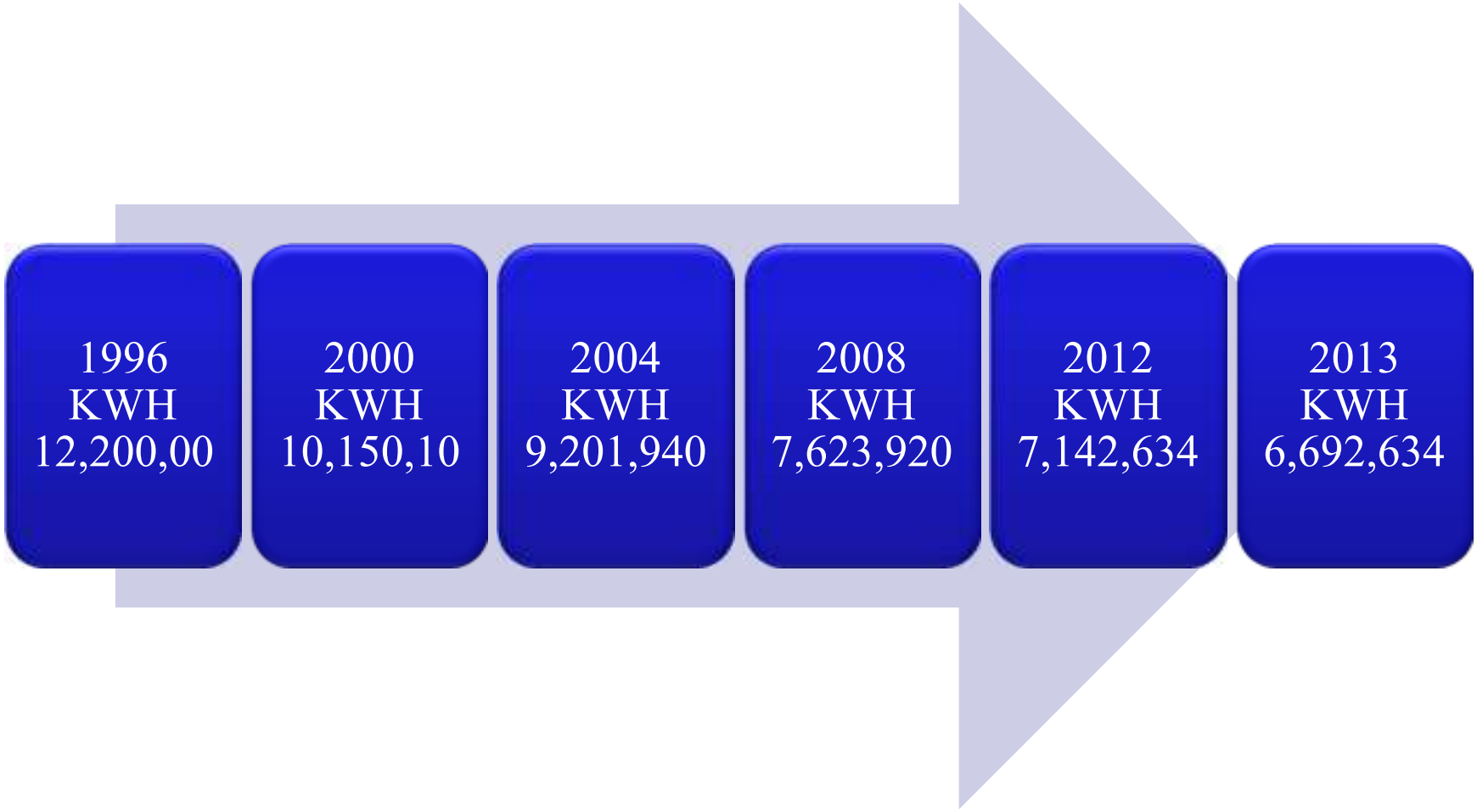
Hyatt Regency Boston
Energy Reduction Presentation

Strategy for reducing electricity use by 45%

History

- Building Built in 1983 22 story Hi Rise
- Built as a all Electric Building
- Guest rooms FCUs two pipe cooling with electric heat
- Large AHUs two pipe cooling with electric heat
- Electric Base Board for Building perimeter Heating
- Electric Chillers
- Electric Hi-pressure Steam Boilers
- Gas hot water Boilers
- Gas Cooking appliances

Yearly KWH Usage



Guestroom Ems interfaced with Front desk PMS, check in/ Checkout, control set points & fan control.
Saving 388,387 KWH
Project Cost $303,567
Nstar Rebate $275,000
ROI 1 yr

Chilled Water Plant VFD,s Drives installed on Chiller, Supply water pumps & cooling tower water pumps with condenser water temp. reset .
Saving 668,146 KWH
Project Cost $ 210,000
Nstar rebate $62,000
ROI 2 yrs

Plate & Frame Heat Exchanger/two pipe heating system, Two Hot Water Boilers were added to the interface with Heat Exchanger to send hot water to FCU's and AHU' to minimize the amount of electric heat.
Saving 369,758 KWH
Project Cost $ 185,000
ROI 2 ½ yrs

Phase 2 to EMS to add all mechanical equipment,VAV Boxes,VFD,s on all AHU's Mechanical controls for water control valves, VAV Boxes with new t-stats & setting up time schedules for all equipment and floor graphic screens.
Saving 727,352 KWH
Project cost $ 92,840
ROI 1 yr

Total Savings: 2,153,643 KWH

Project Time Period 1997 to 2012

Rooftop exhaust fans for Guest room Bath rooms and general hallway exhaust controlled by EMS on time schedules.
Saving 17,500 KWH
Project Cost $20,000

Melink Intelli- Kitchen Exhaust Hood Control System. Melink system uses photo electric cells and heat detectors to control your Make up air unit and exhaust fans thought the VFD package

Saving 133,950 KWH
Project Cost $ 20,000
ROI 1 yr

Energy efficient motors & controls , linked to EMS with time schedules and Start/Stop control.
Saving 489,631 KWH
Project Cost S 28,500

Energy Management &Efficiency. Daily adjustments of time schedules For AHU's, VAV boxes .
Saving 476,278 KWH
Cost Free

CO2 Sensors On AHU's to Control out Side Air coming into Building Installation of all new out side air mechanical dampers
Saving 630,087 KWH
Project Cost $ 72,000

Walk in cooler ECM Motors With 2 speed controllers installed all wall-in Coolers
Savings 21,011 Kwh
Project Cost $ 8,407.50

Guest Room FCU New ECM Motors on 502 and 2 units
Saving 333,332 KWH
Project Cost $ 59,769

Total Savings: 2,101,789 KWH

Project Time Period 1997 to 2012

Guestroom CFL'S / corridors
Saving 76,500 KWH
Cost $ 75,000

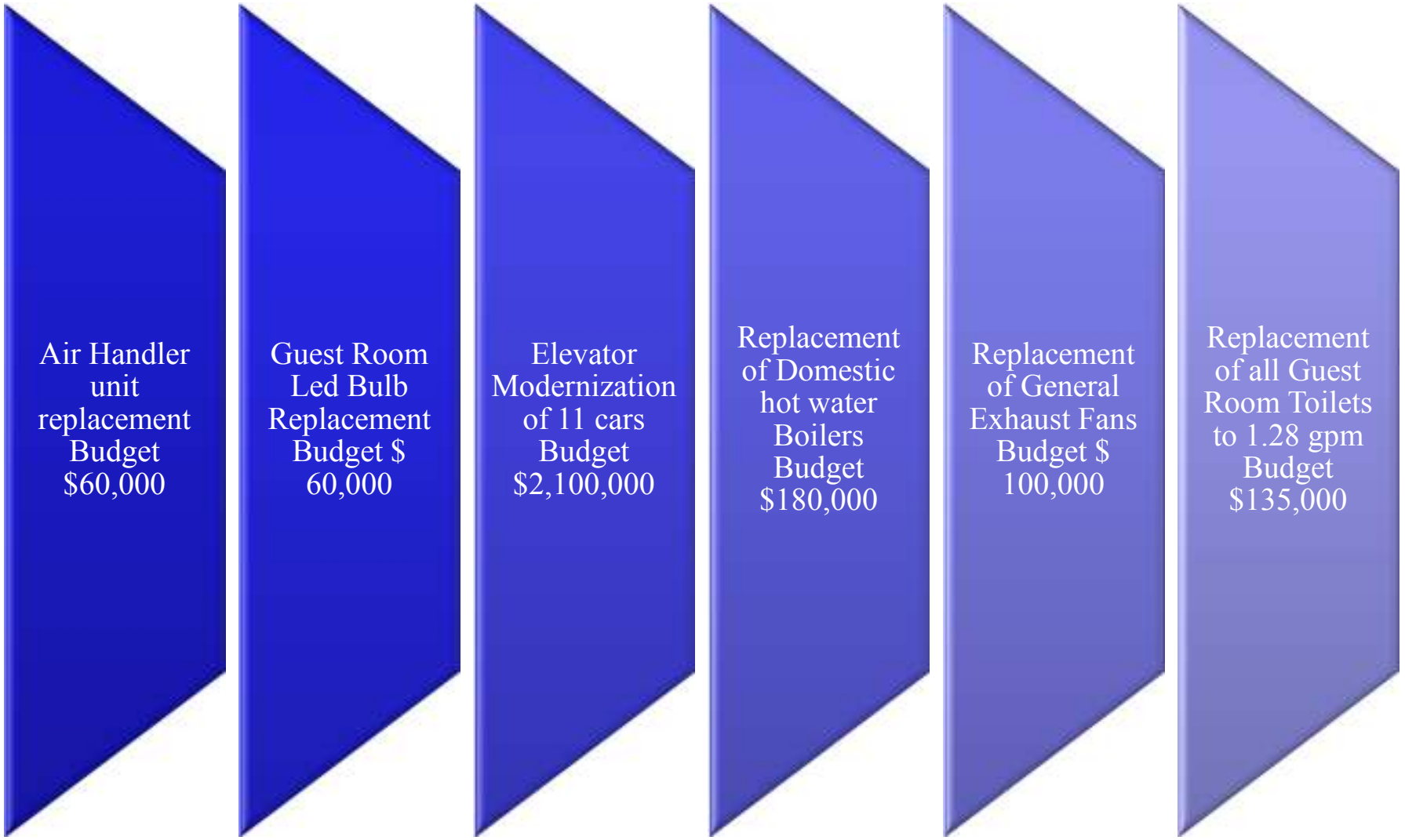
Meeting Room Lights
Upgraded with LED Lamps
1621 fixtures retrofitted.
Saving 381,233 KWH
Cost $ 51,770.00

LED exit signs Saving
50,589 KWH - 1158 light fixtures changed from T-12 to T-8 with electronic ballast
Saving 230,803 KWH
Cost $ 74,000

Domestic Water Booster Station with VFDs
Saving 235,500 KWH
Cost $ 54,990

Total Savings: 924,036 KWH
Project Cost $255,760
Project Time Period 1997 to 2012

2013 Projects



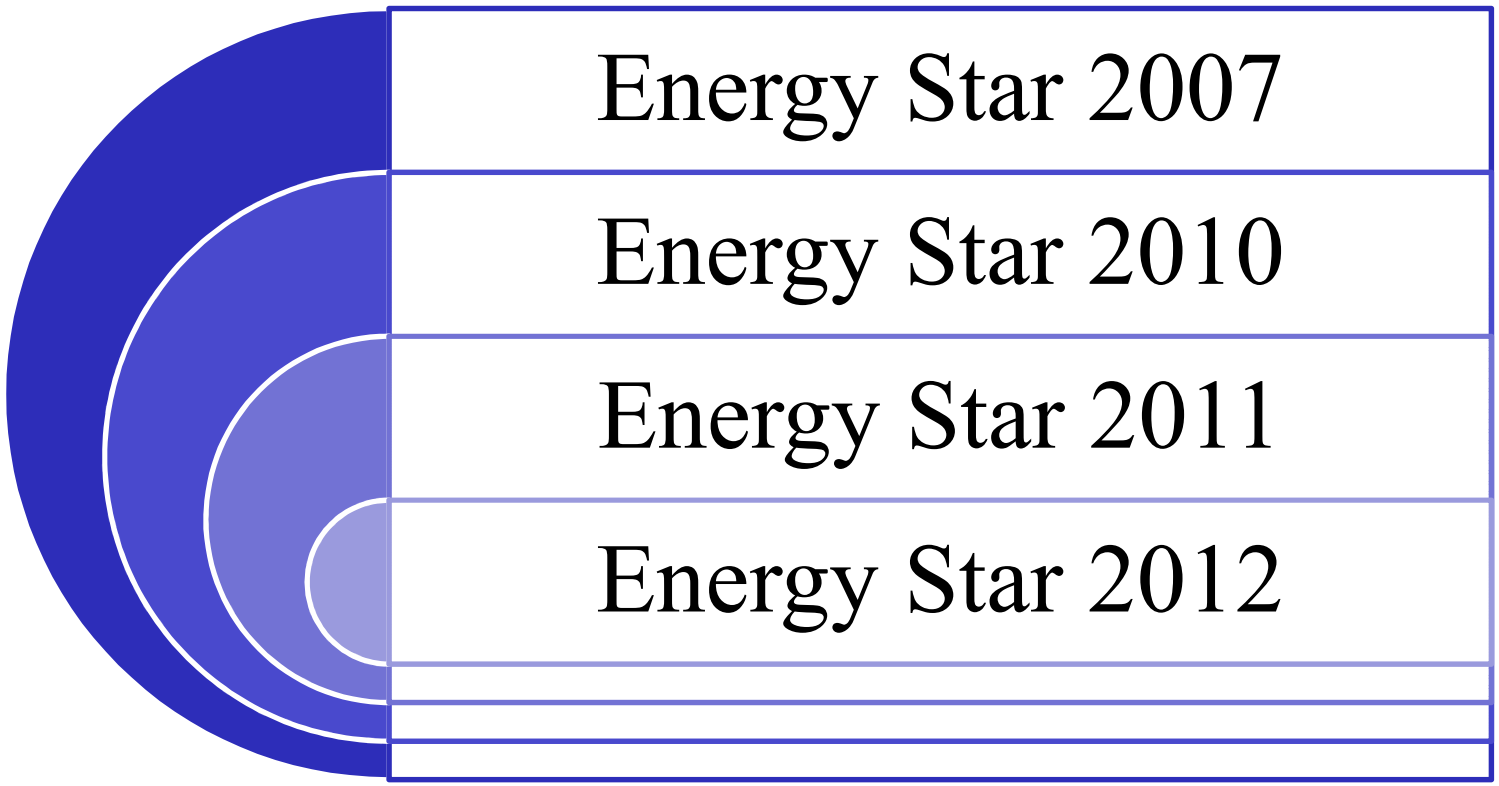
Getting to Know your Building

- Educate All Departments on there Energy Goals conservation opportunities.
- Track your efforts to compare year on year
- Know How you Building acts to weather changes and Having system in place to maximize the opportunities.
- Meeting Rooms, Ballrooms, Health Club, Restaurant, Temperatures controlled based on actual occupancy along with lighting levels.
- Being able to control your central Plant and maximize all free cooling opportunities.
- Having good operational outside air dampers on all AHU's & CO2 monitors in you return air ducts.
- Being able to control and adjust you static pressure in you ducts.
- Programming all mechanical equipment with time schedules.
- Being Able to control all Guest Room Fan Coil Units, either Digital thermostat's or EMS.
- Having your Staff feel the space don't become totally dependent on technology.

Operation

- Having sub-meters to monitor electricity, gas and water consumption. Develop goals for reduction and track progress over time.
- Schedule exhaust fans with multiple schedules
- VAV and Fan Powered Boxes should be controlled to close when areas are not in use. Verify that all series fan powered terminal units turn OFF when the primary air handling unit is OFF.
- Review all equipment operating schedules on a periodic basis (quarterly/seasonal) to confirm occupancy schedules, mainly the larger AHU,s
- Reset the air handling unit static pressure to the lowest possible pressure that operates all the terminal boxes. Operating at a static higher than required wastes energy.
- Using Energy Star Portfolio to track your progress

Energy Star Awards



Brian Gorski

Director of Engineering
Hyatt Regency Boston
One Avenue de Lafayette
Boston, MA 02111
617.422.5545