



Whetting Customer Appetite for Energy Savings in California's Fourth Year of Drought

BECC 2015

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Studies

Two studies with the same message:

Energy efficiency programs can use non-energy benefits (water savings specifically) to market incentivized energy efficiency items.

1. SDG&E Agricultural Market Study
2. SDG&E Plug Load and Appliance Field Service Evaluation



San Diego Gas & Electric





Outline

- California's Drought
- Agriculture Study
 - San Diego County Agriculture Primer
 - SDG&E Ag Program Offerings
 - Research Objectives
 - Relevant Findings
- Plug Load and Appliance Program
 - Relevant Findings



Drought in California

- 2015 is California's fourth year of drought
- Mandatory restrictions imposed Spring '15
- Shrunk snow pack (1/3 of water used)





San Diego County Ag Primer

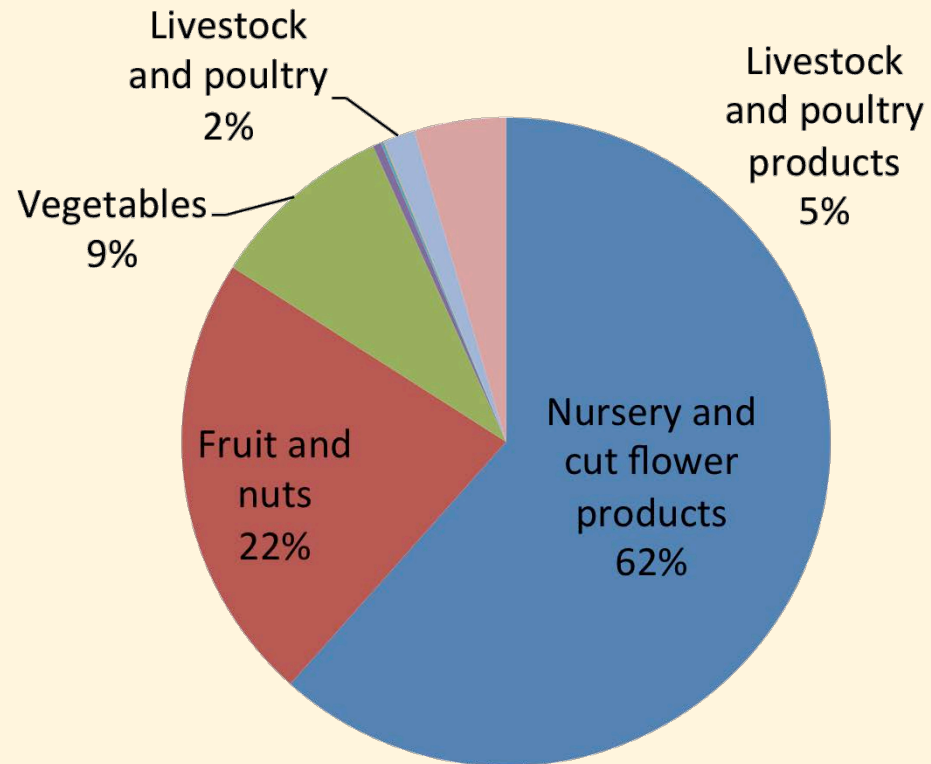
- 6,000 farmers
- 12th largest farm economy in US
- High water costs (over \$600/acre foot)
- Dry climate + high water costs = high value crops needed



San Diego County Ag Primer

Continued

2013 Ag Production as % of Total Monetary Value:





San Diego County Ag Primer

Continued

Ranks in top ten US counties for production of:

- Nursery crops
- Lemons, strawberries, macadamia nuts, avocados
- Egg laying hens
- Honey





SDG&E Ag Program Overview





SDG&E Ag Program Continued

- Also...
 - Water pump testing
 - Water pump upgrades
 - Variable speed drives on pumps
 - Energy audits
 - Lighting
 - Refrigeration
 - Motors
 - Air to air heat exchangers
 - Boilers
 - Outside air economizers
 - Fans
 - EMS
 - TOU rates



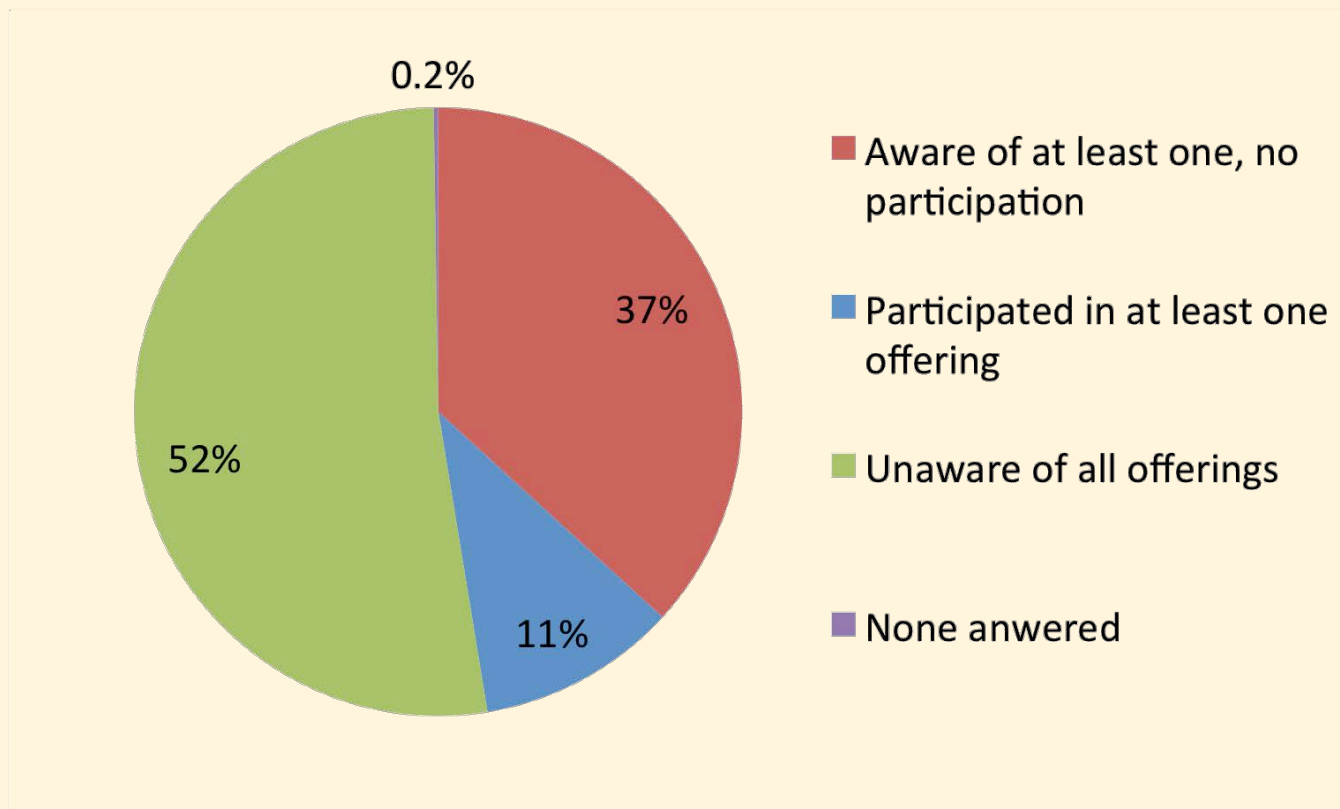
Research Objectives

- Provide real-time feedback focused on program recruitment and delivery
- Identify implementation and program design problems for review and modification
- Identify barriers and obstacles to meeting program goals
- Assess effectiveness of program
- Provide recommendations for improvement including comparisons to current industry best practices and other CA IOU programs



Mail Survey Findings continued

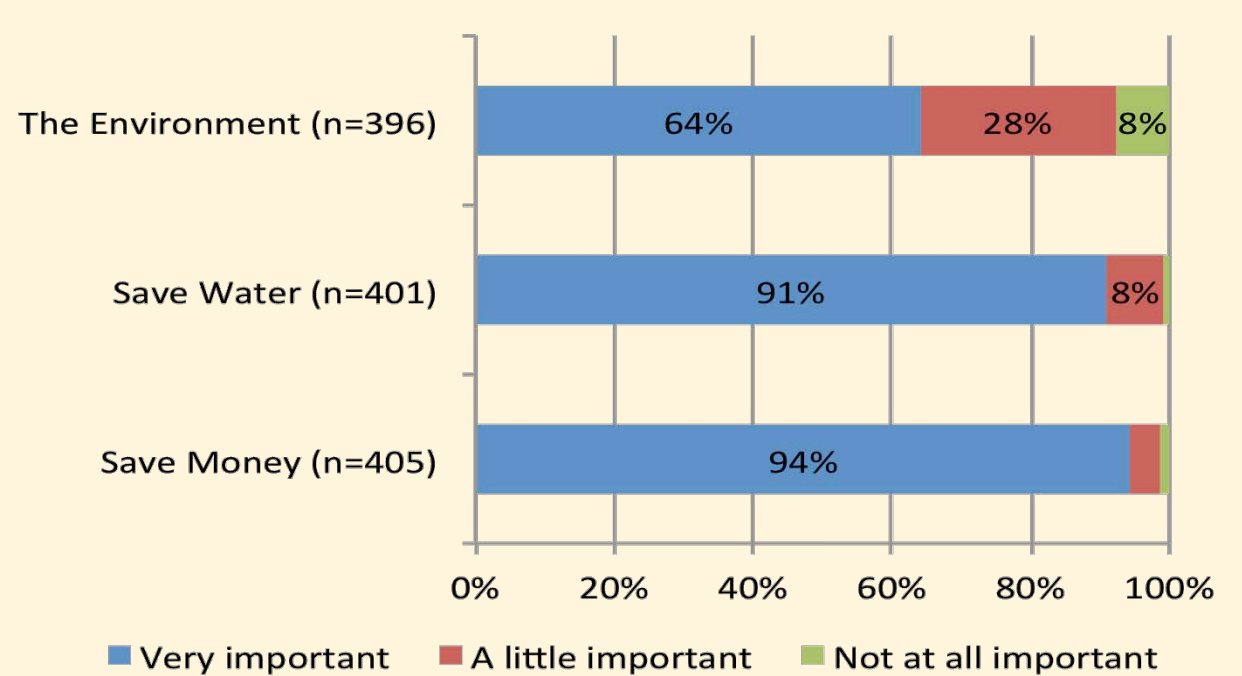
Awareness and Self-reported Participation





Mail Survey Findings continued

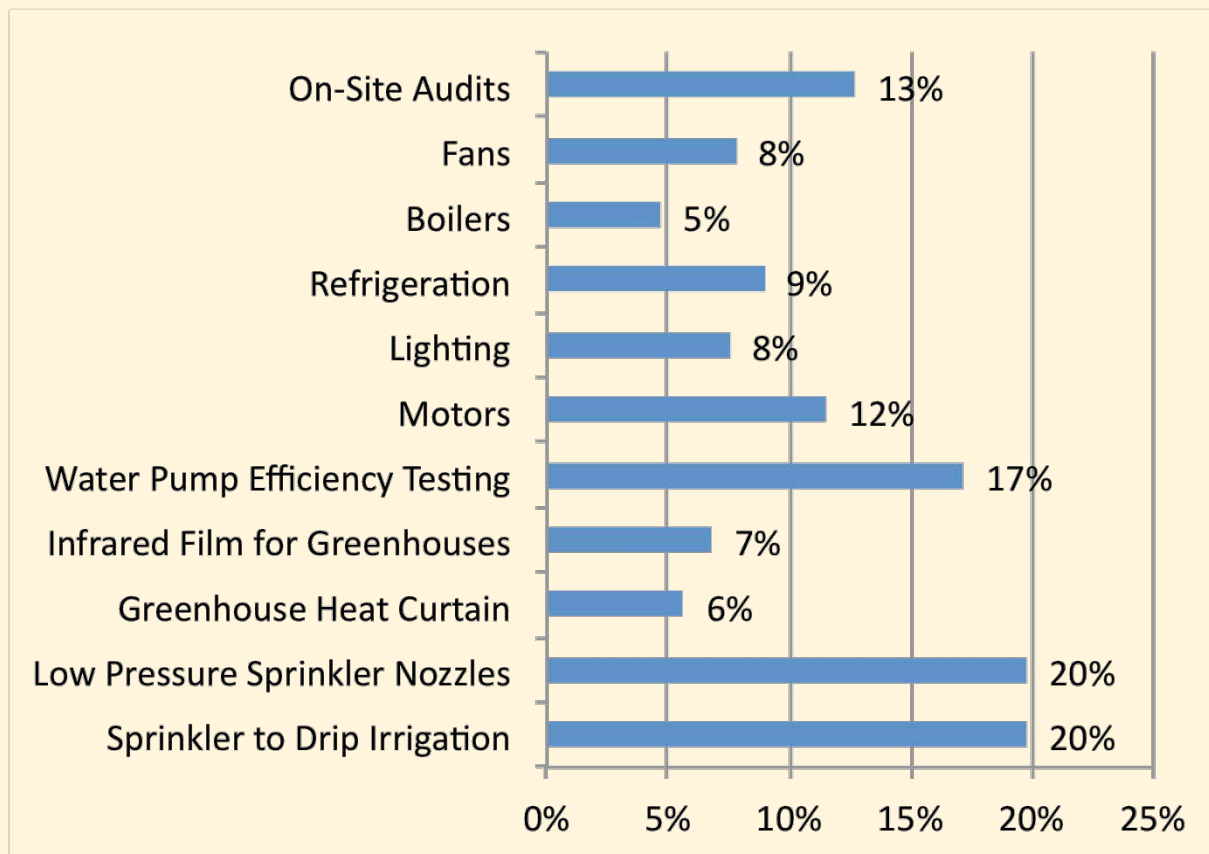
More motivated by water and money than the environment





Mail Survey Findings continued

Interest level





Recommendations

- Focus on both money and water savings where possible when marketing EE options to the agriculture sector
 - Consider marketing on-site audit as an irrigation checkup
- Look at measures in other territories (and outside of CA)
- Single agriculture catalog or web page



SDG&E Plug Load and Appliances Field Services Evaluation





Research Objectives

1. Optimize program through improvements to consumer and retailer education and marketing
2. Evaluate effectiveness of program delivery
3. Provide recommendations for improvement



SDG&E PL&A Field Services Interviews

- Overall energy efficiency messaging
- Market influence
- Marketing and communication
- Product complexity
- Regional collaborations



Water Related Finding

Field staff receive strong response from retail staff when presenting drought maps.

DROUGHT SEVERITY Data as of March 31

● Exceptional ● Extreme ● Severe ● Moderate ● Abnormally dry



**MARCH
2014**



**MARCH
2015**

Source: National Drought Mitigation Center

THE WASHINGTON POST



Overall Recommendation

Utilize water and drought messaging to persuade customers to purchase relevant energy efficiency measures





Questions?

Studies Cited (available on calmac.org)

- Evaluation of the SDG&E Plug Load and Appliances Field Services Efforts
- SDG&E Agricultural Sector Market Study

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