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# Set-Top Box Incentive Programs: The “Slippery Frog” or A “Subliminal Fog”?

**CalPlug Set-Top Box Workshop**  
**October 30, 2012**

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# Agenda

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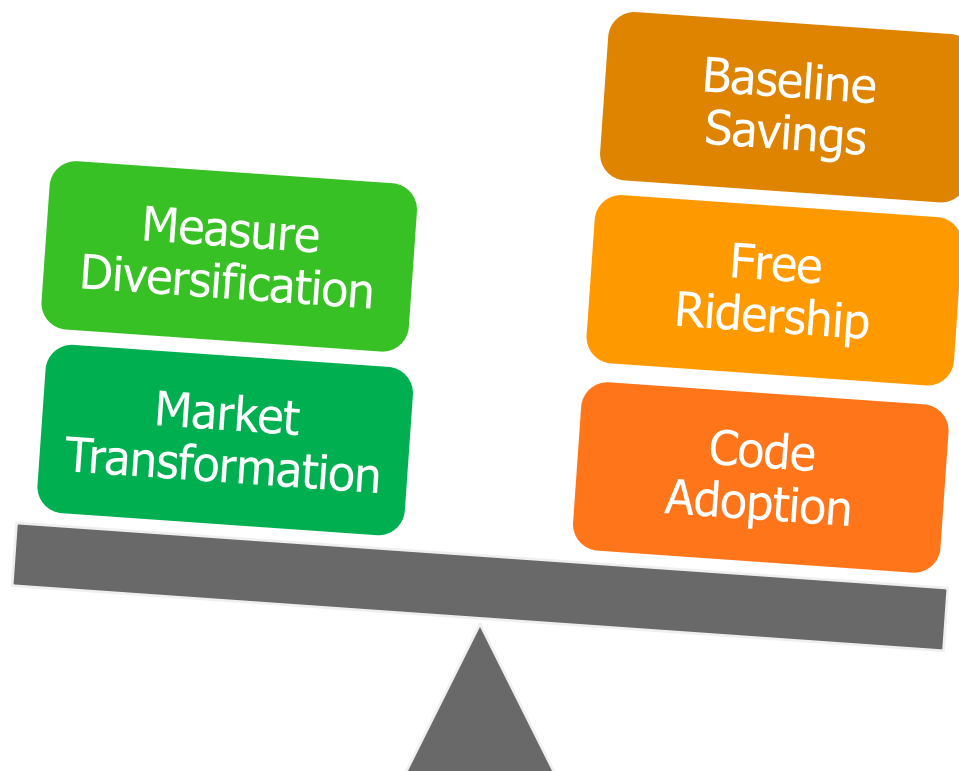
- Plug Load Program Drivers
- Set-Top Box Market Drivers
- Incentive Program Considerations
- Ongoing Utility Activities
- Energy Management Opportunities
- Next Steps



# Plug Load Program Drivers

Program  
Effectiveness

Cost  
Effectiveness



# Set-Top Box Market Drivers

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- **ENERGY STAR Program**

- Version 3 effective September 1, 2011 – upgrade to more efficient STBs
- Version 4.1 effective TBD 2013 – upgrade to “deep sleep”

- **Industry Innovation**

- By end of 2013, at least 90% of new STB deployments will meet ENERGY STAR 3.0 for top six U.S. cable providers (representing 85% of U.S. Cable customers)
- In 2014, CableLabs® will field test “deep sleep” capabilities (5-10 watts)
- Presently, 90%+ of DIRECTV STBs meet ENERGY STAR 3.0

- **Voluntary Agreement**

- Agreement for adaptability in exchange for data and focus on whole home and U.S. consumption
- Modeled after European Union voluntary agreement with greater data transparency
- Target signature date was October 1, 2012

- **Title 20 Standards**

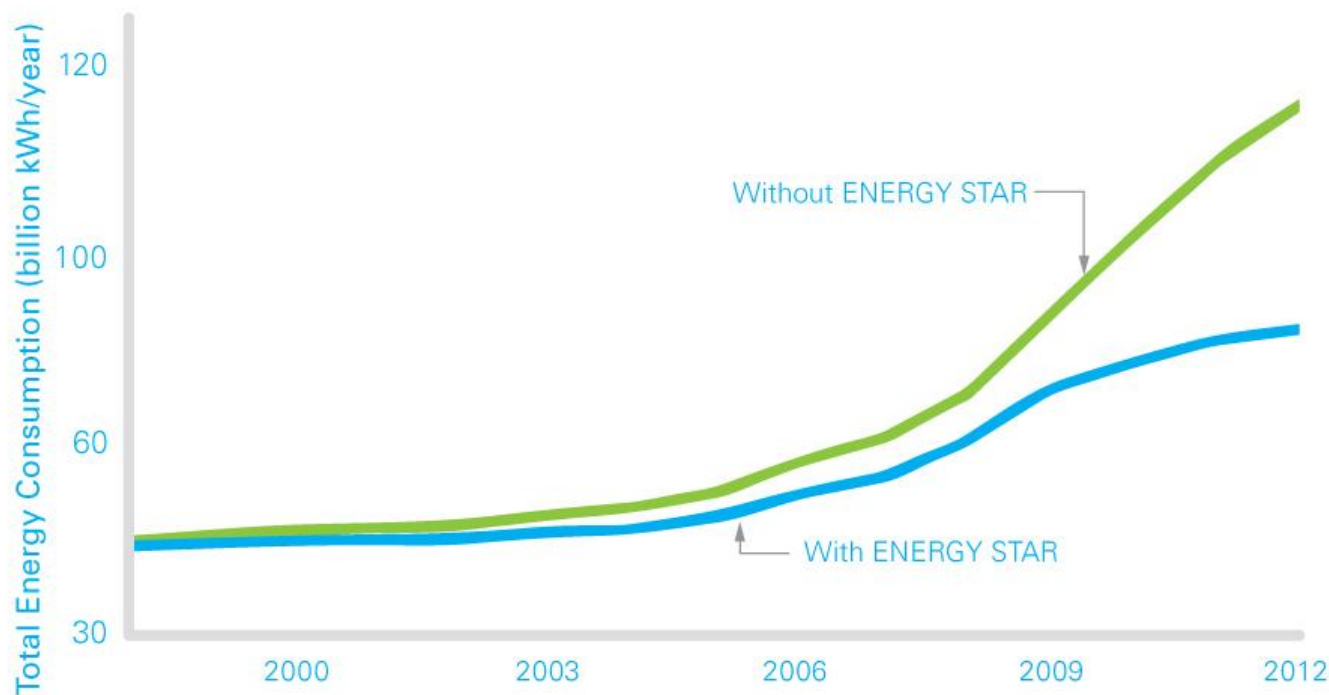
- Phase I CASE Proposal for ENERGY STAR 3.0 as mandatory code
- Potential to become code by end of 2014 to early 2015

- **DOE Regulation**

- Earliest compliance date by possibly 2018 or 2019

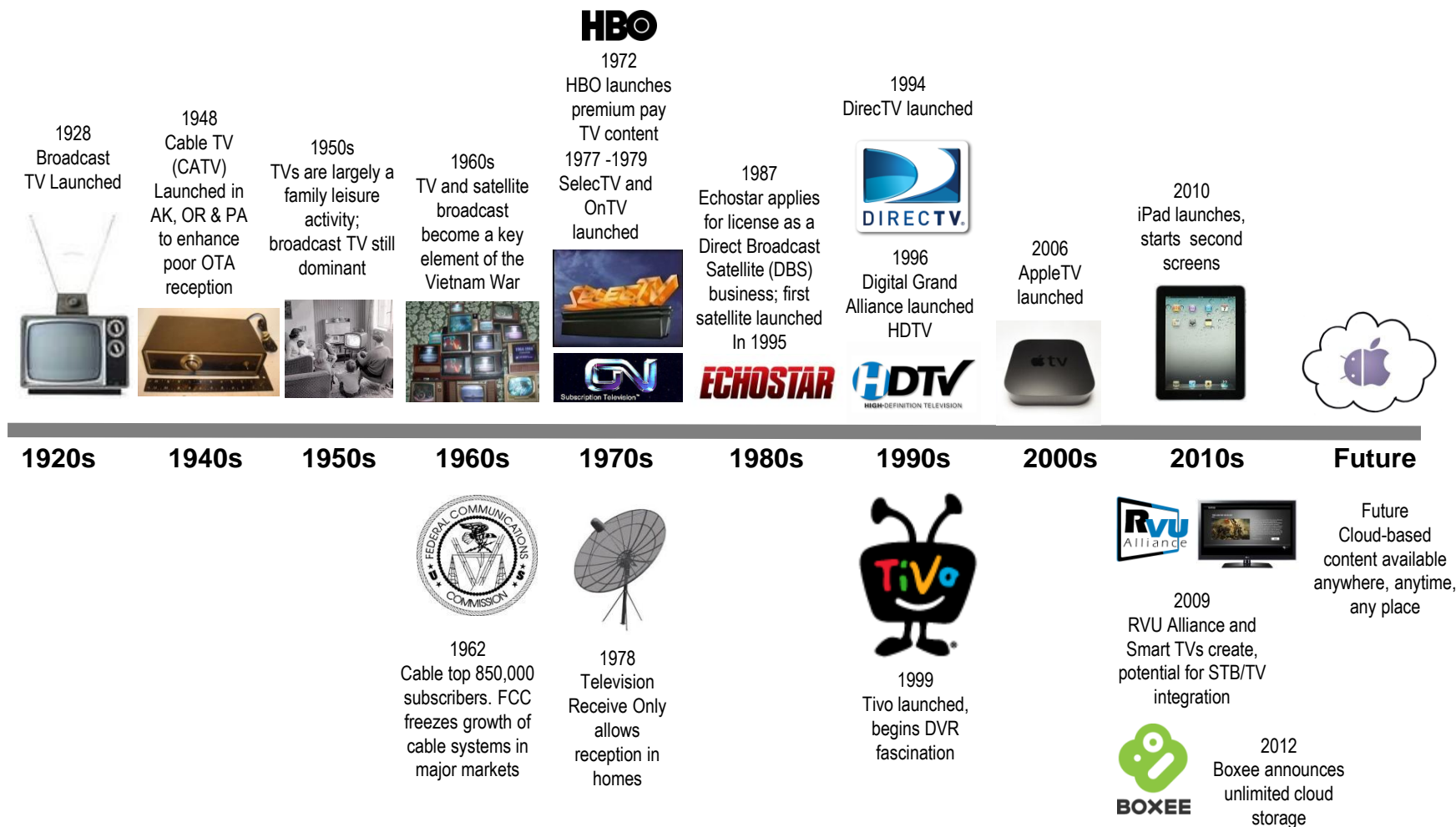
- **Voluntary Incentive Programs**

# ENERGY STAR Impact - Televisions



TV sales and sizes have increased dramatically in the U.S. over the past 20 years—40 million are projected to ship in 2012, with an average screen size of 50 inches. With ENERGY STAR, electricity use for TVs in the U.S. is 36 billion kWh per year less than it might have been.

# Pay-TV/Set-Top Box Milestones



# Incentive Program Considerations

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- **Coordination with Title 20**
  - Potential coinciding launch timing by early 2015
  - Potential for baseline savings shift
- **Baseline Savings Uncertainty**
  - Pilot needed to collect baseline data for work paper development
- **Delivery Strategy**
  - Regulatory challenges to midstream approach
- **Attribution Risks**
  - Demonstration of program influence on procurement plans
    - Large service providers typically buy on a national scale
    - Large service providers influence STB and system design
  - ENERGY STAR 50% procurement commitment influences baseline
  - Cable commitment influences baseline
- **Cost Effectiveness Risks**
  - Limited visibility into incremental cost of efficient STBs

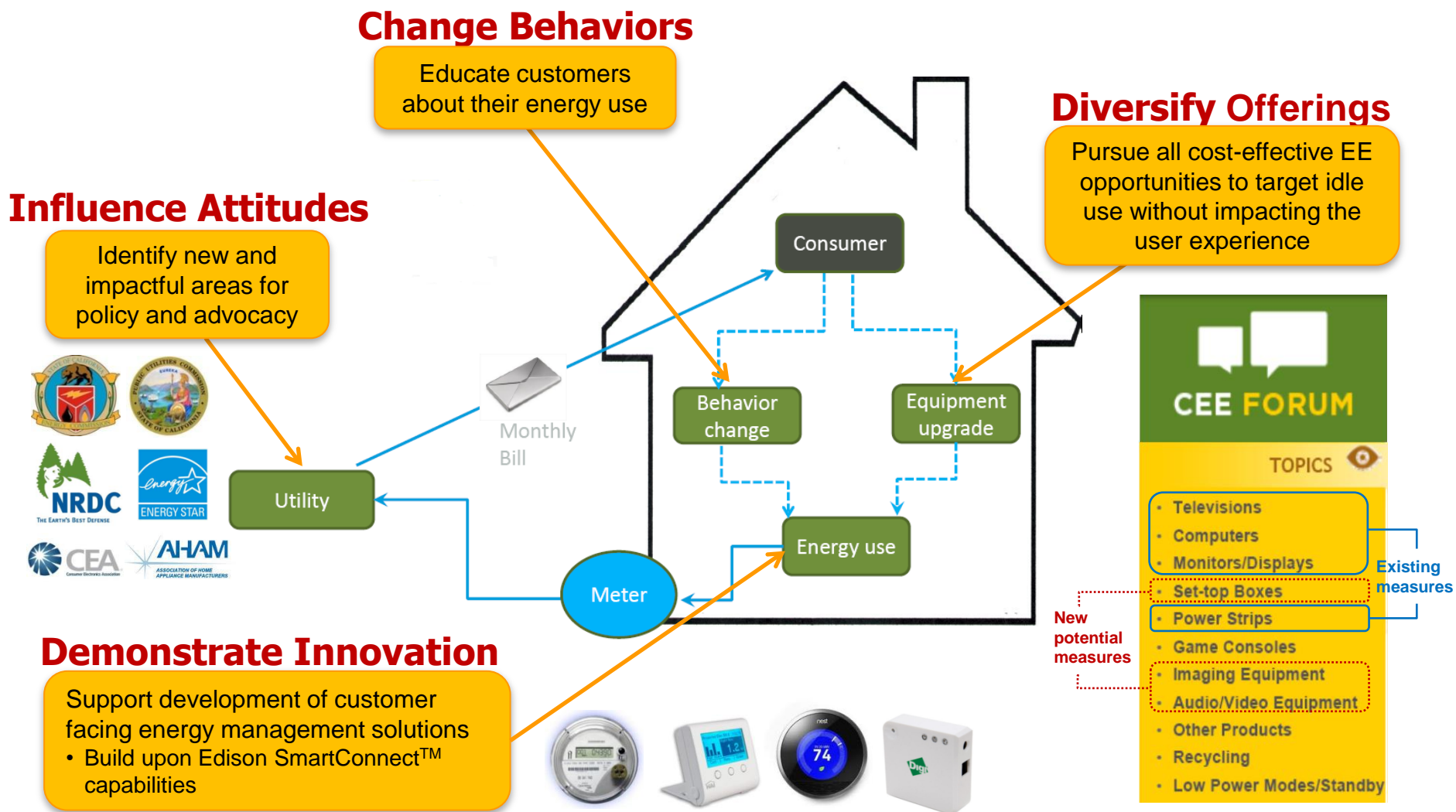
# Ongoing Utility Activities

- **Codes and Standards Activities**
  - Title 20 CASE Proposals
  - Voluntary Agreement and Federal Standards Support
- **EE Set-Top Box Pilot Activities**
  - SCE STB Proposed Pilot for 2013-2014
- **DR Pilot Activities**
  - OpenADR enabled PCTs
  - SmartConnect™ enabled STBs as IHDs
- **EE Coordination Activities**
  - Statewide IOU PLA Program Coordination
  - CEE STB Working Group
  - UCI CalPlug STB Research

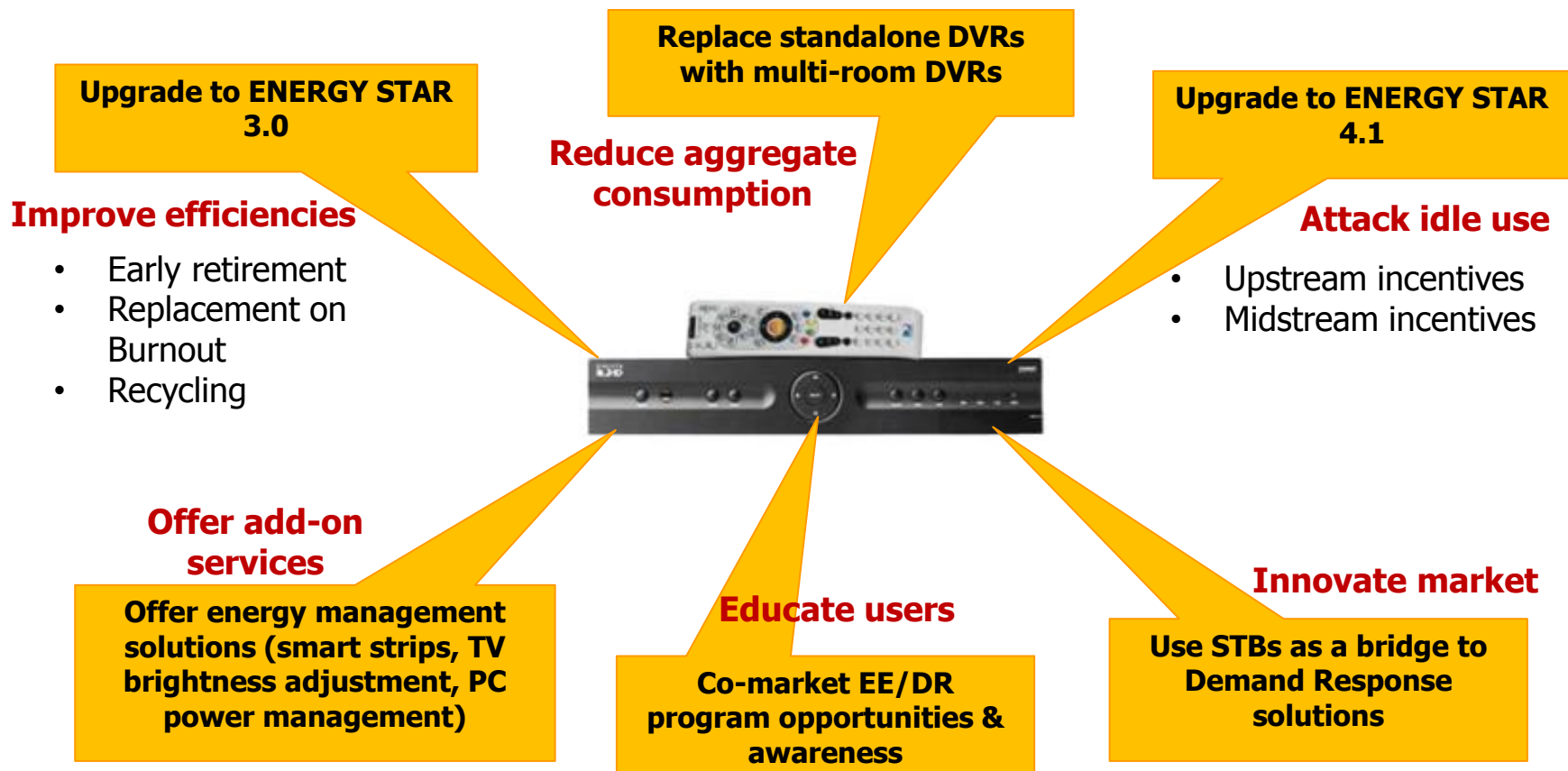




# Energy Management Opportunities



# Set-Top Box Intervention Opportunities

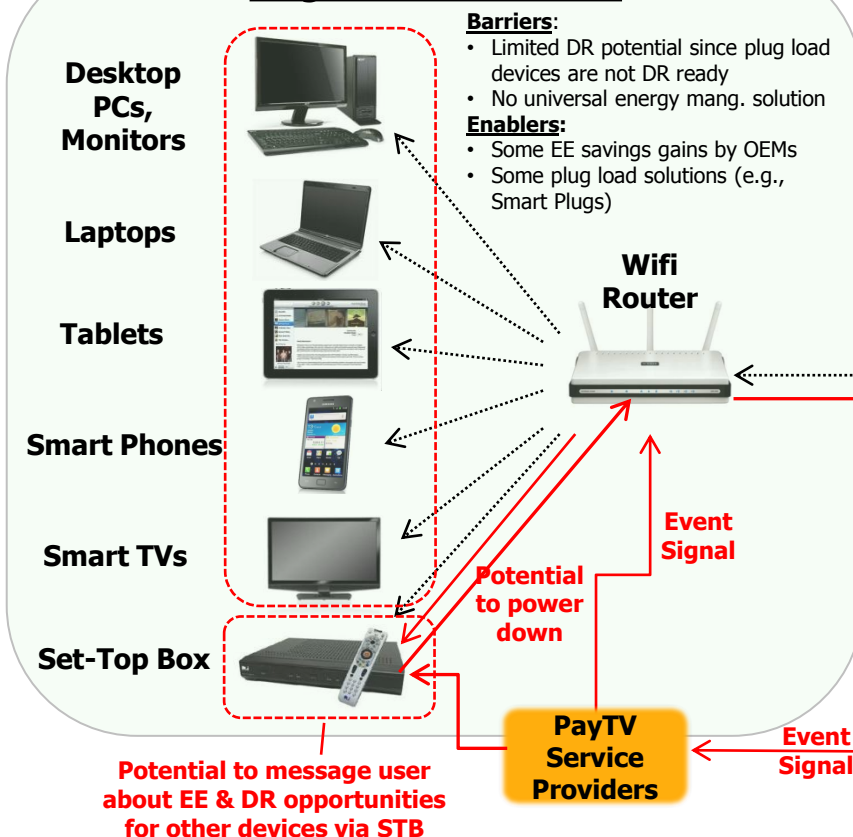


***STBs represent a new channel opportunity beyond incremental energy savings***

# Ex: Energy Management Opportunities

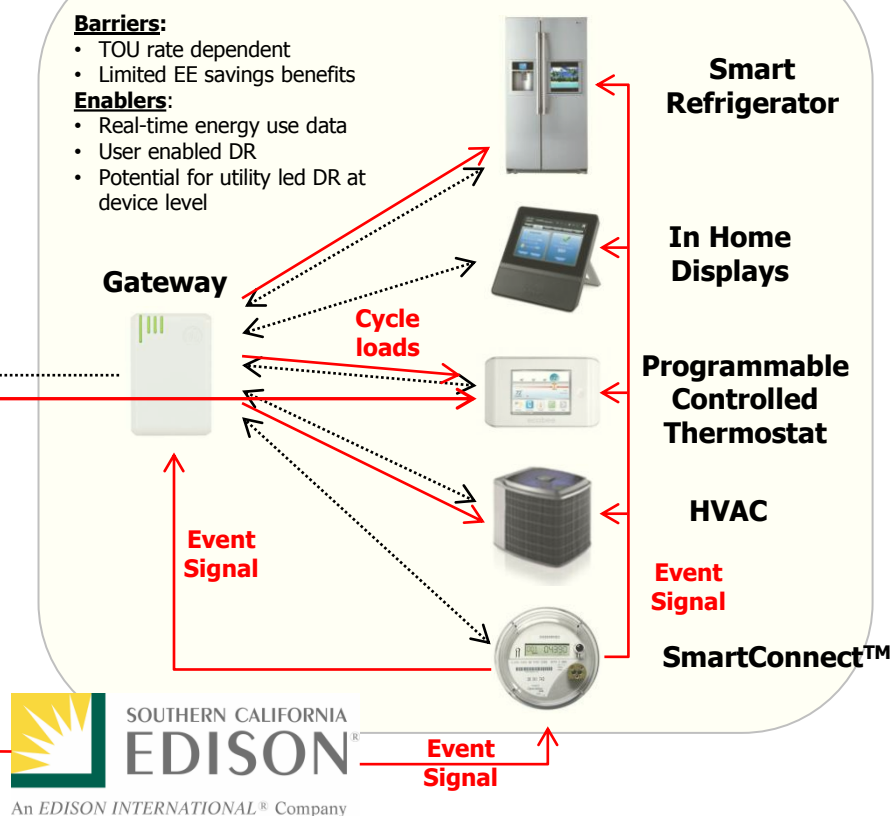
## Present Home

### Plug Load Environment

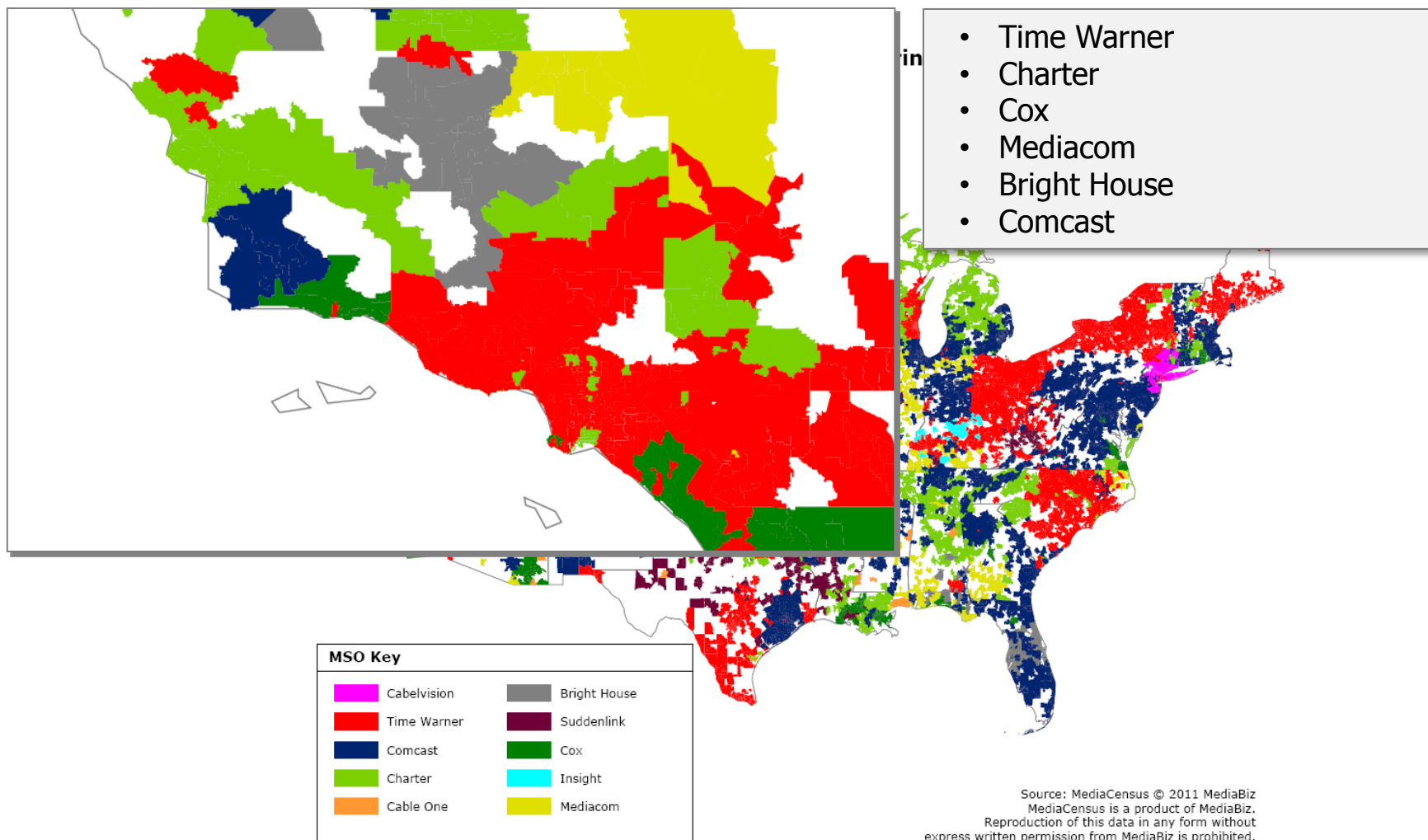


## Future Home

### Home Area Network (HAN)



# Top Cable Providers in SCE Territory



# Next Steps

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## **1. Engage pay-TV service providers now to explore pilot opportunities in 2013**

- Explore data collection needs for work paper and program development
- Identify baseline savings potential for ENERGY STAR Version 3.0
  - Accelerated replacement or replacement on burnout, whichever is most cost effective
  - Determine if a mainstream EE program can be cost effective
- Explore additional opportunities where feasible
  - Add-on services for advanced power strip direct installation, TV brightness adjustments
  - Multi-room DVRs, add-on services and Version 4.1 STB research
  - Upstream opportunities with manufacturers

## **2. Continue ongoing coordination with stakeholders**

- Identify common barriers, research needed, and opportunities
- Develop collaborative timelines to balance incentive and codes and standards
- Encourage further industry innovation and ENERGY STAR progression

# Thank-You

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