

# Legal and Technology Changes Enable Large Tax Deductions for Apartment Buildings

*By Charles Goulding, Jacob Goldman and Malcolm Thomas*

Charles Goulding, Jacob Goldman and Malcolm Thomas explain how new and existing apartment building owners can take advantage of technological advances and use the EAct to qualify for tax deductions and significantly reduce energy costs.

In exciting recent developments, new and existing apartment buildings are now able to achieve major energy cost reduction supported by the potential for large first year tax deductions.

Each component can qualify for up to 60-cents-per-square-foot EAct tax deductions. The building envelope is anything on the perimeter of the building that touches the outside world, including the roof, walls, windows, doors, foundation and related insulation layers.

## **The Code Sec. 179D Tax Provisions**

Pursuant to Code Sec. 179D, as amended by the Energy Policy Act (EAct)<sup>1</sup> and its underlying American Society of Heating Refrigeration and Air Conditioning (ASHRAE) building energy code, an apartment building four stories or more is considered a commercial building eligible for energy-efficiency tax deductions of up to \$1.80 per square foot. If a building's energy-reducing investment doesn't qualify for the full \$1.80-per-square-foot deduction, it may still qualify for some deduction for investment in any of the three major sub-systems, which include:

1. lighting;
2. heating, ventilation and air conditioning (HVAC); and
3. the building envelope.

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## **Importance for Cities**

Most cities have four-story-or-above apartment buildings where the electric supply is constrained and expensive. The landlord might find that the combination of integrated energy savings, utility rebates, EAct tax savings and demand response payments produces economic benefits.

## **Lighting Legal Changes: Code Sec. 179D Tax Deduction**

To be eligible for the lighting EAct tax deduction using the wattage reduction method, the wattage in each room must be reduced by at least 25 percent from the ASHRAE 2001 building code standard. Typical apartment spaces (rooms) include the primary apartment spaces, corridors, stairways, mechanical rooms, storage, recreation and social areas, laundry rooms, offices and may include parking garages. Technology had limited tax benefits as lighting in most of the main apartment spaces traditionally has been incandescent lighting, and incandescent lighting used far more wattage than the reduced levels required for tax deduction.

## Lighting Technology Changes

There are now three incandescent lighting technology replacements that comply with legal mandates and typically will meet the requirements for the apartment building tax deduction. Those technologies include

1. compact fluorescents (CFLs);
2. new Light Emitting Diodes (LED) products in bulb form; and
3. recently developed low wattage incandescents.

## Lighting Legal Changes

Most of the typical incandescent bulbs used in apartment rooms are being phased out by a federal mandate prohibiting further manufacturing or importation into the United States beginning in 2012.<sup>2</sup> Effective July 1, 2010, T-12 fluorescent lighting often found in apartment building support areas such as parking garages, laundries, storage and mechanical areas may no longer be manufactured or imported into the United States.<sup>3</sup>

Most Americans are familiar with CFLs where some of the concerns have been with mercury content, basic design appearance and dimming capability. The new bulb-like LEDs satisfy many of these concerns since they are mercury free, look like traditional bulbs and can be dimmed. To understand the previous wattage reduction challenge and the opportunities with the new products Chart 1 should be of assistance.

All of the major light bulb manufacturers have CFL product offerings. The big three for the new LED bulbs are Lemmis Lighting, Tendris and Lighting Sciences

Group. Lendris offers a three-year warranty and estimates that when using a national average utility rate of 15 cents per kilowatt their product has a three-year economic payback.<sup>4</sup>

## HVAC Technology Improvements

Previous generation technologies and construction processes made it very difficult for apartment buildings to qualify for any of the EPAct tax deduction opportunities. Now as result of major technology developments with apartment HVAC subsystems, large tax deductions are becoming very achievable.

Most residential apartment buildings use thought-the-wall individual apartment HVAC units to provide heating and cooling. These units are known as Packaged Terminal Air Conditioners (or "PTAC units"). Historically, these residential PTAC units were only a few percentage points more energy efficient as compared to the ASHRAE 2001 building energy code standard; a 16.67-percent increase in energy efficiency is required in order to qualify for the HVAC EPAct tax deduction. The major technology improvements are a combination of improved core unit energy efficiency along with custom-designed HVAC controls, primarily load-shedding controls.

New generations of PTAC units are materially more energy-efficient than prior generations of PTAC units. The energy efficiency of a PTAC unit is expressed commercially as its Seasonal Energy Efficiency Rating (SEER) level. Select manufacturers

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**Chart 1**

### **Apartment Building Residential Rooms Use of Alternative Light Bulb Technology: EPAct Tax Deduction Comparison**

	Current Incandescent	Compact Fluorescent	New LED Bulbs	New Philips Incandescent
Wattage: Presuming 4 bulbs at 60 watts each or equivalent	240(4x60)	60(4x15)	24(4x6)	40(4x10)
Presuming 100 sq. ft. child's bedroom	100	100	100	100
Watts per sq. ft.	2.4	0.6	0.24	0.4
Wattage necessary for full tax deduction	≤ .60	≤ .60	≤ .60	≤ .60
Available tax deduction	none	60 cents per sq. ft.	60 cents per sq. ft.	60 cents per sq. ft.

ing category under the EPAct's commercial building tax deduction legislation. Property owners who understand these opportunities can act during the current economic downturn to improve their facilities, reduce operating costs and potentially become LEED-certified facilities.

## ENDNOTES

- <sup>1</sup> [www.americangaming.org/Industry/factsheets/statistics\\_detail.cfv?id=8](http://www.americangaming.org/Industry/factsheets/statistics_detail.cfv?id=8).
- <sup>2</sup> Energy Policy Act of 2005 (P.L. No. 109-58).
- <sup>3</sup> Building envelope consists of the building's foundation, walls, roof, windows and doors, all of which control the flow of energy between the interior and exterior of the building. See, [www1.eere.energy.gov/buildings/commercial/envelope.html](http://www1.eere.energy.gov/buildings/commercial/envelope.html).
- <sup>4</sup> See, Charles R. Goulding, Jacob Goldman and Taylor Goulding, *Hotels and Motels Most Favored Energy Policy Act Tax Properties*, CORP. BUS. TAX'N MONTHLY, Mar. 2009, at 17.
- <sup>5</sup> Ballast Energy Efficiency Standards (BEF) included in the Energy Policy Act of 2005.
- <sup>6</sup> Notice 2008-40, IRB 2008-14, 725.
- <sup>7</sup> For more information on parking garage EPAct lighting deduction tax opportunities, see, Charles R. Goulding, Peter Kelly and Taylor Goulding, *EPAct Tax Deductions for Parking Garage Lighting Projects Gain Wider Use*, PARKING PROF.—INTL. PARKING INST., Sep. 2008. <http://energy.state.nv.us/>.
- <sup>8</sup> See, Charles R. Goulding, Jacob Goldman and Nicole DiMarino, *LEED Building Tax Opportunities*, CORP. BUS. TAX'N MONTHLY, Jan. 2008, at 17.
- <sup>10</sup> [www.usgbc.org/LEED/Project/Registered-ProjectList.aspx](http://www.usgbc.org/LEED/Project/Registered-ProjectList.aspx).
- <sup>11</sup> \$500,000 x \$1.80 = \$900,000.

## Apartment Buildings

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have some very high efficiency units that will clearly be eligible for the 60-cent-per-square-foot HVAC EPAct tax deduction.<sup>5</sup>

## The Chiller EPAct Tax Advantage

Some apartment buildings, particularly high-end residential buildings,

use very energy efficient large central chillers to provide HVAC. These systems will normally yield large HVAC EPAct tax deductions since the HVAC EPAct calculation is based on a comparison of the energy costs of the very efficient chiller against historically lower ASHRAE 2001 PTAC units. For tax planning purposes, it is important that apartment building owners considering a chiller replacement complete that installation before January 1, 2014, while the lower ASHRAE 2001 PTAC efficiency standards are still in effect.

## Combining Lighting and PTAC Investments

Existing apartments that combine the lighting, HVAC, PTAC and chiller solutions described above before January 1, 2014, will achieve a substantial reduction in energy costs and have the potential to achieve \$1.20-per-square-foot to \$1.80-per-square-foot EPAct tax deductions. Moreover many utilities will offer an enhanced utility rebate if lighting and PTAC investments are combined in one project.

## Building Envelope

Since the building envelope itself does not use energy, the EPAct tax deduction requires the envelope to reduce the energy used by the existing lighting and HVAC systems, described above, in order to obtain the EPAct tax deduction for the building envelope. With new apartment buildings, one of the major construction changes now occurring is the use of pre-fabricated

building envelope items that are extremely well insulated. New apartment buildings also have the opportunity to install very energy efficient windows on a more cost-effective basis. Combining the lighting and HVAC solutions described above in the construction of new apartment buildings could potentially qualify for the \$1.80-per-square-foot tax deduction. Existing buildings can invest in new roofs, windows, window treatments and added insulation along with the lighting-PTAC combination to qualify for large EPAct tax deductions.

## Building Computer Simulation Modeling Requirement

To individually qualify the HVAC and building envelope subsystems for the \$1.80 whole-building EPAct deduction, the building performance must be modeled. Lighting can also qualify for the deduction via modeling. These same energy models are also required for Leadership in Energy and Environmental Design (LEED) building projects. LEED is the marquee-sustainable building certification program operated by the U.S. Green Building Council (USGBC). When using modeling, the required level of energy reduction must be documented with an IRS-approved building energy model.

## Landlord Sharing Arrangements

A landlord building owner is not going to qualify for the apartment commercial lighting tax

deduction of 60 cents per square foot unless the landlord makes the lighting investment. For example, for each 100,000 square feet of apartment space renovated to LED lighting, the landlord will obtain a \$60,000 tax deduction, and the tenants will experience up to a 90-percent lighting energy cost reduction. Since the LED bulb replacements are expensive and both parties are obtaining large economic benefits, they may want to work out a cost-sharing agreement. Note that the overall investment may also qualify for a large utility rebate. A large lighting wattage reduction will make it easier for the landlord to qualify for the HVAC EAct tax deduction any time the combined investments result in a 33.34-percent overall building energy cost reduction. Simply stated, the landlord needs to work with the tenant to obtain the energy cost reduction necessary to qualify for the EAct lighting tax deduction in order to optimize the potential for an HVAC EAct tax deduction.

## Conclusion

The apartment market has been waiting for a long time for major justified energy cost reductions where both landlords and tenants can share the benefits. The time is now here, and landlords and tenants must work together to integrate the tax and other economic opportunities to make it happen.

### ENDNOTES

- <sup>1</sup> Energy Policy Act of 2005 (P.L. 109-58).
- <sup>2</sup> Ballast Energy Efficiency Standards (BEF) included in the Energy Policy Act of 2005.
- <sup>3</sup> For the definition of "general service incandescent lamp," see Act Sec. 321 of the

Energy Independence and Security Act of 2007 (P.L. 110-140).

- <sup>4</sup> See, [www.lemnislighting.com](http://www.lemnislighting.com), [www.tendris.nl/Pages/companies/active/default.aspx](http://www.tendris.nl/Pages/companies/active/default.aspx) or [www.laminaceramics.com/products](http://www.laminaceramics.com/products).
- <sup>5</sup> The magnitude of savings available with a PTAC combined equipment upgrade and controls solution is discussed in the article, Innovative PTAC Solution Provides 50 Percent Energy Savings, MANUFACTURER REP. AIR CONDITIONING, HEATING & REFRIGERATION NEWS, Jul. 7, 2008.

## India Travel Services

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InterGlobe as expenses. We suspect that ITAT apportioned expenses to Indian operations and to U.S. operations on a 15-percent/85-percent split.

In summary, ITAT in Galileo applied two separate facets in applying income taxation:

- the direct activities of the taxpayer, Galileo, and
- the indirect activities through the dependent agency relationship between Galileo and InterGlobe.

## Installed Hardware

*Galileo* and *Sabre* have different fact patterns as *Galileo* connected its computers through a hardware system not present in *Sabre*. The presence or absence of the physical hardware connecting the computer to foreign master computer appears not to be determinative as to the taxability of the global distribution services industry or the computer reservation services industry. Both cases reflect dependent agency relationships, and the presence of a dependent agency appears to be determinative.

### ENDNOTES

- <sup>1</sup> ITA No. 2311/Del/08 in assessment year 1999-00.

<sup>2</sup> *Morgan Stanley & Co.*, 292 ITR 406.

<sup>3</sup> *Hukam Chand Mills Ltd. v. CIT, Bombay*, 103 ITR 558.

## Real Estate Workout

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the power to unilaterally amend the Master Lease, it is important that such amendment shall be fair and even handed.

Rev. Rul. 2004-86 prohibits lease modifications except where the Master Tenant is in bankruptcy or insolvent and such situation presents an imminent risk of default on the loan. It would seem that if the Master Tenant can not make its payments under Master Lease, by definition it is insolvent. Fortunately the same insolvency exception permits the Signatory Trustee to negotiate a loan modification with the lender at the same time.

Of course, a unilateral modification of the Master Lease can lead to adverse investor reactions and potentially a lawsuit. However, if the Master Tenant does not modify the Master Lease so it can pay the rent, there could be a Loan default leading to a foreclosure of the real estate. It would seem that the only reasonable course of action is to modify the Master Lease, but the modification needs to be fair to the investors and the minimum modification needed to solve the problem. The Sponsor needs to listen to investor feedback, but in the end it must act. In this regard, it is important for the Sponsor and its advisors to carefully review the DST agreement to see what standards and duties are imposed upon the Signatory Trustee making this type of decision. Under Delaware law, the trust agreement can negate all fiduciary and other duties by specifically providing