

Energy Information Systems “Inside the box”

CalPlug Set-Top Box Workshop
October 30, 2012

Southern California Edison

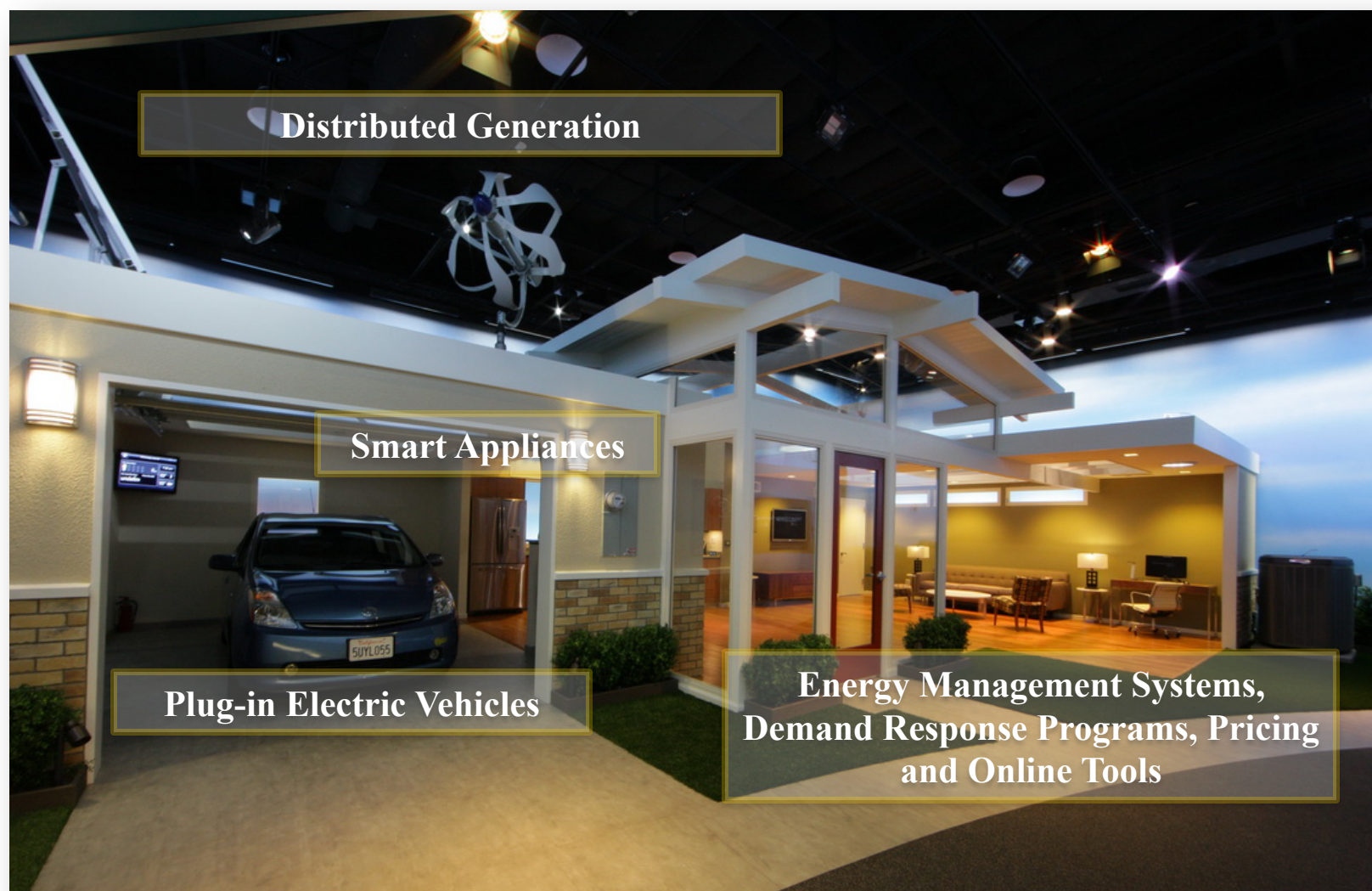


- One of the nation's largest electric utilities
- Nearly 14 million residents in service territory
- 4.9 million customer accounts
- 50,000 square-mile area
- Over 110,000 miles of distribution and transmission lines
- 125 years of experience

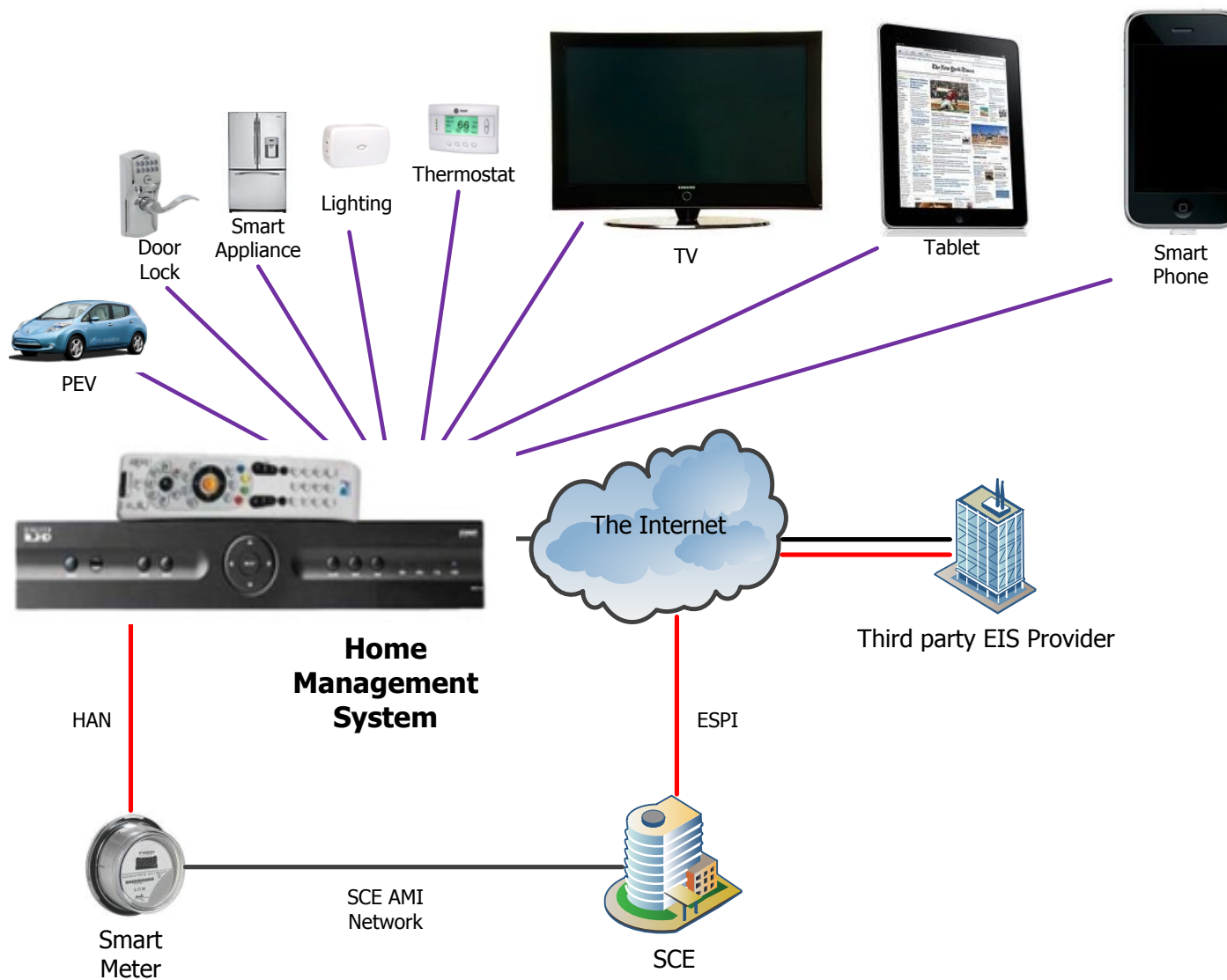
Edison SmartConnect® Program

- 5 million “smart” meters installed by end of 2012
 - Total approved project: \$1.6 billion
- Implementation expected to:
 - Promote energy efficiency benefits, potentially reducing as much as 1,000 MW of peak demand
 - Avoid GHG emissions up to 365,000 metric tons per year
 - Provide customers:
 - access to energy use, cost information, and dynamic rate options
 - capability to integrate smart appliances and devices within the home

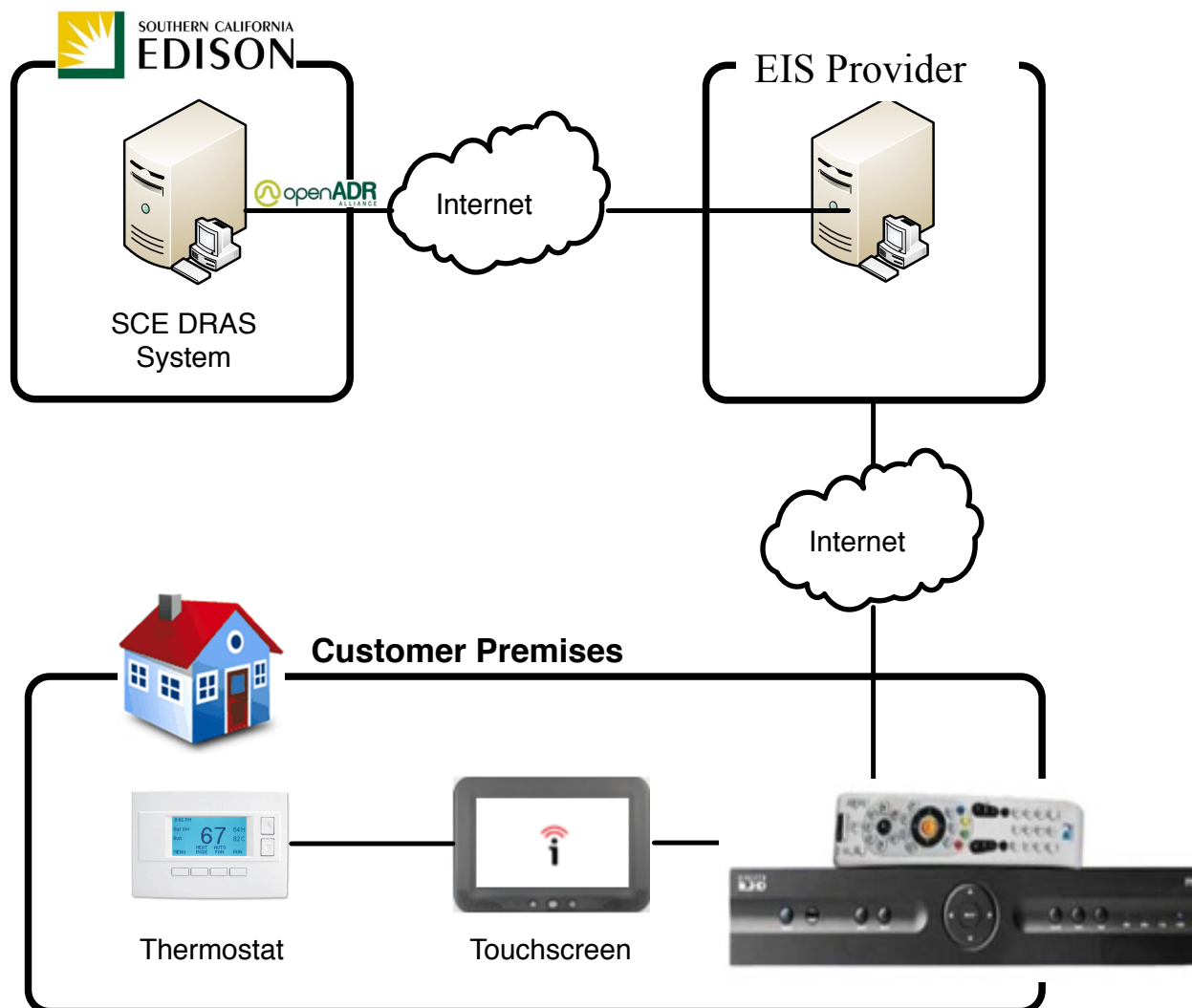
“Smart” Home



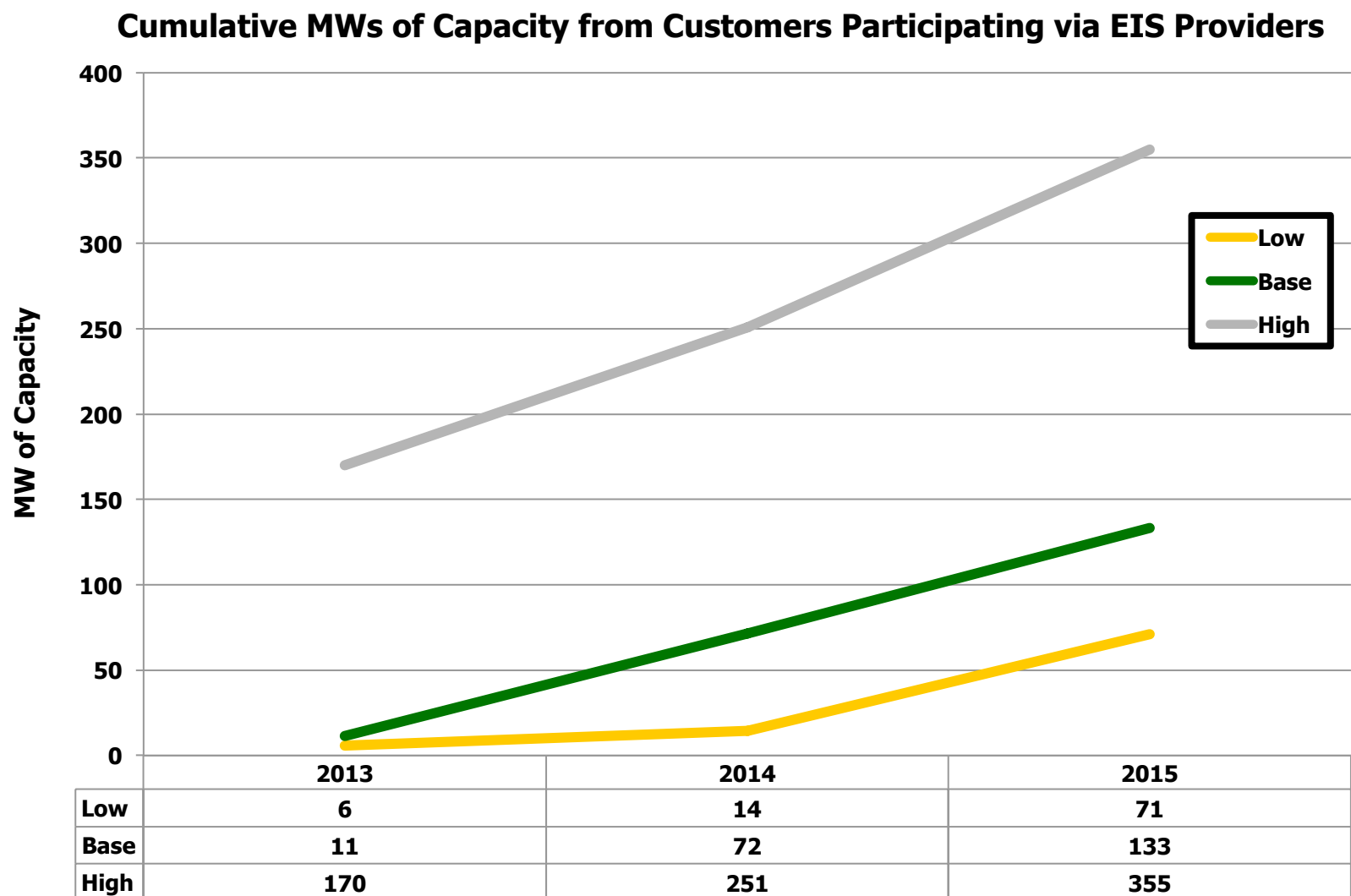
HAN Architecture



Cloud-Cloud Architecture



EIS Provider potential up to 355 MWs



SCE DR Programs

	SCE Peak Time Rebate	SCE Summer Discount Plan	DR Aggregation Model
Customer involvement:	Voluntary energy reduction	Automatic AC control with override	3 rd party interacts with customer
Payment based on:	Actual energy reduction	Tonnage of central air conditioner	SCE pays 3 rd party base + reduction
Savings to customer:	\$1.25 per kWh from baseline	Between \$50 - \$200 per program	Between 3 rd party and customer
Events per year:	7 events called in summer 2012	~20 hours per customer in 2012	Contract vs. daily energy market price

2013 EIS Objectives / Strategy

Increase number of devices connected to meters

- Develop trial with EIS provider to deliver real-time energy information (and DR) services directly to TVs through STBs

Increase participation in DR programs (without the meter)

- Develop trial with EIS provider to implement DR with STBs & Communicating Thermostats via OpenADR (i.e. Internet)

Increase participation in EE programs (new technologies)

- Explore application of energy disaggregation technology
- Develop trial for replacement of inefficient STBs

Benefits to EIS Providers

- Provide customer (and by extension, service provider) ROI
- Increase incremental device sales (e.g., thermostats)
- Differentiate from competitors with green messaging
- Capture more home services and reduce churn