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

Martha Thompson, Evergreen Economics
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
- Shrunken snow pack (1/3 of water used)
• 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
2013 Ag Production as % of Total Monetary Value:

- Nursery and cut flower products: 62%
- Fruit and nuts: 22%
- Vegetables: 9%
- Livestock and poultry: 2%
- Livestock and poultry products: 5%
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
• 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

- 52% Aware of at least one, no participation
- 37% Participated in at least one offering
- 11% Unaware of all offerings
- 0.2% None answered
More motivated by water and money than the environment

- **The Environment (n=396)**: 64% Very important, 28% A little important, 8% Not at all important
- **Save Water (n=401)**: 91% Very important, 8% A little important
- **Save Money (n=405)**: 94% Very important, 8% A little important
Mail Survey Findings continued

Interest level

- On-Site Audits: 13%
- Fans: 8%
- Boilers: 5%
- Refrigeration: 9%
- Lighting: 8%
- Motors: 12%
- Water Pump Efficiency Testing: 17%
- Infrared Film for Greenhouses: 7%
- Greenhouse Heat Curtain: 6%
- Low Pressure Sprinkler Nozzles: 20%
- Sprinkler to Drip Irrigation: 20%
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
Field staff receive strong response from retail staff when presenting drought maps.
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

Study contacts at SDG &E:

• Rob Rubin (RRubin@semprautilities.com)
• Kris Miller (KMiller@semprautilities.com)
For more information:

Contact:
Martha Thompson
510-899-5555
thompson@evergreenecon.com

Tami Rasmussen
510-899-5555
rasmussen@evergreenecon.com