Students and Sustainability

Turning Knowledge into Power at Brigham Young University-Hawaii
BRIGHAM YOUNG UNIVERSITY

ENTER TO LEARN GO FORTH TO SERVE

* A Training Ground
Established in 1955
2700 students representing over 70 different countries
1 million square feet of building space

Diversity in the Pacific
* Problems:

* Out of Control Energy Costs
* Lack of school/student awareness
* Excessive waste
* Escalating disposal and transportation costs
* Misuse of resources
De-bulbing
Temperature Adjustment

Power-Saving Settings
Smart Sustainability Consulting (SSC)

CLIENT
Brigham Young University Hawai'i (BYUH)
55-220 Kualapu'i St, Laie, HI 96762

LOCATION STATS:
Type: Private Higher Education
Occupants: 2,800+
Buildings: 20 Campus buildings

RESULTS
Delamping: Removed 3000 lamps saves $40,000/year and generated $22,500 in rebates, $6000 worth of florescent bulbs that can be reused.
Other ECMs: Replaced 20 thermostats and adjusted computer settings

Total Cost: $20,000
Total Savings: $376,000/yr

Utility Bill Comparison [2011 to 2012]

| Month  | Avg. KWh | $/KWh | Avg. per day cost | $/day
|--------|----------|-------|-------------------|------
| July '11 | 60,000 | $0.08 | $4800 | $160
| Aug '11 | 55,000 | $0.09 | $4950 | $165
| Sept '11 | 50,000 | $0.09 | $4500 | $150
| Oct '11 | 45,000 | $0.08 | $3600 | $120
| Nov '11 | 40,000 | $0.07 | $2800 | $93
| Dec '11 | 35,000 | $0.06 | $2100 | $70
| Jan '12 | 30,000 | $0.05 | $1500 | $50
| Feb '12 | 25,000 | $0.04 | $1000 | $33
| Mar '12 | 20,000 | $0.03 | $600  | $20
| Apr '12 | 15,000 | $0.02 | $300  | $10

$1,598 decrease in avg per day cost from sept '11 to sept '12

$1,310 [avg] Decrease in Avg. per day usage
$31,600 [avg] Decrease per month compared to previous year

SUMMARY
In January of 2012, SSC provided a tailored energy assessment and ECM implementation training to 50 BYUH participants. The training session brought together administrators, teachers, students, and all facilities and custodial staff. Seven months later, the participant’s implementation of SSC’s plug load, lighting and air conditioning Energy Conservation Measures (ECM) resulted in $44,000 savings to BYUH in the month of July 2012.
February 2013 (Winter semester)

Statistics:
* Giving out 2328 items
* Volunteers think they have saved $20,015.00
* $5 * 2328 items = $11,640.00

Marketing:
* Give & Take Activities
  244 Facebook friends
  558 likes Facebook Page

Changes:
* Added Side door for the green building.
* Added column “How much do you think you’ve saved?”

Goal:
Reach 1,000 likes/friends by the end of the semester.
Replace Green building.
Involve BYU-Hawaii Student Chapters.