

LED Lighting Tax Aspects of Furniture Chains

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As furniture chains continue to recover from losses suffered during the burst of the housing bubble, they are uniquely positioned to enter new markets and utilize EPAct Section 179D tax incentives by installing LED lighting, solar P.V., and geothermal heating systems

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The 2008 collapse of the U.S. housing market had a particularly damaging effect on the domestic furniture industry. A virtual freeze on new and existing home purchases resulted in a drastic decline in furniture sales for furniture chains who, prior to the collapse, dominated the industry primarily by selling foreign made furniture¹. The furniture industry has evolved for the most part to an import model where the furniture is stored in huge warehouses and sold through retail show rooms. Some major brands use large warehouse like structures as their actual retail facilities. As the economy continues to improve these companies will be able to realize significant energy cost savings and very large EPAct tax deductions by installing LED lighting in their showrooms as well as LED and other energy efficient lighting and heaters in their distribution centers.

Large store show rooms looking to showcase their furniture can use LED's to provide the ideal focused lighting, while huge warehouses that hold the furniture before it reaches retail storefronts can realize tremendous operating expense reductions by installing LED or other energy efficient lighting. While each of these building types involves a distinct planning process with different tax implications, LED lighting can drive large tax deductions for all furniture chain facilities.

The Section 179D EPAct Tax Opportunities

Pursuant to Energy Policy Act (EPAct) Section 179D, furniture chains 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 \$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.

Alternative Energy Tax Credits and Grants

Pursuant to the American Recovery and Reinvestment Act of 2009, there are multiple 30% or 10% tax credits available for a variety of alternative energy measures with varying credit termination dates. For example the 30% solar tax credit and the 10% geothermal heat pump tax credit expire January 1st 2017.

All alternative measures that are eligible for the 30% and 10% tax credits are also eligible for equivalent cash grants for the three years starting January 1st 2009 and ending December 31st 2011.

Unique 2011 Opportunity: Enhanced Bonus Tax Depreciation

Solar P.V. and geothermal systems are ordinarily eligible for 5 year MACRS depreciation, but building owners who install these systems after September 8, 2010 through December 31, 2011 can take 100% depreciation tax bonus immediately. Even if building owners miss this 2011 window, they can enjoy a 50% tax depreciation bonus on equipment placed in service from January 1, 2012 through December 31, 2012.

The Tax Planning Implications for Furniture Chains

Showrooms and EPAct 179D

LED lighting is excellent for furniture presentation because it provides a high-powered, focused beam ideally suited for showroom floors. The shopper is naturally drawn to the furniture because of the LED's spotlighting effect. For this reason, the Ashley Furniture showroom in Boca Raton, Florida has recently opened with the distinction of being among the first furniture stores seeking LEED certification, for its inclusion of, among other things, LED lighting.² Since this store is nearly 100,000 sq. ft. large, it will be eligible for up to \$60,000 in tax deductions for lighting alone, and potentially greater EPAct deductions for qualifying HVAC equipment and building envelope measures. Indeed, as part of its plan to seek LEED certification, Ashley installed high-performing, low-emitting glass with automatic shades that conserve energy and rooftop solar tubes at its Boca location. A qualified professional can convert Ashley's required LEED energy model into an EPAct tax model.

Warehouse Lighting and EPAct 179D

Building lighting comprises a large portion of furniture warehouse energy use. Most warehouses that have not had a lighting upgrade to energy-efficient lighting in the last 7 or 8 years utilize prior generation metal halide or T-12 fluorescent lighting. It is important to realize that effective January 1, 2009, most probe-start metal halide lighting may no longer be manufactured or imported into the United States and, effective July 1, 2010, most T-12 lighting may no longer be manufactured or imported into the United States. This means that warehouses that still have older lighting technology will soon be, or already are, subject to large price increases for replacement lamps and bulbs.³

This prior generation T12 and metal halide lighting is energy inefficient compared to today's T-8 and T-5 lighting, and a lighting retrofit can easily reduce lighting electricity costs by 40 to 60 percent. In addition to large energy cost reductions from upgrading basic building lighting, most warehouses undergoing lighting retrofits install sensors that completely shut off lighting in portions of the warehouse that are not in use. Previously, many warehouse owners and lighting specialists were reluctant to install sensors because they reduced fluorescent lamp useful life. Today, with improved technology, sensors are available with warranties that protect against reduction in lamp useful life. In the furniture warehouse business, sensors will prove particularly useful because of the intermittent need for warehouses to be illuminated. Combined with fluorescent, induction or, increasingly, LED lighting, sensors are a vital consideration to any furniture warehouse operator.

Warehouse Heating and EPAct 179D

New, improved commercial heating systems can provide energy cost savings of 8 percent or more over the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 2001 building code standards. There are multiple heater technologies suitable for the furniture warehouse market, including Cambridge direct fired gas heaters, unit heaters, and infrared (e.g. radiant) heaters.⁴

If feasible, the warehouse heater should be mounted on an exterior wall to optimize the roof top space for a solar P.V. roof top system.

Typical Large Furniture Warehouses Obtain Large Tax Deductions

Many large warehouses have made the investments necessary to obtain the full \$1.80 per square foot EPAct tax deduction. Since the EPAct tax deductions are based on square footage a 500,000 square foot furniture warehouse, for example, can secure a \$900,000 EPAct tax deduction.

IKEA's Pioneering Solar Projects

IKEA utilizes large integrated warehouse/retail facilities to directly sell furniture. The Swedish company has recently announced that it will install solar P.V. in some of its stores in Colorado, Massachusetts, and New Jersey. By taking advantage of its enormous, flat rooftops on its facilities, IKEA will be able to generate enough kilowatt hours to power its own stores' lighting and HVAC needs with energy left over to sell to utilities. Further, they are making the optimal use of their solar investment by installing highly energy efficient geothermal heating systems and LED lighting. Geothermal typically generates large EPAct 179D tax deductions, especially when coupled with LED lighting. As noted above, the geothermal system will also be eligible for a 10%

tax credit or grant and very favorable tax depreciation.

The New York Market

New York City has been experiencing a quicker economic recovery than the rest of the country, and furniture chains are acting now to try to capitalize on the city's momentum. Cleveland-based Arhaus Furniture; Nadeau Corp., a West Coast-based seller of eclectic furnishings; and discounter Home Goods, a division of TJX are all newcomers to the NYC scene and each is hoping to take advantage of the heightened demand than has often forced homeowners and renters into the suburbs to shop for their furniture. With the opening of 20,000 to 40,000 square foot retail centers, these companies have the opportunity to incorporate LED lighting, and, in some locations, solar P.V., into their building design to drive down their operating expenses while utilizing large tax incentives.

Furniture Warehouse Tax Incentivized Energy-Efficient Design Process Steps

1. Assemble team including warehouse experts for EPAct tax incentives, utility rebates, lighting, heater, building envelope and solar energy.
2. See if roof is compatible for solar and heater. Obtain proposals for installations of solar installations and any other needed roof/insulation projects and any other needed roof/insulation projects.
3. Obtain lighting design that replaces all inefficient lighting. Compare and contrast costs of fluorescent, induction and LED lighting alternatives.
4. Obtain Cambridge heater or alternative heater proposals, taking into account possible roof designs.
5. Determine utility rebate based on all proposed separate and combined energy-efficient measures. Efficient lighting will reduce electric use. Roof, insulation and heater will reduce "therms."
6. Determine tax incentives including EPAct Section 179D tax deduction benefit and solar credit tax deductions. EPAct will be based on total project square footage, including mezzanines and pick and pack modules. The 30-percent solar tax credit will be based on the combined solar material and installation costs.
7. Prepare project proposal detailing project costs, energy savings, utility rebates and tax incentives.
8. Get project approved by building owner.
9. Hire contractors and execute project.
10. Have EPAct tax expert prepare model and tax documentation using IRS approved software.
11. Process utility rebates.
12. Reduce federal and state estimated tax payments to account for expected large EPAct tax deductions and credits.

13. Celebrate tax-enhanced energy-efficient warehouse achievement

Conclusion

The U.S. furniture industry supply chain facility structure is ideally situated for LED lighting particularly in showrooms and integrated warehouse show rooms. Since EPAct tax savings is based on square footage the industry's large facilities drive large tax deductions. The required warehouses are typically large flat roof structures that are optimal for solar P.V. Achieving energy reduction enhanced with tax savings will help this very competitive industry accelerate its recovery concurrently with overall economic recovery.

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[1] Furniture Today Staff, "Ekornes global sales up 10.9% in 2010" *Furniture Today* (February 18, 2011) < http://www.furnituretoday.com/article/535980-Ekornes_global_sales_up_10_9_in_2010.php>

[2] Emily Moorehouse, "Green City Furniture and Ashley Furniture HomeStore Showrooms Open," *bocamag.com* (January 14, 2011) < <http://www.bocamag.com/blog/green-city-furniture-and-ashley-furniture-homestore-showrooms-open/>>

[3] Charles Goulding, Jacob Goldman, and Joseph Most, "Complete Warehouse Tax-Enhanced Energy-Efficient Design," *Corporate Business Taxation Monthly* (August 2010), at 17

[4] *Id.*, at 18

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