GREEK LIFE SUSTAINABILITY TEAM: BIG HOUSE SMALL FOOTPRINT

Our student group, Greek Life Sustainability Team (GLIST), is introducing a sustainable movement throughout Greek Life at the University of Michigan. Greek Life accounts for as much as one-fifth of the undergraduate population at the University of Michigan, with the majority of students living in the chapter house at some point during their 4 years. These houses are commonly outdated, leaving many opportunities for energy saving improvements. This sector of student life has gone untapped by environmental movements put forth by the university. This provides an excellent opportunity to involve a large proportion of students as well as create change in a long standing establishment on campus.

Our group was founded in the fall of 2012 as an initiative to promote recycling during football games, which has evolved into a recycling competition amongst 21 sororities and fraternities. In the winter of 2013 GLIST expanded to include the program Big House, Small Footprint. This initiative focused on retrofitting chapter houses to reduce energy and water consumption. Working with the administration of Greek Life, chapter presidents and members, a pilot retrofitting program was created in the summer of 2013. A grant from UM Energy Institute funded the initial energy audit of the Delta Gamma (DG) chapter house, performed by Pro Energy Consultants. A semester later, DG instituted nearly all of our recommendations in addition to including energy saving renovations for next years budget. They will continue renovations in the house as funding is made available.

The next step for our group is to combine both the behavioral and structural changes into one system to maximize the program’s effectiveness and streamline the process to make it applicable to more chapters. Thus, we created a classification system similar to the LEED certification program and the University’s Sustainable Workplace program. The goal of the system is to ease houses into the energy saving process by letting them start with several small adjustments, such as changing light bulbs, to help introduce the chapters to energy savings. Our goal is that these projects will culminate in each house performing energy audits to improve energy efficiency on a larger scale.

Our system is based on a five class hierarchy that can be implemented for both houses who rent and who own their properties. Each different class has requirements that include both structural and behavioral changes. An example of a behavioral change requirement is attendance at an educational seminar for residents of the houses to discuss different techniques for reducing waste, water and energy consumption. An example of a structural change requirements is adding aerators to faucets. After each class is completed, the house will receive a reward promoting further energy savings and a letter of recognition cosigned by Planet Blue that can be sent to their national chapter. With this system we can easily expand to include more competitions, events and classes to continue to unite the Greek Community for a better cause.

We need financial support in order to give houses reward packages to motivate the continued movement towards energy efficiency. The ultimate goal is to perform subsidized energy audits on chapter houses, with the agreement that the money we take off the initial energy audit price will be reinvested towards renovations suggested through the audit. Once the houses see the money saving capabilities of the small changes, they will be more willing to take on these larger projects.

There are two different techniques that will be used to assess the effectiveness of both the structural and behavioral changes. For the structural changes, the first class requires creating a DTE account and forwarding their monthly energy spreadsheet provided by DTE. This will allow us to monitor the reduction of energy consumption of the house as changes to the house are made. Additionally, the behavioral changes will be based on a student survey to see if the educational components of the system have changed the lifestyle of the houses.

Greek Life is an untapped sector of student life and will be a great vehicle for campus wide sustainability change. These practices will stay with participating students long after they move out of the chapter house and into houses of their own. We have made our program replicable in the hopes of expanding to others in the Big Ten after a successful pilot program here at Michigan. Our initiative has the potential to be reproduced in Greek communities across the country due to its simplicity and practicality. Big House, Small Footprint will become Big Ten Small Footprint with Michigan at the forefront of this sustainability movement further bolstering the motto of “Leaders and the Best”.

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**TIMELINE**

**January/February 2014**
- Created class system to utilize throughout Greek Life
- Defined Requirements and rewards for each class

**March/April 2014**
- Present system to housing corporation, student presidents and alumni
- Sign up houses and organize based on renting/owned and relative interest

**May - August 2014**
- Perform audits on owned houses
- Structural changes to the houses

**September 2014**
- Start behavioral side of the system (Speak at Chapter, Educational Seminar, light switch stickers)
- Send out survey to all new house residents

**October/November 2014**
- Continue performing changes to the houses
- Promoting behavioral changes through energy efficiency event

**December 2014**
- Assess progress of each house
- Send out final class certification for each house

**January 2015**
- Evaluate process and adjust based on each house
- Add new classes to system

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**BUDGET**

<table>
<thead>
<tr>
<th>CLASS</th>
<th>UNIT RATE ($)</th>
<th>QUANTITY</th>
<th># OF HOUSES</th>
<th>TASK</th>
<th>TOTAL ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMUNITY SUPPORTER</td>
<td>$2</td>
<td>5</td>
<td>5</td>
<td>Starter Package – Purchase aerators</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>$3</td>
<td>5</td>
<td>5</td>
<td>Starter Package – Purchase light bulbs</td>
<td></td>
</tr>
<tr>
<td>COMMUNITY PLAYER</td>
<td>$20</td>
<td>1</td>
<td>5</td>
<td>Motion Sensor for Bathroom Lighting</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
<td>2</td>
<td>N/A</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Food (Jimmy Johns) provided for</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Educational Seminar</td>
<td></td>
</tr>
<tr>
<td>COMMUNITY LEADER</td>
<td>$100</td>
<td>5</td>
<td>5</td>
<td>Low flow Shower Head</td>
<td>500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>125</td>
<td>Reusable water bottles</td>
<td>625</td>
</tr>
<tr>
<td>COMMUNITY CHAMPION</td>
<td>400</td>
<td>5</td>
<td>5</td>
<td>50% off audit</td>
<td>2000</td>
</tr>
<tr>
<td>COMMUNITY VICTOR</td>
<td>200</td>
<td>5</td>
<td>5</td>
<td>25% off next three projects up to 200</td>
<td>1000</td>
</tr>
<tr>
<td>MISCELLANEOUS</td>
<td>5</td>
<td>25</td>
<td>5</td>
<td>light switch stickers, posters</td>
<td>425</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$4,875</strong></td>
</tr>
</tbody>
</table>

**Faculty Adviser:** Carol Menessa (Civil/Environmental Engineering Professor)

**GROUP MEMBERS:** Ariel Turjanski (Art and Design, Sophomore), Jamie Foti (Business, Sophomore), Joshua Goyert (Program in the Environment, Junior), Louise Wang (Program in the Environment, Sophomore), Sarah Levine (Environmental Engineering, Junior), Siri Andrews (Program in the Environment, Freshman), Adam Rosen (Informatics, Junior), Thomas Coto (Civil Engineering, Junior)