California Plug Load Research Center

Set Top Box Energy Efficiency Workshop

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California Plug Load Research Center

California Institute for Telecommunications and Information Technology

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Purpose of the CalPlug Center

- Help California and U.S. improve energy efficiency in appliances and electronic devices
- In the residential and commercial sectors
- Through research, demonstration, education
- About engineering, incentives, codes and standards, and behavior

Scopes of Work

- **Broadest Term:**

  All electric appliances and electronic devices, residential and commercial – the "plug load" considered for the first time as one unit, previously thought of as a "remainder"

- **Near Term:**

  Electronic devices, residential and commercial - Scope of choice based on need and on UCI's relative strengths

- **First Project:**

  Set-top box energy efficiency

A Holistic Approach

- Engineering Research
- Market/Behavior Research
- Organizational Coordination
- Education Outreach

"We don't have energy-efficient appliances but the food in the 'fridge has gone green."

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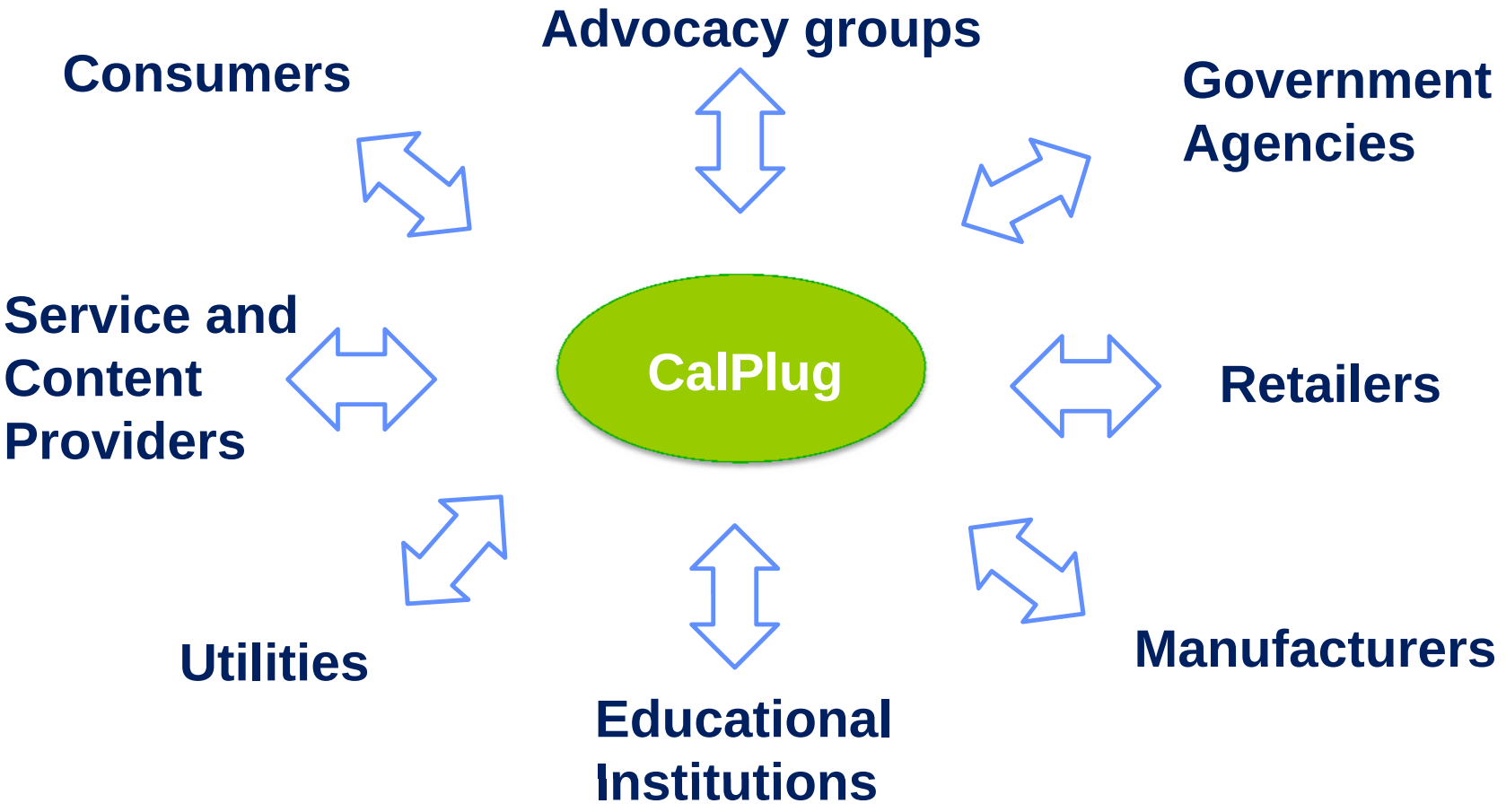
Center Interactions with Key Partners

Neutral playing ground for diverse groups with various challenges and approaches to explore common objectives and goals with the ultimate goal of energy efficiency.



Set-Top Box Workshop

- **Goal:**

  To accelerate energy efficiency in STBs (box and network) by all means including innovation in STB hardware and software, codes and standards, and incentives and rebates

- **Anticipated outcome:**

  To create an energy efficiency working group for strong collaborations among players including research centers, manufacturers, service/content providers, utilities and government agencies

Set Top Box Workshop

- **Morning is to ground us with current STB technology, market, testing procedure and standards. Will also cover advanced energy efficient STB technology and service trends in cable and satellite TV industry.**
- **Demos / Student projects**
- **Afternoon is to consider possible paths forward via technology innovation, overcoming "soft" barriers, identifying alternative business models and deriving action plans.**

Acknowledgements

- Planning committee members
- CEC – support for STB research at CalPlug
- CalPlug Center exhibit sponsors
- Speakers and panel members
- CalPlug students

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We welcome opportunities for collaboration.

Thank you!

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