San Antonio E3 Case Study: UEMC “Now Hiring”

UEMC is a woman owned, certified hub zone government contractor with over 50 years experience in contract sewing, screen printing and other textile related manufacturing. UEMC produces body armor, aircraft components and other sewn goods. TMAC conducted an E3: Economy-Energy-Environment assessment as part of the local Lean-Clean-Energy program in October of 2009. E3 is a coordinated federal and local technical assistance initiative that is helping manufacturers across the nation thrive in a new business era focused on sustainability. www.epa.gov/e3

The Situation
The assessment generated a list of six specific recommendations focused on energy and cost savings. Linda Jordan, the CFO of UEMC, was quick to comment that E3 is about much more than just saving the company money and energy. "The impact reaches far beyond energy, dollars or the environment. It is about people and community. When TMAC conducted our E3 assessment last year we had 100 people employed on the floor. We are now up to 279 employees. Every dollar that we don’t have to spend on wasted energy or materials is one more dollar that we have available to invest in our workforce. That has a direct impact on the quality of life for our local community."

The Solution
UEMC took immediate action on those items that did not require large investments. They implemented a system to fix compressed air leaks and prevent recurrence and lowered their operating air pressure. This combined effort provided an annual reduction in electric consumption of 10,000 kwh while increasing equipment uptime. Another immediate action was the conversion of over 100 task lights from 100W incandescent bulbs to 23W compact fluorescent bulbs.

With the easy tasks out of the way UEMC focused on a complete retrofit of all production, warehouse and office lighting. All lighting was converted to the most efficient available fluorescent lighting and motion sensors deployed where practical.
The lighting upgrades significantly improved the overall lighting levels and quality while reducing demand by 25kW and reducing consumption by approximately 84,000 kwh/year. The new lighting also provides the flexibility required to take full advantage of cellular manufacturing techniques, allowing work cells to be reconfigured as needed to adjust to production requirements. The project cost was largely offset through aggressive rebates offered by the local utility, CPS Energy.

**The Results**
Overall, UEMC has reduced demand by approximately 30kw and reduced consumption by over 100,000 kwh/year. "We have not really seen a reduction in our energy bills because of the dramatic increase in our production levels," remarked Linda Jordan. "But we know we are in a much better position than we would have been before taking action. Our overall energy intensity has been reduced, and we know that is a good thing."

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Linda Jordan
CFO
UEMC