



# Vehicle Electrification: The Next Frontier for Community Choice

5 May 2017  
Business of Local Energy

# About Strategen

## Strategies for clean energy

Strategen provides insight to global corporations, utilities and public sector leaders, helping them to develop impactful and sustainable clean energy strategies



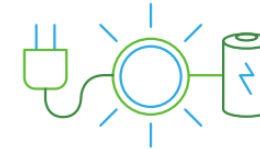
### CLIENTS

We work with governments, utilities, research institutions, technology providers, project developers, and large energy users seeking to evaluate and implement next generation grid and clean energy technologies.



### SERVICES

Our clients come to us for our expertise in developing business models, commercial strategies, financing tools and regulatory support that empower them to create sustainable value and long-term solutions.



### MARKETS

Our exclusive focus on clean energy and advanced grid technologies means we bring our clients a sophisticated understanding of industry trends, market drivers and regulatory policy.



### TEAM

Our team is comprised of well-respected thought leaders and industry experts who have played instrumental roles in shaping the power sector's transformation in the 21st century.

**We are experts in power sector strategy. Our track record and networks are unmatched in the business.**

- Cost/benefit analysis
- Market entry
- Public proceeding support
- Regulatory strategy

- Product development
- Grid resource planning and procurement
- Stakeholder engagement and education
- Mergers and acquisitions



# ENERGY<sup>®</sup> STORAGE NORTH AMERICA

*The largest gathering of policy, technology and market leaders in energy storage in North America*

*This Year's Focus: The Transition*

## Energy Storage North America

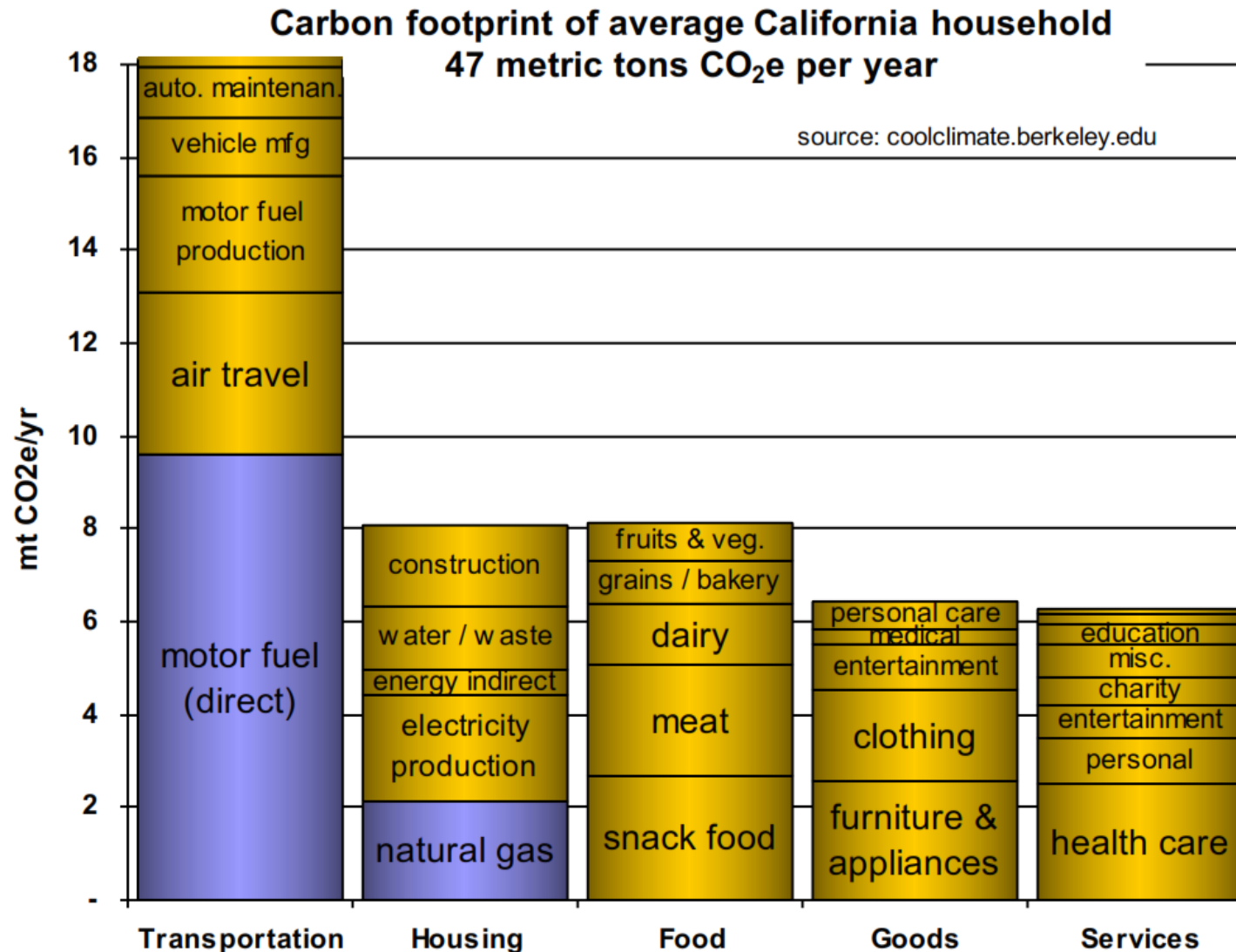
August 8 – 10, 2017

San Diego Convention  
Center

San Diego, CA

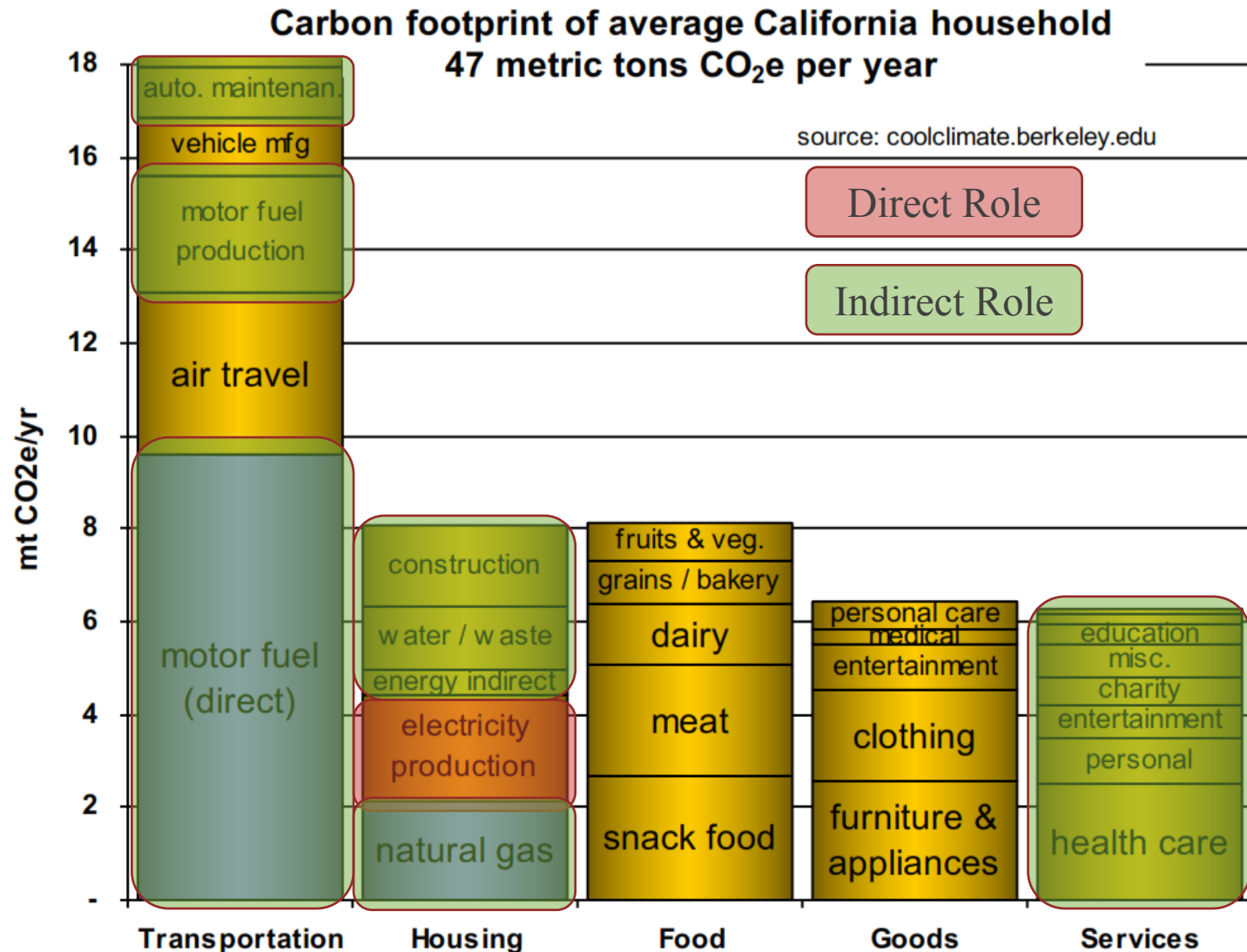


# Transportation Electrification: Key to AB32 goals



- We are putting a lot of effort and money into decarbonizing the grid – and it will have an impact on GHGs... BUT
- Transportation electrification is where the real GHG reductions can happen
- In fact, state & community GHG goals cannot be met without deep transportation electrification

# CCAs play unique role in GHG reduction



- CCAs top goals include GHG reduction and supporting local economy
- Impact of electricity production is limited
- But *indirect* impact could be huge
- Electrification can play role reducing GHGs all categories in green
- As noted, biggest single line item is motor fuel
- ...but where to focus?

# Challenges of CCA support for electrification

- Data availability
- Incomplete control over customer rates
- Cost shifting
- Need to remain competitive with IOUs
- PCIA not time differentiated ( $\sim 3$  ¢/kWh no matter what time of the day)
- Size of CCAs = hard to get program scale
- CCAs must pay for programs via generation revenue, vs IOU receiving commission-approved funding (spread over all customers)

# Opportunities of CCA support for electrification

- Community-governed structure -> more expansive view of CCA goals
  - Top goals generally already supporting local economy, reducing GHGs
  - Potential for custom programs targeted at highest impact regions
  - Concept of “lowering customer cost” can be expanded to include fuel shifting
  - Return to shareholders not a competing goal
- Less regulation from CPUC
  - Quicker implementation
  - Less direct oversight
- CCA focus on exceeding IOU renewables procurement (50-100% renewables) can mean excess mid day procurement, requiring balancing
  - Discounted rates during peak solar?

# Idea – low effort / cost

- Low effort / cost
  - Marketing
    - Create caché for community choice EV owners opting for cleaner generation profile: Bumper Stickers!
  - Benefits
    - Network effect of EV ownership is huge
    - Early adopter customer segmentation for future target marketing:
      - cross reference EV tariff with opt-up renewables tariff options
    - CCAs can improve data on their own customers' EV ownership
      - May even drive new customers to opt-up or move to EV tariff



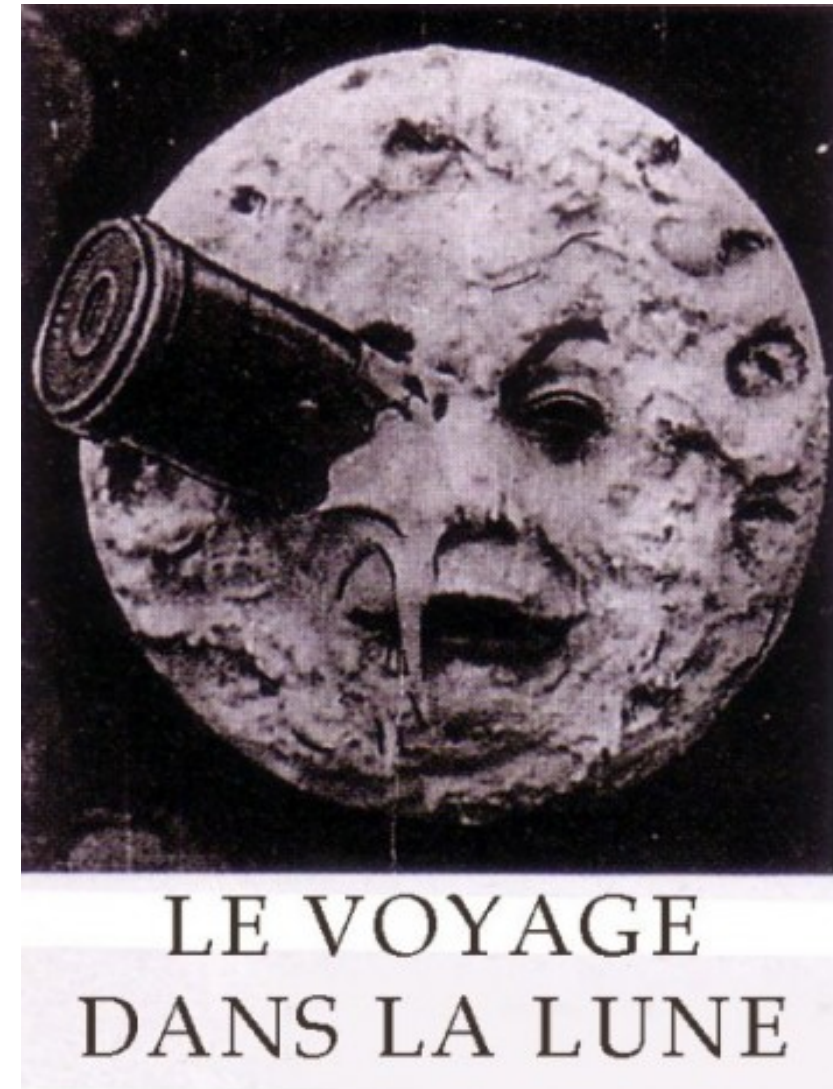


# Idea – medium effort / cost

- Rebates programs supporting community goals
  - School bus programs
  - Transportation districts
  - Rebate programs for customers going on EV tariffs or smart charging programs
- Must be:
  - Complementary to existing/future IOU programs
  - Compatible with data limitations
  - Consistent with goal of keeping CCA rates competitively priced

# Moonshot idea

- Free solar charging
  - Thesis: Duck curve needs to be solved, negative pricing during mid-day solar peak becoming much more common; and state highly supportive of transportation – grid nexus issues
  - Proposal: Customers buying new EVs & signing up for new tariff on separate meter (like EV-B) qualify for free mid-day charging (say 10-2)
  - Pros: Splashy, likely to get lots of press & encourage mass adoption of EVs
  - Cons: Uphill battle to get policy changes implemented to make this a reality (Would require regulatory and/or legislative changes)
  - Solution: IDER / dynamic markets / retail deregulation could give CCAs more freedom to set rates







# Thank You!

## For More Information

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