

How Utility Programs Can Achieve More Savings with Compressed Air Challenge Training

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Utility programs are challenged to find cost effective approaches to meet their energy goals especially as LED lighting becomes the standard. One solution is to increase savings from compressed air systems using Compressed Air Challenge (CAC) training. A previous DOE study showed that 76% of the attendees reported making significant efficiency improvements to their compressed air system, saving on average 149,000 kWh and yielding a cost benefit ratio of \$82 in energy savings for each training dollar spent. This case study reinforces those results by giving three examples of how programs can achieve more saving from compressed air by leveraging the CAC trainings. Since 1999, CAC training has been an effective way to educate customers on how to take action to improve their compressed air system efficiency, and these examples demonstrate the success and potential for the trainings to bring in energy savings for utility programs.

Program Savings from Compressed Air Challenge Training

Two examples of how utility program savings resulted from CAC trainings were realized at Focus on Energy in Wisconsin and Efficiency Vermont. Both realized utility program savings results by leveraging CAC trainings. In February 2019, Focus on Energy hosted the *CAC Fundamentals of Compressed Air Systems* training at one of their customer's sites. A follow-up survey six months after the training of three different companies' attendees found that each company completed at least one project with a total of six completed between them. The savings for these projects was between 20,000 –280,000 kWh per year with a total estimated savings for the three customers of 355,000 kWh per year. The value to the program at \$0.15/kWh was \$53,000.

In November 2019, Efficiency Vermont hosted the *CAC Fundamentals of Compressed Air Systems*. The customers who attended were able to leverage the CAC training to implement real energy savings projects within facilities.

Attendees from a paper company walked away from the training invigorated and caused all sorts of mayhem – in a good way. They changed out their air wands to low flow, tackled leaks, repaired and replaced leaky valve and solenoids, and expressed interest in cutting down on compressed air use. Initial results estimate a reduction from approximately 450 cfm to 375 cfm, which is made more significant by their 24/5 operating schedule saving 98,280 kWh per year. A cheese company had a 53,000-kWh leak correction project in progress prior to the training, with approximately 13,000 kWh per year of leaks corrected between training and project close. Training reinforced the need to finish the project. Total savings for just these two customers is about 150,000 kWh of annual savings. At \$0.15/kWh, the program value is about \$23,000.

CASE STUDY

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Leveraging CAC Training for Maximum Benefit

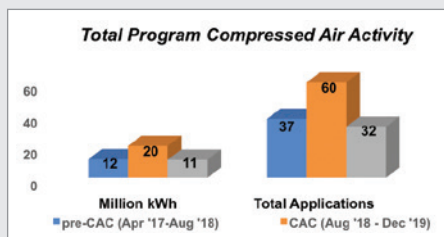
Ameren Illinois: A Model Program for Optimal Return on Investment

Ameren Illinois combined CAC training with a well-developed marketing effort to advertise about compressed air opportunities at industrial sites. Results from the data collected illustrate approximately 6.4 million more kWh per year that came directly from the registrants of the CAC training. At \$0.05/kwh for program implementation costs this is a benefit of about \$320,000.

Ameren Illinois conducted three *CAC Fundamentals of Compressed Air Systems* training events between September 2018 and July 2019. The training targeted 270 facilities over seven internal territories with focused targeting geographically within 100 miles of the training sites. Prior to each training event, they sent targeted email blasts and sought personal outreach up to three times on a regional basis within the approximate 100-mile goal. The preferred personal outreach was always by phone or in-person, with email being the last resort. Ultimately the trainings captured an audience of 57 attendees representing about 47 facilities. Each training event was immediately followed with a thank you email to all targeted participants, and local energy advisors sought to pursue personal call or site visit follow ups within 2-3 weeks of the training.

SUMMARY OF AMEREN ILLINOIS ENERGY SAVINGS

Direct Impact: 25 applications associated with 6.4M kWh for registrants since beginning of targeted marketing efforts until December 2019. Even more impressive was that the amount of both Total Applications and kWh for the program almost doubled during the CAC training period, yielding 20 Million kWh!



Conclusion

These utility program examples confirm that the CAC training motivates attendees to make improvements to their compressed air system and can be highly cost effective to bring in kWh savings for utility programs, yielding a significant return on investment from the training of 10+ to 1 over standard approaches. It also highlights the importance of two critical factors to realizing optimal energy savings from participating in the CAC training program:

- 1) Targeted personal marketing in advance of training
- 2) Follow-up with the customers
 - a) Follow-up with phone call or site visit within 2-3 weeks of training to support implementation of projects
 - b) Follow-up calls six or more months after the training to understand what projects were implemented because of the training and to quantify the project savings for the program.

For more information on how utility programs can achieve cost effective savings from CAC trainings contact CAC's Executive Director, Tracey Kohler at tkohler@compressedairchallenge.org.