

ENCHANTING HOSPITALITY



THE LANGHAM

Boston

*Boston Green Tourism Meeting
December 4, 2014*

The Langham, Boston – BGT Meeting



THE LANGHAM
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The Langham, Boston



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Building Background

The Langham, Boston is a 9 story, 280,724 Sq.ft hotel. It consists of the original Boston Federal Reserve Bank Building which was constructed in 1922. The original Bank was 5 stories and also had two below grade levels. When the building was renovated as a hotel in 1982, 4 stories were added. The Hotel consists of 318 guest rooms , 9 meeting rooms, a restaurant / Café, a separate restaurant / Bar, a health club and pool, laundry, mechanical service and common areas.

The Langham, Boston



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Efficiency, Operational, and Safety Measures

- Window Tint installed on the 7, 8, 9th floors
- New Energy Efficient Chillers
- Kitchen Hood Exhaust and Supply Fan Drives Installed
- Common Space Lighting Upgrade
- Air Handler Variable Speed Drives
- New Jockey and Fire Pump Controls



Window Tint

- Enerlogic VEP 35 is a patented Low E window film coating designed to provide unequalled energy savings year round. During the summer months it has been historically difficult to maintain the guest room set point's of those rooms located on the 7th – 8th – 9th floors once the blackout shade's have been opened by the Guest. The heat load on the sloped glass serving these floors is far to high for the individual fan coil unit to keep up with.
- Estimated Kwh Savings 228,651
 - 62,637 Kwh Summer
 - 166,284 Kwh Winter
- ROI – 1.4 years
- The Langham Suite show case with cocktail hour



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Window Tint



Without tinting



With tinting



Energy efficient Chiller Installation

- 2 each York YK 300 Ton Chillers with Variable Speed Drive's
- Reduced overall Kwh consumption with substantial drop in peak load charges
- Excellent efficiency at part load value
- Fully Automated system
- Chillers can be run with very low condenser water temps allowing for operation during shoulder months.
- Estimated Kwh savings 561,330 KWH
- ROI - 8 years



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Chiller Installation





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Chiller Installation





Kitchen Exhaust & Supply Fan VSD's

- Kitchen control system to reduce consumption by automatically regulating the fan speeds that serve the exhaust hoods and associated make-up air units. Energy usage is minimized through modulation of the fan equipment based on cooking load. Temperature sensors installed in the hood exhaust duct and in the kitchen itself are monitored by the main controller – the difference between the exhaust duct and kitchen temperature translates into cooking load and modulates the fans accordingly.
- Estimated Kwh savings 1,093,577 KWH
- ROI - 3 months



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Kitchen Exhaust & Supply Fan VSD's





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Kitchen Exhaust & Supply Fan VSD's – Controllers





Common Space lighting upgrade - Rise Engineering

- Replace lamps and ballasts with energy efficient T8 lamps and electronic ballasts.
- Replace CFL and incandescent Exits signs
- Installed occupancy sensors in stairwells
- Estimated Kwh savings 230,206 KWH
- ROI - 1.9 years



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Common Space Lighting Upgrade





Upcoming opportunities

- Free cooling and heating retrofit Design by Baker Engineering
- Free cooling heat exchanger
- Steam to Hot water heat exchanger using existing boiler.
- Estimated Kwh savings 1,620,227 KWH
- ROI - TBD

EarthCheck



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EarthCheck is the only global Benchmarking and Certification program for sustainable travel and tourism underpinned by the science and software of EarthCheck. Its certification programme delivers a holistic approach to sustainability which covers every aspect of an operation, by providing a framework for environmental and social sustainability.

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Environmental Stewardship

Direct Energy Business proudly recognizes

Pacific Boston Holding Corporation
for purchasing 6,741,000 Kilowatt Hours
of Renewable Energy Certificates
for Vintage Year(s) 2014

According to the EPA Greenhouse Gas Equivalency Calculator the same amount of electricity generated using conventional fuels, such as coal, emits a national average of 12,488 megagrams of carbon dioxide, when purchased via. By purchasing REC's, your business is also making an eco-friendly and the development of low-carbon, electricity generation technologies that could fuel businesses and consumers in the future.

Signature
02/26/2014

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Thank YOU!