



## San Antonio E3 Case Study: San Antonio Lighthouse for the Blind

Customer:  
The San Antonio  
Lighthouse for the Blind

County:  
Bexar

Industry:  
Textiles

TMAC Services  
Lean Clean Energy  
Review

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**The San Antonio Lighthouse for the Blind** has been employing the blind and visually impaired for over 75 years and has grown to become the 4<sup>th</sup> largest manufacture in San Antonio, Texas. This private, non-profit organization utilizes the skills of the visually impaired to manufacture a wide variety of products including military uniforms, helmet chin straps, oil test kits, writing instruments and other goods for government and commercial clients.

### The Situation

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.e3.gov](http://www.e3.gov)

The assessment identified nine specific recommendations in the area of energy efficient lighting, compressed air usage and HVAC controls. The Lighthouse embraced the recommendations and immediately began to tackle the recommendations.”

### The Solution

The first target was HVAC controls. The Lighthouse worked with the local utility, CPS Energy, to replace all existing analog thermostats with digital thermostats that can be remotely controlled by the utility to curtail demand during peak periods. This provided a win-win scenario: lower energy bills for client and lower peak demand for the utility.

The next target was lighting. The Lighthouse upgraded all lighting in the manufacturing areas to high efficiency fluorescent lighting resulting in lower energy usage, cooler work environments and improved lighting quality. Metal-halide lighting in the warehouse areas was also updated to high output fluorescent fixtures. All office lighting was updated to the current highest available efficiency fluorescent lights, and even the exit

signs were given an update to LED technology. Motion sensors were installed in common areas to further reduce energy usage. Overall, the lighting initiatives provided a demand reduction of approximately 65kw and an estimated reduction in consumption of 150,000 kwh per year. The cost of the upgrades was largely offset through aggressive rebates from CPS Energy.

### The Results

The San Antonio Lighthouse for the Blind continues to pursue savings opportunities. They are currently working with TMAC to redesign six assembly lines to control work in process inventory, improve operational effectiveness and eliminate the need for compressed air. Elimination of compressed air will result in an additional demand savings of 35kw and a reduction in consumption of approximately 80,000 kwh. They are also installing energy efficient windows in the manufacturing area to provide natural lighting and reduce cooling costs.

Overall, San Antonio Lighthouse for the Blind will have reduced their demand by more than 100 kw and consumption by approximately 400,000 kwh/year. They have also elected to demonstrate their commitment by becoming a Partner of the Green Supplier Network.

success  
story

