



## THE Energy Alliance Group OF MICHIGAN



### JEWEL HEART



#### PROJECT OVERVIEW **JEWEL HEART**

Jewel Heart is a Tibetan Center located in Ann Arbor, MI. In addition to using outdated interior and exterior lighting technologies, the property had five meters for gas and four for electricity. Utilities charge a fee of each meter in use. In addition, over 80% of the utility bills contained errors including overcharging.

Interior lighting was T12 linear fluorescents. Beginning 2014, retailers were only able to sell existing T12 inventory. The exterior lights were metal halide. Although currently still used in many applications, this technology is highly energy inefficient with exceptionally poor color quality. About 50% of interior – including exit signs - and exterior bulbs were burnt out.

Per EAG's recommendations, the interior bulbs were replaced with LED's for both space lighting as well as exit signs. The outside were replaced with induction. The LED's have a 50,000 hour plus operating life, significantly reducing maintenance costs. The warranty is five years as opposed to one year for fluorescents. Induction lights have a 100,000 hour plus operating life, excellent color quality and come with a 10 year warranty versus one year for metal halide.

#### NEW TECHNOLOGY

Toggle LED tube light bulb designed to replace T8/T12 fluorescent tube lights to significantly lower energy and maintenance costs while enhancing the quality of light in work environments and living spaces.



#### OLD TECHNOLOGY

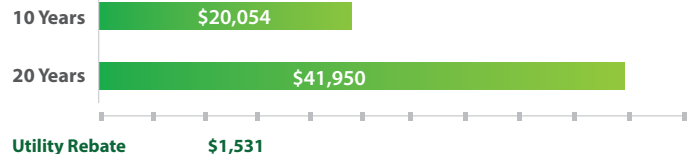
T12 fluorescent tube – poorest energy efficiency of fluorescent lighting. Beginning in 2012 T12's were no longer produced for sale in the U.S.



#### Average Monthly Utility Spend



#### Total Savings



\*Based on listed data