

Large EPAct Energy Tax Deduction Opportunities for Commercial Heaters

By Charles Goulding, Jacob Goldman and Raymond Kumar

Charles Goulding, Jacob Goldman and Raymond Kumar explain how large industrial and commercial facilities can reduce energy costs and cut their taxes through the use of new technology in combination with Code Sec. 179D.

With the enactment of the Energy Policy Act (EPAct) of 2005, tax deductions for various energy saving measures were made available to commercial and industrial buildings through Code Sec. 179D.¹ Moreover, technology advancements have not only decreased potential energy costs, but also have increased tax deduction opportunities.

In the northern United States, the cost of heating large industrial and commercial buildings—such as warehouses, industrial plants, car dealerships and auto repair garages—during cold winter months can be substantial. However, by installing energy saving devices encouraged by Code Sec. 179D, building owners can decrease heating costs and take advantage of available tax deductions to reduce taxes.

Because of the colder climate, many warehouses, industrial facilities, car dealerships and auto repair garages in northern states have heating systems but no air conditioning. The northern states that have a great deal of industry and commercial facilities include Minnesota, Wisconsin, Michi-

gan, Illinois, Indiana, Ohio, Pennsylvania, New Jersey, New York, Northern California and the New England states.

EPAct Tax Provisions

Under Code Sec. 179D of the EPAct and the ASHRAE (American Society of Heating Refrigeration and Air Conditioning) building energy code, commercial buildings are eligible for energy efficiency tax deductions of up to \$1.80 per square foot. If a building's energy reducing investment does not qualify for the full \$1.80-per-square-foot deduction, it may qualify for a deduction on one or more of the three major sub-systems, which include (1) lighting; (2) HVAC (heating, ventilation and air condition); or (3) the building envelope (anything on the perimeter of the building that "touches" the outside, such as the roof, walls, windows, doors, the foundation and related insulation layers). Each component can qualify for a deduction of up to 60 cents per square foot under the EPAct.

Technology Improvements

For most of these "Heat Only Spaces" (HO Spaces), the largest building energy costs are lighting and heating (in that order). Lighting typically makes up 50 to 70 percent (or more) of total building energy costs. The good news is that, as result of new energy-efficient lighting technology, most of

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Chart 1

Combining EPAct Energy Efficient Tax Deductions Energy Efficient Lighting & Heating Warehouse, Industrial & Car Dealer/ Repair Shop Facilities Buildings with no Air Conditioning										
(A)	(B)	Total Building		Total Building		Total Tax Deduction at Facility Square Foot Levels				
		(C)	(D)	(E)	(F)					
Lighting: % of Total Building Energy Cost	% of Achieved Lighting Cost Reduction Compared to ASHRAE 2001	Percentage of Cost Reduction (A x B)	Cambridge Heater Cost Reduction % (20% more efficient then reference)	Combined Cost Reduction Achieved (C + D)	Total Tax Deduction Per Sq Ft	50,000	100,000	200,000	300,000	400,000
70%	50%	35.00%	6%	41.00%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
65%	50%	32.50%	7%	39.50%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
60%	50%	30.00%	8%	38.00%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
55%	50%	27.50%	9%	36.50%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
70%	45%	31.50%	6%	37.50%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
65%	45%	29.25%	7%	36.25%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
60%	45%	27.00%	8%	35.00%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
55%	45%	24.75%	9%	33.75%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
70%	40%	28.00%	6%	34.00%	\$ 1.20	\$ 60,000	\$ 120,000	\$ 240,000	\$ 360,000	\$ 480,000
65%	40%	26.00%	7%	33.00%	\$ 0.60	\$ 30,000	\$ 60,000	\$ 120,000	\$ 180,000	\$ 240,000
60%	40%	24.00%	8%	32.00%	\$ 0.60	\$ 30,000	\$ 60,000	\$ 120,000	\$ 180,000	\$ 240,000
55%	40%	22.00%	9%	31.00%	\$ 0.60	\$ 30,000	\$ 60,000	\$ 120,000	\$ 180,000	\$ 240,000

these facilities either have, or are in the process of installing, highly energy-efficient lighting. In fact, to date, HO Spaces have been the largest beneficiaries of the EPAct lighting tax incentive.

Space heating and lighting consume most of the energy in non-refrigerated warehouses. Installing more efficient lighting to save electrical energy is a popular and first step but what about the gas-fired heating?²²

Improved Commercial Heaters

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 HO Spaces market, including direct-fired gas heaters, unit heaters and infrared (radiant) heaters. Some of the more popular highly energy-efficient heaters are the Cambridge Engineering direct gas fired blow-thru space heaters. The Cambridge units have been selected by the Environmental Protection Agency and Department of Energy as an energy partner to help save energy in commercial and industrial buildings. Besides being highly efficient, these units use natural gas as a fuel source. Natural gas is abundant in the United States and actually has been declining in price.

Continued on page 28

Most utilities offer rebates for lighting upgrades and many gas utilities offer rebates for gas heater upgrades. With combined lighting and heater projects many utilities will offer additional bonus rebates for two or more energy reduction initiatives.

Benefiting from Prior Energy-Efficient Lighting Investments

Since the enactment of the EAct tax incentives effective January 1, 2006, thousands of warehouses, industrial buildings and auto repair facilities have already upgraded to energy-efficient lighting. Some property owners may have upgraded their lighting even before January 1, 2006. Those who upgraded before 2006, or who may have missed taking some or all of the 60-cent-per-square-foot lighting EAct tax deduction, may be able to obtain up to a \$1.20 tax deduction and, in some cases, a \$1.80-per-square-foot tax deduction by upgrading their heating systems.

Conclusion

The Code Sec. 179D EAct tax incentives were shrewdly designed to encourage property owners to take a comprehensive multifaceted approach to building energy cost reduction. Property owners who understand how the rules apply to Heat Only buildings with energy-efficient lighting now have the opportunity to greatly reduce their heating bills through utility rebates, falling natural gas prices and Code Sec. 179D EAct tax deductions.

ENDNOTES

- ¹ Energy Policy Act of 2005 (P.L. 109-58).
- ² Ken Williams, Director of Marketing, Cambridge Engineering.
- ³ *Id.*

may turn their attention to the availability of the cost-based direct and indirect, and internal and external costs, and to the appropriateness of the allocation method used.

As the tax law continues to be subject to discussion and debate, on what expenses should be construed as "rewards" or shareholder activity. The OECD Guidelines provide only limited guidance on how to define these categories of activity and cost. The U.S. Services Regulations apply a "sole effect" test, and include a relatively narrow definition of shareholder expenses, which may increase the chances of conflict with recipient authorities. The use and choice of allocation keys may also be disputed by local tax authorities.

In addition to providing support for recharging and allocating the basic costs, entities are also frequently required to justify the mark-ups (if any) applied when recharging the HQBS. In many cases this may entail on the services of outside transfer pricing practitioners for this support. This may entail significant compliance costs for the business, and produce "final" mark-up outcomes ranging from three to ten percent for typical HQBS with relatively low perceived added value for the taxpayer's core business.

In the authors' experience, some countries will insist on lower mark-ups for inbound than for

outbound. Some countries will insist on lower mark-ups for HQBS charges out of U.S. head offices. Using the SCM has the merit of avoiding the costs and potential conflicts associated with choosing a mark-up.

Double Taxation Consequences

Following the increased focus of tax authorities on transfer pricing matters and the consequent explosion of transfer pricing adjustments, businesses now face an increased risk of double taxation when HQBS fees are partially or fully denied as deductible business expenses in the country of the paying group entity. Certain procedures, such as the EU's European Arbitration Convention and the Mutual Agreement Procedures set out in double tax treaties, may be used to help avoid or remedy this double taxation.

But the Mutual Agreement Procedures—at least in the form expected in most double tax treaties—are no guarantee that double taxation problems will be resolved. The European Arbitration Convention, in principle, does provide such a guarantee, but it appears that some member states, such as France and Spain, often levy a serious penalty after a transfer pricing adjustment. Such serious penalties would preclude the affected taxpayer's access to the European Arbitration Convention, resulting in substantially greater difficulties in resolving double tax issues.

A further difficulty arises when HQBS charges are incurred by