Business Case Study:

Allergan, Inc.

Background

- Type of Business: Provider of eye care and specialty pharmaceutical products
- Location: Orange County, Calif.
- Size: 6,000 employees worldwide, 1,800 employees and 10 buildings totalling 687,000 square feet at Irvine, Calif., corporate headquarters
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Summary

In 2001 Allergan's Environmental Health & Safety (EHS) department developed a comprehensive energy-management plan that outlined the goals, timeline, responsibilities and targets for conservation and efficiency projects between 2001 and 2005. A cornerstone of the plan was the extensive auditing of energy systems in all facilities performed to help Allergan better understand its energy usage and develop effective energy efficiency improvements. In 2001, compared with 2000, the company headquarters in Irvine, Calif., reduced electrical consumption by 12 percent, and Allergan worldwide reduced energy by 4 percent. The company projected a 3 percent overall decrease in 2002 compared with 2001. Allergan has also partnered with numerous energy-related programs in order to further its conservation efforts.

Referenced in Business Guides:

- #2, "Reduce Energy Use in Industrial and Manufacturing Facilities Through Conservation and Efficiency Measures"
- #3, "Target Business Employees for Energy Conservation in the Workplace"

Plan

Allergan projected that 2005 electrical consumption, cost per kilowatt-hour and cost per unit manufactured would be higher than in 2000, assuming increases in the utility rate. To design a conservation plan, EHS staff first conducted extensive energy surveys of equipment and systems: lighting system, HVAC equipment, production equipment and office and computer equipment. Allergan completed the power factor and lighting surveys in each facility worldwide by end of 2001; the HVAC, production, transportation and computer equipment surveys by end of 2002; the feasibility studies for lighting upgrades by the end of 2001.

The general goals of the 2001-2005 Energy Management Plan were to reduce: Facility capital and operational costs; energy consumption; maintenance on equipment; production interruptions; computer interruptions; pollutant (carbon dioxide, NOx, etc.) emissions; and global warming and to increase energy efficiency and improve power quality and reliability.

The targets of the plan were energy conservation and efficiency improvements in Irvine facility; energy-efficient design of new building (Research & Development III) and educate employees on energy conservation via memos and newsletters.

Allergan completed the lighting upgrades by the end of 2002 and the HVAC, production, computer and transportation equipment feasibility studies by the end of 2002. Allergan planned to continue to implement feasible projects in 2003 and forward.

Programs: Conservation

✓ **Alternative and/or renewable energy sources**: Allergan installed an on-site emergency power generation system (diesel reciprocating generator sets, used for life safety and critical equipment backup in case of power failure) in preparation for power emergencies. The generators had the capacity of 5.4 MW. Facility loads were 1,500 kW and 2,000 kW.

Programs: Efficiency

✓ **Production equipment**: Allergan always included a maintenance program with any new or modified production equipment. Procedures are established for periodic preventive maintenance. Energy-efficient motors, controlling logic analysis for computerized equipment, variable speed drive capability and thermal recovery are considered where appropriate. Combustion equipment burner and

exchanger maintenance are both part of the preventive maintenance procedures.

✓ **Lighting**: Two-part lighting retrofit program in existing buildings. During the first in 1995 (as part of the Green Lights Program), incandescents were changed to CFLs and in the second in 2001, Allergan installed T5 and T8 fixtures and electronic ballasts.

✓ **Energy-efficient construction**: Expanded facilities by 156,782 square feet. New facilities were designed to incorporate state-of-the-art energy-efficient design and energy-efficient equipment. Energy-efficient windows and HVAC system were installed in the new RD III building.

✓ **Weatherization**: Installed 100,000 square feet of reflective roofing on its Irvine buildings. Reflective roofing prevents heat from being absorbed by the building, thus allowing for a more efficient cooling system.

Programs: Employee Outreach

✓ **Website**: Posted energy conservation goals and results on the internal website.

✓ **Bulletin boards**: Posted messages and tips on bulletin boards, such as "Turn the PC off when you leave" and "Turn off the lights when you leave."

✓ **Contest**: Conducted an internal Environmental Achievement Awards program in which employees and employee teams who had taken extraordinary environmental actions were rewarded or recognized at special events. In 2001 the Waco and Guarulhos teams were recognized for energy efficiency and water reduction. The teams were able to each donate $2,000 to a local environmental initiative in Allergan's name. The EHS's expense budget financed the rewards.

Programs: Public Outreach

✓ **Articles**: Published articles in *Insight*, an Allergan magazine, and the *Worldwide Operations Newsletter Network News* on conservation tips and accomplishments.

✓ **Energy fairs**: Since 1991 Allergan has hosted an annual Earth Day event. Allergan coordinated with Southern California Gas Co., paper product manufacturer Weyerhauser and SCE to give away compact fluorescent light bulbs (CFLs) and other environmental promotional products. During the event, Allergan employees received CFLs and other items for their conservation efforts.

Budget and Finance

Standard capital budgeting paid for the energy efficiency equipment in the new RD III building.

Allergan received a $27,000 rebate from SCE for second lighting retrofits and a $150,000 rebate from SCE for energy-efficient equipment for the new RD III building.

Joint Ventures/Partnerships

Allergan participated in several partnerships including:

- SCE's Optional Binding Mandatory Curtailment Program (OMBC): Was required to shed power load during a Stage 2 alert.
- EPA Climate Wise Program: Joined the program in 1997, under which the company had to document the results of its energy-efficient operations and programs to reduce the amount of energy consumed and decrease the amount of greenhouse gases emitted to the atmosphere.
- The U.S. Department of Energy (DOE) ENERGY STAR® Program: Placed in this program in 1999 due to its efforts in the Climate Wise Program and the DOE Voluntary Reporting of Greenhouse Gases Program. The DOE ENERGY STAR® Program required Allergan to measure, track and benchmark the energy performance of its facilities.
- Green Lights Program: Joined in 1993 and was required to document the quantity of fixtures upgraded and energy savings.
- DOE Voluntary Reporting of Greenhouse Gases Program: Allergan has participated since 1998 and has had detailed energy efficiency projects completed between 1998 and 2000 worldwide.

Results

The reduction in electrical consumption at the Irvine campus was approximately 12 percent (27,497,103 kWh consumed in 2001 vs. 31,170,775 kWh in 2000). The overall reduction for Allergan worldwide was approximately 4 percent in 2001 when compared with 2000. Allergan projects a 3 percent overall decrease in 2002 vs. 2001.

Allergan has received several awards for its accomplishments with energy efficiency, including: SCE Thermal Storage Energy Management Award (1985), SCE Energy Management Award (1986, 1997), SCE Thermal Storage Energy Management Award (1987), USEPA Climate Wise Certificate of Performance (1996, 1997, 1998), U.S. DOE Recognition for Participation in the Voluntary Reporting of Greenhouse Gases (1998, 1999, 2000), ENERGY STAR® Excellence Award Recognition (2000) and the Flex Your Power Energy Conservation Award (2002).