

# **The Energy Tax Aspects of Georgia Warehouses**

By Charles R. Goulding and Charles G. Goulding

Georgia area warehouses owners need to make a series of building improvements in order to remain competitive attract tenants and retain building value. It is important for the warehouse owners making these investments to optimize a series of important tax benefits that are in certain cases only available for a limited time period.

Georgia Power, the status utility, summarizes the importance of warehousing and logistics. In Georgia as follows:

advantages by locating distribution capabilities in the markets they serve most.”

- “Georgia is home to more than 580 warehouse distribution locations, totaling 155 million square feet of warehouse space and employing nearly 66,000 workers.
- Georgia’s thriving deep water ports offer international companies greater access to U.S. markets. World-Class intermodal facilities offer the upmost efficiency in getting products to consumers.
- Industrial buildings are available and affordable throughout Georgia.
- Georgia’s work force is well-trained and wage rates are competitive.
- Georgia is the center of the nation’s fast-growing Southeast. Product manufacturers and retailers gain

## **The EPAct Tax Opportunities**

### **EPAct**

Pursuant to Energy Policy Act (EPAct) Section 179D, warehouses 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.

Warehouses that combine energy-efficient lighting and heating have become, by far,

the largest category of buildings qualifying for the \$1.20 to \$1.80 EPAct tax deductions.

The following table illustrates the magnitude of potential EPAct tax benefits available at various square footage's:

The total warehouse EPAct opportunity just for the largest Georgia warehouse 1,500,000 square feet and above is presented below:

### **Georgia Industrial & Warehouse EPAct Opportunity**

<b>Property</b>	<b>Total Square Footage</b>	<b>Lighting Minimum Deduction</b>	<b>Maximum Deduction</b>	<b>HVAC Maximum Deduction</b>	<b>Building Envelope Maximum Deduction</b>	<b>Total</b>
Kmart Corp DC	2,100,000	\$630,000	\$1,260,000	\$1,260,000	\$1,260,000	\$3,780,000
Target Corp Import WH & DC	2,000,000	\$600,000	\$1,200,000	\$1,200,000	\$1,200,000	\$3,600,000
Wal-Mart DC	2,000,000	\$600,000	\$1,200,000	\$1,200,000	\$1,200,000	\$3,600,000
JCPenney Co WH	2,000,000	\$600,000	\$1,200,000	\$1,200,000	\$1,200,000	\$3,600,000
Saddle Creek Corp WH & DC	1,750,000	\$525,000	\$1,050,000	\$1,050,000	\$1,050,000	\$3,150,000
Procter & Gamble WH& DC	1,700,000	\$510,000	\$1,020,000	\$1,020,000	\$1,020,000	\$3,060,000
Exel/General Mills SE DC	1,500,000	\$450,000	\$900,000	\$900,000	\$900,000	\$2,700,000
Schneider Logistics WH & DC	1,500,000	\$450,000	\$900,000	\$900,000	\$900,000	\$2,700,000
Target Corp DC (Midway) DC	1,500,000	\$450,000	\$900,000	\$900,000	\$900,000	\$2,700,000
Target Corp DC (Tifton) DC	1,500,000	\$450,000	\$900,000	\$900,000	\$900,000	\$2,700,000
Whirlpool Corp Regional DC	1,500,000	\$450,000	\$900,000	\$900,000	\$900,000	\$2,700,000
<b>Totals:</b>	<b>19,050,000</b>	<b>\$5,715,000</b>	<b>\$11,430,000</b>	<b>\$11,430,000</b>	<b>\$11,430,000</b>	<b>\$34,290,000</b>

## **Alternative Energy Tax Credits and Grants**

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 expires January 1<sup>st</sup> 2017 and the 10% Combined Power tax credit also expires January 1<sup>st</sup> 2017. The 30% closed loop and open loop biomass credit expires January 1<sup>st</sup>, 2014.

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

## **Lighting**

Building lighting comprises a large portion of 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 also 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 this lighting technology will soon be subject to large price increases for replacement lamps and bulbs.

This prior generation T12 and metal halide lighting is very 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 reduction from the base building lighting, most warehouses undergoing lighting retrofits install sensors that completely shut off the lighting in portions of the warehouse that are not in use. Previously, many warehouse owners and lighting specifiers were reluctant to install sensors because they reduced fluorescent lamp useful life. Today, improved technology sensors are available with warranties not to reduce lamp useful life.

## **Heating**

New, improved commercial heating systems can provide energy cost savings of eight percent or more over the ASHRAE 2001 building code standards. There are multiple

heater technologies suitable for the warehouse market, including direct fired gas heaters, unit heaters, and infrared (radiant) heaters<sup>1</sup>.

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

An example illustrating the maximum utilization of the \$1.20 EPAct tax deduction for a 100,000 sq ft warehouse with an energy-efficient heater is as follows:

<b>100,000 sq ft Warehouse</b>			
<b>\$1.20 per sq ft EPAct Tax Deduction</b>			
	<b>Lighting</b>	<b>Heater</b>	<b>Total</b>
Project Cost	\$ 135,000	\$ 35,000	\$ 170,000
Utility Rebate	\$ (35,000)	\$(15,000)	\$ (50,000)
Net Investment	\$ 100,000	\$ 20,000	\$ 120,000

With this example, the \$120,000 (100,000 sq ft x \$1.20) entire investment EPAct tax deduction will be achieved as long as the combined lighting heater project reduces total energy cost by 33 1/3% as compared to ASHRAE 2001.

### **Building Envelope**

If a warehouse requires reroofing this owner should consider a more energy-efficient white roof. Moreover, when reroofing this is the ideal time to consider adding more insulation. If the

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<sup>1</sup> See Charles Goulding, Jacob Goldman and Raymond Kumar, *Large EPAct Energy Tax Deduction Opportunities for Commercial Heaters*, Corp. Bus. Tax'n Monthly, January 2010, at 11.

building already had an energy-efficient design and roof the owner may want to consider upgrading to more energy-efficient truck bay doors and windows.

<b>100,000 sq ft Warehouse</b>				
<b>\$1.80 per sq ft EPAct Tax Deduction</b>				
	<b>Lighting</b>	<b>Heater</b>	<b>Roof</b>	<b>Total</b>
Project Cost	\$ 135,000	\$ 35,000	\$ 80,000	\$ 250,000
Utility Rebate	\$ (35,000)	\$ (15,000)	\$ (20,000)	\$ (70,000)
Net Investment	\$ 100,000	\$ 20,000	\$ 60,000	\$ 180,000

With this example the maximum \$180,000 EPAct tax deduction (100,000 sq ft x \$1.80) will be available as long as the combined lighting, heater and roof project reduces total energy cost by at least 50% as compared to ASHRAE 2001.

**Warehouse Tax Incentivized Energy-Efficient Design Process Steps**

The process steps for achieving an energy-efficient Georgia warehouse are presented below:

- 1) Assemble team including Warehouse experts for EPAct tax incentives, utility rebates, lighting, heater, envelope and solar.

- 2) See if roof is compatible for solar and heater. Obtain solar and any needed roof/insulation proposals. Make sure existing roof warranties are compatible with solar P.V. installation.
- 3) Obtain lighting design that replaces all inefficient lighting. Compare and contrast fluorescent, induction and LED lighting alternatives.
- 4) Obtain Cambridge heater or equivalent design proposal based on proposed roof design.

- 5) Determine utility rebate based on all proposed separate and combined measures. Lighting will reduce electrical use. Roof, insulation and heater will reduce therms.
- 6) Determine tax incentives including EAct tax deduction benefit and solar credit taxes. EAct will be based on total project square footage, including mezzanines and pick and pack modules. The 30% solar tax credit will be based on the combined solar material and installation costs.
- 7) Prepare project proposal integrating project cost, energy savings, utility rebates and tax incentives.
- 8) Get project approved.
- 9) Hire contractors and execute project.
- 10) Have EAct modeler and tax expert prepare IRS approved software model and tax documentation.
- 11) Process utility rebates.
- 12) Reduce Federal and State estimated tax payments for large tax deductions and credits.
- 13) Celebrate tax enhanced energy-efficient warehouse achievement.

## **Conclusion**

As described above there are multiple compelling reasons including energy and substantial tax savings why Georgia area warehouses are acting on energy-efficient warehouse projects. This is such a widespread phenomenon that market forces will require warehouse landlords to upgrade just to remain competitive. Once the overwhelming majority of warehouses are upgraded America's building products community will undoubtedly turn their attention to the next major building category requiring improvement which may very well be the office building you are sitting in.

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**Charles R. Goulding** Attorney/CPA is the President of Energy Tax Savers, Inc., The EAct 179D Experts, an interdisciplinary tax and engineering firm that specializes in the energy-efficient aspects of buildings.

**Charles G. Goulding** is an Analyst with Energy Tax Savers, Inc., The EAct 179D Experts,