

# Washington D.C. Energy Benchmarking Impacts Local Hotels

By Charles Goulding and Spencer Marr

The authors analyze the effect new benchmarking laws in Washington, D.C. will have upon the hotel industry in the city.

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In 2008, the city of Washington, D.C. was the first major city in the nation to mandate energy benchmarking. In the years since then, several other cities have gained prominence as "green leaders" by creating stringent laws governing the scale and content of the energy benchmarking requirements, most notably New York<sup>1</sup> and San Francisco. However, we are now witnessing a bolstering of energy-efficient laws and resurgence in energy retrofits in the Washington, D.C., making the city a national energy pioneer once again.

Of all building sectors in the nation's capital, hotels and motels are experiencing the largest uptick in energy-efficient building improvements because of the combined effect of the city's benchmarking laws, local tax incentives, and expedited permitting process. In the face of mandatory benchmarking, hotels in the D.C. metropolitan area are particularly receptive to energy efficient improvements because many of their patrons are corporate clients who will not want to be associated with hotels in the lower half of benchmarked hotels. In fact, in recent months, several industry outlets have acted as energy watchdogs by calling attention to each hotel's efforts to become more energy efficient.

Using the composite Energy Star "score" as their benchmarking metric, advocacy groups like Efficiency First! can hold hoteliers accountable for their energy use. At the same time, travel service websites like Travelocity and Orbitz now identify Energy Star labeled properties directly on their site, resulting in a 65% percent higher booking for "green" properties over their non-green counterparts. Over time, it will become clear which hotels need to make large improvements to their buildings' energy systems or risk losing clientele, and which will be able to proudly broadcast their environmental and energy stewardship. In order to avoid being in the former category, hotel should consider utilizing federal EPAct tax deductions available to them for making energy-efficient retrofits.

### **The EPAct Section 179D Tax Opportunities**

Pursuant to Energy Policy Act (EPAct) Section 179D, Washington, D.C. hotel owners making qualifying energy-reducing investments in their new or existing locations can obtain immediate tax deductions of up to \$1.80 per square foot.

If the building project doesn't qualify for the maximum EPAct Section 179D \$1.80 per square foot immediate tax deduction, there are tax deductions of up to \$0.60 per square foot for each of the three major building subsystems: lighting, HVAC (heating, ventilating, and air conditioning), and the building envelope. The building envelope is every item on the building's exterior perimeter that touches the outside world including roof, walls, insulation, doors, windows and foundation.

### **The Washington, D.C. Hotel EPAct 179D Opportunity**

The D.C. metropolitan area houses many large hotels that cater to the constant influx of business and political convention attendees. The following table presents the potential EPAct tax savings for five of the largest hotels in the city.

image

## Table 1: Washington, D.C. Hotels Potential EP

### Potential Tax Deductions Available for Energy Efficient Building Improvements Un

Property	Estimated Total Square Footage	Min Ded
Marriott Wardman Park Hotel	721,700	\$
Marriott Renaissance Washington, D.C. Downtown	389,400	\$
Hilton Washington D.C.	314,600	\$
Marriott at Metro Center	196,851	\$
Mandarin Oriental, Washington D.C.	183,900	\$
<b>Totals:</b>	<b>1,806,451</b>	<b>\$</b>

### Energy Tax Savers, Inc. The Nation's Leading EPAct Ta

\*All Estimated Total Square Footage figures assume a 400 square foot room average and 600 square foot suite average.

Some hotels in Washington, D.C. have already been recognized for their excellence in environmental and energy stewardship. The Washington Marriott at Metro Center saved 745,685 kWh in electricity in 2009 from the previous year with the implementation of energy efficient lighting with programmable and dimmable automation as well as utilization of the Energy Management System controlling the heating/cooling and lighting of its banquet space.<sup>2</sup>

The benchmarking laws in the city are sure to increase momentum for projects like the Marriott at Metro Center. At the same time, the Marriott's experience with energy retrofits is illustrative of the kind of projects that will qualify for large EPAct tax deductions so long as they install highly energy-efficient lighting, HVAC, and building envelope equipment.

#### Federal Lighting Bans Impact EPAct 179D

Washington, D.C. hotels are impacted by three federal lighting bans related to:

1. Metal Halides
2. T-12 Fluorescent
3. Incandescent lighting

As of January 1, 2009, there is a national manufacture ban on most probe start metal halides. As of July 1, 2010, T-12 florescent lights were similarly banned and limited to ten per pack for distribution.

Starting in 2012 manufacturers are banned from manufacturing and importing the traditional 100-watt light bulbs. Bulbs will have to be more energy-efficient using no more than 72 watts, even including halogen incandescent, compact fluorescent (CFL) and light-emitting diode(LED) light bulbs. This bulb change is part of the federal Energy Independence and Security Act signed in 2007. Beginning in 2012 new bulbs must use 25 to 30 percent less energy nationwide starting with the 100-watt light bulb. Other incandescent bulbs such as 75, 60 and 40 watt bulbs will be phased out by 2014.

A diagram presenting all three lighting bans in chronological order is presented below. image



[http://knol.google.com/k/-/1xedef26uc9hpj/pjbuza/presentation1%20\(1\).png](http://knol.google.com/k/-/1xedef26uc9hpj/pjbuza/presentation1%20(1).png)<sup>3</sup>

**Washington, D.C. Hotel Energy Efficient HVAC Upgrades**

Washington, D.C. hotels are air-conditioned properties and HVAC (heating ventilation and air conditioning) is the biggest energy user in air conditioned buildings. Replacing an outdated HVAC unit in a hotel with a highly efficient one will have the greatest impact on the benchmarking rating.

Seen below are some measures that show HVAC Systems with their minimum efficiency, these systems will help the benchmark rating for hotels. image]

Unitary HVAC and Split Air Systems Efficiency Levels		
That comply with MYSEERDA's Pre-Qualified HVAC Standards for incentives		
Unitary Equipment Size		Minimum Efficiency
Tons	Btu/h	
Split System ≤ 5.4	≤ 65,000	14.0 SEER
Single Package ≤ 5.4	≤ 65,000	14.0 SEER
> 5.4 to ≤ 11.25	> 65,000 to ≤ 135,000	11.5 EER
> 11.25 to ≤ 20	> 135,000 to ≤ 240,000	11.5 EER
> 20 to ≤ 63	> 240,000 to ≤ 760,000	10.5 EER
> 63	> 760,000	9.7 EER

**Conclusion**

A perfect storm is brewing in the Washington, D.C. hotel market that is going to push many hotels in the area towards energy efficient upgrades in the next few years. Increased mandatory energy benchmarking, client pressure, and EPAct federal tax incentives are all reasons for many large hotel owners to act quickly to install energy-efficient building equipment.

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[1] Charles Goulding and Daniel Penza, "New York City Hotels Energy Related Legal and Tax Compliance," *Google Knol* (June 11, 2011), available at: <http://knol.google.com/k/charles-goulding/new-york-city-hotels-energy-related/1xedf26uc9hpj/33#>

[2] Sacha Cohen, "Washington Marriott Celebrates Award with Green Tea Time," <http://goinggreendc.net/> (August 11, 2011).

[3] Charles Goulding and Daniel Penza, "New York City Hotels Energy Related Legal and Tax Compliance," *Google Knol* (June 11, 2011), available at: <http://knol.google.com/k/charles-goulding/new-york-city-hotels-energy-related/1xedf26uc9hpj/33#>

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