

What Do Farms, Schools and Wineries Have in Common?

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It's not wine, milk or homework

But it is...

- A need to mitigate economic uncertainty
- A desire to do more with less
- A need for greater understanding of available options to operational efficiency
- An integrated approach to energy management and efficiency
- A need for an advocate that understands business segment, challenges and opportunities

Customer Segment Focus

- Focus on hard-to-reach, valuable customer segments (small-to-medium wineries, dairies, schools)
- Customers with limited experience, manpower, ability or time to pursue energy efficiency independently
- Need for both comprehensive and technology-focused approach, depending on customer need
- Develop deep understanding of customer needs, challenges and market forces for long-term
- Establish technical and industry “advisor” role with utility, vendors and customers

What we Do

- 3rd Party Program Implementation
 - California 3rd Party Programs
- Utility Program Management
 - Midwest Programs
 - Water Programs

Ag Programs Summary

Wine Industry Efficiency Solutions (WIES)

- Launched in 2006
- Small and mid-sized wineries up to 50,000 kWh annual use
- Energy reduction results (2006-present):
 - 4 mW
 - 15 million kWh
 - 282,000 therms
 - 44% implementation rate

Dairy Industry Resource Advantage (DIRA)

- Launched in 2010
- Large dairy operators with 500,000 kWh and above annual use
- Energy reduction results (2010-present):
 - 650 kW
 - 3 million kWh
 - 35% implementation rate

Schools Programs Summary

School Energy Efficiency Program (SEE)

- Launched in 2004 as information-only program
- Public K-12 school districts
- Energy reduction results (2006-present):
 - 2 mW
 - 17 million kWh
 - 1.7 million therms
 - 48% implementation rate

Program for Resource Efficiency in Private Schools

- Launched in 2010, actual implementation in 2011
- Private K-12, colleges and trade schools
- Energy reduction results (2011-present):
 - 356,400 gross therms
 - 55% implementation rate

Program Model

Provide:

- Comprehensive, phased approach to instill “call to action”
- Includes all facets of design, implementation, management
 - Site assessment/audit, engineering analysis, installation support services, site inspections, rebate processing, customer satisfaction follow-up
- Neutral, trusted advisor and advocate for customer
- Represent and extend utility’s brand

Key Drivers for Success

- Integration with utility account representatives
- Coordination with other service providers
- Segment experience and information that motivates implementation
 - Financial
 - Operational
 - Best practices
- Innovative measures and technologies
- Influencing the decision making process
- Administrative and implementation support

Program Design Approach

High Touch

Meet customers where they are,
take them farther than they'd go on their own

Comprehensive

Include diverse measure mix specific to that segment's needs

Clear Recommendations

Identify all cost-effective savings and projects
for increasing efficiency over time

Clear, Concise Information

Hoogendam Dairy AUDIT REPORT

PREPARED FOR:

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September 2011



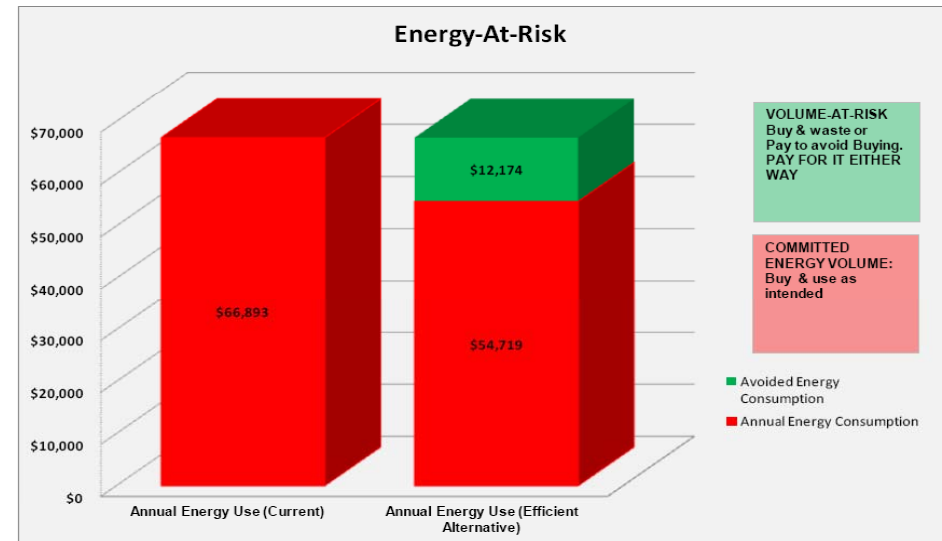
Presented by: The Dairy Industry
Resource Advantage (DIRA) Program

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RSG Audit Reports

- Executive Summary with:
 - Objectives
 - Energy savings
 - Costs
 - Incentives
 - Recommendations
- Targeted financial backup
- Easy-to-understand visuals



Value of Segmentation

- Easier to use data and observe utility and market trends to improve customer experience and service delivery
- More efficiently prioritize and allocate use of internal resources (staffing, funding)
- Match measures and messages to customer needs
- Improve participation, early adoption, and long-term engagement
- Shape program model to meet market and client needs
- Share best practices
- New market entry opportunities, industry ally coordination

Steps to Segmentation

Characterize energy use

- By NAICS/industry and region
- By historical performance, trends
 - Will influence type and level of service or product offering

Identify market forces

- Current economic climate
 - Dairy – milk prices down, feed prices up
 - Wineries – international competition, climate dependent operation
 - Schools – lack of funding, assigning district priorities over needs
- Regulatory pressures or influence
 - Health, product quality concerns

Build profile of customer

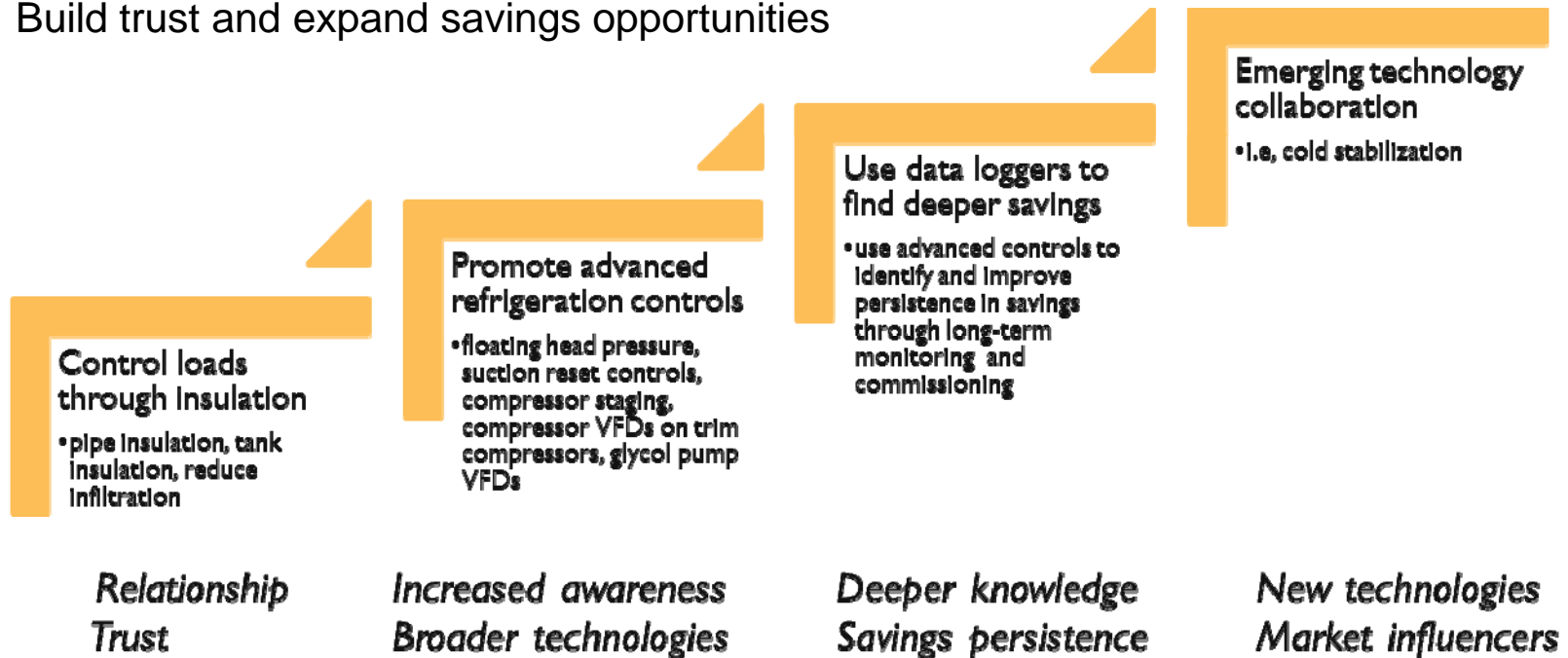
- Stakeholders and decision makers
 - Varies among sector, thus approach to sectors will vary
- Pain points and risk tolerance
 - Appetite for change, interest to change and ability to change

Knowledge, Integration and Technology Transfer

- Similar segments benefit from similar solutions
 - *Example:* floating head pressure application from wineries to dairies
- Package appropriately for each sector
- Address projects as integrated solutions versus stand-alone applications
- Tie-in demand response and solar opportunities when appropriate

Winery Approach

- Phased Approach
- Start with low-cost, quick payback projects
- Build trust and expand savings opportunities



Dairy Approach

Beyond standard lighting, VFD and fan projects, new products are generating “deep” savings:

- Advanced fan controls – less than 5% penetration (high TRC, high kW savings)
- Advanced lighting controls – less than 5% penetration (add-on to any lighting measure to improve TRC)
- Waterside economizer – 0% penetration (market large at about 50% of the large dairies, potentially high TRC)
- Evaporative refrigeration system – less than 5% penetration (large market at nearly all large dairies, potentially high TRC, add-on to waterside economizer)
- Huge water savings associated with waterside economizer and evaporative refrigeration system (up to ~50 million gal/year for one 4,000 cow dairy)



Schools Approach

- Achieve large success with lighting upgrades, pool covers, computer power management, pool pump VFD
- Pursue new LED technologies and integrated lighting design improvements
- Pursue EMS systems for school portables, a key topic the utility is supporting for small-to-medium businesses
- Seek greater potential through RCx component, which is beneficial to schools
- Potential in HVAC upgrades as new technologies are emerging to simulate floating head pressure for small package units

Value-Added Program Benefits

- Supplement PG&E's energy efficiency activities
- Uncover untapped potential in winery, dairy and schools sectors
- Gain market traction through existing and growing customer, vendor and industry relationships
- Provide quick identification, evaluation and promotion of cost-effective measures with high TRC and quick payback
- Document influence early for longer term, less cost-effective deeper savings measures
- Link water savings opportunities to energy savings opportunities when appropriate
- Provide high quality Custom program documentation
- Allow account managers to focus on other priority activities
- Help utilities achieve savings goals

Lessons Learned

- Understand key factors impacting market segments
- Understand how each segment “ticks” (i.e., know when to sell green  and when to sell green )
- Time decay is your worst enemy
- Communicate early, communicate often
- Establish credibility and trust (technical skills, relationships, sanctioned utility program)
- Show what you know and that you care
- Become an advocate for customers, vendors and the utility...managing the three-legged stool
- Always do the right thing



Save the Dates

Apr. 29-May 1, 2013

AESP's Spring Conference
Dallas, TX

Sept. 30-Oct. 2, 2013

AESP's Fall Conference
Seattle, WA

Jan. 27-30, 2014

AESP's National Conference
San Diego, CA

For more information - www.aesp.org

