



Integrated Sustainability is a Value Proposition in Hospitality

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LEARNING OBJECTIVES

- ◆ **Define How Integration and Collaboration Practices Significantly Impact a Sustainability Platform**
 - ◆ **Identify How Management Goals Can Help Shape a Sustainable Project**
 - ◆ **State the Sustainable Initiatives Implemented at the Hotel**
 - ◆ **Compare the Rebates/Incentives Received to Reduce Sustainability Initiative Costs**
- 
- A large, faint image of a lightbulb is centered in the background. Inside the lightbulb, a small, dark silhouette of a tree is visible. The lightbulb is positioned vertically, with its base at the bottom of the frame. The background is a dark, textured green with a subtle pattern of light and shadow, suggesting a natural or organic theme.

SUSTAINABILITY



Sustainability is an Integral Component of Value Creation Through the Application of Sound Business Practices to Systems, Products and Technologies!



THE OBJECTIVE MANDATES

- ◆ **Establish Sustainability Leadership in the Competitive Market and Beyond**
- ◆ **Reduce Operating Cost**
- ◆ **Create Added Asset Value**
- ◆ **Transferability**
- ◆ **Develop Maximum Integrated and Collaborative Program**
- ◆ **Combine Renovation & Development of Sustainability Platform**

THE PROJECT BACKDROP

- ◆ **Branded Hotel Built in 1980**
- ◆ **329 Guest Rooms**
- ◆ **Full Service**
- ◆ **11 Stories**
- ◆ **Work in Progress**
- ◆ **Prototype for Global Rollout**
- ◆ **Sustainability Flagship**



INTERSTATE
HOTELS & RESORTS



Hilton
CONCORD

THE PROGRAM

PHASE I

**ANALYSIS
&
FEASIBILITY**



**PRESENT FINDINGS
&
RECOMMENDATIONS**



**DESIGN
&
IMPLEMENTATION**



PHASE III

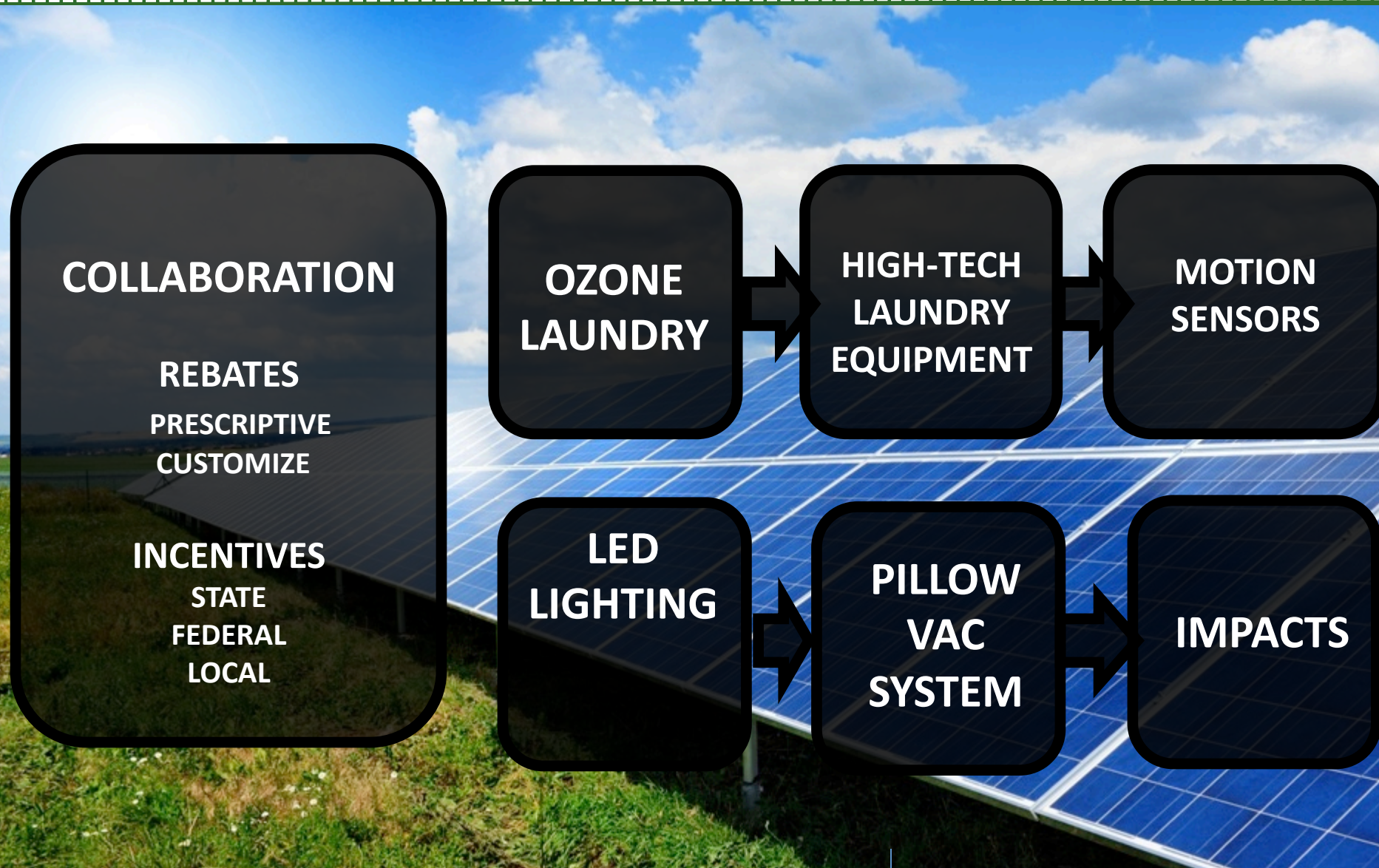
**MONITORING,
REPORTING
& NEW
TECHNOLOGY
OPTIONS**



**RESEARCH AND DEVELOPMENT OF
PRODUCTS, TECHNOLOGIES
AND SYSTEMS**

**How Integration and Collaboration
Practices Significantly Impact a
Sustainability Platform**

SAMPLE ILLUSTRATION OF COLLABORATION & INTEGRATION



SAMPLE ILLUSTRATION OF COLLABORATION & INTEGRATION REDUCTIONS

COLLABORATION

REBATES

PRESCRIPTIVE
CUSTOMIZE

INCENTIVES

STATE
FEDERAL
LOCAL

OZONE
LAUNDRY

WATER
GAS THERMS

LAUNDRY
EQUIPMENT

ELECTRIC
GAS THERMS
WATER
LABOR

MOTION
SENSORS

ELECTRIC

LED
LIGHTING

ELECTRIC
LESS INVENTORY

PILLOW VAC
SYSTEM

LANDFILL
DIVERSION

IMPACTS

REDUCING CO2
EMISSIONS
CARBON FOOTPRINT
REDUCTION
GHG REDUCTION
ROI

Sustainable Initiatives Implemented at Hilton Concord

ENERGY REDUCTION INITIATIVES

GAS AND ELECTRIC

- ◆ **LED LIGHTING**
- ◆ **HI EFFICIENCY LOW WATTAGE TUBE LIGHTS**
- ◆ **ENERGY MANAGEMENT SYSTEM (HVAC)**
- ◆ **ADVANCED TECHNOLOGY LAUNDRY SYSTEM**
- ◆ **OZONE LAUNDRY SYSTEM**
- ◆ **LED LAUNDRY CEILING RETROFIT**
- ◆ **LED MEETING ROOMS / BALLROOM / PUBLIC AREA CEILING LIGHTS**
- ◆ **PLATE & VINE RESTAURANT – ALL LED LIGHTING**
- ◆ **PORTE-COCHERE LED RETROFIT**

ENERGY REDUCTION INITIATIVES

GAS AND ELECTRIC

- ◆ REFRIGERATION DOOR SEALS AND CURTAIN REPLACEMENTS
- ◆ FOOD PREPARATION EQUIPMENT
- ◆ LOW TEMP DISHWASHER
- ◆ PARKING LOT LED RETROFIT & MOTION SENSORS
- ◆ PERIMETER BUILDING SECURITY LIGHTING
- ◆ INCLUDING PLATE & VINE ENTRANCE
- ◆ WINDOW FILM
- ◆ ENERGY STAR OFFICE EQUIPMENT
- ◆ HVAC ROOFTOP UNITS – ECONOMIZERS

WATER REDUCTION INITIATIVES

- ◆ **LOW FLOW TOILETS**
- ◆ **LOW FLO SHOWER HEADS**
- ◆ **LANDSCAPE IRRIGATION**
- ◆ **OZONE LAUNDRY**
- ◆ **NATURA WATER SYSTEM**
- ◆ **HIGH TECHNOLOGY LAUNDRY SYSTEM**
- ◆ **AERATORS THROUGHOUT HOTEL**

TRASH/WASTE INITIATIVES

- ◆ **BIOHITECH ORGANIC WASTE DECOMPOSING FOOD**
- ◆ **INTERNAL RECYCLING**
- ◆ **PILLOWVAC – RECYCLING / LANDFILL DIVERSION**
- ◆ **DYSON AIR HAND DRYING SYSTEMS**
- ◆ **PAPERLESS CHECK IN**
- ◆ **NATURA WATER SYSTEM**
- ◆ **CONSTRUCTION DEBRIS RECYCLING**

FULLY INTEGRATED OPTIONS AND INITIATIVES



ONSITE WASTE MANAGEMENT SYSTEM

High Volume Organic
Waste-to-Energy
Waste Composting System

REBATES, INCENTIVES, GRANTS

Off Balance Sheet Financing
Power Purchase Agreement PPA
Lease Agreement
Utility Financing Agreements

OZONE LAUNDRY/ POOL/SPA SYSTEMS

Aquawing Ozone Systems

GUEST ROOM ENERGY MANAGEMENT SYSTEM HVAC

Motion Sensor /PIR / Smart Outlets

KITCHEN SUSTAINABILITY PROGRAMS

Dishwashers

LED LIGHTING PROGRAM

Indoor - Outdoor

PILLOW RESTORATION PROGRAM

PillowVac System

RENEWABLE ENERGY SYSTEMS FOR POWER GENERATION

Fuel Cell
Cogeneration
Solar
Micro Turbine
Geothermal / Biomass / Biofuel

WATER ANALYSIS

Water Purification System

REFRIGERATION EFFICIENCIES

Motors, Curtains, Seals

PARKING LOT, POOL, COURTYARD, RC TOP & BUILDING PERIMETER LIGHTING ALTERNATIVE

Induction Lighting System
Led Lighting System

ELEVATOR EFFICIENCIES

Motor, Lighting

IRRIGATION SYSTEM

Drip and Controlled
Moisture Sensors
Gray Water Systems

SOLAR THERMAL HOT WATER SYSTEM

Building
Pool

FUNDING PROGRAMS

EPA Act 179D Energy Depreciation IRS
Cost Segregation
Self Funding

INTEGRATION WITH PIP

ELECTRIC VEHICLE CHARGER
Hydraulic Hybrid

CENTRALIZED ENERGY MANAGEMENT SYSTEM

Common areas, meeting Rooms. offices
Metrics modeling

SUSTAINABILITY PUBLIC
RELATIONS
LOCAL
NATIONAL

SUSTAINABILITY MEASURES &
PROCEDURES
PURCHASING
PRODUCTS/ SUPPLIES
RECYCLING
STAFF PARTICIPATION

PRIMARY INITIATIVES

SECONDARY INITIATIVES

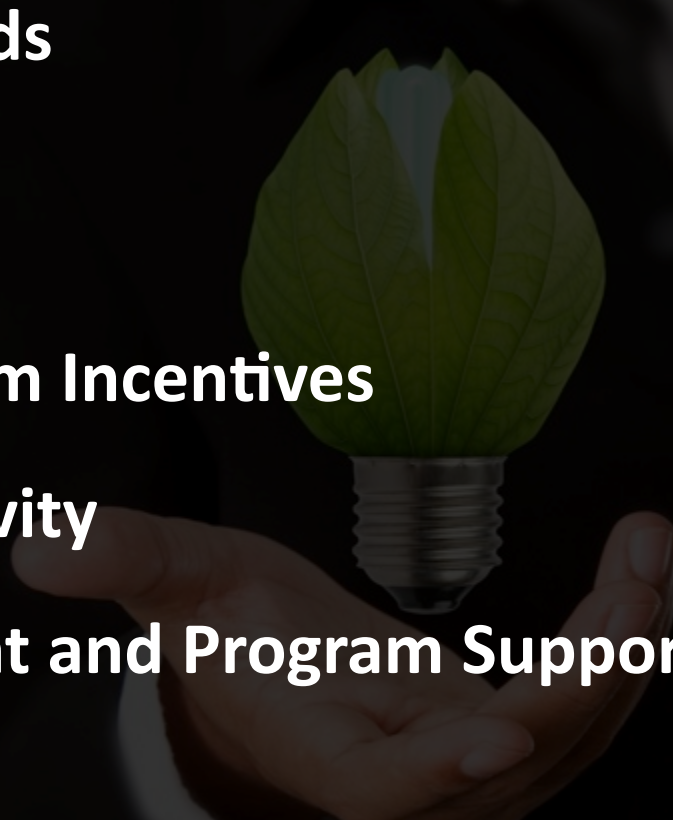
88%

of Fortune 1000 senior executives feel business has a moral responsibility, beyond regulatory requirements, to make their companies more sustainable.

Source: February 2011 Harris Interactive Poll commissioned by Schneider Electric. Data from 300 Executives from Fortune 1,000 Firms.

How Management Goals Can Help Shape a Sustainable Project

HOW MANAGEMENT GOALS HELP SHAPE A SUSTAINABLE PROJECT

- ◆ Establish ROI Thresholds
*Incorporate **ROI Blending***
 - ◆ **Rebate Reinvestment**
 - ◆ Approvals for Maximum Incentives
 - ◆ Response Time Sensitivity
 - ◆ Corporate Commitment and Program Support
 - ◆ Promotional Support
- 
- A person in a dark suit and white shirt is shown from the chest up, holding a glowing lightbulb with both hands. Inside the lightbulb, a small green plant with several leaves is growing. The background is dark and out of focus, emphasizing the person and the lightbulb.



A Well Integrated Hotel Sustainability
Program Can Typically Achieve

8-10%

(or greater)

Reduction of TOTAL
Current Operating Budget 

ANTICIPATED SUSTAINABILITY SAVINGS BY HOTEL SIZE

Number of Hotel Rooms	Anticipated Annual Savings From	Anticipated Annual Savings To
1000-1500	\$661,658	\$1,654,145
900-1000	\$502,860	\$1,257,150
800-900	\$449,927	\$1,124,818
700-800	\$396,995	\$992,487
600-700	\$344,062	\$860,155
500-600	\$291,129	\$727,824
400-500	\$238,197	\$595,492
300-400*	\$175,207	\$438,018
200-300	\$132,332	\$330,829
100-200	\$79,399	\$198,497

Values are theoretical only. Actual results will vary by initiatives undertaken, rebates, incentives and other factors

ECONOMIC IMPACT

COLLABORATIVE RESULTS TO DATE

HILTON CONCORD REBATES

- ◆ **Contra Costa Water District**
2 Rebates
\$49,380.40
- ◆ **PG&E**
9 Rebates
\$54,088.09
- ◆ **Smart Lights/ Lodging Savers**
6 Rebates
\$27, 112.81

TOTAL OF ALL REBATES

\$132,887.63

REBATES RECEIVED TO DATE

\$131,718.33

REBATES YET TO BE RECEIVED

\$1,169.30

Rebate Categories Detailed in
Online Supplement

RESULTS

RESULTS TO DATE

Savings
\$151,000

Net Cost
\$632,932

**Integrated
Payback**
4.1 Years

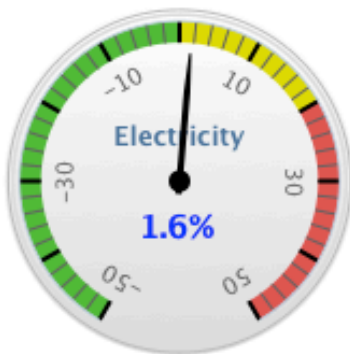
Added Asset Value
\$1,800,000

using 8% capitalization rate

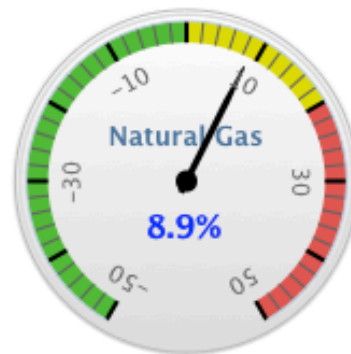
METRICS MODELING



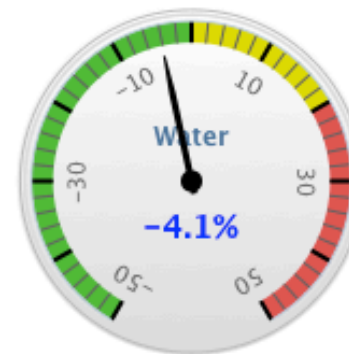
All Resources Cost \$1,330/day for Year Ending May-2013 **↑ 1.6% (\$20.83/day)** compared to the prior year



Electricity
\$922/day



Natural Gas
\$197/day



Water
\$139/day



Waste
\$72/day

ELECTRICITY

NO NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

This is your Usage (with normalization) summary for a
rolling 12 Months compared to the

(**Electricity**) **%**
Natural Gas
Water
Waste
Carbon **/day)**

↓ -3.7%
(-253 kWh/day)

for May-2013 for the Year Ending May-2013

ELECTRICITY

NO NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

Usage for May-2013:
6,747 kWh/day

Change from Prior Year:
-1.2% (-84.6 kWh/day)

[View Facility](#)

Compared to the same
Month last year the

**Largest Increase
was**

Jan: ↑ 396 kWh/day

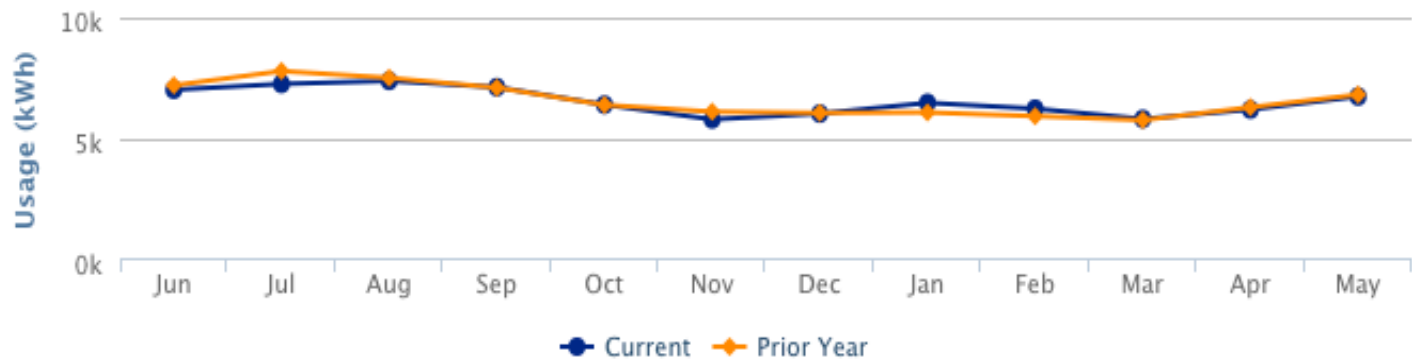
**Largest Decrease
was**

Jul: ↓ -528 kWh/day

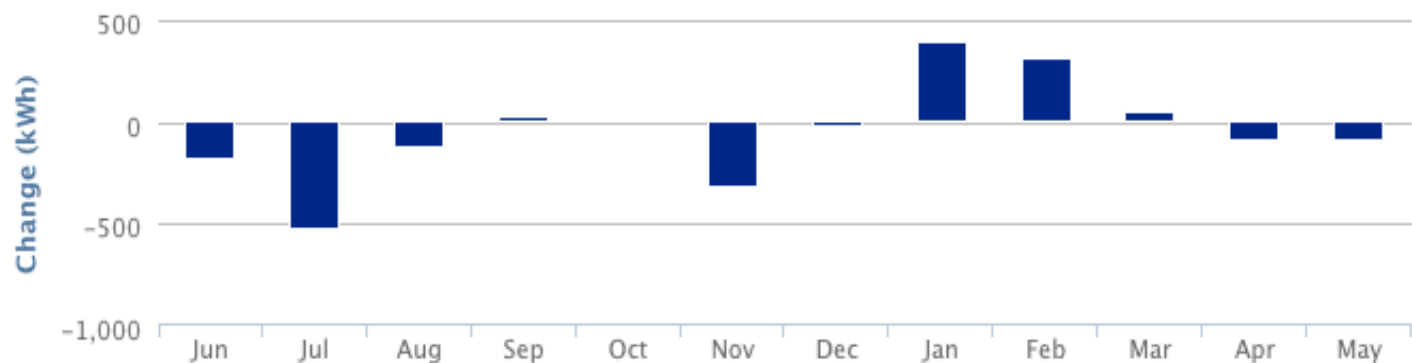
Latest Month was

May: ↓ -84.6 kWh/day

Average Daily Usage for Jun-2012 to May-2013 versus the Prior Year



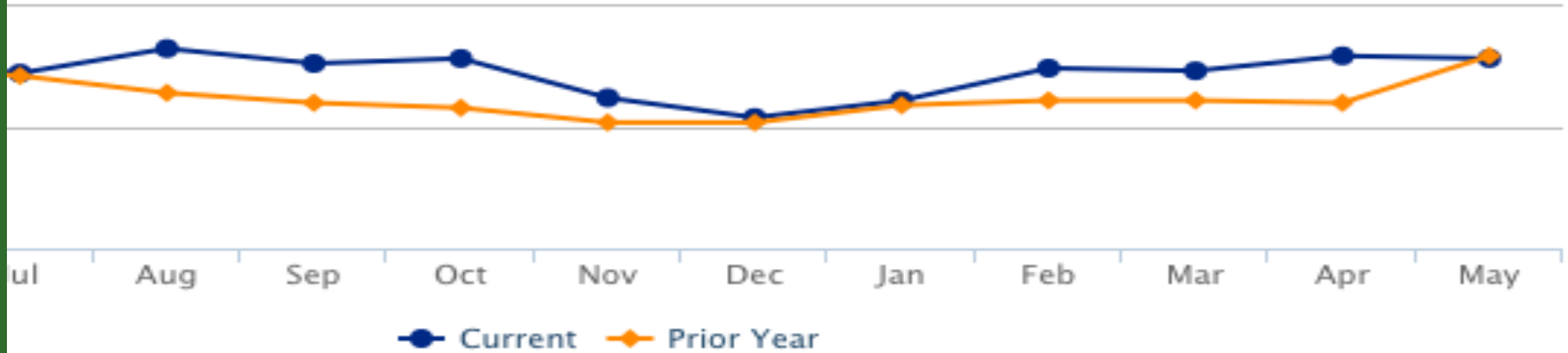
Change in Average Daily Usage for Jun-2012 to May-2013 versus the Prior Year



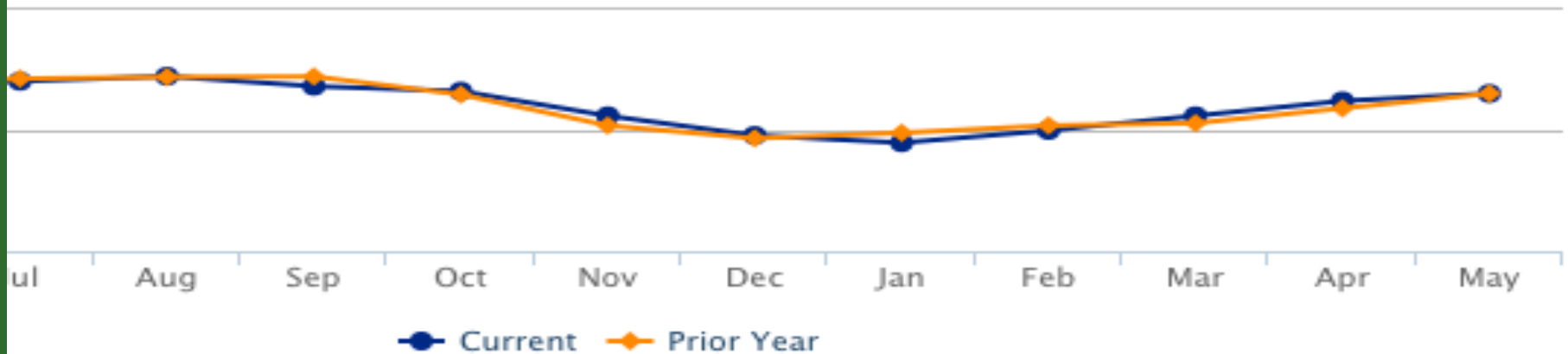
ELECTRICITY

NO NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

% Occupancy for Jun-2012 to May-2013



Average Temperature for Jun-2012 to May-2013



ELECTRICITY

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

This is your (with normalization) summary for a rolling 12 Months compared to the

 **-9.3%**
(-689 kWh/day)

for May-2013

 **-7.8%**
(-556 kWh/day)

for the Year Ending May-2013

ELECTRICITY

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

Usage for May-2013:
6,747 kWh/day

Change from Baseline:
-9.3% (-689 kWh/day)

[View Facility](#)

Compared to the same
Month last year the

**Largest Increase
was**

Jul: ▲ 114 kWh/day

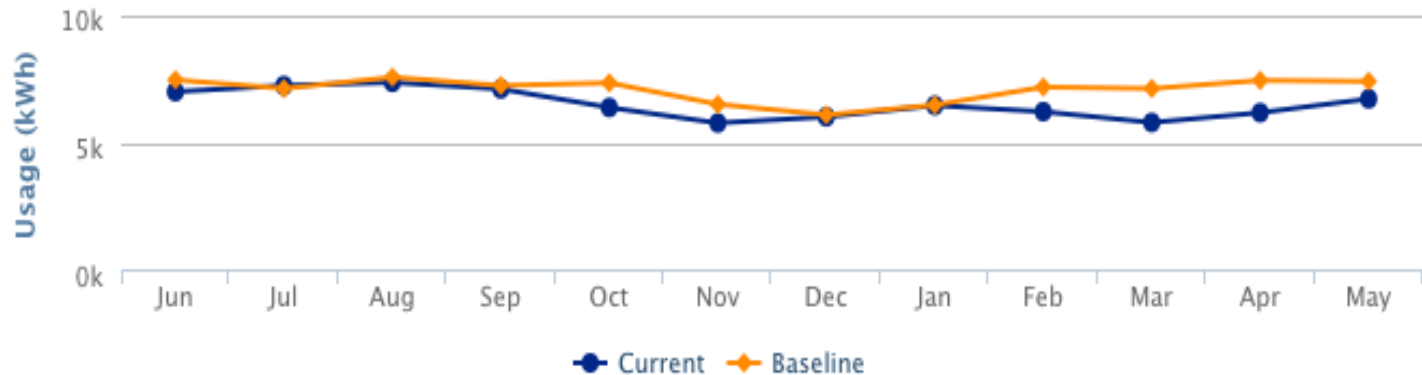
**Largest Decrease
was**

Mar: ▼ -1,332
kWh/day

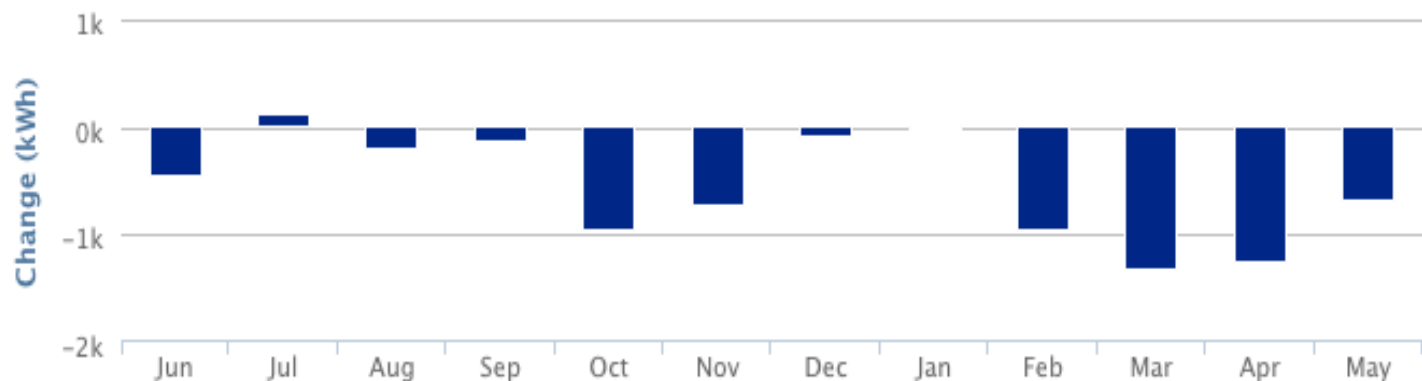
Latest Month was

May: ▼ -689 kWh/day

Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



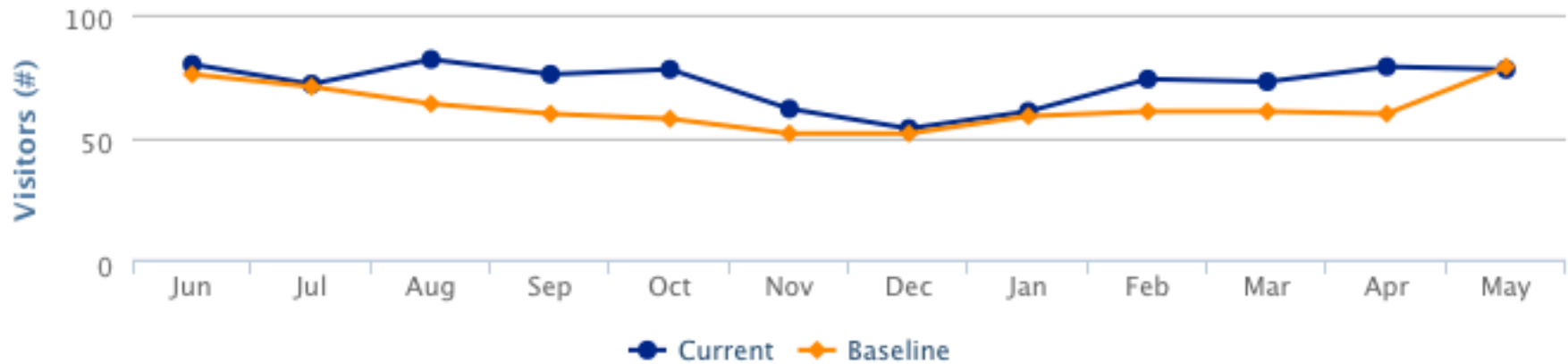
Change in Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



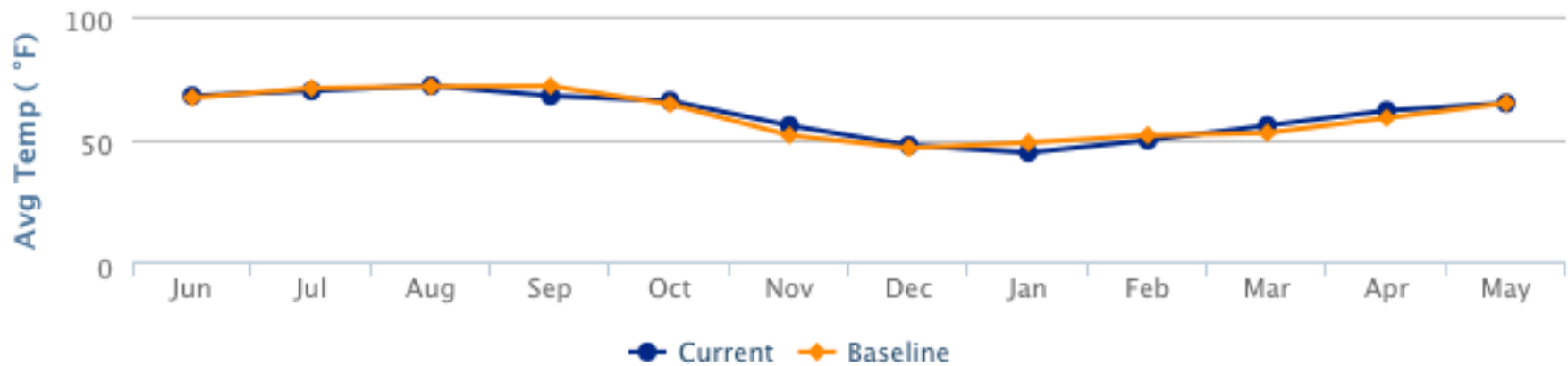
ELECTRICITY

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

% Occupancy for Jun-2012 to May-2013



Average Temperature for Jun-2012 to May-2013



WASTE USAGE

This is your summary for a rolling 12 Months compared to the

 **-21.4%**

(-0.15 tons/day)

Diversion Rate: 37% (0.33 tons/day)

for May-2013

 **-19.4%**

(-0.12 tons/day)

Diversion Rate: 32.4% (0.24 tons/day)

for the Year Ending May-2013

WASTE USAGE

Usage for May-2013:
0.56 tons/day

Change from Baseline:
-21.4% (-0.15 tons/day)

Diversion Rate:
37% (0.33 tons/day)

[View Facility](#)

Compared to the same Month last year the

Largest Increase was

Nov: ▲ 0.08 tons/day

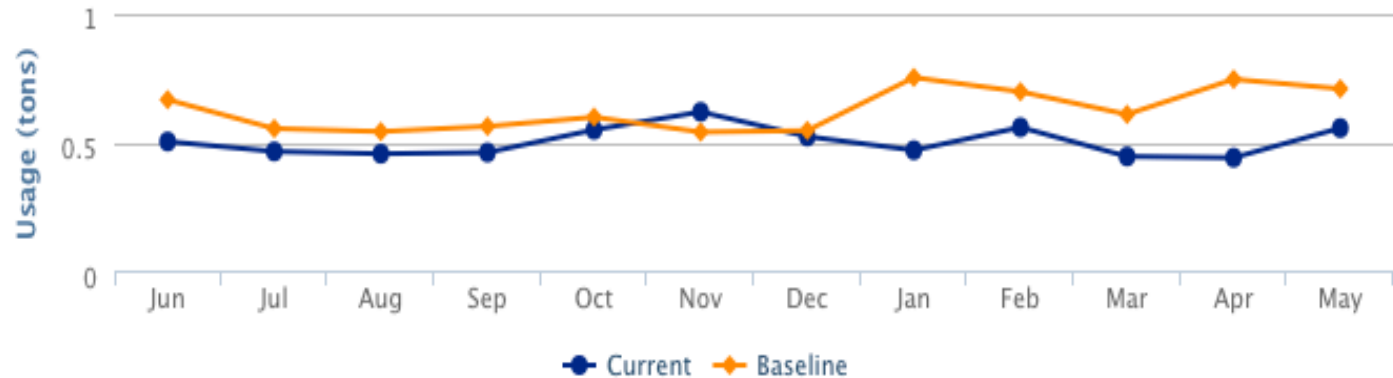
Largest Decrease was

Apr: ▼ -0.30 tons/day

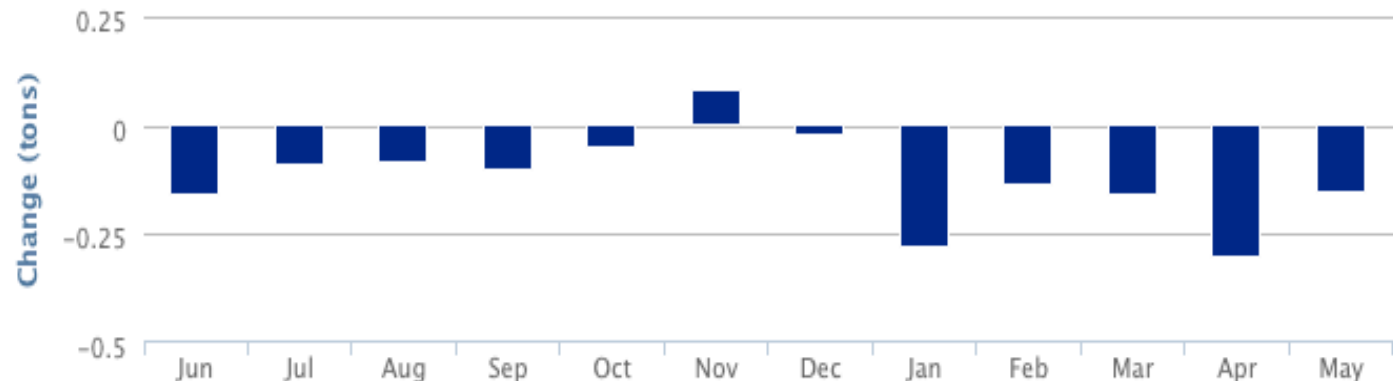
Latest Month was

May: ▼ -0.15 tons/day

Average Daily Usage for Jun-2012 to May-2013 versus the Baseline

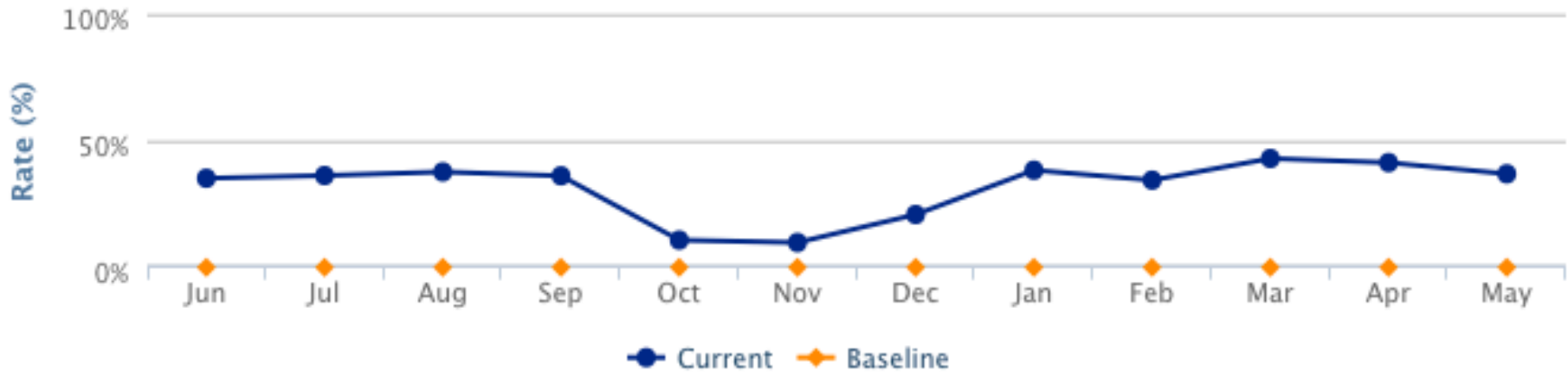


Change in Average Daily Usage for Jun-2012 to May-2013 versus the Baseline

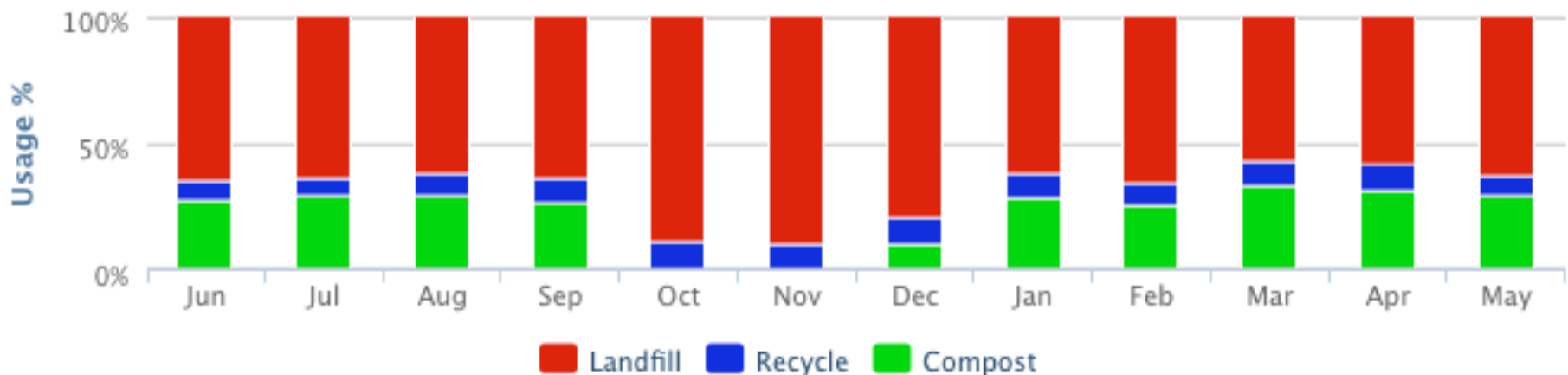


WASTE USAGE

Diversion Rate for Jun-2012 to May-2013



Waste Separation for Jun-2012 to May-2013



HCMC CARBON

NO NORMALIZATION FOR WEATHER AND OCCUPANCY

This is your (with normalization) summary for a rolling 12
Months compared to the

 **-7.7%**
(-0.27 tCO₂e/day)

for May-2013

 **-3%**
(-0.10 tCO₂e/day)

for the Year Ending May-2013

HCMI CARBON

NO NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

Usage for May-2013:
3.28 tCO₂e/day

Change from Baseline:
-7.7% (-0.27 tCO₂e/day)

[View Facility](#)

Compared to the same
Month last year the

**Largest Increase
was**

Jan: ▲ 0.27 tCO₂e/day

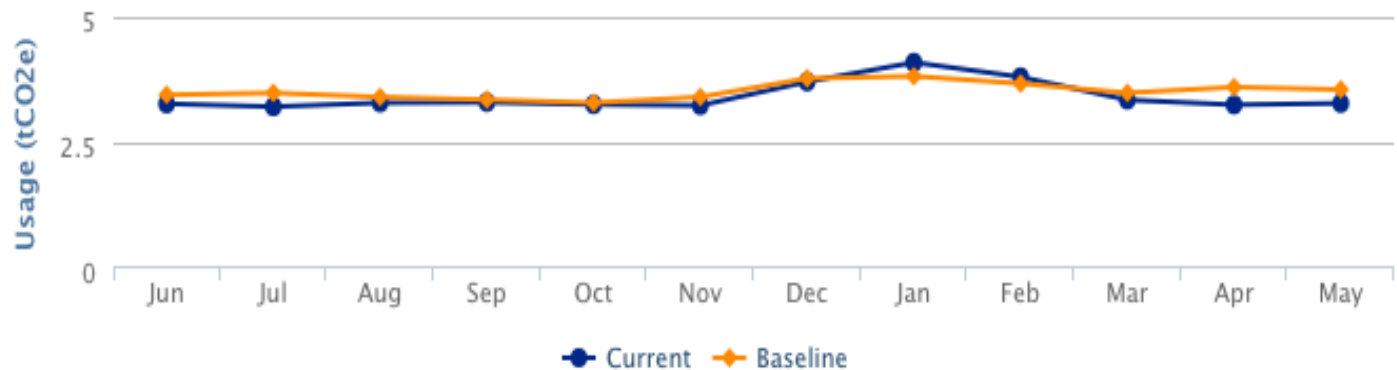
**Largest Decrease
was**

Apr: ▼ -0.35 tCO₂e/day

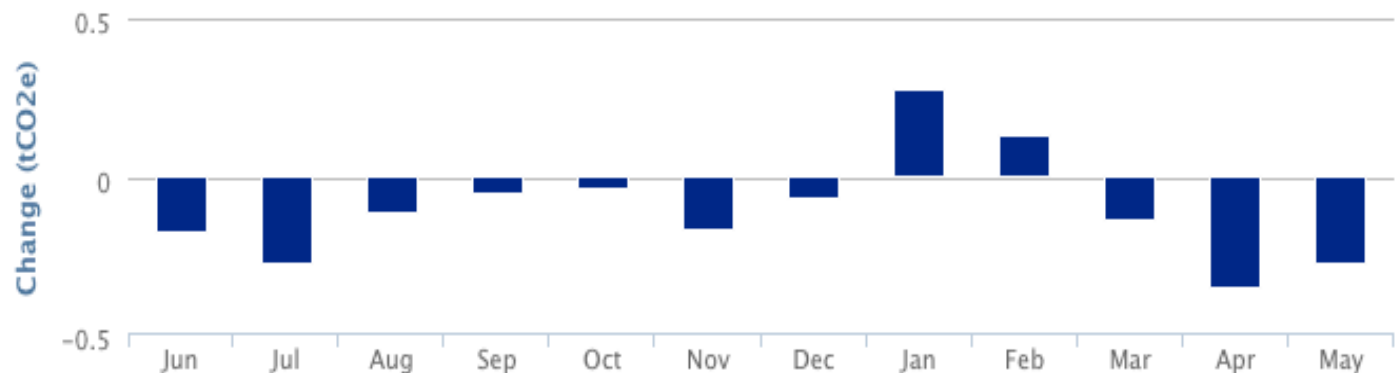
Latest Month was

May: ▼ -0.27
tCO₂e/day

Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



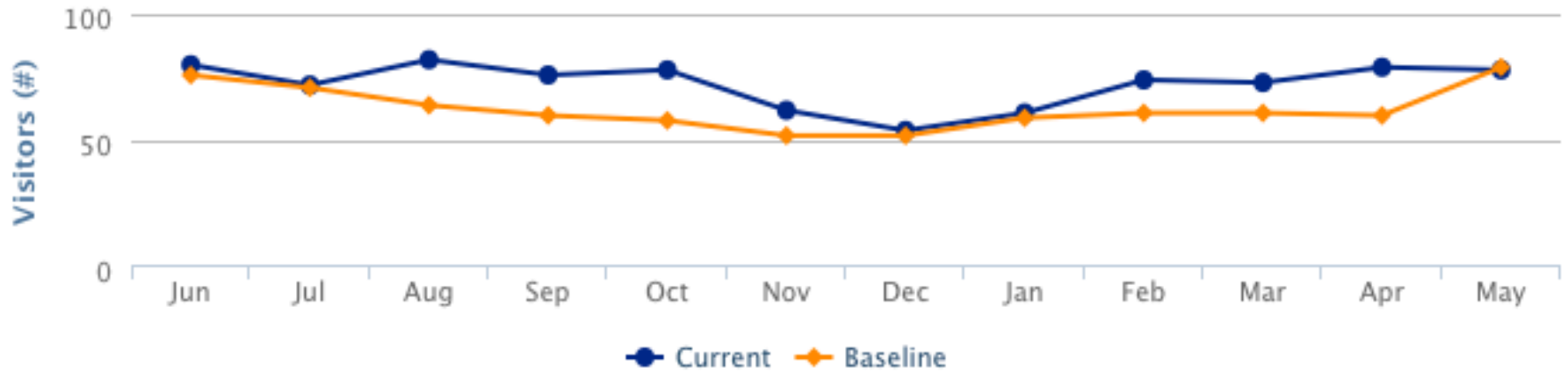
Change in Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



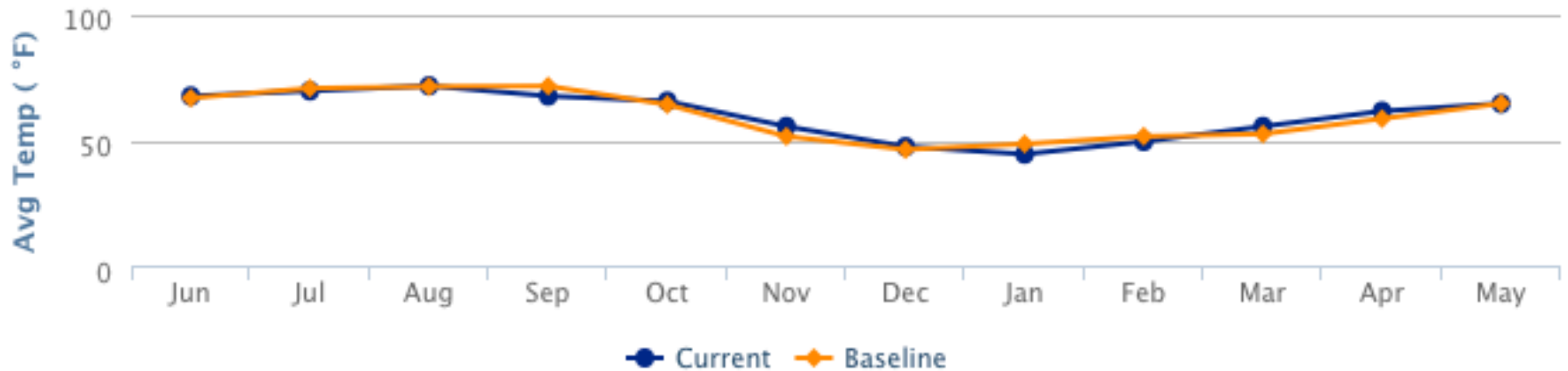
HCMI CARBON

NO NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

% Occupancy for Jun-2012 to May-2013



Average Temperature for Jun-2012 to May-2013



HCMC CARBON

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY

This is your (with normalization) summary for a rolling 12 Months compared to the

 **-4.2%**
(-0.14 tCO₂e/day)

for May-2013

 **-4%**
(-0.14 tCO₂e/day)

for the Year Ending May-2013

HCMI CARBON

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY / USAGE

Usage for May-2013:
3.28 tCO₂e/day

Change from Baseline:
-4.2% (-0.14 tCO₂e/day)

[View Facility](#)

Compared to the same
Month last year the

Largest Increase
was

Jan: ▲ 0.25 tCO₂e/day

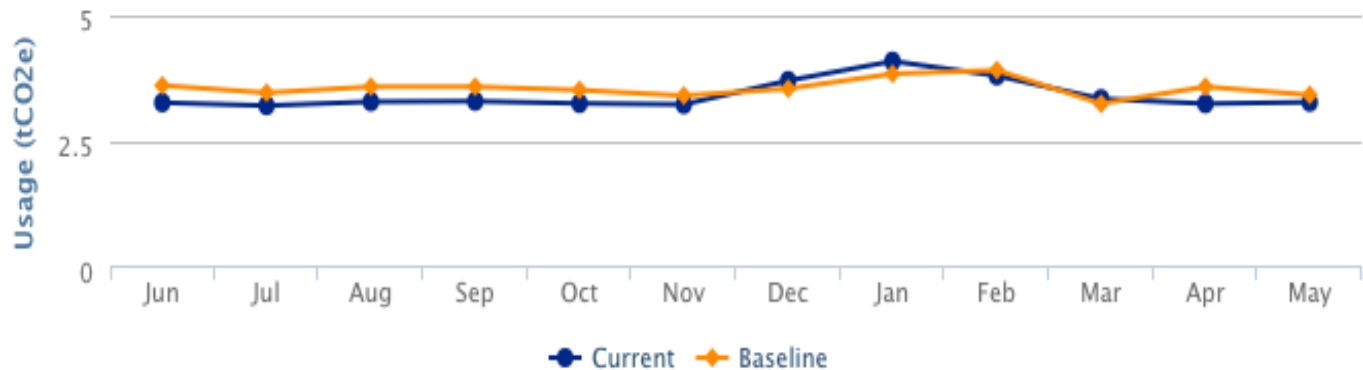
Largest Decrease
was

Jun: ▼ -0.34 tCO₂e/day

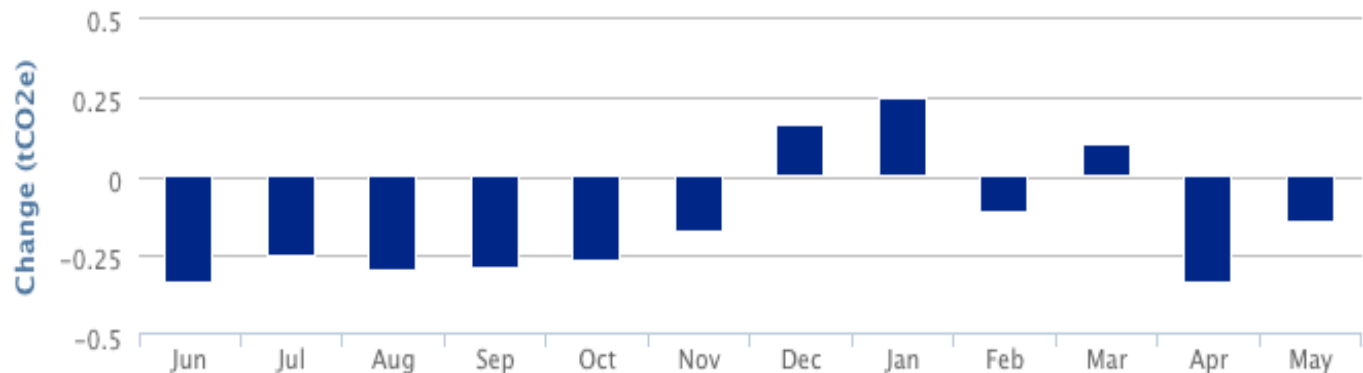
Latest Month was

May: ▼ -0.14
tCO₂e/day

Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



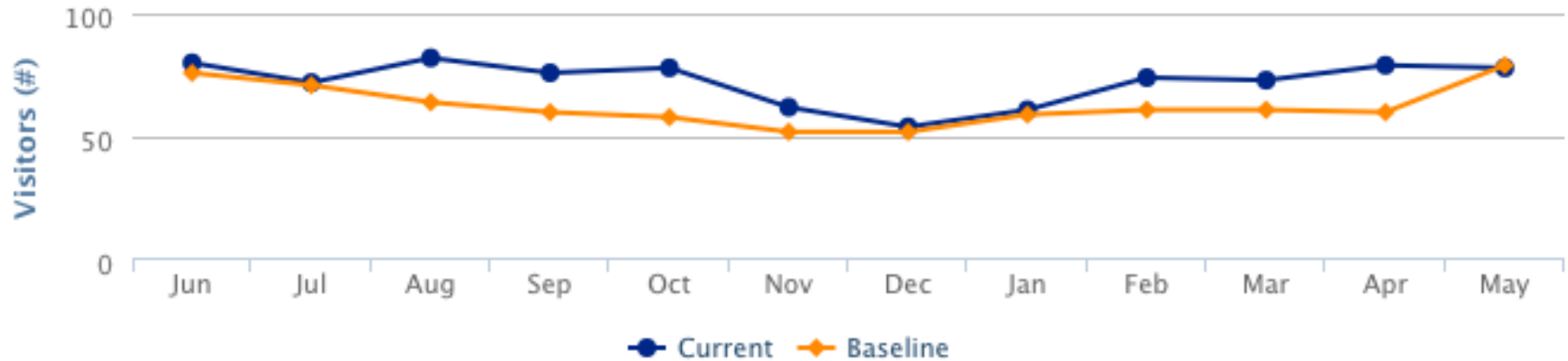
Change in Average Daily Usage for Jun-2012 to May-2013 versus the Baseline



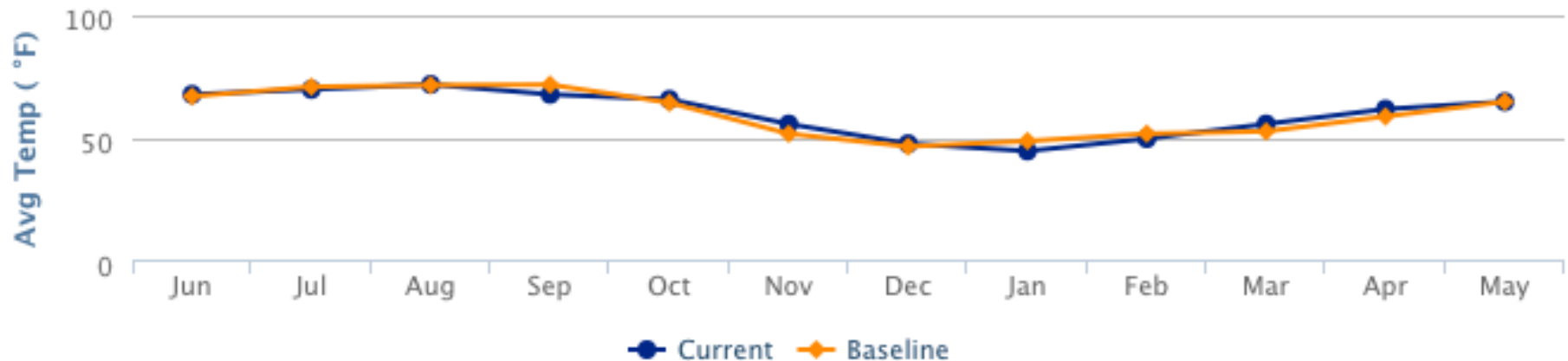
HCFI CARBON

WITH NORMALIZATION FOR WEATHER AND OCCUPANCY

% Occupancy for Jun-2012 to May-2013



Average Temperature for Jun-2012 to May-2013



COGENERATION = HEAT + POWER

- ◆ **Usage** Reductions = Gas, Electric, Water, Waste, Carbon Footprint and GHG
- ◆ Onsite Power **Generation** = Cost Reduction Using Micro turbines
- ◆ kWh at \$0.10 Less Than Current Rates + Escalation
- ◆ Annual use of 2,530,000 kWh = \$250,000 Annual Cost Reduction
- ◆ Adjusted for utility charges = \$175,665 Annual Savings
- ◆ **FREE** Hot Water up to 89% Occupancy

**Details of Technologies, Systems and Products
Implemented Available on Conference Site
Within Supplemental Data**

ALTERNATE FUNDING OPTIONS FOR SUSTAINABILITY PLATFORMS

There are **multiple funding options** that can be considered:

- ◆ Grants/Incentives - Federal, State Local
- ◆ Rebate Providers Highest Rebate Availability
- ◆ Lease Options
- ◆ Power Purchase Agreements (PPA)
- ◆ Utility Financing (off balance sheet)
- ◆ Vendor Financing
- ◆ IRS Programs-EPAct 179D Energy Depreciation
- ◆ Self Funding
- ◆ Cash Awards

SUSTAINABILITY FUNDING ALTERNATIVES



- ◆ *Cost Segregation at the Hilton Concord = \$3.4M of deductions = **\$1.2M tax savings***
- ◆ *Projecting to six properties = **\$7.2M of funding for sustainability initiatives.***
- ◆ *EPA Act 179D = \$1.80 per sq. ft.*
- ◆ *Hilton Concord benefits equates to \$686,476 from Lighting, HVAC and Building Envelope*
- ◆ ***Additional tax savings \$200-300K***

SUSTAINABILITY PREPAREDNESS



- ◆ *Future Energy Cost Volatility*
- ◆ *Inventory Reductions*
- ◆ *Federal, State, and Environmental*
- ◆ *Regulations and Compliance*
- ◆ *Market Share Increase*
- ◆ *Meeting Planner Compliance*
- ◆ *Employee Enthusiasm & Contributions*
- ◆ *Proactive vs. Catch up to Competition*

INTEGRATED SUSTAINABILITY PROGRAM MEETS OPPORTUNITY



Hotels Represent:

- ◆ 5 Billion sq. ft. of Space
- ◆ 5 Million Guest Rooms
- ◆ \$4 Billion in Annual Energy Use
- ◆ \$175 Billion Business Meetings
- ◆ 400 M + in Business Trips Annually
- ◆ *Provides Phenomenal Opportunities for Bottom Line Efficiency Via **Integration / Collaboration***

Achievements:

- ◆ *Quicker Sustainability Leadership*
- ◆ *Stronger Sales + Marketing Teams*
- ◆ *Deeper Market Penetration*
- ◆ *Appeals to Like-Minded Corporate, Group and Leisure Guests*

IMPORTANCE OF CORPORATE SUSTAINABILITY

- ◆ **Sustainability is Quickly Becoming Obligatory**
- ◆ **Ownerships Must Address Compliance and Rethink Budget Allocation**
- ◆ **Non-Compliance Penalties are Expected to be Significant and when Avoided Equal Revenue**
- ◆ **Penalties and Savings** Should be Dually Weighed Against Corporate Risk Register
- ◆ **New Mandates are Emerging from Employees, Investors, and Governmental Groups**
- ◆ **Products, Systems and Technologies Allow Management to Develop Cost Effective Strategies, Planned Responsiveness and Transparency**

COMPETITIVE EDGE

Corporate Declaration Gives Notice to:

- ◆ Stakeholders
- ◆ Senior Management
- ◆ Global Market
- ◆ Sustainability Commitment
- ◆ Integration Across Entire Portfolio
- ◆ Future Vision
- ◆ New Technologies
- ◆ Good Data
- ◆ Protecting Capital Investment

HILTON CONCORD SUSTAINABILITY

LEADERSHIP FREE RECOGNITION IN THE MEDIA

**WALL STREET
JOURNAL**



green lodging news™
the lodging industry's leading environmental news source

Forbes


Business Wire
A Berkshire Hathaway Company



Smartmeetings

**Eyewitness
News** KBK KBAK
FOX KBFX


Concord


Hotel News Resource

American
LAUNDRY NEWS

**Hotel
interactive**

YAHOO!
FINANCE

CoolCalifornia.org
Simple steps for a sustainable future


tripadvisor

SUMMARY

Sustainability Once a **Whisper** is Now a **Global Voice**

Creating a Sustainability Prototype Demonstrates to Stakeholders:
Social Responsibility + Global Commitment

Continued Public Recognition Demonstrates
Market Strength + Competitive Edge

Shifting Your Thinking + **Taking Action**
Offers Great Opportunities



Integrated Sustainability is a Value Proposition in Hospitality

Charles A. Smith, CEO

chuck@hotelsustainabilityinc.com

412-445-4237

www.hotelsustainabilityinc.com

PG&E VIDEO

CLICK MOUSE TO START VIDEO
to view high definition please visit our website:
<http://www.hotelsustainabilityinc.com/pge-video/>

