

# Advanced EPAct Tax Planning for Hotel Chains

*By Charles Goulding, Jacob Goldman and Raymond Kumar*

Charles Goulding, Jacob Goldman and Raymond Kumar discuss how Code Sec. 179D can be used to save taxes and energy costs for hotel chains.

U.S. Hotels have experienced a particularly difficult time during the recent economic downturn, with a double whammy of reduced business travel coupled with family vacation cutbacks. Confronting sharp declines in revenue, hotels have the opportunity to use new and improved building technologies to substantially reduce building energy operating costs while using Code Sec. 179D Energy Policy Act (EPAct) tax incentives to support the beneficial investments.<sup>1</sup>

## The EPAct Tax Opportunity

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

If the building project doesn't qualify for the maximum \$1.80 per square foot immediate tax deduction, there are tax deductions of up to 60 cents 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 pe-

rimeter that touches the outside world including roof, walls, insulation, doors, windows and foundation.<sup>2</sup> In a previous article, the authors explained why hotels and motels are the most favored EPAct category.<sup>3</sup>

## U.S. Hotel Industry Well Positioned for Large Scale Savings

The overall U.S. hotel business ownership structure enables hotel chains to systematically plan for tremendous energy cost and EPAct tax savings. The top national brands control the vast majority of hotel space through direct ownership or through franchised investor owned facilities. See major hotel brand property data summary in Table 1. For both company- and investor-owned facilities the major brands have quality control standards, best practice recommendations and often operational audits. One of the keys to hotel brand management is to insure that the customer has the exact same experience in their favorite property category down to the same exact room and same exact supporting facilities. For example, the majority of Marriott Courtyards all have the same open room combination of lobby, lounge and breakfast area. This facility uniformity makes related building equipment standard setting very feasible. For example by setting their lighting wattage standards at the better of local building energy code or EPAct the major brands can insure that all of their facilities have energy-efficient lighting and always maximize EPAct tax savings.

**Charles Goulding**, Attorney/CPA, is the President of Energy Tax Savers, Inc., an interdisciplinary tax and engineering firm that specializes in the energy-efficient aspects of buildings.

**Jacob Goldman**, LEED AP, is an Engineer and Tax Consultant with Energy Tax Savers, Inc.

**Raymond Kumar** is an Analyst with Energy Tax Savers, Inc.

© 2010 C. Goulding, J. Goldman and R. Kumar

**Largest U.S. Hotel Brands\***

Potential EAct Energy Efficiency Tax Deductions							
Brand	Locations	Number of Rooms	Gross Square Footage	Annual Energy Deduction	EAct Deduction	Annual Energy Deduction	Total Annual Deduction
Wyndham International*	190	50,900	18,018,600	\$10,811,160	\$10,811,160	\$10,811,160	\$ 32,433,480
Marriot International	807	198,230	70,173,420	\$42,104,052	\$42,104,052	\$42,104,052	\$126,312,156
Hilton Hotels	2,416	376,700	133,351,800	\$80,011,080	\$80,011,080	\$80,011,080	\$240,033,240
Choice Hotels International	4,445	354,139	125,365,206	\$75,219,124	\$75,219,124	\$75,219,124	\$225,657,371
Starwood Hotels & Resorts*	32	11,102	3,930,108	\$ 2,358,065	\$ 2,358,065	\$ 2,358,065	\$ 7,074,194
Hyatt Hotels*	107	34,149	12,088,746	\$ 7,253,248	\$ 7,253,248	\$ 7,253,248	\$ 21,759,743
Intercontinental Hotels Group	3,260	426,490	40,200,947	\$ 24,120,586	\$ 24,120,586	\$ 24,120,586	\$ 72,361,705
<b>TOTALS<sup>1</sup></b>	<b>11,257</b>	<b>1,451,710</b>	<b>403,128,827</b>	<b>\$ 241,877,296</b>	<b>\$241,877,296</b>	<b>\$241,877,296</b>	<b>\$ 725,631,889</b>

**ENDNOTES**

\* Hotel properties and rooms listed at [www.sec.gov/edgar](http://www.sec.gov/edgar).

<sup>1</sup> Totals represent only U.S.-owned properties (not franchised hotels).

**Hotel Lighting Tax Opportunities by Space Categories**

**Kitchen and Laundry**

Hotels often have large kitchen and laundry (so-called “back of the house”) spaces that have historically used T-12 fluorescent lighting. This lighting is so energy inefficient compared to today’s lighting products that it will be illegal to manufacture in the United States after July 1, 2010. Once manufacturing of these products ceases, the cost of replacing these inefficient lamps will increase. Simply stated, hotels should consider acting now to replace these lighting fixtures to save both energy and lamp replacement costs. The EAct lighting tax incentive can be used to address the opportunities related to these legally mandated product changes.

**Guest Rooms**

The largest physical space in hotels is guest rooms. Guest rooms typically use a combination of wired building lighting and interior plug-in lamps to provide lighting. With new hotels the wired lighting is part of the building design and the interior lamps are often part of an interior package provided by an interior designer. Up until recently, interior lighting was often energy-inefficient incandescent lighting

or other inefficient lighting, since some interior designers have not been focused on energy savings. We often see guest room designs where the building lighting is very energy efficient but the inefficiencies of the interior package completely negate those efficiencies. Accordingly, the key with energy-efficient hotel lighting design is to make sure that the interior package is also energy efficient and that the building and interior lighting designers work together to insure that the combined wattage is compliant with building energy codes. Most incandescent lighting is subject to a federal ban commencing in 2012, and, accordingly, most hotels are beginning to convert their guest room lighting to low wattage CFLs (compact fluorescents) or to LED (Lighting Emitting Diodes) lighting.<sup>4</sup>

**Restaurants, Ballrooms and Dining Areas**

Hotel restaurants vary in concept and ambiance. Typical complimentary breakfast areas common to moderately priced business travel hotels can upgrade to very energy-efficient conventional lighting. Some hotel restaurants, particularly upscale restaurants, have historically used very energy-inefficient specialized designer lighting applications. The good news is that these specialized design needs can be met with very energy-efficient low wattage LED lighting applications. Hotel ballrooms are large square foot-

*Continued on page 36*

## Tax Planning for Hotels

Continued from page 14

age spaces that drive large EPAct tax deductions.

### Parking Garages

Many hotels have large adjoining parking garages that can save substantial energy costs and generate large tax deductions by upgrading to energy efficient fixtures. It is generally advisable to use vapor sealed lighting fixtures in these applications so that the auto exhaust fumes do not compromise the lighting fixture. In Notice 2008-40, the IRS announced that parking garages are a property class specifically entitled to use the EPAct tax deductions.<sup>5</sup> Also, parking garages are excluded from the tax bi-level switching requirement.<sup>6</sup>

### Hotel HVAC Energy Savings and Tax Opportunities

HVAC is the largest building energy use in hotels. Here, the key to both energy savings and tax savings is to install the most energy-saving HVAC equipment available when building new properties or upgrading existing properties. The most common technologies and techniques for achieving Hotel HVAC EPAct tax deduction are to

1. use the highest energy efficient PTAC (packaged terminal air conditioner) individual room units in the market; and/or

2. install a very efficient chiller particularly in a hotel less than 150,000 square feet in size.

To optimize the tax results, the hotel should upgrade to energy efficient lighting either before upgrading the HVAC or simultaneously with the HVAC upgrade.

Hotels located in high energy cost “peak shave” electricity markets should consider using very efficient gas-driven gas/electric hybrid chillers that change fuel sources based on alternating fuels prices. In the summer when electricity rates are generally high and very high at peak demand points, these chillers switch to the lower cost natural gas mode and revert back to electricity as a fuel source in the winter when natural gas is at higher price peak points. Since EPAct tax savings are based on energy cost savings these systems will drive tax deductions in markets with measurable peak demand pricing differentials.

The strategy should be to upgrade to energy-efficient lighting either prior to or concurrently with the HVAC upgrade. The reason the lighting also needs to be upgraded is that to obtain the HVAC tax deduction, the building must have a supporting building energy simulation model in IRS-approved software, and the overall modeling results will be enhanced if both the lighting and HVAC are energy efficient.

### Hotel Prototype Building Energy Simulation Modeling

The major hotel brands have a unique opportunity to use building energy simulation modeling

to leverage energy savings and tax savings across the portfolio. The process for doing this is to first have the hotel brands’ most energy-efficient current prototype facility modeled. Most of the major brands are already modeling their best facility as part of the LEED certification process where modeling is required to achieve LEED status. Once the best-of-breed facility is modeled and appropriate design adjustments are made, then all roll-outs of that same hotel design should have similar modeling results confirming energy savings and EPAct tax savings.<sup>7</sup>

**Example.** Assume a 200,000-square-foot hotel facility with LED lighting and very efficient PTAC units is modeled and shows a 48-percent energy cost improvement above ASHRAE 2001. Since a \$1.20-per-square-foot tax deduction is available at the 33.34-percent savings level and \$1.80-per-square-foot tax deduction is available at the 50-percent energy cost level, this facility would qualify for a \$240,000 EPAct tax deduction and just miss a \$360,000 EPAct tax deduction.

With some minor design changes further reducing energy costs two percent more, this hotel and all similarly built hotels would qualify for an additional \$120,000 EPAct tax deduction. Having the model would enable the hotel brand to make the business decision as to whether the additional \$120,000 deduction per property was worth making a further two-percent design improvement to further reduce energy costs.

Three of the major hotel markets with numerous properties, namely New York, Los Angeles and Washington, D.C., have recently enacted mandatory building energy usage benchmarking rules coupled with public disclosure. Many other jurisdictions are in the process of enacting similar legislation. The New York law formerly called Intro. No.476A requires all commercial buildings greater than 50,000 square feet to annually disclose their energy and water use. Once implemented, this regularly updated data flow is going to enable hotel management and hotel energy managers to continuously compare hotel facility energy performance. No one is going to want to report an energy inefficient property so the strategy should be to use the EAct tax incentives to retrofit to higher efficiency levels before the mandatory reporting cycle begins. Moreover, once hotel management becomes familiar with the benchmarking tools, presumably they will apply them to all their properties.

## Conclusion

Hotels are major property owners in the United States. The concentration of major brands makes energy efficiency and tax savings very scalable. The major brands should consider

1. using product and standard setting to upgrade all their facilities to EAct tax deduction wattage level lighting; and
2. upgrading to the highest energy-efficient HVAC on a life-cycle basis.

The total wattage in a hotel property should be an operational audit item, and HVAC costs should be closely analyzed.

## ENDNOTES

- <sup>1</sup> Energy Policy Act of 2005 (P.L. 109-58).
- <sup>2</sup> Charles Goulding, Jacob Goldman and Nicole DiMarino, *EAct Tax Deductions for Lighting Gain Wider Use*, BUILDING OPERATING MGMT, July 2008, at 68-74.
- <sup>3</sup> Charles Goulding, Jacob Goldman, and Taylor Goulding, *Hotels and Motels Most Favored Energy Policy Act Tax Properties*, CORP. BUS. TAX'N MONTHLY, March 2009, at 17.
- <sup>4</sup> Charles Goulding, Jacob Goldman and Taylor Goulding, *The Economic, Business and Tax Aspects of Light Emitting Diode Interior Building Lighting*, CORP. BUS. TAX'N MONTHLY, Jan. 2009, at 29.
- <sup>5</sup> Notice 2008-40, IRB 2008-14, 725.
- <sup>6</sup> See Charles Goulding, Peter Kelly and Taylor Goulding, *EAct Tax Deductions for Parking Garage Lighting Projects Gain Wider Use*, PARKING PROF., Sept. 2008, at 32; and Charles Goulding, Taylor Goulding and Raymond Kuman, *LED Parking Garage Lighting Installations Accelerate With EAct Savings*, CORP. BUS. TAX'N MONTHLY, Sept. 2009, at 15.
- <sup>7</sup> Charles Goulding, Taylor Goulding and Amelia Aboff, *How LEED 2009 Expands EAct Tax Savings Opportunities*, CORP. BUS. TAX'N MONTHLY, Sept. 2009, at 11.