ENERGY MANAGEMENT & INVESTOR RETURNS: THE RETAIL FOOD SECTOR



Energy Management Leaders Achieve Superior Stock Market Returns in the Retail Food Sector October 2002



Innovest Strategic Value Advisors

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Retail Foods Energy Analysis

1.0 EXECUTIVE SUMMARY

Innovest Strategic Value Advisors, a financial research firm based in New York, London and Toronto, analyzed relative energy efficiency and energy management performance in the retail food chain sector. The study found that energy efficiency leaders achieved superior stock market and financial performance over the past three years.

Company-specific energy consumption data is usually not available in this sector (in general, only the most proactive companies disclose it in an effort to enhance stakeholder relations). To analyze performance in the absence of data, Innovest developed a comprehensive rating model comprised of 30 quantitative and qualitative metrics shown in Appendix A.

Figure 1 shows that the six companies with above average energy management performance, taken as a group, outperformed the below average companies over the past three years by over 1,700 basis points (17 percentage points). Figure 2 shows that the energy efficiency leaders also outperformed over the past three years on price-to-earnings (85.6%), price-to-book (57.3%), return-on-assets (47.3%), return-on-equity (50%), return-on-invested capital (41.6%), and Tobin's Q, a measure of intangible value (34.4%). This summary report does not include company-specific ratings and analysis. The full report, which includes this information, is available from Innovest at 1-646-237-0220 or fdixon@innovestgroup.com.

Energy management leaders outperformed laggards by over 1700 basis points from 1999 to 2002.



Figure 1. Stock Market Performance of Top Half vs. Bottom Half Companies





1.1 ENERGY STAR PARTNERS: STOCK MARKET PERFORMANCE

To further assess possible links between energy management and stock market performance, a less complex analysis was performed. In this study, retail food, drug and Dow Jones Broad Line retail sector companies involved in the U.S. Environmental Protection Agency's (EPA) ENERGY STAR program were compared to the Dow Jones retail food, drug and broad line sectors. ENERGY STAR is a government program that is widely considered to be successful in promoting improvements in national energy efficiency. Elements of the program include providing labels indicating superior energy efficiency performance for consumer products and commercial, institutional and residential buildings.

Figure 3 shows that, over the past two years, retail companies involved in ENERGY STAR outperformed the Broad Line Retail index by nearly 2000 basis points.



Figure 3. Retail ENERGY STAR Partners vs. Dow Jones Broad Line Retail Index

Accurately assessing corporate energy management performance is a complex task, probably outside the expertise of most financial analysts. Innovest's research in many sectors indicates that companies significantly involved in ENERGY STAR are usually leaders

in overall energy management. Therefore, assessing the level of involvement in the ENERGY STAR program provides an easy way for analysts to estimate relative energy management performance.

Since many factors influence financial performance, it is likely that energy management is not the only driver of financial results in these studies. Nevertheless, given the large differentials found, the proxy value for management quality, and the significant financial benefits accruing from improved energy performance, it is likely that enhanced energy management does increase investor returns.

Management quality is a primary determinate of stock market performance. Yet management quality is difficult to quantify since it is subjective. Innovest has found in nearly every sector that environmental leaders outperform in the stock market, mainly because environmental performance is a strong proxy for management quality. (Innovest's primary business is conducting comprehensive, financially-oriented assessments of corporate environmental and social performance. Financial institutions such as ABN-AMRO, Dreyfus, ING, Mellon Capital, Rockefeller & Co, Schroders, T. Rowe Price and many others, use Innovest research to develop investment products intended to outperform mainstream funds—see <u>www.innovestgroup.com</u> for more information.)

The environment is one of the most complex challenges facing management, in part because there are high levels of uncertainty as well as many stakeholders and complex issues to address. It is implied that companies dealing well with this high level of complexity have the sophistication to succeed in other parts of the business and, thereby, earn superior returns. Energy management is an important aspect of environmental performance which also poses a complex challenge to management. As a result, it is likely that energy management performance is also a strong indicator of management quality and stock market potential.

1.2 THE BUSINESS CASE FOR ENERGY EFFICIENCY

The correlations found in the above studies are partly explained not only by the proxy value for management quality, but also by the financial and competitive benefits resulting from improved energy efficiency. In the retail food chain sector, companies reported achieving the following benefits:

• **Reduced Costs.** In the low profit margin retail food sector (often in the 2-3% range), reducing energy costs can significantly increase profitability. The EPA estimates that, on average, reducing energy costs by \$1 has the same impact on

The EPA estimates that, on average, reducing energy costs by \$1 has the same impact on profitability as increasing sales by \$85.

Recent attempts by Albertson's to lower light levels in stores resulted in no loss of sales, as was previously thought would occur. Lower light levels at night were found to be more comfortable for customers since their eyes were already adjusted to nighttime light levels. Given the success of this program, the company is expanding it to other stores.

profitability as increasing sales by \$85^{1,2}. Significant potential exists in this sector to enhance profitability by further improving energy efficiency. The body of this report, along with the company profiles at the end of it, detail how companies are improving energy efficiency.

- **Increased Productivity and Sales.** Improving energy management usually enhances lighting, refrigeration and ventilating HVAC (heating. and air conditioning) performance. This leads to less food spoilage and reduced lost work time related to illness resulting from inefficient heating or cooling. Efficiency improvements may also enhance sales. Recent attempts by Albertson's to lower light levels in stores resulted in no loss of sales, as was previously thought would occur. Lower light levels at night were found to be more comfortable for customers since their eyes were already adjusted to nighttime light levels. Given the success of this program, the company is expanding it to other stores.
- Reduced Regulatory Exposure. Electricity generation produces about two thirds of sulfur dioxide emissions and one third of nitrogen oxides and carbon dioxide emissions in the U.S. Regulators in Europe are pressuring commercial users to reduce emissions. To do so, several large retail food companies have implemented aggressive energy efficiency improvement programs. Over time, it is likely U.S. companies will face similar pressures. Energy management leaders will be less vulnerable to these increasing regulations.
- Reduced Vulnerability to Energy Price Fluctuations. Deregulation, Middle East turmoil, concerns about terrorism, and other factors are increasing volatility in the energy markets. California retail food companies saw energy price increases of up to 100% in 2001. Given tight margins, this had significant negative impacts on profitability in many cases. To protect earnings, companies such as Albertson's, aggressively improved energy management. Ongoing improvements in energy efficiency will minimize exposure to volatile energy markets.
- Enhanced Corporate Image and **Reputation**. As ٠ environmental problems such as global warming continue to receive greater media attention, consumers and the public in general focus more on corporate environmental performance. In the face of this trend, companies consistently report that improving performance significantly enhances their reputation as a responsible corporate citizen. Image

enhancement is one of the most common benefits reported by ENERGY STAR participants. All of the companies analyzed in this report are expanding operations. Maintaining an image as a responsible corporate citizen, in part by improving energy efficiency, minimizes community opposition to opening new stores. Once stores are opened, a positive environmental image contributes to increased sales and enhanced community relations.

- Enhanced Image as a Well-Managed Company. As noted above, environmental performance consistently correlates well with financial performance. This occurs mainly because the environment represents a complex challenge to management and is therefore a good indicator of management quality, a primary determinate of financial performance. As indicated by this study, energy management, a key element of environmental performance, is also likely to be a strong indicator of superior management and stock market potential.
- Enhanced Appeal to Socially-Responsible Investors. SRI funds have grown rapidly in North America, Europe and Japan over the past five years. The Social Investment Forum estimates that over \$2 trillion of invested U.S. assets are invested through some type of environmental or social screen³. Many of the largest financial institutions in the world have introduced SRI funds based on research provided by Innovest and other organizations. When screening for environmental issues, SRI researchers usually consider energy efficiency to be a key element of environmental performance, partly because it has a significant impact on global warming. As the growing SRI market increasingly favors companies with superior energy performance, upward pressure will be placed on the returns of energy management leaders, increasing the likelihood that they will earn market premiums.

With intangible value comprising a growing percentage of market capitalization, investors are seeking greater clarity on the drivers of intangible value. Energy management, as an indicator of management quality, reputation and other factors, can be used as one indicator of superior intangible value and stock market potential. Innovest's analysis found wide variations in corporate energy management performance in the retail food chain sector. These differentials have strong implications for investors. Given the financial benefits resulting from improved energy performance found in this study, it is likely that incorporating energy management analysis into traditional financial analysis will help investors uncover hidden value and increase investment returns. The companies rated in the top half were picked due to their energy management programs and their overall engagement with key energy management issues. Transparency also played a role as those firms with leading edge practices tend to communicate them to stakeholders. Conversely, lack of information regarding energy management is an indication that the company is not likely to be engaged.

The analysis of twelve firms in the retail food sector produced results which strongly imply energy management has profit enhancing properties and generates value for shareholders. With a small sample size, it is likely that factors other than energy management are influencing financial results. Nevertheless, given the differentials found in many measures of economic performance, it is reasonable to assume that energy management is adding some value for investors.

To recap, when comparing the top six companies rated by Innovest for energy management to the bottom rated companies, the following results were found:

- Outperformed the below average companies over the past three years by over 1,700 basis points (seventeen percentage points).
- Over three years, the energy management leaders also outperformed on price-to-earnings (85.6%).
- ◆ Price-to-book (57.3%)
- Return-on-assets (47.3%)
- Return-on-equity (50%)
- Return-on-invested capital (41.6%)
- Tobin's Q, a measure of intangible value, (34.4%)
- Over the past two years, retail companies involved in ENERGY STAR outperformed the Broad Line Retail index by nearly 2000 basis points.

These results strongly indicate programs to improve energy management create value for shareholders and should be seriously considered by the management teams of all supermarket operations. To analyze relative energy management in this sector, Innovest developed a multi-factored model (shown below). Data was gathered from many sources government websites, industry reports and company documents. This was supplemented by interviews with senior corporate executives.

Quantitative data was not available for some of the metrics. Nevertheless, Innovest has found in other research that using a multifactor model allows the creation of accurate ratings in the absence of some data. The comprehensive energy management ratings generated by this model are intended to estimate management quality overall and stock market performance potential. As a result, the management related metrics in the model receive the highest weighting.

Given the differences found in the financial performance of the energy leaders and laggards in this study, it is likely that this model is accurately estimating relative energy efficiency performance, from a management perspective, and overall management quality.

Category			
1.) Energy Management & Strategy	A. Company Energy Policy		
	B. Sector Wide Initiative		
	C. Integration with Core Business Strategy		
	D. Globally Consistent Energy Approach		
	E. Energy Management System		
	F. On-site Energy Manager		
	G. Training: Promotion of Energy Efficiency Among Employees and Customers		
	H. ENERGY STAR Purchasing Policy		
	I. ENERGY STAR Partner		
	Total		
2.) Energy Risk & Performance	A. Energy Consumption per \$ of Revenue		
	B. Energy Consumption per Refrigeration Capacity (kWh/[BTU/ft2] -or- kWh/ton -or- BTU/BTU/h)		
	C. Energy Consumption per Sq. Ft. Per Year(kWh/ft2 -or- BTU/ft2)		
	E. Energy Use per Unit Sales		
	F. Performance Trends		
	G. Energy Savings		
	H. Product Mix Risk (bldg type)		
	I. Fuel Mix Risk		
	J. Technology Risk (Refrigeration, Lighting and HVAC)		
	K. Energy Related Emissions		
	Total		
3.) Energy Efficiency Initiatives	A. Technology Replacement		
	B. Computerized Energy Management Technologies		
	C. Refrigeration Technology		
	D. HVAC Technology		
	E. Lighting Technology F. Dehumidification Control		
	G. Alternative/Renewable Energy Use		
	H. Building Envelope Characteristics		
	Total		
4.) Strategic Energy Opportunities	A. Products and Services		
	B. Market Positioning		
	C. Development Capacity		
	Total		

Table 1. Innovest Energy Management Assessment Model

APPENDIX B: TOP RATED FIRM

J. SAINSBURY PLC					
RATING:	AAA	RANKING:			

Energy issues are having a growing impact on corporate financial performance due to factors including climate change and increasing regulations. Innovest's Energy Management ratings identify risks, management quality and profit opportunity differentials typically not identified by traditional equity analysts. As a result, Energy Management ratings indicate a company's ability to effectively address complex management challenges, reduce operating costs and improve bottome-line performance to succeed in the longer-term.

Key Issues

J.Sainsbury's is a known environmental leader both in the UK and in the U.S. with a long time commitment to energy efficiency. The company's Shaw's subsidiary in the U.S. won the EPA's ENERGY STAR Partner of the Year Award in 2001. The company is in the process of aligning its US and UK energy programs to address energy usage and climate change company wide. In the mean time the US is rated as more efficient than the UK in terms of operations performance.

Financial Performance (change in stock price):



Relative Energy Performance:





SBRY.L Energy Management

Sector: Food Retail

Oct-02 Overview

J. Sainsbury plc is a U.K. retail firm whose principal activity is the retail distribution of food (92% revenues), home improvement and garden products (7%) with other activities (1%). Total revenues for 2001 were \$17,162 million. The company has six principal subsidiaries all of which operate in the United Kingdom apart from J. Sainsbury (USA) Inc and Shaw's Supermarkets Inc which operate in the U.S. The company as a whole serves roughly 12 million customers per week. Shaw's Supermarkets, a wholly owned subsidiary, operates 166 stores, and employs more than 30,000 people. Having started its energy program in 1991, Shaw's carefully tracks its energy use, as well as the effectiveness of its programs, to make reductions. It monitors information on a daily basis that leads to saved time, energy, and maintenance costs. Shaw's states that it has saved nearly three million dollars and prevented the release of about 100 million pounds of carbon dioxide annually.

Energy Strategy & Management

The company currently has two separate energy management systems, one in the UK and one in the U.S. While the company is in the process of merging the two programs, each appears to be successful in lowering operating costs through its respective projects. The overall strategy for the company is driven by the home office in London which has demonstrated consistent leadership in this area and has developed extensive reporting to stakeholders that includes the U.S. operations. Shaw's has developed SMART E, an energy monitoring system which has been deployed at over 133 U.S. locations. This system, combined with training, and other capital investments will help its management reduce operating costs and regularly monitor performance to ensure that the program stays on track and returns results. Regular maintenance, training, and reduction goals are features of Sainsbury's programs for energy efficiency.

Energy Performance & Initiatives

The company has a comprehensive plan to update refrigeration, lighting and HVAC technologies in tandem with the installation of computerized energy management systems. The program's innovations earned Shaw's an ENERGY STAR Partner Award from the EPA in 2001. J. Sainsbury's has installed low energy lighting systems at over 120 locations for its Shaw's U.S. subsidiary and the company estimates that it has reduced emissions of CO2, SO2, and NOx by 49,171 tons, 394 tons, and 138 tons respectively. Shaw's has committed to use 5% renewable energy at its stores by 2005 and 10% by 2010. This plan works in tandem with a CO2 reduction goal of 5% through 2005 from a 1996 baseline. These initiatives will reduce risk exposure to increased costs related to climate change levies, regulations, and associated energy price changes.

Energy Risk Factors

The company's overall risk profile is low relative to competitors, both in the short and long run. Energy efficiency initiatives and capital spending will ensure good performance by lowering operating costs. The company's initiatives in the area of renewable energy will help the company avoid potential rising costs associated with climate change and carbon dioxide emissions relative to competitors. By reducing energy consumption costs by 10% over the last 10 years on a square foot basis, Shaw's is lowering exposure to price volatility, especially in deregulated markets such as Massachusetts, one of the company's main markets.

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This information is provided for client screening purposes only. Beyond assessing potential market risks, involvement in these business areas does not impact Energy rankings.

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APPENDIX C: REFERENCES & FOOTNOTES

¹ U.S. E.P.A. "The Financial Power of ENERGY STAR for the Supermarket Industry". Contact: Stewart Brodsky (202)564-2408.

³ Social Investment Forum, "1999 Report on Socially Responsible Investing Trends in the United States," *Social Investment Forum News*, 1999.

 $^{^{\}rm 2}$ Partial Funding for this study was provided by the U.S. Environmental Protection Agency.