

Energy Efficiency Program Achievements of California's Publicly-Owned Utilities

CEC Staff Workshop

June 9, 2009

Presented by Lodi Electric Utility



Lodi Electric Utility - Energy Efficiency and EM & V

- Background on Lodi Electric Utility (LEU)
- EM & V Progress to Date
- EM & V Results to Date
- Energy Efficiency Program Success Stories and Why
- Energy Efficiency Challenges and Potential Solutions
- Making Energy Efficiency a 'Resource'
- Closing Remarks



Lodi Electric Utility – Energy Efficiency and EM & V

LEU BACKGROUND INFORMATION

- Formed in 1910; 14 square miles
- Currently serve 28,500 customers
- Peak in summer: 140 megawatts
- Top 5 customers: RalCorp, General Mills, City of Lodi, Lodi Unified School District, and St. Gobain-CertainTeed Corporation



Lodi Electric Utility – Energy Efficiency and EM & V

LEU Background Information (continued)

- governed by the Lodi City Council
- energy sales (07-08 FY): \$63 million
- energy mix (2008 calendar year):
 - * 27% eligible renewable
 - * 25% large hydro
 - * 26% natural gas
 - * 20% coal



Lodi Electric Utility – Energy Efficiency and EM & V

EM & V Progress to Date

- Per AB 2021, LEU has developed a comprehensive ‘Energy Efficiency Program Evaluation Plan.’ The plan was developed in the late spring of 2008 and implemented in the summer of 2008;
- The key elements of the ‘**Plan**’ include: a process evaluation of all programs (review of database tracking system, free-ridership analysis & more);



Lodi Electric Utility – Energy Efficiency and EM & V

EM & V Progress to Date (continued)

- Additional Key Elements of the '**Plan**' include: verification of savings for designated measures; verification of installations via on-site visits; potential participation in a larger NCPA-wide residential lighting study; impact evaluation plan; development of the annual EM & V schedule; and development of the annual EM & V budget.



Lodi Electric Utility – Energy Efficiency and EM & V

EM & V Progress to Date (continued)

- Once the aforementioned '**Plan**' was developed, LEU then pursued **Year One** of program EM & V (utilizing Summit Blue Consulting). EM & V was conducted in August 2008, with a final report generated in October of 2008;
- LEU staff randomly selected one (1) residential program for assessment – Lodi Appliance Rebate Program; and,



Lodi Electric Utility – Energy Efficiency and EM & V

EM & V Progress to Date (continued)

- Five (5) commercial/municipal lighting retrofit projects for assessment. These assessments consisted of on-site EM & V and then identification of the verified, calculated energy savings;
- LEU has already retained the services of Summit Blue Consulting for the **Year Two** EM & V process, which will begin in August 2009. The utility has identified five (5) commercial/industrial large customer rebates and one (1) residential rebate program for assessment.



Lodi Electric Utility – Energy Efficiency and EM & V

EM & V Results to Date

- As a result of the **Year One** EM & V process, LEU achieved 95% of the kilowatt hour energy savings projected when the aforementioned program/lighting retrofits were implemented;
- Due to this process, LEU staff was also provided tips to improve programs (including: requirement of itemized invoices for large energy efficiency projects, reinstating a refrigerator recycling program, while adding a residential hot water heater program and a rebate for EnergyStar® electronics, and more).



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Program Success Stories & Why

- **Lodi Appliance Rebate** – customer receives instant rebate at time of purchase; EnergyStar® refrigerators and clothes washers generate immediate energy savings for customer;
- **Lodi Energy Audit Program** – on-site or on-line; customer receives fast no-cost to low-cost solutions for conserving energy;



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Program Success Stories & Why (cont.)

- **Lodi HVAC System Performance Test** – computer diagnostics test of a customer’s central heat/air system, including air flow, air return and balancing of system. This test is required before a customer can receive a rebate for a high efficiency air conditioner – this ensures that the entire central HVAC system is assessed;



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Program Success Stories & Why (cont.)

- **Lodi Commercial/Industrial Customer Rebate Program** – provides rebates ranging from \$200 to \$20,000 for designated energy conservation measures. The utility partners with the customer from the audit stage through the measure implementation stage. Many measures, such as lighting retrofits, demonstrate large energy savings and a payback of less than two years, which the customer appreciates;



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Program Success Stories & Why (cont.)

- **Lodi Keep Your Cool Rebate Program** – rebates of up to \$1000 per customer of record for refrigeration door gasket replacements. The utility and customers like the program because it is easy to implement and energy savings are significant;
- **Lodi Refrigerator Recycling Program** – the utility hires a third party vendor to remove, destroy and recycle aging refrigerators. Customers like the program because they don't pay for an old refrigerator to be removed from their property, and the customer/utility achieve significant energy savings.



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Challenges & Potential Solutions

- **Program/measure saturation** – Challenge: thousands of customers have already participated in our rebate programs. It is the “been there, done that” syndrome.

Solution: 1) Focus more attention on the small commercial customer market; 2) Identify specific energy savings in process equipment for our major customers; 3) Develop new rebate programs for residential customers (smart controls for lighting; rebates for electronics; new building envelope rebates, such as chimney balloons);



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Challenges & Potential Solutions (cont.)

- **The Economy – Challenge:** Numerous customers have told us they are ‘holding back’ on improvements and energy efficiency measures until the economy improves.

Solution: 1) Continue to educate and promote the benefits of energy efficiency; 2) Create a revolving loan program for energy efficiency improvements;



Lodi Electric Utility – Energy Efficiency and EM & V

Energy Efficiency Challenges & Potential Solutions (cont.)

- **11th Hour Jitters** – Challenge: large energy customers have conducted an energy audit and have *somewhat* committed to implementing energy conservation measures, only to cancel at the last moment.

Solution: 1) Encourage customer to reconsider and reiterate the benefits; 2) Offer to provide additional review of the energy efficiency project from outside sources. *Note to self: You can lead a horse to water, but...*



Lodi Electric Utility – Energy Efficiency and EM & V

Making Energy Efficiency a Resource

- **Promote, Promote, Promote** - *must aggressively communicate the benefits of energy efficiency and savings associated with energy efficiency to key stakeholders: our local governing boards and our shareholders (customers);*



Lodi Electric Utility – Energy Efficiency and EM & V

Making Energy Efficiency a Resource (cont.)

- **Be At the Planning Table** – utilities should ensure that *their* energy efficiency professionals are at the same table as their resource planners. A simple question should be posed to energy efficiency professionals at each utility: what can you give us in terms of *energy savings* next year and the year after that and the year after that?



Lodi Electric Utility – Energy Efficiency and EM & V

Closing Remarks

- Feedback from our customers regarding LEU's various energy efficiency programs has been **very** positive;
- Large customers involved in on-site EM & V are **thrilled** (the EM & V confirms energy savings for the project they invested big \$\$'s into!);



Lodi Electric Utility – Energy Efficiency and EM & V

Closing Remarks (continued)

- LEU shares energy efficiency program ideas with other utilities and gladly welcomes *new* and innovative program ideas;
- LEU truly embraces the EM & V process, for it confirms projected energy savings and helps refine/retool energy efficiency program offerings;
- LEU would like to thank the California Energy Commission for this opportunity to address energy efficiency and EM & V issues with you today.



Lodi Electric Utility – Energy Efficiency and EM & V

For more information regarding Lodi Electric Utility's Energy Efficiency Programs and EM & V process/plan, please contact:

Rob Lechner

Mgr. Customer Service & Programs

209-333-6800, extension 2583

rlechner@lodielectric.com

