



Light Green Advisors

LGA Sector Analysis: Oil & Gas Industry

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Light Green Advisors Environmental Investing: Fully-Inclusive, Best-of-Class Quantitative Modeling

Unique among environmentally-responsible investors, Light Green Advisors (LGA) employs a fully-inclusive ‘best-of-class’ quantitative model. That is, LGA selects top -- or, ‘best-of-class’ -- environmental performers from every S&P 500 industry sector. Fully-inclusive sector analysis ensures a true **sustainable development** approach to environmental investing, given that all industries contribute to development. And comprehensive quantitative analysis enables LGA to definitively identify companies making superior **sustainable development** progress.

Quantifying Environmental Performance: the LGA E-SCORE™

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$$(WASTE\ SCORE^1) (EMISSIONS\ SCORE^2) (PENALTIES\ SCORE^3) (SPILLS\ SCORE^4) = E-SCORE^{TM}$$

1. sample data sources: U.S. EPA RCRA; Emergency Planning & Community Right to Know Act
2. sample data sources: U.S. EPA EPCRA; Toxic Release Inventory
3. sample data sources: U.S. EPA CAA, CWA, Safe Drinking Water Act, Toxic Substances Control Act
4. sample data sources: U.S. EPA Oil Spill Prevention Act; U.S. Coast Guard

* Both current environmental performance data and historical performance trend evaluations are included in final overall Light Green Advisors E-SCORE™ .

Integrated Oil Sector 2005 E-SCORE™ Leaders

(lower E-SCORE™ indicates higher performance)

Company	E-score™
MURPHY OIL	-0.2627
MARATHON OIL	-0.1051
EXXON-MOBIL	.681927
CHEVRON	.933703
CONOCCO-PHILIPS	1.00110
HESS OIL	1.01279

Integrated Oil E-SCORE™ Improvement

(greatest 2000-2005 E-SCORE™ improvement)*

Company	rank
CONOCCO-PHILIPS	1
EXXON-MOBIL	2
HESS OIL	3
OCCIDENTAL PETROLEUM	4
BRITISH PETROLEUM	5
CHEVRON	6

* British Petroleum’s and Chevron’s e-scores™ improved slightly over the measurement period; however, their improvement ranks dropped two places and three places, respectively, from the previous measurement period.

Oil & Gas Sector Case Study: BP vs. ExxonMobil

The following (in italics) is excerpted from LGA's 2005 Earth Day Newsletter:

British Petroleum has been, until recently, LGA's largest oil sector holding... Unfortunately, during the past few years, BP's environmental performance on the ground has worsened. In California, BP agreed to a \$81 million to settlement over pollution from one of its refineries. On Alaska's North Slope, where BP is the largest operator, the state Department of Environmental Conservation concluded that BP failed to report oil spills and discharges. On March 23, 2005, an explosion at a BP refinery in Texas killed fifteen and injured hundreds, the worst such accident in recent years in the U.S.

ExxonMobil, in contrast, has had perhaps the worst environmental reputation in the industry... Nonetheless, ExxonMobil has quietly increased its efficiency, reduced the waste it generates, and improved environmental performance – and at a faster rate than BP, Shell, or ChevronTexaco. LGA credits this environmental progress to operational control and integrity. Strong management with eye for the bottom line has resulted in substantial efficiency gains, and with those, substantial environmental improvement.

ANALYSIS: As BP's environmental liabilities have become increasingly manifest, its **E-SCORE™** worsened; **ExxonMobil**, meanwhile, has demonstrated clear environmental improvement and its **E-SCORE™** has improved, reflecting real progress in environmental management. Both companies have experienced strong profitability, as the Oil & Gas sector has as a whole; nonetheless, the Financial Times and other analytical publications have suggested that BP's recent poor environmental performance has emerged as a drag on its financial performance. Both companies have unresolved environmental liabilities that effect overall environmental performance; however, **ExxonMobil's** liabilities have largely occurred in the past, while **BP's** liabilities are more current.

Note: LGA incorporates assessed fines and penalties, whether criminal or civil, at their assessed dollar amounts at the time they are incurred, and retains them as part of the penalized company's **E-SCORE™** for a period of seven years. In the particular case of **ExxonMobil's** Valdez spill, LGA employed the original assessed penalty amounts in its seven-year comparative analysis. Final settlement dollar amounts, which are often significantly lower than assessed amounts, are never substituted for assessed amounts.

Oil & Gas Sector Current Trends: Climate Change

Light Green Advisors continuously monitors factors that may impact the financial performance of Oil & Gas sector firms, including emerging regulatory approaches to climate change. Emerging legal and regulatory risks may be quantitatively assessed in a variety of ways, and LGA has for the past several years been developing methods to fully integrate corporate responses to climate change into the firm's economic models.

While the Oil & Gas industry has undertaken a variety of responses to the climate change challenge, recent LGA analysis has indicated that actual Oil & Gas sector investment in renewable electricity technologies (e.g., solar and wind) and alternative liquid fuels (e.g. biofuels) has been minor -- and in fact, not financially significant in relation to investment in the development of traditional fuel sources. Furthermore, LGA analysis indicates that pending and proposed greenhouse gas regulations will affect Oil & Gas sector companies in varying ways. LGA emphasizes tangible progress toward managing primary corporate challenges in all of its assessments, and will apply that principle to climate change. Moreover, LGA has used its leverage as a participant in the Carbon Disclosure Project, and its power as a shareholder in energy sector companies, to support corporate disclosure of greenhouse gas emissions, and the development of effective, industry-appropriate responses to the threat of global warming.

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