
Tacoma Power

Compressed Air Efficiency Program

Results for 2005 - 2007



Presentation Overview

- Program Summary
- 2005-2006 Accomplishments
- What We've Learned So Far

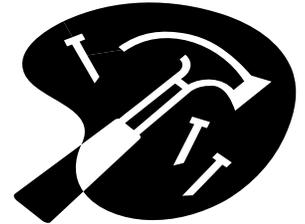


Main Program Goals

- Change customer's behavior
- Educate customers on compressed air energy costs and O&M issues
- Improve system efficiencies
- Promote on-going energy efficiency
- Promote national *“Compressed Air Challenge”* efforts through training



Main Program Components



- Ongoing training opportunities for trade allies & customers
- Demand-Side Assessments (Leak detection audit with repairs)
- Supply-Side Assessments
- Benchmarking energy efficiency
- Targeted equipment incentives

Program Accomplishments, 2005-2006

- Program marketed to 48 companies
- 49 customers from 30 companies have attended training events
- 16 Demand-Side Assessments performed; 3,000,000 kWh maximum annual savings identified
- 7 ECM incentive projects completed; 2,584,073 kWh of verified first-year savings

Major Lessons Learned

- Tacoma Power's low energy rates are a major barrier to customer interest in improving efficiency
- Non-energy benefits play a big role in selling a project
- Optimizing an entire system in a large plant is a major undertaking
- System commissioning can be a long process
- Verifying energy savings can be difficult because production levels vary frequently

Major Lessons Learned - cont'd

- Tacoma Power's detailed program requirements are a barrier for some customers & vendors
- Lack of senior management support prevents some plant engineers from upgrading systems

Customer & Vendor Training

- One-day training is best – it's difficult for plant staff to be away from their daily work responsibilities
- Significant lack of knowledge shown regarding energy efficiency & O&M practices
- Attendees are very eager to learn & apply concepts to their own facilities
- Positive comments made regarding **CAC** training sessions

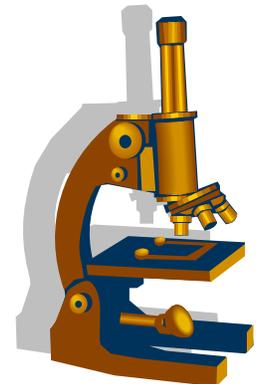


Demand-Side Assessments

- Customers want to know the economic value
- Difficult for plant employees to commit time to leak identification & repairs
- Once the barriers are overcome, many customers are eager to conduct leak audits themselves
- Promotion of leak repairs enhances the cost-effectiveness of equipment replacements

Supply-Side Assessments (Comprehensive Systems Analyses)

- Many vendors lack accurate monitoring equipment and/or do not have enough data loggers
- Customer reports lack organization and accurate economic information useful to customers
- Most vendors conduct preliminary, sales-driven analyses at no charge to customers



Tacoma's Incentives \$\$\$

- Tacoma's incentive offer does not persuade many customers to upgrade systems until they have to
- The detailed program requirements discourage some vendors and customers to participate



Equipment Efficiency Measures

- Replacing non-cycling dryers with cycling dryers are not cost-effective in most cases
- Vendors overlook optimized controls and push for compressor replacements
- High efficiency air nozzles are difficult to apply in many cases



END

