

Green to Gold

**How to Make an
Environmental
Strategy
Payback**



Establish Goals

- New Design/Construction vs. Existing Sites
 - Reduce energy intensity by 15%
 - Communicate commitment to staff and customers
 - **BRANDING/IMAGE**
 - Ensure regulatory compliance
 - Pursue green building certification
- Timeframe
- Budget



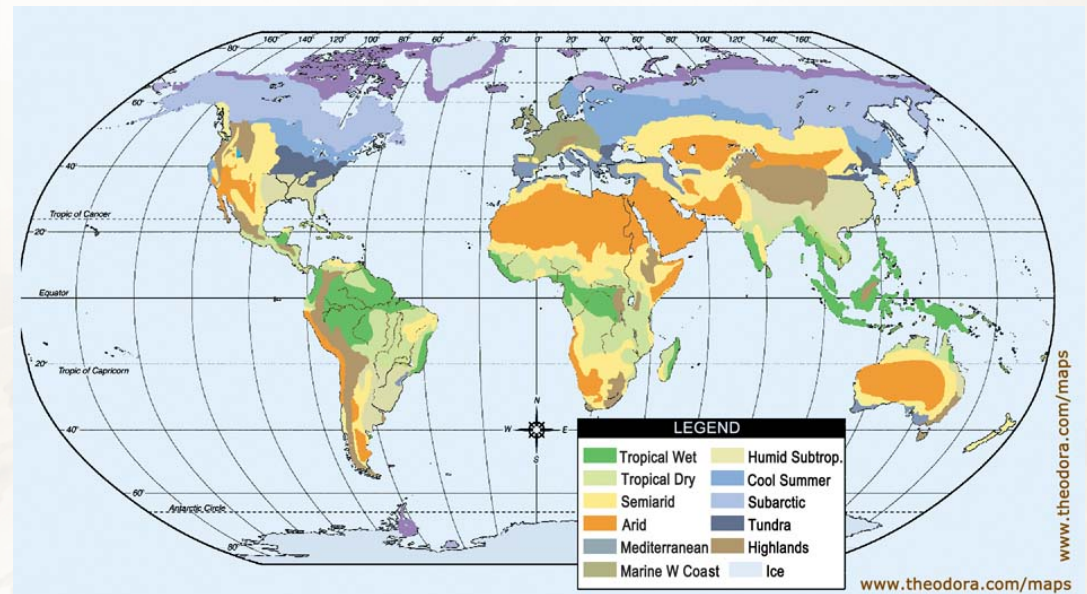
Audit Process

- Interviews
- Observations
- Data Review



Facility Evaluation – Geography and Site

- Daylight
- Climate
- Annual rainfall
- Local resources
- Lot size and orientation
- Landscape vs. hardscape



Facility Evaluation

- Physical data
 - Building envelope
 - Fenestration
 - Lighting
 - HVAC
 - Refrigeration
 - Appliances/plug loads
 - Water fixtures

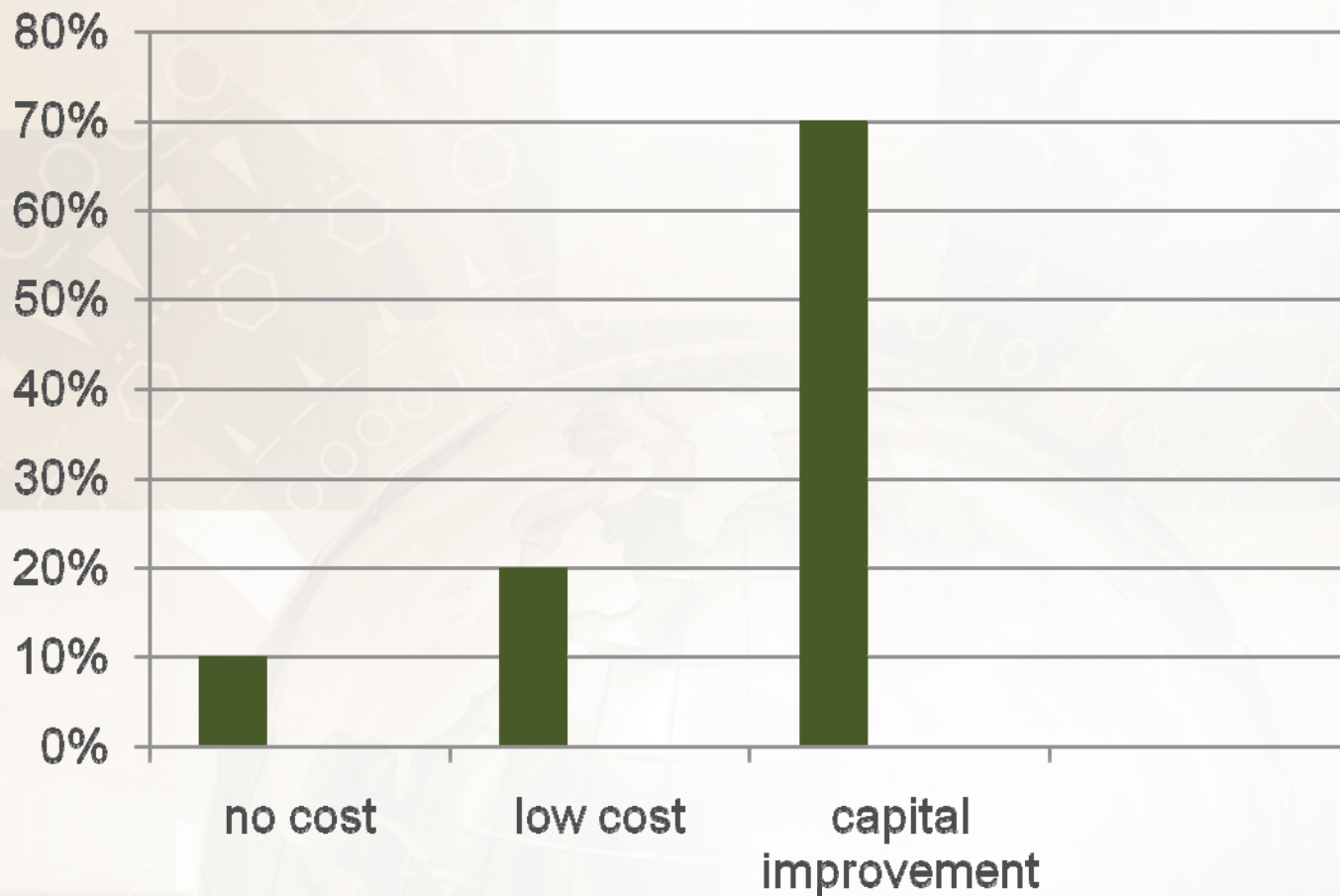


Facility Evaluation

- Operational Data
 - Maintenance schedules
 - Hours of operation
 - Patterns of operation
 - Purchasing practices
 - Waste management practices
 - Utility consumption



Analyze Data and Develop Improvement Plan



Energy Savings Opportunities

No Cost	Low Cost	Capital Improvement
Thermostat settings Turn off equipment	Lighting controls Programmable thermostats Insulation	Equipment upgrades Energy management system Variable frequency drives





Water Saving Opportunities

- Irrigation – reduce or eliminate
- Low flow fixtures
- Recapture systems



Waste Management



Waste Management

- Made from recycled plastic (BPA free)
- Cost avoidance – minimizes disposable cups needed
- Cost avoidance – reduces waste
- Profit from selling cup
- Repeat sales of coffee refills
- Customer loyalty?
- Continuous marketing?



Product Selection

- Recycled content paper products
 - Napkins
 - Paper towels
 - Toilet tissue
- Bio-degradeable food and beverage containers



Implement Changes and Track Progress



Before



After

Case Study Overview

- Sports Authority
- Retail Store
- HID to T5 retrofit
- 43,891 square feet
- 240 HID lamps and fixtures replaced with 261 4 lamp T5 PENTRON

Benefits

- Increased light levels between 50% - 100% throughout the store
- Total payback period is 1.65 years
- Increase in foot-candles from 35 - 60 with HID lighting to 75 to 85 foot-candles with T5 lighting



Summary

Establish
goals

Audit

Implement

Monitor

