

Something to CHEER About!

CalPlug Semiannual Workshop Series #1

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Make America Great and Green Again

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Vice President
Market Development

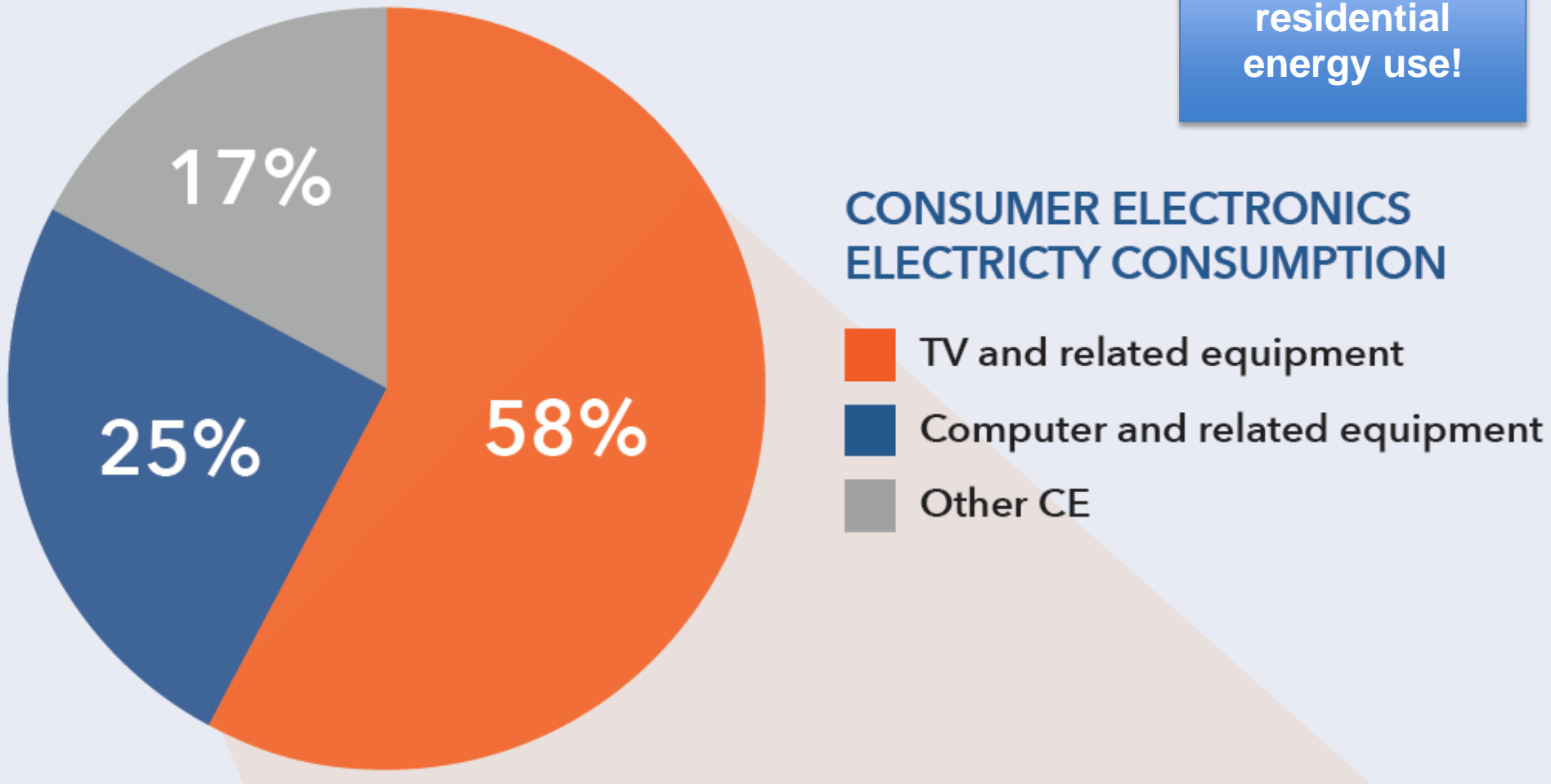
D+R
International

- **The Search for the Next Great EE Measure**
- **Home Electronics**
- **Innovative Market Partnerships**
- **SMUD & Direct TV Pilot Program**
- **Building CHEER**

CA IOU Residential Lighting Evaluated Net Savings



8% of annual
residential
energy use!



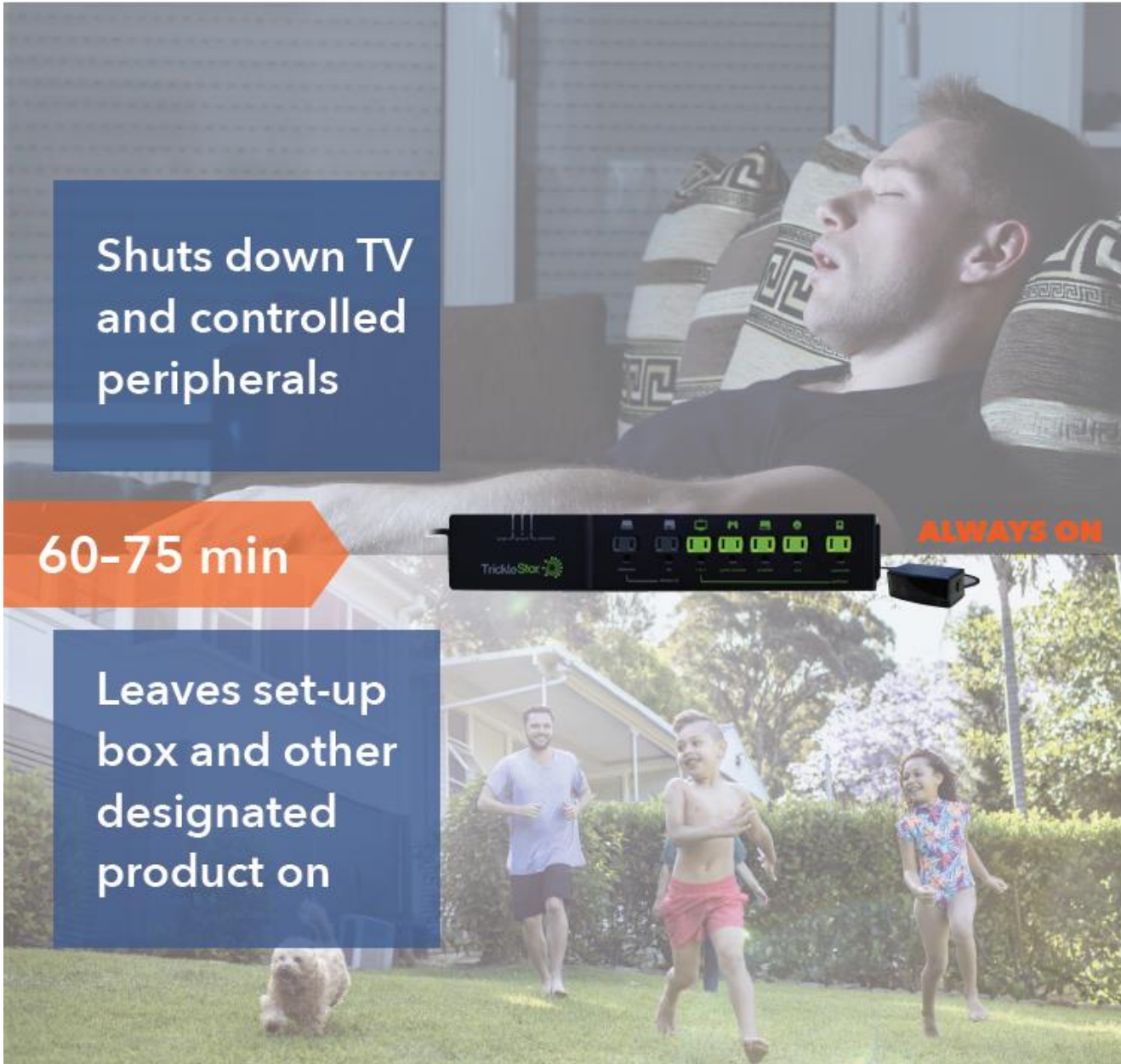
Shuts down TV
and controlled
peripherals

60-75 min

Leaves set-up
box and other
designated
product on

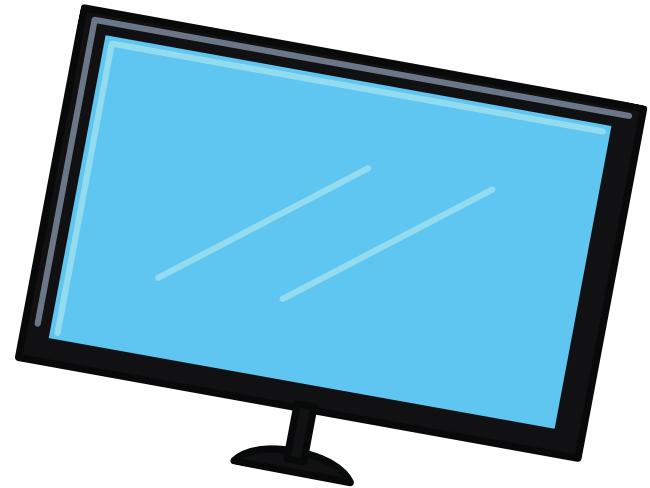


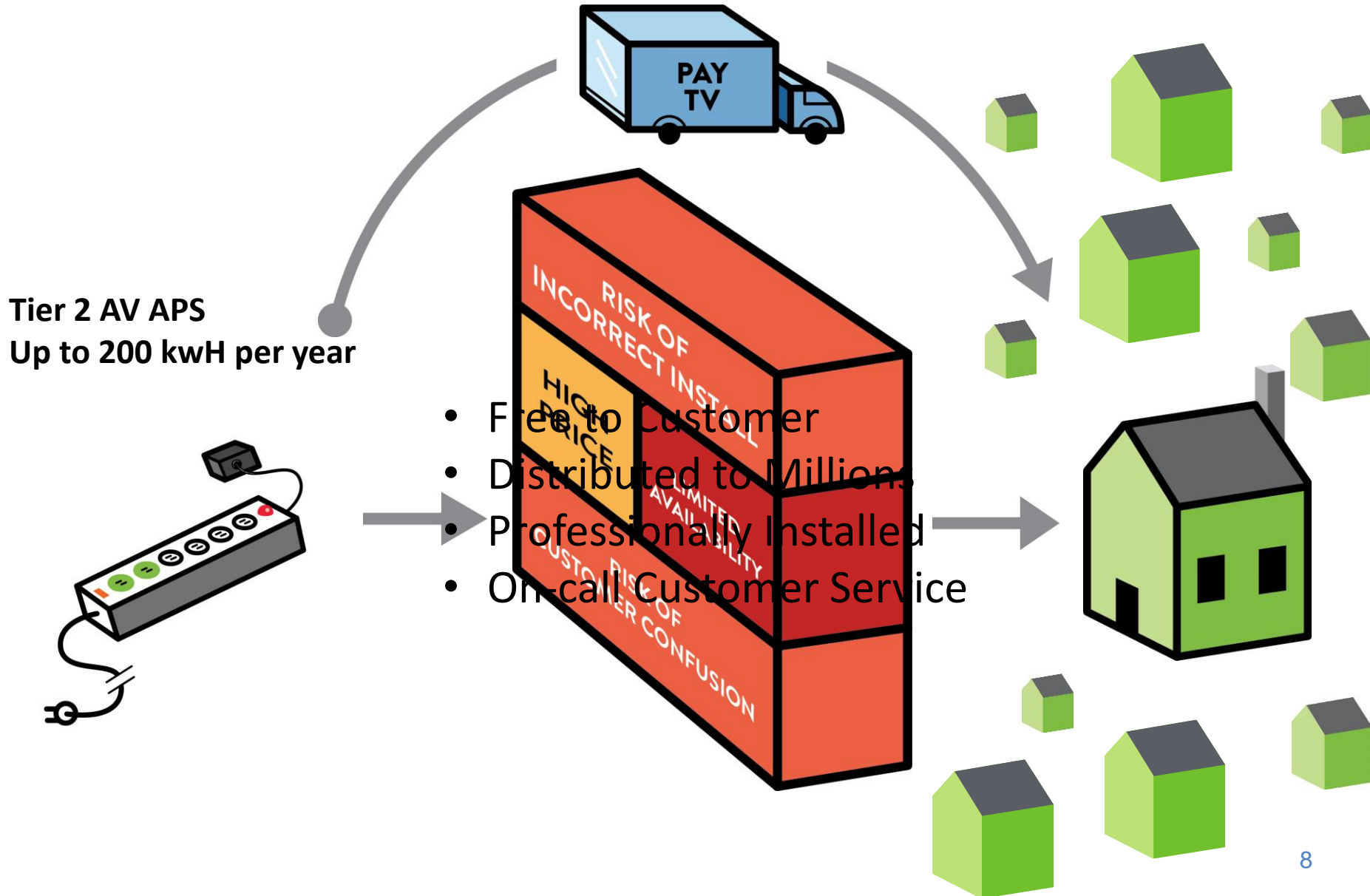
ALWAYS ON



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	

- **Pay-TV Providers**
 - 100 million U.S. households subscribe to pay-TV
 - Technicians visit tens of millions of homes per year
 - New programs rolled out frequently with technicians
 - Established customer service infrastructure





Proof of Concept:

SMUD Pay-TV

Direct Install Pilot

12 month pilot



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

Coalition for Home Electronics Efficiency Reduction (CHEER)



Partnership

- Regional organizations
- Advocates
- Federal and state regulators
- Consumer electronics and telecom industry manufacturers and service providers
- EE Program Sponsors/Utilities

Phase 1 Goal

- Cut AV energy consumption by 10 percent (10 THr/yr) by 2027
- Above and beyond current voluntary agreements

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 2020 • 10-12.5 TWh reduction in electricity [10% U.S. annual AV electricity consumption in 2013]
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

* Numeric estimates are based on the following assumptions: 1700-2125 lifetime kWh per primary AV system; 0.0252-0.0400 kW peak load reduction; one device on primary AV system per home; 50 million homes; \$0.1236/kWh electricity billing rate, 8.5yr EUL.

Other Pay-TV Direct Install Opportunities

Wi-Fi thermostats

Smarthome hubs

Batteries with DR services

Set top boxes



Northeast Energy Efficiency Partnerships



BECOME A CHEER LEADER TODAY!

Contact



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