Cut Your Cost and Grow Your Business

Green Hotel Case Study: Holiday Inn and Suites Columbia-Airport
Hema Patel, Owner/President, Courtesy Management, Inc.

Wednesday, May 7, 2014
Holiday Inn & Suites Columbia-Airport

- 122 Rooms
- 84,000 Sq. Ft.
- 5,000 Sq. Ft.
- Opened April 2010
- LEED Gold Certified
Why Go Green?

Goal:
Decrease cost of operations and increase guest and employee satisfaction and comfort by designing and constructing a high performance hotel. In so doing protect the environment and help conserve resources.
Energy Performance Verification

- Energy Star Model
  93rd Percentile

- LEED Energy Model
  Target Finder Score: 85

- IHG Green Engage Model
  Track on-going energy performance
Avg Energy vs Benchmark

Mar 2013 – Feb 2014

-65.63%
Solar Thermal Panels & Rennai System

- 20 Thermal Collectors (Panels)
- 2 Storage Tanks – 450 gallons/each
- Solar Energy Unit
- 20 Rennai demand water heaters as back-up
Solar Thermal Panels & Rennai System

- Heat meter installed in SEU monitors energy production in KWh
- 181,750 KWh of energy produced from April 2010 to present
- An average home consumes 11,000 KWh per year
- Hotel produced enough energy to power 16 homes for a year
Reflective (Cool) Roof

- No chlorinated ingredients or plasticizers
- ENERGY STAR rated
- Solar Reflective Index (SRI) 110  (LEED credit requires 78 or higher)
- High reflective rating reduces energy to maintain cool building
- Reduces the Urban Heat Island Effect
- Locally manufactured, Made from recycled content, Low VOC
Energy Recovery Wheel

- Energy Recovery Wheel rotates between supply and exhaust air stream picking up heat energy and relieving it to the colder stream.
- Reduces energy needed to condition the supply air.
Kone Elevator System

- Perm-Magnet Gearless Motor
- Machine Room-less
  
  *(one moving part compact enough to fit into shaft)*
- Low Energy Consumption
- Eco-Disc Technology
- Three times more efficient than standard hydraulic unit
- Uses 60% less energy
Pool Pump Technology

- Uses permanent magnet motor resulting in less heat and vibrations
- Variable speed pump reduces energy use by 90%
- Built in diagnostics prevents overheating, freezing and voltage irregularities
- Pump law: going slower reduces power consumption

- Uses natural table salt and automatic chlorine generator to create pure chlorine
- Automatically monitors and adjusts flow rate optimizing performance and reducing energy use
Other Features

- Low-E Windows
- LED Lighting Plan
- DigiSmart Motion Sensor Technology
- Guest Controlled Thermostat
Water

- Indigenous Landscaping
- Underground Cistern
- Drip Irrigation
- Low flow fixtures
- Waterless Urinals
Avg Water vs. Benchmark

Mar 2013 – Feb 2014

-55.16%
Hotel Carbon Measurement Initiative

Total Carbon Footprint

Mar 2013 – Feb 2014

463.77k kgCO2e
Carbon Footprint per Occ. Room

Mar 2013 – Feb 2014

13.59 kgCO₂e

(IHG’s global footprint per occupied room is 31kgCO₂e)
Landfill Diversion

Mar 2013 – Feb 2014

20.666k lb
### LEED Scorecard

#### LEED Scorecard

<table>
<thead>
<tr>
<th>Category</th>
<th>Points Earned</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Sites</td>
<td>10/14</td>
<td></td>
</tr>
<tr>
<td>Water Efficiency</td>
<td>4/5</td>
<td></td>
</tr>
<tr>
<td>Energy &amp; Atmosphere</td>
<td>7/17</td>
<td></td>
</tr>
<tr>
<td>Material &amp; Resources</td>
<td>6/13</td>
<td></td>
</tr>
<tr>
<td>Indoor Environmental Quality</td>
<td>9/15</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>5/5</td>
<td></td>
</tr>
</tbody>
</table>

#### LEED Facts

- Certification awarded: Aug 2012
- LEED BD+C: New Construction (v3)

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable sites</td>
<td>10/14</td>
</tr>
<tr>
<td>Water efficiency</td>
<td>4/5</td>
</tr>
<tr>
<td>Energy &amp; atmosphere</td>
<td>7/17</td>
</tr>
<tr>
<td>Material &amp; resources</td>
<td>6/13</td>
</tr>
<tr>
<td>Indoor environmental quality</td>
<td>9/15</td>
</tr>
<tr>
<td>Innovation</td>
<td>5/5</td>
</tr>
</tbody>
</table>
Green Training

- Specialized Departmental Training for staff & management: focusing on hotel purpose and mission
- All staff required to learn the green tour
- Training includes specialized product knowledge such as Eco-Lab cleaning products and our current soap recycling program for the Clean the World Foundation
- Continued educational training at staff meetings including Recycling & Sorting (i.e. Tomato Palms)
Green Operations

- Establish Sustainable Purchasing Policy
- Develop a Green Team
- Display mission, purpose, non-smoking guarantee for guests to read in common areas – increases education
- Encourage education and certification i.e. LEED AP and LEED Green Associate certifications for on-site employees.
- Incorporate ways to educate the public on your mission (i.e. in-room recycling, linen reuse program)

Select vendors who are willing to meet waste minimization goals.
Green Partnerships
Certifications & Awards
Public Outreach

Life Really Is Greener!

"Each year more and more people are recognizing the benefits of preserving our natural environments," says Karen Bynum, executive director of the Holiday Inn and Suites Columbia Airport.

The three-story Holiday Inn & Suites Columbia Airport is one of the most energy-efficient hotels in the United States. "We're proud to be a part of the Green Building movement," says Bynum.

The hotel features a variety of energy-saving technologies, including:

- A state-of-the-art energy management system that continually monitors and adjusts the hotel's energy use.
- LED lighting throughout the hotel, reducing energy consumption by up to 75%.
- Low-flow showerheads and faucets in all guest rooms.
- High-efficiency air conditioning and heating systems.
- Energy-efficient windows and doors.
- A rainwater harvesting system that collects rainwater from the roof and uses it to flush the toilets and watering the gardens.
- A variety of local and seasonal foods in the hotel's restaurants, reducing the carbon footprint of food transportation.

"By implementing these energy-saving measures, we're not only reducing our environmental impact, but also saving money on energy costs," says Bynum.

The hotel's commitment to sustainability is reflected in its LEED certification, which it earned in 2010.

"We're honored to be recognized for our efforts to reduce our carbon footprint and improve the environment," says Bynum.

For more information about the Holiday Inn & Suites Columbia Airport and its commitment to sustainability, visit www.holidayinn.com.
Inspiration

“Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.”

-Dr. Seuss, from The Lorax
Connect With Us

HEMA PATEL
Owner/Partner
Email: Hema@guestwelcome.com
Phone: 803.539.9955 x102
www.courtesymanagementinc.com

To find out more about the eco-friendly Holiday Inn & Suites visit us online
www.hicolumbiaairport.com