

The Green Hotel Movement: The Next Five Years

December 6, 2018



Presenter

Dan Ruben
Boston Green Tourism



Outline

- I. Progress in the Last Five Years
- II. Pressures / Incentives to Go Green will Intensify
- III. The Political Outlook
- IV. The Economic Outlook
- V. Hotel Chain Goals
- VI. Energy
- VII. Water
- VIII. Waste
- IX. Transportation
- X. Resilience
- XI. Conclusion



Progress in the Last Five years, 1

Remarkable advances in green products, practices

Energy

- ▶ LED lighting
- ▶ Smart building tech: sensors, controls, analytics
- ▶ EC motors, greater use of variable speed drives
- ▶ Heat recovery: CHP, energy recovery ventilation
- ▶ Ventilation controls
- ▶ More efficient equipment
- ▶ Renewable energy purchases



Progress in the Last Five years, 2

Water

- ▶ Efficient fixtures ubiquitous
- ▶ Laundry equipment
- ▶ Dishwashers
- ▶ Liquid pool covers



Progress in the Last Five years, 3

Waste

- ▶ Recycling bins, amenity dispensers improve
- ▶ Clean the World
- ▶ MA food waste ordinance
- ▶ Boston plastic bag ban
- ▶ Move away from single-use plastics
- ▶ Hotel donation programs improve
- ▶ China stops taking world's recyclables; markets tank



Progress in the Last Five years, 4

Indoor Air Quality / Toxins

- ▶ Green cleaning products
- ▶ No fragrance policies
- ▶ Pest prevention → fewer, less toxic pesticides
- ▶ Non-toxic bed bug treatments
- ▶ Mercury largely phased out



Progress in the Last Five years, 5

Transportation

- ▶ Electric vehicles
- ▶ EV charging station
- ▶ Car sharing
- ▶ Hubway / Blue Bike



Progress in the Last Five years, 6

Food

- ▶ ↑ local food
- ▶ ↑ vegetarian and vegan food
- ▶ ↑ sustainable seafood



Progress in the Last Five years, 7

Resilience

- ▶ Ocean entered downtown Boston twice
- ▶ Recognition of threat posed by sea level rise and stronger storms



The Next Five Years

Pressures / Incentives to Go Green will Intensify

- ▶ Climate
- ▶ Politics
- ▶ Customer demand
- ▶ Hotel chain goals
- ▶ Economics
- ▶ Technology



The Next Five Years: Climate, 1

- ▶ Climate emissions ↑ in 2017, 2018; carbon targets not met
- ▶ Scientists: disasters like Puerto Rico, CA, NC, Houston to continue, worsen
- ▶ Sea level rise continues, more flooding in Boston
- ▶ UN IPCC report: ↓ emissions by 45% by 2030 to avoid irreversible damage
- ▶ Fourth U.S. National Climate Assessment: dire consequences if we don't immediately slash GHG's



The Next Five Years: Climate, 2

U.N. Secretary General António Guterres:

"We are in trouble. We are in deep trouble with climate change. It is hard to overstate the urgency of our situation. Even as we witness devastating climate impacts causing havoc across the world, we are still not doing enough, nor moving fast enough, to prevent irreversible and catastrophic climate disruption."



The Next Five Years: Politics, 1

- ▶ Boston Climate Action Plan
 - Carbon neutral by 2050
 - Update in Q1 2019: bold goals
 - Hotels, every sector must participate
- ▶ MA Global Warming Solutions Act: ↓ GHG's 80% by 2050
- ▶ NYC legislation for bldgs >25,000 sq. ft.
 - ↓GHG's 40% by 2030, 80% by 2050
- ▶ Green New Deal: national attention
- ▶ Will federal government take on climate change post 2020?



The Next Five Years: Politics, 2

Commitments to buy 100% renewable energy



- ▶ Companies: Apple, BMW, Coca-Cola, Facebook, 100's more
- ▶ States: California, Hawaii
- ▶ Cities: Minneapolis, Denver, St. Louis, Atlanta, Salt Lake City, 90 more

Millennials will influence government and companies to address climate change in their growing role as voters, customers and leaders



The Next Five Years: Hotel Chain Goals, 1

Hilton (by 2030, baseline 2008)

- ▶ ↓ carbon emissions 61%
- ▶ ↓ water use 50%
- ▶ ↓ produced waste by 50%
- ▶ no soap to landfills
- ▶ no plastic straws
- ▶ sustainably-sourced meat, poultry, produce, seafood, cotton

Marriott (by 2025, baseline 2016)

- ▶ ↓ carbon emissions 30%
- ▶ ≥ 30% renewable energy use
- ▶ ↓ water use 15%
- ▶ ↓ waste 45%
- ▶ ↓ food waste 50%



The Next Five Years: Hotel Chain Goals, 2

Hyatt (by 2020, baseline 2006)

- ▶ ↓ 25% water—and 30% in water-stressed areas
- ▶ 40% recycling rate by 2020
- ▶ new construction / major renovation projects for wholly-owned full-service properties: LEED certification or equivalent

Wyndham (baseline 2010)

- ▶ ↓ carbon 25% by 2025
- ▶ Onsite solar: 10% of total electricity by 2035
- ▶ RECs (renewable energy certificates): 30% of total electricity by 2035
- ▶ ↓ water 25% by 2025



The Next Five Years: Economics

- ▶ Electricity, natural gas, gasoline prices: slow upward drift
- ▶ Pipeline fights in MA might ↑ natural gas prices
- ▶ Renewable energy prices: lower
- ▶ Battery prices: much lower
- ▶ Electric vehicle prices: lower costs, but incentives might disappear



The Next Five Years: Technology

Advances

- ▶ Building technology
- ▶ Electric vehicles
- ▶ EV charging stations



The Next Five Years: Energy



- ▶ Smart buildings: better tech, ↑ adoption by hotels
 - Bldg managers rely more on reports, alerts
 - ↑ use of fault detection technology
 - Automated system optimization to crack hotel market
- ▶ Batteries: used to ↓ demand charges, source of backup power
- ▶ Pressure / incentives to switch from natural gas to electricity (heat pumps) for heating, hot water and cooking
- ▶ Ventilation
 - more controls
 - use of tech that cleans and recirculates air, rather than exhausting it
- ▶ ↑ renewable energy purchases



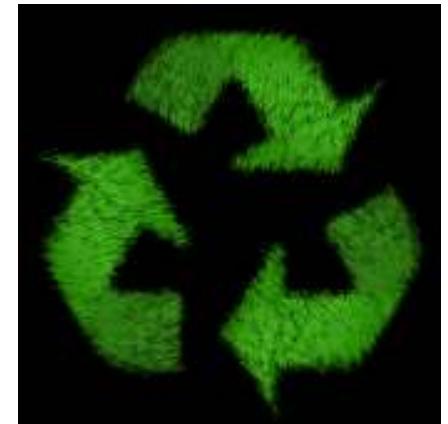
The Next Five Years: Water

- ▶ Equipment and practices with biggest efficiency impact are already in place
- ▶ Little pressure to change, unless MA has a prolonged drought



The Next Five Years: Waste

- ▶ Waste disposal crisis continues for plastics, mixed paper, glass; slow progress
- ▶ Price increases continue for trash and some recyclables
- ▶ Continued pressure to purify recycling loads
- ▶ ↑ solid waste ordinances
- ▶ Single-use plastics: ↑ pressure to reduce them
- ▶ To-go food containers: 100% compostable or recyclable



The Next Five Years: Transportation

- ▶ Big ↑ in electric vehicles
- ▶ Better EV charging
- ▶ Cars will rule the road less
- ▶ Electric hotel vans: reasonably priced, high quality products will hit the market



The Next Five Years: Resilience

- ▶ Vulnerable hotels invest heavily in flood protection
- ▶ Boston will try to fund \$4 billion project to protect city; businesses will be asked to contribute
- ▶ ↑ regulations regarding property protection



Conclusion

Climate change, politics, economics, technology, hotel chain goals and customer demand will push hotels to be greener.



Contact Information

Dan Ruben

dan_ruben@usa.net

www.bostongreentourism.net

