



Light Green Advisors

Earth Day 2006

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About Light Green Advisors

Light Green Advisors (LGA) is a Seattle-based registered investment advisor that manages blue-chip portfolios of selected industry environmental performance leaders, as well as returns-driven investment vehicles designed to arbitrage value aspects of emerging environmental opportunities. LGA employs a proprietary evaluation model that quantifies environmental performance in financial terms, and balances portfolios across industry sectors. LGA has been managing inclusive 'best-of-class' portfolios longer than any other North American asset manager, and is one of the few global managers with a positive live 'alpha' record. LGA clients include institutions, endowments, foundations, and high net-worth individuals.

Earth Day 2006 arrives amid an ever-increasing flurry of regulatory and voluntary initiatives designed to reduce global greenhouse gas (GHG) emissions. In Europe, the first comprehensive effort to reduce GHG emissions—the European Union Emissions Trading System (EU ETS)—has successfully completed its first year of operations, while in the U.S. Northeast,

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LGA News Update

LGA Forms Strategic Partnership

In March, Light Green Advisors (LGA) entered into a significant alliance agreement with DEI Group (DEIG), a New York firm with interests in both Greenhouse Gas (GHG) emissions reduction origination and credit trading registries. DEIG has taken a limited equity stake in LGA, with the possibility of increasing share ownership through a joint DEIG/LGA asset management project currently under development. In addition, DEIG and LGA have committed to exploring future joint opportunities, especially in regards to the development of capital markets products based on GHG emissions reduction credits.

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LGA Investing Update

Clean Tech Small Caps

The Greenhouse Gas (GHG) emissions reduction challenge has led to new approaches in the valuation of environmental-sector 'small cap' (market value under \$1B) companies, especially the valuation of companies whose products or services reduce costs associated with fossil fuel usage, or contribute to GHG offset origination. Over the past year, Light Green Advisors (LGA) has identified a series of economic and regulatory 'drivers' that can be used as a basis for quantitatively analyzing GHG 'small caps' (for further information on the LGA 'small caps' valuation approach, please contact: info@lightgreen.com.)

In particular, 'small cap' value can be modeled by assessing the demand for carbon-cleaning technology in Europe at current and future European Climate Exchange (ECX) carbon-ton prices, and projecting market share for leading clean technology providers. While this approach is similar to techniques used to assess the prospective market for traditional clean tech providers, the potentially fast-moving European market represents unprecedented opportunities for innovative 'small caps' and adds layers of complexity to conventional valuation models. LGA believes that the pricing of CO2

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Closed Markets

vs.

Open Markets

The greenhouse gas (GHG) emissions reduction challenge provides unique opportunities for achieving environmental goals through market mechanisms. In fact, it may provide an unprecedented opportunity to both maximize environmental goals and economic gain—however, much depends on the emissions reduction approach implemented. . . GHG emissions present a unique opportunity in part because, unlike most environmental challenges, a reduction in one part of the world is substantially equivalent to a reduction in any other part. As a result, regulatory bodies are positioned to go beyond traditional regulatory market mechanisms, such as closed-market, allowance-based ‘cap and trade’ systems, and adopt systems based solely on compliance through credit-trading. That is, regulatory bodies are positioned to implement borderless systems open to a large number of participants and free of government involvement in the market-distorting holding/distributing of pollution allowances. Of course, even the most ‘open’ system would require imposing emissions limits on point sources within the regulatory jurisdiction, but pure credit-based systems allow flexible adjustments of emissions limits without favor/bias to old/new point sources, while ensuring an entirely market-driven price for credits. And truly borderless pure credit-based systems allow regulators the sway to be increasingly aggressive in lowering emissions limits as market participants become increasingly sophisticated and efficient in originating, financing, certifying, insuring, aggregating and trading credits. In short, borderless credit-based GHG trading systems have the potential to achieve greater-than-expected environmental results in the long-run while simultaneously conferring far-reaching economic benefits.

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the first multi-state effort to reduce GHG emissions—the Regional Greenhouse Gas Initiative (RGGI)—began operations in January. Both systems have generated a remarkable amount of ‘green’ business activity, with much more expected to follow. From an environmental standpoint, broad reductions in GHG emissions seem at-last attainable; and from a business perspective, the upper atmosphere may be the limit...

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DEIG’s wealth of environmental engineering and financial services expertise will favorably augment LGA’s core strengths in assessing the value implications of company-specific environmental practices and developing ‘returns-driven’ asset products based on those assessments.

LGA Eco Metric Capital Fund

LGA is in the process of extending its proprietary environmental economics model to the development a multi-asset hedge fund strategy designed to arbitrage certain aspects of the greenhouse gas (GHG) emissions reduction challenge. The LGA Eco Metric Capital Hedge Fund™ will have the flexibility to invest in companies that are directly affected by Kyoto Protocol implementation, as well as extra-Kyoto companies that nonetheless generate marketable GHG emissions credits. In addition, the fund will have the flexibility to trade in carbon offsets, a futures product currently traded on several European Union-approved commodity exchanges. For further information on the LGA Eco Metric Capital Hedge Fund™, including subscription eligibility criteria, please contact invest@lightgreen.com.

CalSTRS Votes to Move Forward

In December, the California State Teachers System (CalSTRS) board voted unanimously to request proposals from environmentally-responsible investors for managing \$500 million in CalSTRS pension funds. This formal Request for Proposals (RFP) is the latest step in the state of California’s commitment (the Green Wave Initiative) to place \$1.5 billion of state pension funds in environmental investments. LGA President Jon Naimon, as a follow-up to a 2004 presentation to CalSTRS Corporate Governance Committee trustees, met with CalSTRS investment staff to outline methods for environmental investing that do not involve inherently risky negative-screening. CalSTRS has subsequently issued a review of current and future trends in sustainable investing, including references to LGA strategies (available at: <http://www.calstrs.com>.)

UNEP-FI FR Report

In October, the United Nations Environment Program Finance Initiative (UNEP-FI) issued a report on fiduciary responsibility as it relates to corporate environmental, social and governance issues, in particular as it relates to efforts by asset managers like LGA to integrate environmental issues into investing. LGA President Jon Naimon, an invited UNEP-FI contributor, presented hedge fund and alternative investing strategies at the conference convened for the report’s release. LGA’s approach to alternative investing has garnered significant interest due to its incorporation of sustainability analysis consistent with that used by global banks involved in UNEP-FI projects. The report is available at <http://www.unepfi.org>.

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emissions (as reflected in the per-ton price of carbon) fundamentally alters the approach to analyzing and investing in ‘small caps’ that supply clean technology to European energy producing and energy consuming companies.

Clean Energy Small Caps

In the U.S. there is not yet an effective carbon market, but there is a thriving renewable energy market. As a result, clean and renewable energy ‘small caps’ have seen remarkable recent growth; in fact, many U.S. solar-related ‘small caps’ have seen their stock price more than double over the past year. Among the ‘drivers’ LGA has identified in its analysis of clean energy ‘small caps’ is the price of U.S. Renewable Energy Credits (REC’s)—which has varied by state but in general has shown positive value growth over the past year—and similar state-sanctioned renewable energy credits.

In other words, the value of *clean energy* ‘small caps’ can be modeled by assessing the current and future demand for U.S. REC’s, and projecting the capacity for clean energy providers to meet that demand under various price scenarios. Similarly, the current and future demand of ‘green tag’ renewable energy credits can be used as a ‘driver’ or input in a quantitative ‘small cap’ investment model. LGA believes that the growth of clean energy markets in the U.S. will have an increasing impact on clean energy ‘small cap’ valuation and investing.

Credit Developers/Originators

As GHG emissions trading systems have come online in regions of the U.S. and in Europe, small caps that

specialize in developing/originating emissions reductions offset projects according to system-specific protocols have seen strong growth. Moreover, the variance of regulatory protocols provides an additional ‘driver’ that can be used to differentiate GHG ‘small cap’ value.

Specifically, *GHG offset credit developers/originators* that have the capacity to deliver marketable offset credits under a broad range of protocols offer advantages over those that are jurisdiction-specific. Quantitative modeling can be used to assess the current and future demand for offset credits in high-priced credit markets, and the capacity for credit providers to meet that demand can be projected. LGA believes that the growing demand for GHG offset credits will continue to influence the value of ‘small cap’ credit developers/originators.

Credit Brokers/Financiers

In the EU, the advent of the ECX as the clearinghouse for carbon credit trading has led to a dramatic expansion in initial public offerings (IPO’s) of carbon brokerage and other GHG-related financial services companies. In the United Kingdom, for example, well over \$1B has been raised in IPO’s for carbon credit origination and/or credit trading companies. The market’s embrace of these IPO’s is at a minimum an indication that investors’ appetite for credit offset brokers and financiers is significant.

Credit brokers act as intermediaries in the buying and selling of GHG offset credits (currently valued in tons of CO₂ equivalents)—that is, they work with sellers that have reduced

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Giving Credit Where Credit Is Due

The vast majority of active and proposed greenhouse gas (GHG) emissions trading systems allow the offsetting of mandated emissions with credits obtained from non-mandated reductions from both with-in and with-out the system’s jurisdiction. Despite extensive consultation between regulators, however, the use of offset crediting varies widely from one system to another, and that creates a number of interesting dilemmas for government and business alike... Jurisdictions bound by the Kyoto Protocol are also bound by the treaty’s minimum accreditation standards; with of course the option to implement more restrictive standards—that is, policy or political motives have and will continue to influence intra- and extra-jurisdiction credit standards. Non-Kyoto jurisdictions, of course, are positioned to choose accreditation requirements that are either in-sync with Kyoto (perhaps, in an effort to link-up with Kyoto-driven systems), or adopt approaches that meet other (perhaps, environmental or economic) objectives. In other words, non-Kyoto jurisdictions can choose less restrictive standards for the origination of offset credits, and allow greater use of those credits, than currently sanctioned in Kyoto-driven systems. This could lead to more developing country (LDC) emissions reduction projects, not to mention more developed country projects, than otherwise attainable. Less restrictive offset standards and greater allowance of outside credits could also lead to a much greater number of economic participants. Emerging non-Kyoto jurisdictions, thus, can potentially encourage greater environmental gains and larger economic participation through more expansive offset accreditation and outside credit acceptance than currently in use in existing Kyoto-bound systems.

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their emissions to find buyers (often energy or utility companies) that must purchase offsets to meet regulatory emissions reduction requirements. Carbon traders generate revenue by sourcing and gaining title to GHG reductions, and then selling them in credit form to buyers that again must meet regulatory requirements, or to speculators that invest in credits. Specialty investment banks/financial services firms raise capital to gain title to GHG reductions, or increase market

liquidity through a range of similar transactions and investments.

These new market participants have the potential to bring further markets-driven, rather than regulator-driven, developments to the GHG emissions reduction challenge. In particular, *GHG financial services firms* are likely to accelerate the creation of secondary and corollary market financial and brokerage products. LGA believes that the market will continue to reward the most innovative and sophisticated

‘small cap’ credit brokers, traders and financiers.

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Environmentally Responsible Investing (ERI)

ERI is often considered a subset of Socially Responsible Investing (SRI)—perhaps because traditional SRI exclusionary or underweighting negative-screen approaches are widely used by ERI asset managers. ERI actually offers much more. Light Green Advisors (LGA)’s ‘best-of-class’ approach, for example, provides a returns-driven philosophy based on detailed environmental analysis. That is, the quantifiable relationship between superior environmental performance and positive financial performance across virtually all industry sectors suggests that ERI models can be genuinely returns-driven. LGA has proven this to be true. And like SRI, ERI can also be used to assert deeply held values.

LGA Investment Management Team

- » Jonathan S. Naimon, President & CEO
- » John L. Cusack, Senior Director, Private Equity
- » Christopher J. Murphy, Managing Director, Public Affairs
- » Thomas Lord, Managing Director, Commodities
- » Eric J. Bell, Manager, Enterprise Technology
- » Newton Lichtblau, Manager, Quantitative Analysis

LGA External Advisory Board

- » Glenn Anderson, Senior VP, EFG Investment Bank
- » Albert De Haan, Commercial Director, European Climate Exchange
- » Dan Grimm, Director, Doughty Hanson PLC
- » Tony Jones, General Partner, Veritas Alpha
- » Jack MacDonald, CFO, Eco Securities
- » C. David Parker, Managing Director, GE Asset Management

*Returns-driven, best-of-class,
environmentally responsible investing*



Light Green Advisors

Light Green Advisors LLC
1700 Seventh Avenue, Suite 2100
Seattle, WA 98101
(206) 547-8645 tel
(206) 634-0287 fax
www.lightgreen.com