

Industrial Electricity Use—

Perhaps you've heard there's no industrial work in the U.S. these days. This feature, with a green tint, proves that idea wrong—and shows opportunities still abound in helping this sector to save energy and become more efficient!

As shown in Table One, the industrial sector hasn't had dramatic growth in energy use over a 12-year period, but still consumes more than 27% of energy purchased by U.S. users in

the residential, commercial, and industrial sectors. Note that "Direct Use" (onsite generation) combines commercial and industrial; one might guess that it's mostly industrial, but there's no proof of that.

Table One

Electricity Use By Sector, 1995 – 2006 (in millions of megawatt-hours)					
Year	Residential*	Commercial*	Industrial*	Other*	Direct Use**
1995	1,042.5	862.7	1,012.7	95.4	150.7
1996	1,082.5	887.4	1,033.6	97.5	152.6
1997	1,075.9	928.6	1,038.2	102.9	156.2
1998	1,130.1	979.4	1,051.2	103.5	160.9
1999	1,144.9	1,001.9	1,058.2	106.9	171.6
2000	1,192.4	1,055.2	1,064.2	109.5	170.9
2001	1,201.6	1,083.1	996.6	113.2	162.6
2002	1,265.2	1,104.5	990.2	105.6	166.1
2003	1,275.8	1,198.7	1,012.4	n/a	168.3
2004	1,291.9	1,230.4	1,017.8	n/a	168.5
2005	1,359.2	1,275.1	1,019.2	n/a	150.0
2006	1,351.5	1,299.7	1,011.3	n/a	146.9

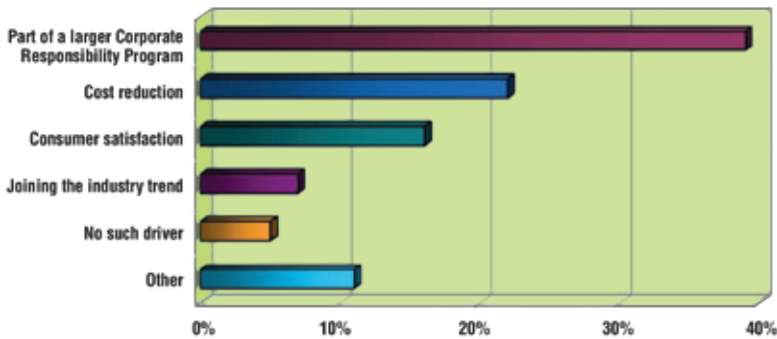
Source: Energy Information Administration, U.S. Dept. of Energy, www.eia.doe.gov

n/a = not available. * residential, commercial, industrial, and other are reported retail sales. ** direct use = commercial & industrial facility use of onsite net electricity generation.

Views In A Green Age



Figure One
Corporate Drivers for Green Manufacturing

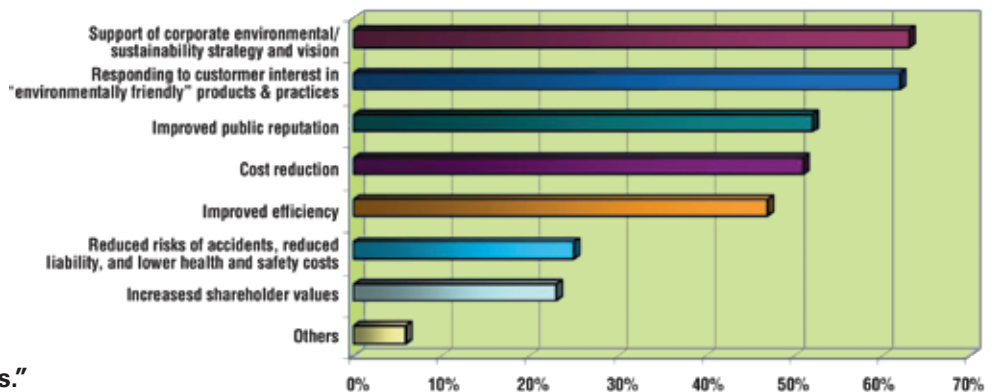


When Eye For Transport (www.eft.com) issued its Green Manufacturing Report (August 2008), it surveyed manufacturing executives. As shown above, the leading reply—at 39%—was that green manufacturing is “part of a larger Corporate Responsibility agenda.”

In August 2008, Eye For Transport (www.eft.com) issued its Green Manufacturing Report based on a survey of manufacturing executives. Figure Two shows the range of answers (respondents could pick more than one) to a question about the benefits manufacturing companies are expecting when they invest in environmental/energy initiatives.

As shown, the #1 and #2 responses finished neck-and-neck. #1 was “Support of corporate environmental sustainability strategy & vision.” #2 was “responding to customer interest in ‘environmentally friendly products & practices.’”

Figure Two
Key Benefits of Green Manufacturing



As of early December, 706 recommendations for energy-efficient industrial lighting retrofits and other activities had been made in 2008 via the U.S. DoE's Industrial Assessment Center program. Below, *Power Outlet* has provided details on 25 selected recommendations that were implemented.

Note: As of mid-December, more than 14,000 industrial assessments had been performed (over the years) via the program, with 105,249 recommendations made in these efforts.

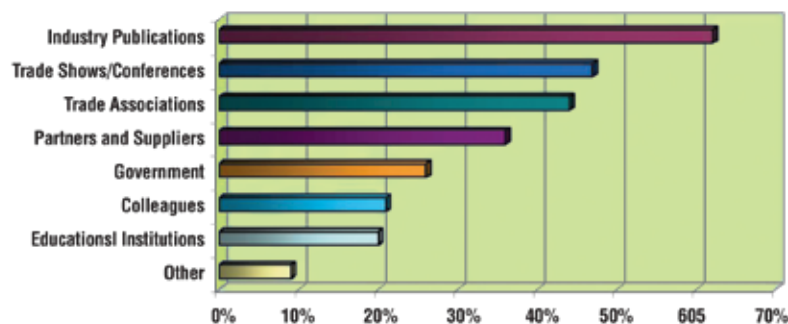
Access the database here: <http://iac.rutgers.edu/database/recommendations.php>.

Table Two

Sample Industrial Lighting Energy-Saving Actions, 2008					
Action	Cost	Savings	Payback (years)	Location	Type of factory/ product and location
Install occupancy sensors	\$474	\$307	1.5	NY	Laboratory instruments
Install occupancy sensors	\$2,000	\$960	2.1	AR	Leather utility belts/ tool bags
Make a practice of turning off lights when not needed	\$0	\$750	immediate	TX	Snack foods
Reduce illumination to minimum necessary levels	\$0	\$7,021	immediate	FL	Soft drinks
Reduce illumination to minimum necessary levels	\$870	\$2,404	0.3	FL	Paper manufacturing
Utilize daylight wherever possible in lieu of artificial light	\$794	\$1,589	0.5	FL	Book printing
Utilize higher-efficiency lamps/ballasts	\$59,620	\$100,400	0.6	TX	Prefab metal buildings
Utilize higher-efficiency lamps/ballasts	\$8,173	\$11,713	0.7	IL	Clay refractory
Utilize higher-efficiency lamps/ballasts	\$1,927	\$747	2.6	WV	Games, toys, bicycles
Utilize higher-efficiency lamps/ballasts	\$297,920	\$164,842	1.8	OK	Marine propulsion stern drives

Source: U.S. Dept. of Energy – Energy Efficiency & Renewable Energy, Industrial Technologies Program

Figure Three
Sustainable Manufacturing Resources



From where do manufacturing executives get information about green manufacturing? According to the Green Manufacturing Report (issued in August 2008 by Eye For Transport—www.eft.com), the leading resource is industry publications. Apparently, the open-ended question did find some use of the web (thrown in under “Other”)—but print publications remain the #1 info resource for manufacturers.