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J.D. Power awards LG&E Energy highest customer satisfaction honors

LG&E Energy has earned 2002's highest customer satisfaction levels in the nation among mid-size business electric customers.

LG&E Energy's nation-leading score of 115 on the J.D. Power index was up 11 points from 2001 and edged out Southern Company, which scored 114 and earned top national honors last year. Duke Energy was third nationally at 111.

"We are proud to be recognized with this prestigious honor as best in the nation and, for the third year in a row, as the top electric utility among business customers in the Midwest," said LG&E Energy President and CEO Vic Staffieri.

"This ranking reflects our employees' ongoing commitment to providing excellent customer service and outstanding reliability of electric service – all at the lowest rates in the nation. This latest J.D. Power survey indicates that we remain customer-focused as our industry continues to evolve and that our best-in-class Business Service Centers are meeting and exceeding our customers' expectations."

LG&E's Business Service Center (BSC) was created specifically to serve this unique set of

customers. The BSC is a comprehensive service and answer center for any utility matter. By calling 1-800-383-5582 commercial clients may submit orders for new and changed service, and ask questions related to bills, rates, power quality, outages, etc. BSC representatives are specially trained

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Improving energy efficiency in office buildings

Most office buildings in the U.S. consume energy at a rate of between 14 and 22 kilowatt-hours per square foot annually. A number of opportunities for saving energy can often be found in the areas of highest consumption. For example, in a typical office building, lighting, air conditioning, and receptacle loads represent 82 percent of total use, making those systems the best targets for energy savings. Although some measures can be implemented with little or no investment, others may require a larger initial outlay. But most improvements can pay for themselves quickly.

To sign up for a free Commercial Energy Audit, just fill out the attached reply card and drop it in the mail.

In the first of a two part series, we'll focus on short-term solutions.

Quick fixes. Simply Optimizing the operation and maintenance of your office building's HVAC and lighting systems can cut your energy bill by 5 to 20 percent immediately. Many of the other actions suggested here cost very little or nothing at all.

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LG&E Energy gets J.D. Power honors *(from page 1)*

to help commercial customers improve business by enhancing understanding of energy and energy usage.

LG&E Energy's 2002 JD Power ratings topped the Midwest in each of five categories tracked. The company's scores led the nation in three categories—Power Quality and Reliability, Price and Value, Customer Service—and placed second in the two remaining categories—Billing and Payment and Company Image.

J.D. Power & Associates surveyed 7,800 businesses and the results are representative of 75% of all midsize businesses in the U.S.

National Rankings

Survey Component	1st Place	Score	2nd Place	Score	3rd Place	Score
Power Quality & Reliability 33%	LG&E Energy	114 +9	Duke Power	111 +8	Southern Co.	109 +4
					L.A. Dept. of Water & Power	109 +9
Company Image 27%	Southern Co.	120 +8	LG&E Energy	115 +12	Baltimore Gas & Electric	110 +16
			Duke Power	115 +8		
Price & Value 18%	LG&E Energy	118 +16	Southern Co.	113 +3	Duke Power	111 +9
			AEP	113 +12	Florida Power & Light	111 +10
Billing & Payment 13%	Southern Co.	116 +9	LG&E Energy	114 +11	Progress Energy	112 +10
Customer Service 9%	LG&E Energy	115 +4	L.A. Dept. of Water & Power	114 +18	Southern Co.	112 +1
	Baltimore Gas & Electric	115 +13	Progress Energy	112 +9		
Customer Satisfaction Index	LG&E Energy	115 +11	Southern Co.	114 +5	Duke Power	111 +9

Improving energy efficiency in office buildings

(continued from page 1)

Lighting. Too often lights are left on after-hours for no functional or aesthetic reason. Each 30-watt fluorescent tube that's left on all night burns about \$6 worth of energy in a year's time. Turning off just 50 lamps at night could save a company \$300 annually. An energy management system or a series of occupancy sensors could do the job automatically, but employee education can often be an effective means of motivating staff to turn the lights off at the end of the day.

Computers and office equipment. The typical desktop computer, monitor, and shared printer draw about 200 watts. Most of the equipment sold today goes into a low-power sleep mode after a period of inactivity. Unfortunately, most users don't take advantage of this feature. Making sure that these energy-saving modes are enabled can produce significant energy savings. A single monitor that draws about 100 watts, left on unnecessarily overnight and on weekends, could add \$30 or more to the annual energy bill. If you have an office full of such equipment, the savings from enabling the sleep mode on employees' monitors can mount up quickly.

Space heaters. Space heaters are energy hogs, drawing a kilowatt or more of power. As a first step, plug

the heaters into outlets controlled by an occupancy sensor. Beyond that, recognize that the perceived need for individual space heating usually signals poor HVAC system control.

Repair broken economizers.

An economizer saves energy by drawing in cool outdoor air to lessen the need for mechanically cooled air. The economizer's damper, which opens and closes based on outside temperature, can become corroded and damaged by moisture and dirt. If not regularly checked, the linkage on the damper can seize up or break. An economizer stuck in the fully opened position can add as much as 50 percent to a building's annual energy bill. Have a licensed technician check your economizer and repair it if necessary. If it's still operating, have the technician clean and lubricate the linkage.

Nighttime setbacks. Setting HVAC controls so that a building is not excessively heated or cooled when it's unoccupied can also save energy. Savings will vary depending on a building's current practices and local climate, but it may be possible to achieve savings of 10 percent or more.

HVAC tune-up. A well-tuned HVAC system is a more efficient one. Make sure that chiller condenser and evaporator coils are cleaned, that filters are changed on schedule, and

HVAC Efficiency Checklist

These measures can boost HVAC efficiency, whether performed in-house or by an outside contractor:

- Clean condenser coils
- Clean evaporator coils
- Calibrate sensors
- Check compressor oil level
- Change filters
- Inspect ductwork for leaks
- Align fan belts and adjust tension; replace if indicated
- Clean and lubricate outside air dampers
- Inspect equipment cabinets
- Verify and correct refrigerant charge
- Inspect for refrigerant leaks

that leaky ducts and valves are fixed. Remember that precise control depends on accurate sensors. Properly calibrated sensors will ensure that your systems work efficiently. Tuning up the HVAC system can cut annual energy bills by as much as 25 percent.

Watch for the summer issue of *Energy Partners*, where we'll feature longer-term solutions for energy savings in office buildings.

Source: E Source

Light switch: Cost-effective lighting helps businesses cut energy costs

High-efficiency lighting can reduce electricity costs by as much as 40 percent

The single largest consumer of electricity is the same in many businesses—and the culprit is easy to see.

In many commercial buildings, lighting systems are responsible for

approximately *half* the electricity being used every day. Lighting consumes energy both directly, to produce power for light fixtures, and indirectly, by raising room temperature and increasing the cost of cooling. For many businesses looking for ways to save money, upgrading to high-efficiency lighting

can reduce both lighting and cooling expenses effectively reducing monthly energy bills by 25 to 40 percent.

Simple concepts; integrated approaches to saving money

In a lighting upgrade, standard fluorescent lights are replaced with high-efficiency light bulbs (or “lamps”) and fixtures. Specially designed high-tech lamps are appropriate for many office buildings. They are slimmer than older fluorescents and produce light from a smaller light source, making them more efficient.

The new lamps can be directed precisely to areas where more light is needed, reducing the number of fixtures required. In addition, a well-designed, high-efficiency lighting program can further reduce the number of fixtures by making the most of reflective surfaces, such as walls, windowsills and mirrors. The chart below can provide an estimate of how much electricity can be saved with high-efficiency lighting, based on the size of a facility.

More benefits of high-efficiency lighting

Upgrading with energy-conserving, quality-enhancing bulbs and fixtures can provide immediate savings on monthly energy bills, with a total payback period of two to ten years. But many businesses report a range of other benefits from a lighting upgrade.

Efficient lamps are also longer-lasting, so they need to be replaced less frequently, requiring fewer maintenance hours. They’re lighter and easier to install. Energy-efficient lamps burn cooler, reducing air conditioning costs and making offices and facilities more comfortable. And a surprising side effect is that the new bulbs can improve the quality of lighting, creating a more welcoming environment for customers and employees, as well as improving employee productivity.

To learn more about designing a high-efficiency lighting program, call the Business Service Center at (502) 627-3313.

Client		Annual Savings Since Upgrade*			
Facility type	Size (ft. ²)	\$	\$/ft. ²	KW	KWH
Manufacturer	150,000	\$29,543	\$0.20	102	822,309
College	400,000	\$90,500	\$0.23	430	1,845,195
County School	96,000	\$31,956	\$0.33	198	668,533
Hospital	1,092,154	\$305,315	\$0.28	1,760	7,721,898
State University	883,000	\$100,238	\$0.11	547	2,354,363

*High efficiency lighting upgrades provided by LG&E Enertech, a non-regulated subsidiary of LG&E Energy Corp.

Glossary of Energy Terms

Watch for more terms in future issues of Energy Partners.

Alternative Fuels. A popular term for “non-conventional” transportation fuels derived from natural gas (propane, compressed natural gas, methanol, etc.) or biomass materials (ethanol, methanol).

British Thermal Unit (Btu). The amount of heat required to raise the temperature of one pound of water one degree Fahrenheit; equal to 252 calories.

Coincident Demand. The demand of a consumer of electricity at the time of a power supplier’s peak system demand.

Energy Density. The ratio of available energy per pound; usually used to compare storage batteries.

Joule. A metric unit of energy or work; the energy produced by a force of one Newton operating through a distance of one meter; 1 Joule per second equals 1 Watt or 0.737 foot-pounds; 1 Btu equals 1,055 Joules.

Kilowatt (kW). A standard unit of electrical power equal to one thousand watts, or to the energy consumption at a rate of 1000 Joules per second.

Kilowatt-hour. A unit or measure of electricity supply or consumption of 1,000 Watts over the period of one hour; equivalent to 3,412 Btu.

Load Factor. The ratio of average energy demand (load) to maximum demand (peak load) during a specific period.

Net (Lower) Heating Value (NHV). The potential energy available in a fuel as received, taking into account the energy loss in evaporating and superheating the water in the fuel. Equal to the higher heating value minus 1050W where W is the weight of the water formed from the hydrogen in the fuel, and 1050 is the latent heat of vaporization of water, in Btu, at 77 degrees Fahrenheit.

Peaking Capacity. Power generation equipment or system capacity to meet peak power demands.

Rate Schedule. A mechanism used by electric utilities to determine prices for electricity; typically defines rates according to amounts of power demanded/consumed during specific time periods.



Energy Partners is published quarterly by the Marketing Department of LG&E Energy. The purpose of this publication is to inform the commercial clients of LG&E and KU on current affairs of the energy industry, and to heighten awareness of efficiency-based trends and products available to commercial clients.

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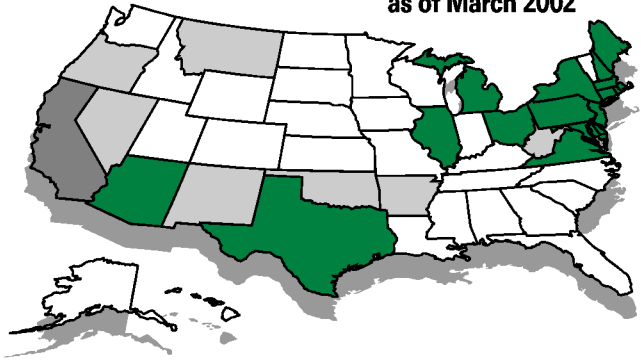
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Status of State Electric Industry Restructuring Activity
as of March 2002



- Restructuring Active
- Restructuring Suspended
- Restructuring Delayed
- Restructuring Not Active

Source: Energy Information Administration

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