A National Leader in Energy Conservation, But What About Water?

VALENCIA AT A GLANCE

- Orlando, Florida
- >60,000 students
- Five campuses
- 66 buildings constructed between 1971 and 2012
- Six buildings, 25% of total the college’s 2.1 million square feet, were built to LEED Gold
- Cut energy usage per square foot nearly in half over the past five years
- $6.5M saved since 2009 ($2.8M from behavioral change program alone)
- Shut down procedures, evaluation of unoccupied classrooms and offices, energy audits, oversight of comfort complaints, adoption of college-wide guidelines for energy efficiency, publicity of savings achieved and recognition of “energy heroes,” and engaging communication with faculty and staff have all contributed to this dramatic cost reduction.
- Key partnerships (Cenergistic and Automated Logic Controls) and staffing (dedicated Operation Mangers for Energy Efficiency and Energy Education)

VALENCIA’S ENERGY JOURNEY

- Water Refill Stations
  - October: Rate increase to $1.34
- Faucet aerators flowing at the rate of .5 gallons per minute
- Six buildings, 25% of total the college’s 2.1 million
- 6,879

VALENCIA’S WATER SAVINGS

- All of the following actions reduce costs related to utility, labor, and/or purchasing
  - Low Maintenance Native Landscaping
    - Moisture sensors
  - Planting trees (reduces evaporation and increases soil moisture)
  - Changeover from St. Augustine grass to drought-tolerant Bahia grass
  - Water Refill Stations
  - Rainwater Harvesting and Reclaimed Water
    - Osceola Campus: 10,000 gallon rainwater cistern for flushing toilets
  - West Campus the Special Events Center: 9,000 gallon rainwater cistern for flushing low-volume toilets
  - Reclaimed wastewater for irrigation on largest campuses
  - Stormwater Management
    - Retention ponds, vegetated swales, integrated pest management for water quality
  - Indoor Water Use Efficiency
    - Maximum Performance (MaP) testing for toilets and EPA WaterSense labeling program
  - Dual-flush toilets and others using no more than 1.28 gallons per flush for new installations and retrofit
  - 0.25 gallons per flush urinals compared to older 3 gallons per flush
  - Faucet aerators flowing at the rate of .5 gallons per minute or less
  - ENERGY STAR labeled air-cooled ice machines
  - Cooling Towers
    - Most chillers converted from air-cooled to water-cooled to increase energy efficiency. A low water usage chemical treatment program was implemented to offset spike in water usage

VALENCIA AT A GLANCE

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<tr>
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SUSTAINABILITY AND ENERGY MANAGEMENT

- Building Area vs. Energy Consumption

- Energy Use Efficiency

- Cooling Towers

- ENERGY STAR labeled air-cooled ice machines

- Water Refill Stations

- Rainwater Harvesting and Reclaimed Water

- Low Maintenance Native Landscaping

- Indoor Water Use Efficiency

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