

The EAct Tax Aspects of the Packaging Industry

By Charles R. Goulding, Andressa Bonafe, and Daniel Audette

Analysts at Energy Tax Savers take a look at the EAct tax aspects of the Packaging Industry.

Increasing concerns about products and operations' sustainability are inherently linked to sustainable packaging. The packaging industry is responsible for designing, evaluating and producing packages, which are fundamental to facilitate the handling, protection and conservation of products throughout their lifecycle, from warehousing and transportation to sale and end use. As an indispensable aspect of every product's commercialization, packaging is increasingly regarded as a necessary focus for sustainability efforts. A growing number of companies have established goals to minimize the environmental footprint of their products' packaging, particularly by promoting effectiveness (fit for purpose), safety (non-polluting and non-toxic), optimized use of material (minimal waste) and efficiency (minimal use of resources, energy and water)¹. This article aims at discussing the tax opportunities available to assist packaging companies improve their environmental performance and respond to their clients' supply chain sustainability standards.

EAct Tax Savings

Pursuant to Code Sec. 179D, as enacted by the Energy Policy Act of 2005 (EAct)², properties that make qualifying energy-reducing investments in new or existing locations can obtain immediate tax deductions of up to \$1.80 per square foot. If the building project does not qualify for the

maximum EAct \$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; heating, ventilating and air conditioning (HVAC); and the building envelope. The building envelope comprises of every item on the building's exterior perimeter that touches the outside world including roof, walls, insulation, doors, windows and foundation. The following table exemplifies potential benefits available to prominent packaging companies.

Packaging companies are energy intensive. Both its operations and large facilities consume significant amounts of electricity. Therefore potential energy cost savings cannot be neglected. Due to the nature of packaging products, which usually have high physical volume, companies have to dedicate large spaces to storage. These warehouse facilities can reduce energy costs while earning significant tax benefits. EAct lighting tax incentives can be achieved on a stand-alone basis if the warehouse space wattage is reduced at least 50 percent as compared to the ASHRAE 90.1 2001 wattage standard (1.2 watts per square foot)³. HVAC and building envelope EAct deductions are also available but conditioned on an IRS-approved building energy simulation model. In most cases, dry warehouses that present 0.45 watts per square foot (0.50 with sensors) qualify for maximum \$1.80 per square foot tax incentives.

Different technologies can generate energy savings as well as tax deductions for warehouses. LED lighting, for example, lasts forty times longer than traditional technologies and uses one-tenth the electricity that today's incandescent light bulbs use. Along with energy cost reduction, LED lighting represents a significant tax savings opportunity, as this low wattage technology usually qualifies for maximum lighting deduction. Additionally, natural gas heaters are also a good investment. Large shale gas fields, such as Marcellus, Barnett and Utica, have increased the supply of natural gas in the U.S., driving its price down. New natural gas heaters are generally superior to previous generations making EAct savings a possibility, especially when considering nonconditioned warehouses. When combined with energy-efficient lighting, modern heaters are likely to qualify for at least \$1.20 per square foot deductions⁴. Robotic technology, which increase productivity and reduce the need for human occupancy and lighting, can also favor EAct savings since reduced energy needs contribute to a better performance when comparing new equipment to a 2001 reference building.

Along with warehouse spaces, packaging companies also dedicate large spaces to manufacturing. Because EAct tax deductions drive off of square footage, these large facilities are prime candidates for the program. In order to achieve the EAct target energy reductions, they should consider a mix of LED or other energy efficient lighting, energy efficient HVAC, building controls, white roofs, and extra

insulation⁵. As most industrial buildings are nonconditioned, lighting, rather the HVAC, accounts for the largest part of energy costs. Accordingly, by combining energy-efficient lighting with energy-efficient heaters can easily lead to \$1.20 to \$1.80 EAct tax deductions

The sustainable packaging trend

Packaging World Magazine and DuPont Packaging & Industrial Polymers recently published the 2012 Survey of Future Packaging Trends⁶. The document, based on interviews with 500 industry professionals, concluded that sustainability should surpass cost a major packaging industry concern in 10 years (see exhibit 2). Sustainability measures and cost reduction however often go together. Energy efficiency projects, for instance, result in reduced energy consumption, which represents an important expense for packaging companies. Reduced energy costs are likely to result in lower packaging prices.

Respondents also believed that the value consumers attribute to “green packaging” will increase in the next decade, along with the demand for proof of sustainability claims. This last trend can already be verified as packaging has been set as a priority for numerous supply chain sustainability programs. The following table summarizes the packaging aspects of environmental policies of different companies.

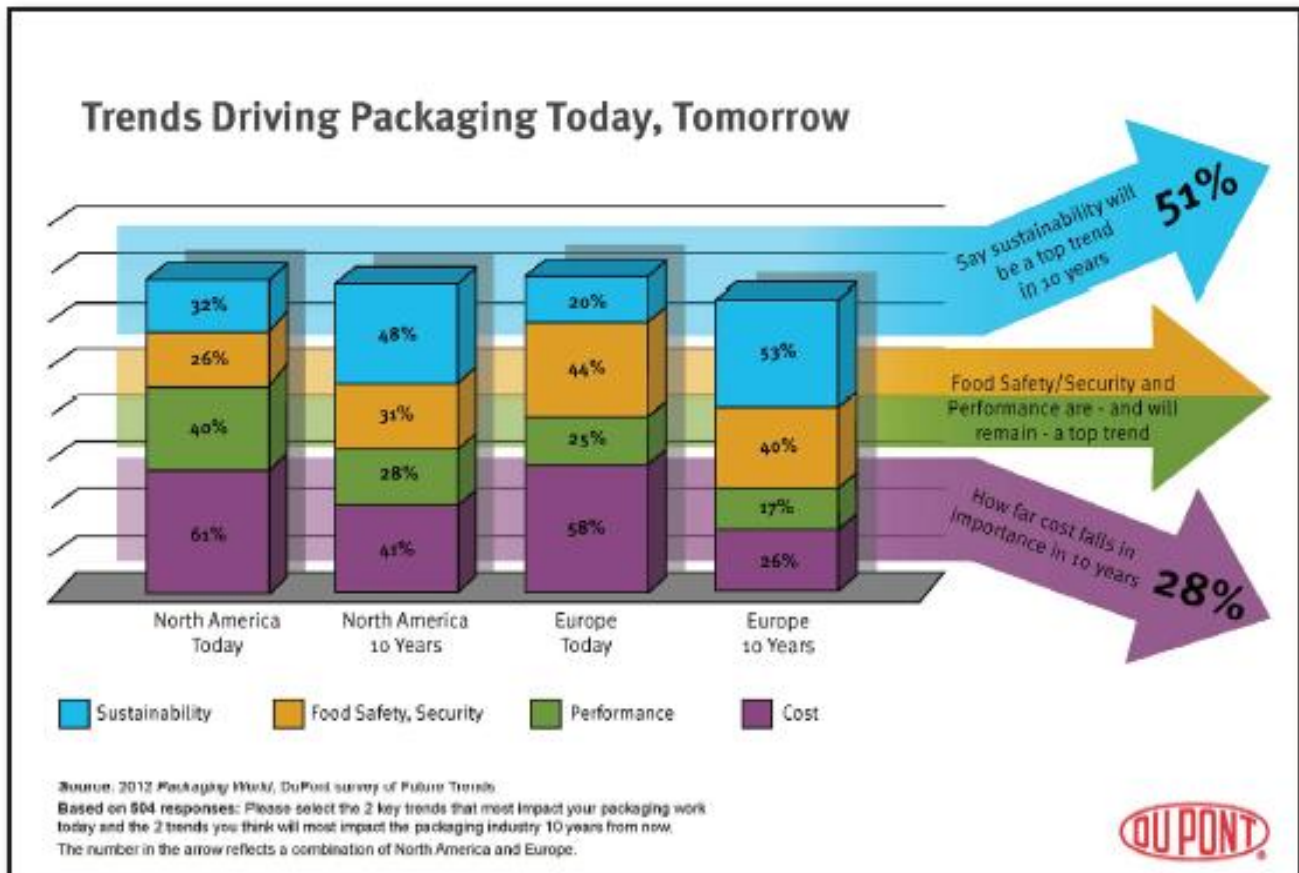
Exhibit 1

Potential Tax Deductions Available for Energy Efficient Building Improvements						
Property	Total Square Footage	Lighting		HVAC	Building Envelope	Total
		Minimum Deduction	Maximum Deduction	Maximum Deduction	Maximum Deduction	
Greif*	20,160,000	\$ 6,048,000	\$ 12,096,000	\$ 12,096,000	\$ 12,096,000	\$ 36,288,000
Amcor*	18,240,000	\$ 5,472,000	\$ 10,944,000	\$ 10,944,000	\$ 10,944,000	\$ 32,832,000
Packaging Corp. of America	16,110,705	\$ 4,833,212	\$ 9,666,423	\$ 9,666,423	\$ 9,666,423	\$ 28,999,269
Graphic Packaging	11,536,285	\$ 3,460,886	\$ 6,921,771	\$ 6,921,771	\$ 6,921,771	\$ 20,765,313
Ball Packaging	9,740,900	\$ 2,922,270	\$ 5,844,540	\$ 5,844,540	\$ 5,844,540	\$ 17,533,620
Owens-Illinois	9,338,310	\$ 2,801,493	\$ 5,602,986	\$ 5,602,986	\$ 5,602,986	\$ 16,808,958
Rexam*	6,960,000	\$ 2,088,000	\$ 4,176,000	\$ 4,176,000	\$ 4,176,000	\$ 12,528,000
Crown Holdings	5,975,245	\$ 1,792,574	\$ 3,585,147	\$ 3,585,147	\$ 3,585,147	\$ 10,755,441
Genpak	2,700,000	\$ 810,000	\$ 1,620,000	\$ 1,620,000	\$ 1,620,000	\$ 4,860,000
Tetra Pak*	1,680,000	\$ 504,000	\$ 1,008,000	\$ 1,008,000	\$ 1,008,000	\$ 3,024,000
Total:	82,281,445	\$24,684,434	\$ 49,368,867	\$ 49,368,867	\$49,368,867	\$ 148,106,601

*Average of 240,000 sq. ft. per facility

Energy-efficient warehouses and manufacturing spaces

Exhibit 2



	<p>Suppliers must answer to 15 assessment questions in four categories (energy and climate, materials efficiency, nature and resources, and people and community). Walmart encourages packaging suppliers to “rethink” processes and product presentation to reduce waste, cut greenhouse gas emissions and save moneyⁱⁱⁱ.</p>
	<p>Suppliers must comply with the Supplier Code of Conduct, which includes environmental requirements. PepsiCo has set the goal of “Reducing packaging footprint”, particularly through a “5Rs” approach – reduce, recycle, use renewable sources, remove environmentally sensitive materials and promote the reuse of packaging in the entire process of selection, design and procurementⁱⁱⁱⁱ.</p>
	<p>The company integrates sustainable practices into its procurement policies and purchasing program. Criteria include waste and energy reduction. Baxter has set the goal of reducing the environmental impact of packaging^v.</p>
	<p>P&G’s Supplier Sustainability Scorecard assesses key partner-related sustainability performance. A rating criterion was developed to allow for appropriate recognition and business award decisions. The company is committed to incorporating sustainability criteria into its products packaging. The Connect & Develop program aims at fostering sustainable innovations in this area^{vi}.</p>
	<p>The retailer has set 5 efficiency goals to be met by 2015, which concern waste, carbon footprint, energy, water and transportation. Target’s sustainable packaging program aims at reducing the environmental footprint of its existing owned brand packaging. The company aims at inspiring suppliers and partners to implement more sustainable packages. ^{vii}</p>
 <small>PHILLIPS VAN HEUSEN CORPORATION</small>	<p>The apparel corporation has developed two supplier environmental assessment tools: (1) the environmental profile tool and (2) the water, energy and carbon footprint tool. PVH-Warnaco is committed to developing significant, consistent, long-term strategies to decrease packaging volume while increasing sustainability.^{viii}</p>

Conclusion

Sustainable packaging has become a major concern for a growing number of companies. Reducing products and processes' environmental footprint is a top priority, particularly to supply chain sustainability programs that directly affect packaging companies. Energy efficiency measures are key to this industry especially because of large manufacturing and warehouse facilities. Lighting, HVAC and building envelope projects can generate savings in energy costs as well as EAct tax savings. Packaging companies should enjoy this favorable opportunity to change to more efficient technology.

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¹ Sustainable Packaging Alliance, *Principles, Strategies & KPIs for Packaging Sustainability*, available online at <http://www.sustainablepack.org/Database/files/filestorage/Sustainable%20Packaging%20Definition%20July%202010.pdf>.

² Energy Policy Act of 2005 (P.L. 109-58).

³ Charles R. Goulding and Charles G. Goulding, *Warehouses Cut Energy Bills and Taxes*, Building Operating Management, July 2012, at 36.

⁴ Charles R. Goulding, Andrea Albanese and Charles G. Goulding, The time is now for natural gas heaters and EAct tax deductions, CORP. BUS. TAX'N MONTHLY, March 2012, at 15.

⁵ Charles Goulding, Daniel Audette and Spencer Marr, The EAct Tax Aspects of Resurging U.S. Manufacturing Investments, CORP. BUS. TAX'N Monthly, June 2011, at 17.

⁶ Available online at http://www2.dupont.com/Packaging_Resins/en_US/assets/downloads/Survey_of_Future_Packaging_Trends.pdf.

⁷ Charles Goulding, Jacob Goldman and Christofer Winslow, *The EAct and Alternative Energy Tax Aspects of Walmart's Supplier Sustainability Program*, CORP. BUS. TAX'N MONTHLY, June 2011, at 13.

⁸ Charles R. Goulding, Charles G. Goulding and Jennifer Pariente, *The Tax Aspects of the PepsiCo Sustainability Supply Chain*, CORP. BUS. TAX'N MONTHLY, Nov. 2012, at 15.

⁹ Charles R. Goulding, Jennifer Pariente and Charles G. Goulding, *The Tax Aspects of the Baxter International Medical Device Sustainability Supply Chain*, CORP. BUS. TAX'N MONTHLY, Nov. 2012, at 11.

¹⁰ Charles R. Goulding, Charles G. Goulding and Andressa Bonafe, *The Tax Aspects of the Procter & Gamble Sustainability Program*, to be published.

¹¹ Charles R. Goulding, Andressa Bonafe and Raymond Kumar, *The Tax Aspects of Target's Corporate Responsibility Program*, to be published.

¹² Charles R. Goulding, Andressa Bonafe and Andrea Albanese, The Tax Aspects of PVH and Warnaco's Corporate Environmental Policy, available at http://www.energytaxsavers.com/articles/Article_-_The_Tax_Aspects_of_PVH_and_Warnaco%27s_Corporate_Environmental_Policy.pdf.