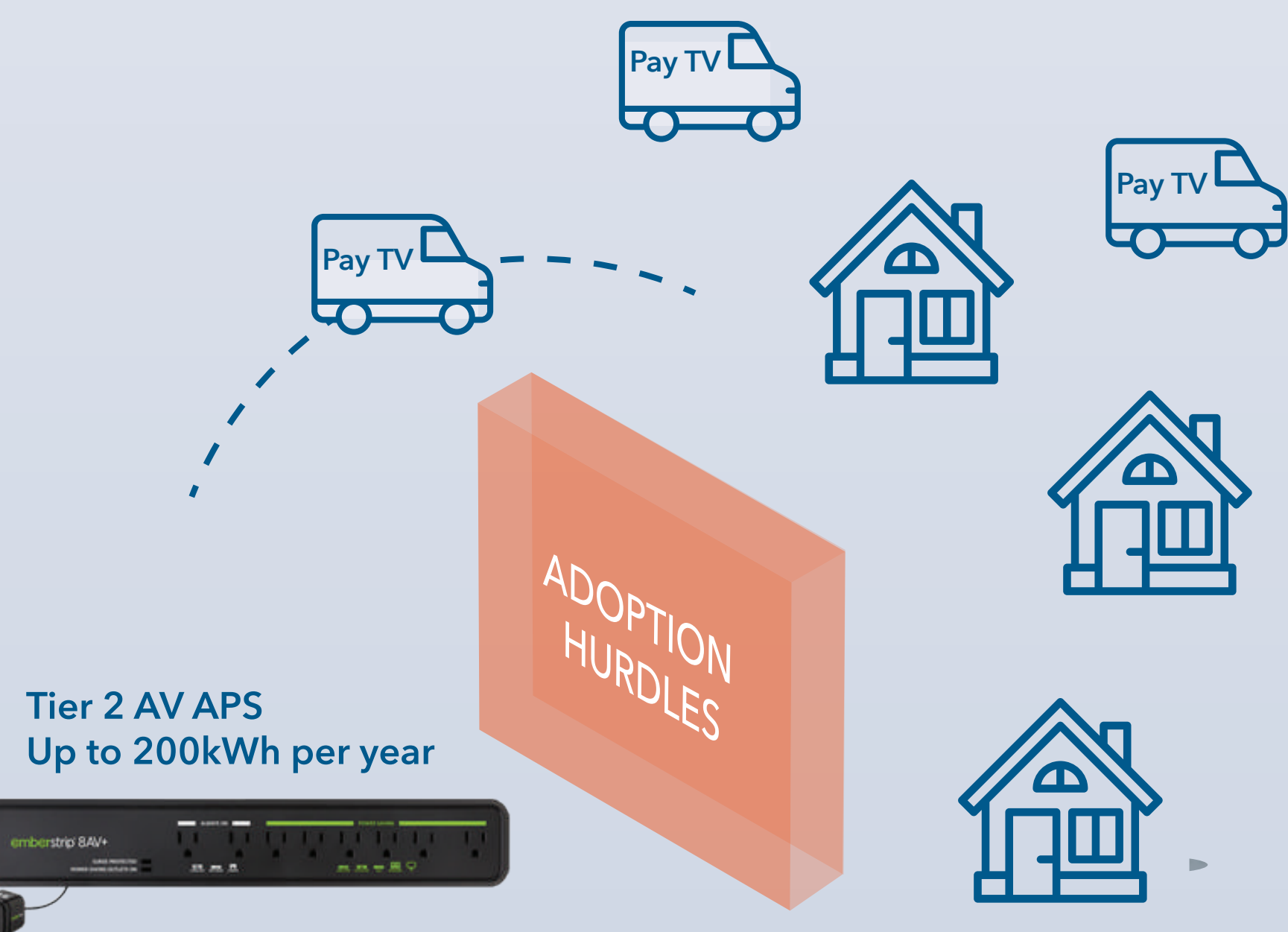
Regulators, program sponsors and implementers	<ul style="list-style-type: none"> Establish national EE market 1,260-2,000 MW peak load reduction by 2025 10-12.5 TWh
Pay-TV providers	<ul style="list-style-type: none"> \$750 Million to \$2 billion Create an EE market alternative to regulation
Customers	<ul style="list-style-type: none"> \$10-13 billion lifetime electricity cost savings

THE PILOT AND BEYOND


The Concept


Make complex EE improvement easy for customers


- At scale and
- Reasonable cost
- By leveraging existing networks



12-month Pilot Structure

 4,000 homes total
 500 with WiFi loggers, 1 minute data
 1,600 with no logging
 2,000+ additional installations post stage gate

 SMUD
 2 Pay-TV providers
 2 Tier 2 APS manufacturers
 D+R

 Energy and load reduction
 Critical peak impacts
 In-service rate
 Estimated useful life

Pilot Goals

- o Prove concept to utilities and Pay-TV providers
- o Measure savings over extended population and time
- o Assess satisfaction with custom product
- o Expand CHEER to regional and national
- o Add Pay-TV providers and lower cost of savings

Progress

- ✓ Pay-TV partner recruited
- ✓ Custom products designed and tested
- ✓ DOE funded peer reviewer
- ✓ Launched CHEER

Other EE Products for PTV-DI



JOIN THE CHEER LEADERS



Contact



CHEER@drintl.com

ISSUES AND CONCERNS	PAY-TV DIRECT INSTALL
High price	Free to customer
Limited availability	Distributed to millions
Risk of APS not or incorrectly installed	Professionally installed
Risk of customer confusion and removal	On-call customer service
High variable deemed savings	SMUD PILOT
Concern about customer acceptance	