Energy Conservation Initiative (ECI) Project Summary

Athletics and High Bay Lighting Upgrade, 9 Buildings

What We Did: We replaced high bay lighting with LED in Lynah Rink, Bartels Hall Newman Arena and Ramin Multipurpose room, the Friedman Wrestling Center, Oxley Equestrian Center, Teagle Hall pool and gym, Grumman squash courts, Helen Newman pool and gym, Barton Hall and Stocking Hall. The new fixtures last 5-7 times longer and use 1/2 the electricity of the old fixtures with much higher light levels.

What We Saved: $161,000 and 806 tons/per year carbon equivalent annually.

Benefits: The project addressed severe ongoing and deferred maintenance issues and low light levels associated with the old outdated light fixtures, while dramatically minimizing energy usage.

What It Cost: $1,000,000.

How Long It Took: 4 months.
Completed March 2015.

Every student-athlete wants to play in the best environment possible, and the new LED lighting enables that. Photographs look more crisp, and the video is more colorful. The ability to light the Newman Arena court is on par with major college facilities across the country.

Bill Courtney
Robert E. Gallagher '44 Head Coach of Men's Basketball

Athletics Lighting Upgrade

Utilities Costs and Use

Athletics Lighting Upgrade

Total Energy Use - Pre & Post ECI

Utilities Costs and Use

Energy use based on project scope

Energy use based on project scope

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Athletics Lighting Upgrade: ECI Savings Table

<table>
<thead>
<tr>
<th>Utility</th>
<th>Historical Energy Use (MMBtu)</th>
<th>*FY 2015 Energy Use (MMBtu)</th>
<th>Energy Savings (MMBtu)</th>
<th>% REDUCTION</th>
<th>Historical Cost (billed rates)</th>
<th>*FY 2015 Cost (billed)</th>
<th>Annual Savings $</th>
<th>Equivalent # Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>11,000</td>
<td>4,900</td>
<td>6,100</td>
<td>55%</td>
<td>$290,300</td>
<td>$129,200</td>
<td>$161,000</td>
<td>153</td>
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<tr>
<td>Steam</td>
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<td>Chilled Water</td>
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<td>Totals</td>
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</tr>
</tbody>
</table>

Equivalent # Homes Savings based on average home use: 40 MMBtu Electric • 90 MMBtu Heat • 50 MMBtu Cooling

Energy and Sustainability

4/2015