

Massachusetts Interfaith Power and Light

Creation Care by Using LED Light Bulbs

**All Saints Parish
Brookline, MA**



All Saints is an early 20th century building. It has a large sanctuary (pictured at left) and a connected Parish House. Given an urban location with easy access, the building has considerable use beyond its own activities, including a nursery school program and being host to many meetings (including AA) and musical groups. A typical day has some space in the building used beginning in early morning and until late evening.



Given many hours of use, a sensible step was to reduce electricity use associated with lighting. Each space has different times and patterns of use, and different types of lighting fixtures and bulbs. The challenge came in figuring out just what to do in each space. It was obvious that a good start could be made in the two largest spaces, the Music Room (at left) and Sanctuary (below).



The first step was to determine what sort of lighting existed in each space. The sanctuary has over 400 bulbs. Yes, over 400!!! These included over 130 halogen flood or spot lights, PAR 38 or PAR 46, at 90w or 200w. The sanctuary chandeliers had 144 25w candelabra bulbs. The music room has 70 bulbs, floods and candelabra. LED bulbs were available to replace all existing bulbs. In fact, the range of choices (beam spread, illumination, color quality) was far superior to what existing.

| ALL SAINTS BROOKLINE | | | |
|--|--------------------|--------------------|----------------|
| <i>Electricity Use & Savings – Before/After LEDs</i> | | | |
| | 2010 | 2012 | Savings |
| January | 9,859 | 6,317 | 35.9% |
| February | 9,397 | 6,189 | 34.1% |
| March | 7,987 | 5,508 | 31.0% |
| TOTAL BILL 3 mos | \$5,444.96 | \$2,759.25 | 49.3% |
| <i>USE 12 months</i> | <i>73,831</i> | <i>56,733</i> | <i>23.2%</i> |
| TOTAL BILL 12 mos | \$17,191.29 | \$10,592.46 | 38.4% |

The before-and-after results are dramatic, summarized in the table. Electricity use in 2012 was 23% less than in 2010, just from the sanctuary and music room changes. The sanctuary is used perhaps 5 hours a week; the music

room about 20 hours a week. Savings in the 1st quarter of 2012 were about 34%, as compared to 2010. Thus changes at high use and high lighting need times even greater. About \$6,600 was saved in 2012 compared to 2010, more than enough to pay for all the bulbs even without rebates.

For more information on LEDs and to get the Savings Calculator, go to

www.MIPandL.org

Click On “What You Can Do” and go to Technical Briefs to get to the LED information.