

**CLEANTECH INVESTING:
A growth market with opportunities for profit**

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*Clean Technology (“CleanTech”):
Any technology or service that reduces humans’ impact on the environment*

Purpose

This report introduces advisors to the CleanTech investment opportunity, provides details on the market and the many forces pushing CleanTech to the forefront of investors’ minds, and describes why CleanTech will generate green – monetary green. While the social and environmental advantages of investing in clean technologies are clearly important and wonderful secondary benefits, this report is for investment professionals whose primary role is the creation and maintenance of client wealth.

Preface

Investments in clean technologies are poised to become one of the most important opportunities in our lifetime. Numerous market forces are driving CleanTech investments, and some of these factors carry subtle and complex issues worthy of discussion.

For instance, the creation of domestic and international incentives, laws, and mandates pertaining to the environment and clean technologies will provide substantial tailwinds for emerging CleanTech companies. These incentives, though, may cause accelerated displacement and/or disruption among competing companies, or they may allow businesses with sub-optimal attributes to survive and compete with uncompetitive practices longer than businesses that lack such artificial market advantages. Furthermore, the speed and tenor of industry development and consolidation will be affected - directly and indirectly - by the availability of incentives and environmental legislation. As a result, the multiples at which CleanTech companies are acquired may face higher highs than companies in industries that do not benefit from such incentives and legislation.

In addition to these important issues, successful investment in CleanTech requires a deep understanding of the technologies involved, the macroeconomic and socio-political issues, and the threat of disruptive technologies displacing incumbent solutions. Investment advisors should carefully consider who makes their CleanTech investments for them. While there are numerous private equity and venture capital (“VC”) CleanTech funds to choose from, the risk profiles and illiquidity of such investments often make them poor choices for anything more than a very small position in most client portfolios. But designing a portfolio lacking exposure to the CleanTech sector is also unadvisable. Unfortunately, there are very few pure-play, actively managed CleanTech mutual funds today, though this will likely change as the sector grows in importance and as a contributor to the world economy.

Introduction

Investment in CleanTech is sometimes mistakenly compared to past booms in dot-coms, biotech, and IT companies - each of which proved to be substantial in size as well as contributors to improved living standards. Some writers invoke grandiose comparisons of the potential effects of CleanTech investments to President Roosevelt's New Deal or the importance of integrated circuitry to modern life in an effort to summon a "wow!" factor in readers' minds. However, these inflated comparisons do not do justice to the complexities of the CleanTech sector.

CleanTech actually has the most in common with traditional industrial companies; most CleanTech companies operate on the technological edges of existing industrial sub-sectors. For instance, filtration & separation technologies are a \$50 billion-dollar a year industry that includes pieces of the existing water, air, non-aqueous fluids, medical, and advanced materials industries. Renewable power and batteries operate at the frontier of distributed energy infrastructure. Biofuels encompass parts of the agricultural, transportation, and fossil fuel-delivery industries.

Similarities to biotech, dot-coms, and IT companies quickly crumble once a basic understanding of CleanTech is absorbed. CleanTech involves a deep understanding of *fundamental science and engineering*. If you mix the capital required to develop a biotech drug or a large industrial manufacturing facility, the ingenuity and aptitude for new business models of a dot-com, and the complexity of developing a new "hard-science" technology, you might have something that resembles a Clean Technology industry.

The emergence of CleanTech as an important investment theme is perhaps better put this way: *it took over a century to construct the existing infrastructures for transportation, water, energy, and natural resources, and these will not be replaced overnight*. These essential areas of our economy will require several decades - and trillions of dollars of new capital investment - to fully upgrade and improve. *CleanTech is not a flash-in-the-pan investment theme*; it is a global phenomenon that will affect the way consumers and businesses think about many of the basic essentials of life: energy, water, food, material goods, and basic travel.

Quantifying CleanTech Investments

Since 1999, the VC community has invested more than \$28 billion into early-stage CleanTech companies and technologies.¹ In 2008 alone, more than \$8.4 billion of new VC capital flowed into CleanTech opportunities. By comparison, over \$650 billion was invested in global VC (all sectors) over the same 1999-to-date period.

CleanTech is capturing an increasing share of overall VC investments. In 1999, CleanTech VC investments represented less than 1% of total global VC outlays, but by 2008, it had risen to more than 10% of global VC investments.² The vast majority of this VC capital has flowed into the sector in recent years: between 2006 and the second quarter of 2009, \$20 billion of capital, or 75% of the total since 1999, flowed into VC CleanTech opportunities.

Of all the CleanTech subsectors, energy-related start-ups and technologies garnered most of the new capital (>70%, or \$20 billion).³ This seems logical, as energy is one of the largest global

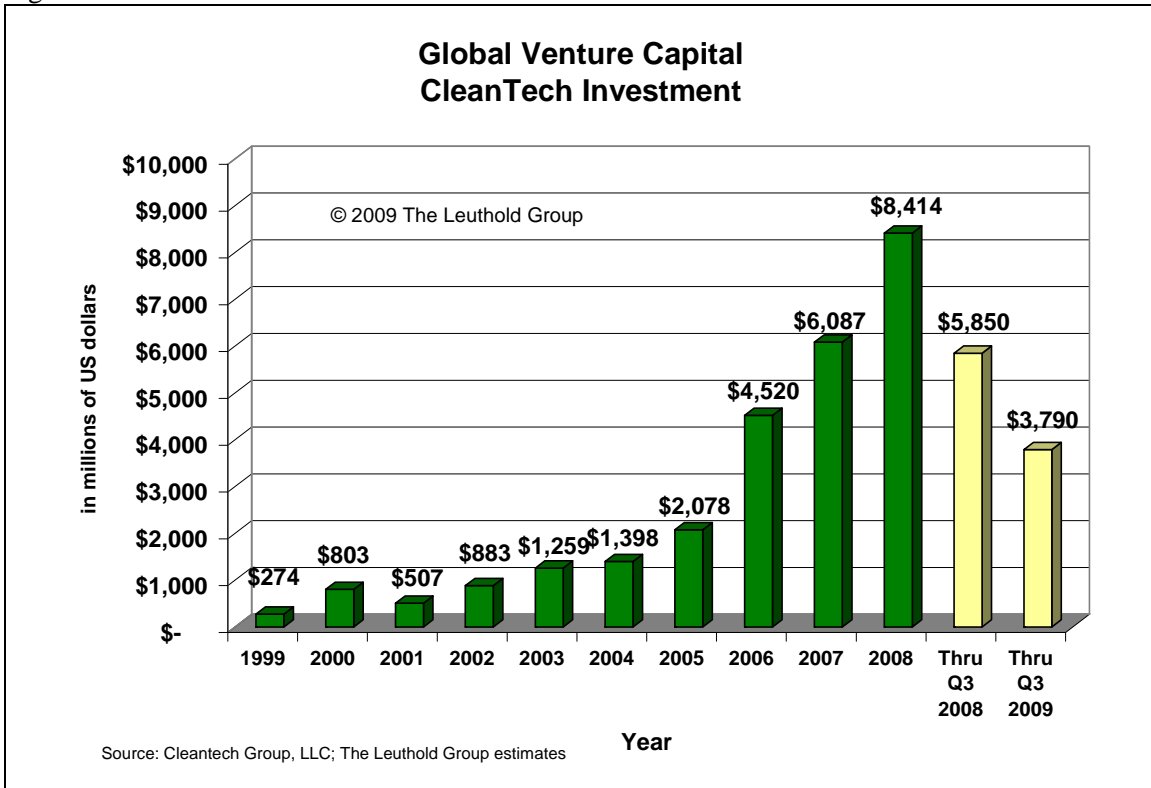
¹ Source: Cleantech Group, LLC (see www.cleantech.com).

² Source: Piper Jaffray, Inc.

³ Source: Cleantech Group, LLC.

industries, representing over \$7 trillion of annual revenue.⁴ Due to its enormous size, the energy sector can absorb vast quantities of new capital. The energy markets are also quite inefficient, as they are often dominated by national and regional monopolies, international cartels, and varied political interests that conflict with environmental issues. By nature of such inefficiencies, the opportunity to implement new technologies can be significant.

Figure 1



Furthermore, the cost of finished energy products (such as gasoline and heating oil) is certain to rise over time. Two primary factors will cause energy prices to rise: Hubbert's Curve and global climate change due to green-house gases ("GHGs").

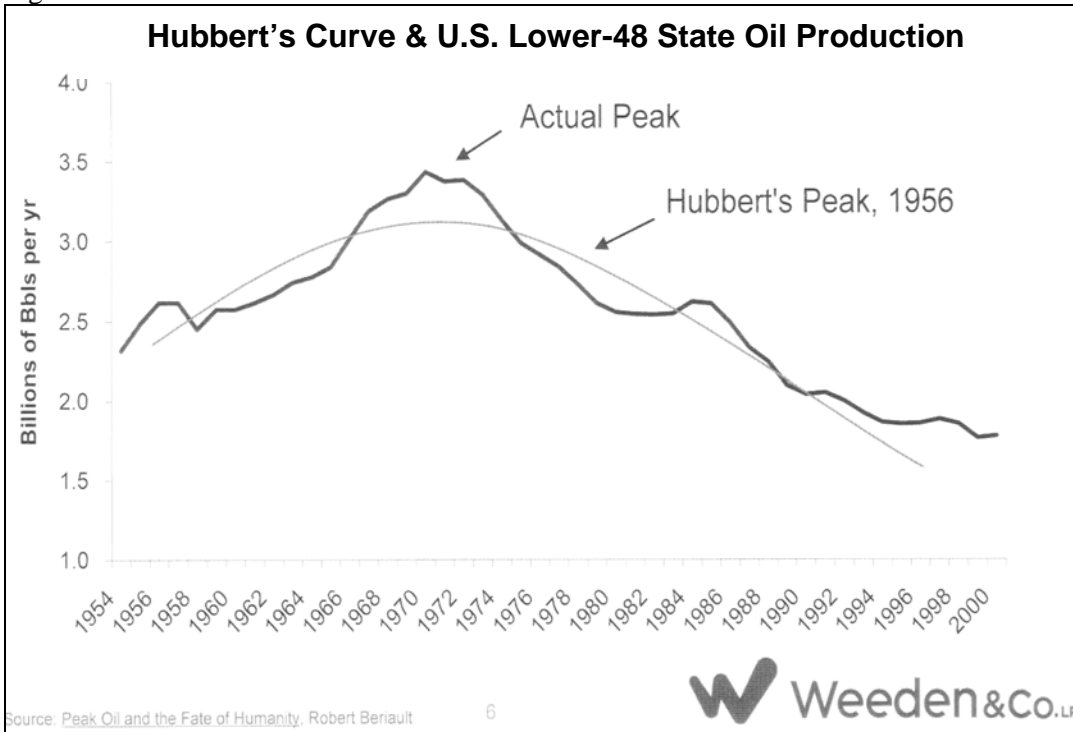
The Theory of Hubbert's Curve

Dr. M. King Hubbert was a geophysicist who famously predicted in 1956 that petroleum production in the lower-48 states would peak in the early 1970's. His mathematical models proved correct, and domestic production peaked somewhere in the fourth quarter of 1970 or the first quarter of 1971.

Similar mathematical models have been used to estimate peak production for numerous countries and regions of the world. According to data provided by Weeden & Co., LP, petroleum production has been declining for the following countries: Russia, the U.S. (including Alaska), Mexico, Norway, the U.K., Oman, Argentina, Egypt, Colombia, Australia, Syria, and Gabon.

⁴ Sources: The Energy Information Administration (www.eia.doe.gov); The Leuthold Group estimates.

Figure 2



Source: Weeden & Co, LP

In fact, Weeden’s veteran oil analyst, Charley Maxwell, expects world petroleum production to peak in 2015 once all proven reserves are tapped. “Probable reserves” and reserves still to be discovered tend to be in difficult (read: expensive) locations, some of which are under several miles of water, or in unstable regions of the world, like Nigeria.

Figure 3

| World Oil Production, Year of Peak Production | <u>Year</u> |
|--|-------------|
| • Non-OPEC | 2007 |
| • Listed Oil Companies (Top 50) | 2011 |
| • Oil from conventional sources | 2013 |
| • Hubbert’s Peak (eg World Peak)* | 2015 |

Source: Weeden & Co, LP

Another factor likely to drive energy prices higher is the continued growth in world population and living standards. As developing nations adopt technological advancements and achieve stable economic growth, their demand for energy and material goods increases. Growing populations of

middle-class workers are acquiring a taste for traditional “American” consumption patterns, and this will cause a migration in behaviors which will drive per-capita energy consumption higher.

By our estimate, world power requirements (from all sources) reached 15.1 Terawatts (“TW”) in 2006. Assuming a modest 0.9% to 1.1% growth rate in world population, rising per-capita GDP, and a slight decline in energy consumption intensity, we are on a path to require over 26 TW of power by the middle of the century, an increase of 75.5%. By 2100, demand for power is likely to reach 40 TW, or 2.7-times demand in 2006.

Figure 4

| | Global Annual Power Requirements | | | <i>Annualized Rate of Chg.</i> | |
|---|---|-------------|-------------|--------------------------------|----------------|
| | 2006 | 2050 | 2100 | <i>'06-'50</i> | <i>'50-'00</i> |
| Population (billions) | 6.5 | 10.5 | 16.5 | 1.1% | 0.9% |
| Global Per Capita GDP | \$ 7,482 | \$ 13,793 | \$ 26,312 | 1.4% | 1.3% |
| Energy Consumption Intensity <i>(Watts per unit of GDP)</i> | 0.31 | 0.19 | 0.10 | -1.1% | -1.3% |
| © 2009 The Leuthold Group | | | | | |
| Annual Power Requirements (TW) | 15.1 | 26.5 | 40.3 | 1.3% | 0.8% |

Sources: World Bank's World Development Indicators Database

Some economists and prognosticators suggest that vast and untapped coal, natural gas, oil sands, and oil shale reserves are solutions to our rising energy requirements. By our estimates there is very likely sufficient energy from these sources to address the planet’s energy requirements *for several additional centuries*. But the consumption of fossil fuel has a severe and significant cost aside from money: pollution.

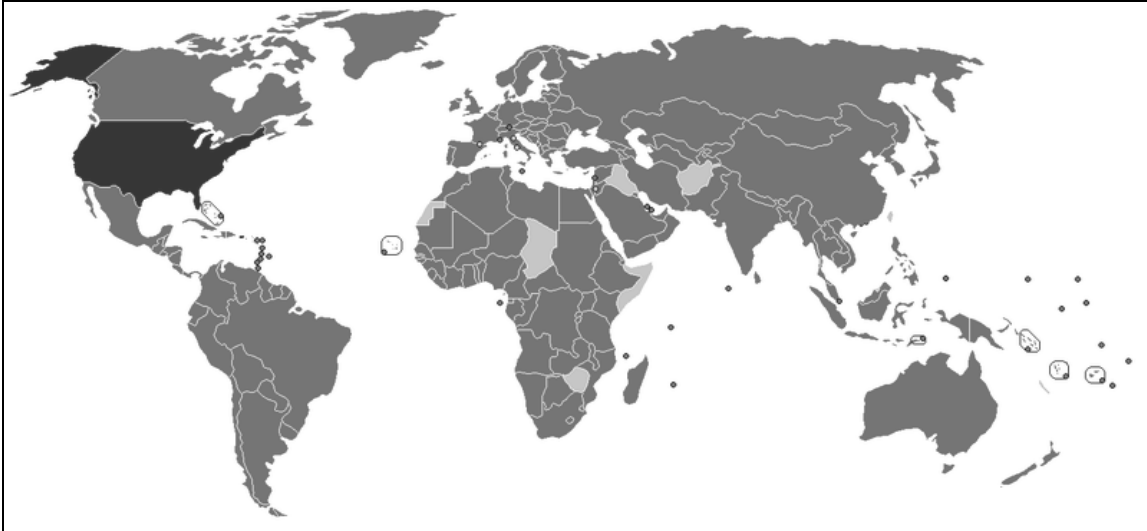
Global Climate Change & Green-House Gases (“GHGs”)

The scientific community has reached a consensus that pollution associated with fossil fuels, particularly pollution from GHGs produced when fossil fuels are combusted, are causing global climate change. Temperatures are rising more quickly in many areas of the planet than natural scientific progression models would suggest, and anthropogenic (human-caused) reasons appear to be the explanation. Whether or not one subscribes to this notion is immaterial, the fact remains that its acceptance by policymakers and consumers is gaining traction.

In an effort to stem the production of anthropogenic GHGs, over 180 countries had signed the Kyoto Protocol by early 2009. This treaty seeks to cap the amount of GHGs emitted by the signatory countries, and then gradually reduces the cap in subsequent years to progressively reduce GHG pollution. Companies that cut more GHG pollution in a specific year than required are issued tradable credits. They can sell these credits to companies that have failed to meet the GHG caps, thereby generating a source of additional income for companies that exceed mandated compliance.

This system of minimizing pollution and offering exchangeable credits is referred to as “*Cap & Trade*.” Historically, Cap & Trade systems have been quite successful in the United States when they were implemented to reduce emissions of sulfur dioxide (a precursor to acid rain) and nitrogen oxides (which can lead to increased smog levels). By our estimate, the market for Cap & Trade could grow to be several trillion dollars by 2020.

Figure 5



Participation in the Kyoto Protocol, where medium gray indicates countries that have signed and ratified the treaty, light grey is not yet decided and dark gray is no intention of ratifying.

Source: http://en.wikipedia.org/wiki/List_of_Kyoto_Protocol_signatories

Among the mature industrialized nations, the United States is the only country that has not signed and ratified the Kyoto Protocol. Currently, the U.S. House of Representatives has passed H.R. 2454: American Clean Energy and Security Act of 2009 (aka: the “Waxman-Markey Bill”), a progressive bill that caps GHG production. The Waxman-Markey Bill is now in the Senate for debate. It is not yet clear if this bill, or a similar one, will be passed and signed into law prior to the United Nations Framework Convention on Climate Change (“UNFCCC”), which is scheduled to take place in Copenhagen this December.

CleanTech Market Drivers

Numerous catalysts are pushing CleanTech investing into the spotlight. Some pundits refer to it as a “perfect storm” of events. Whatever metaphor one chooses, it’s clear that political will, consumer demand, corporate interest, demographic changes, scarcity of natural resources, and scientific research are all contributing to rising levels of interest in CleanTech investment.

Policymakers

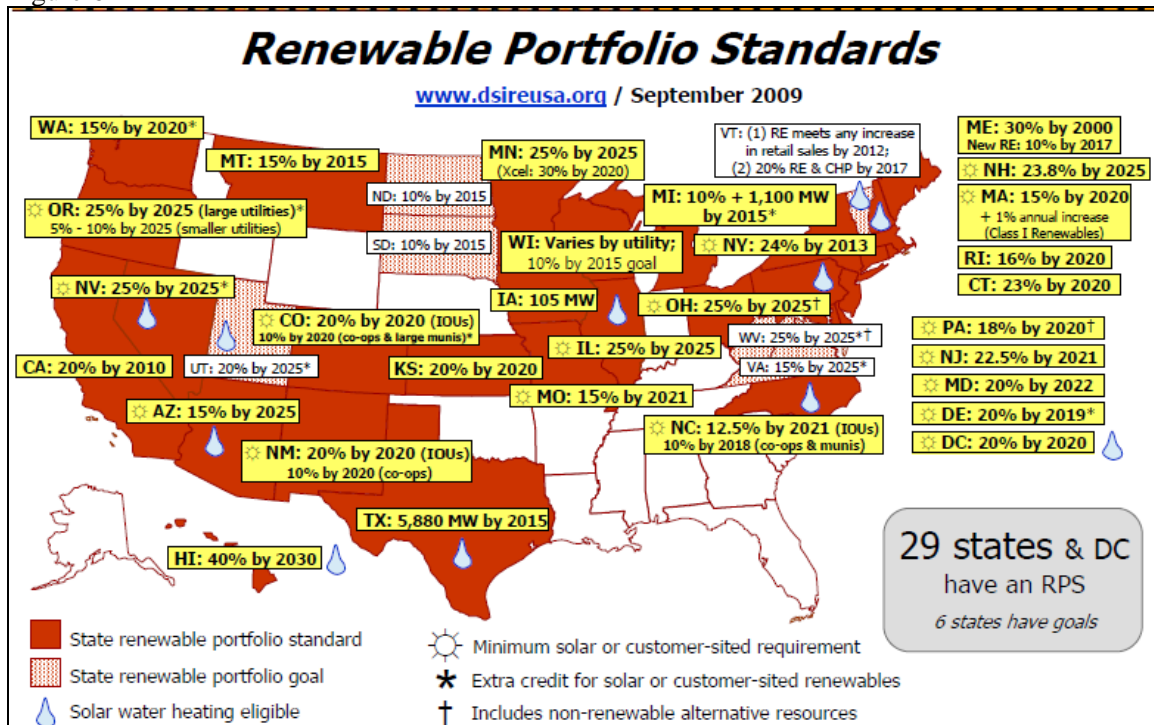
Lawmakers have discovered that advancing “green and clean” policies are often viewed favorably by a broad section of the electorate, which can be a substantial advantage when seeking election. Furthermore, our country’s reliance on imported energy (predominantly petroleum) has severe negative implications for our national security and economic well-being. Policymakers are responding to voter interest in these topics by supporting and advancing legislations favorable to clean technologies.

As a result, direct and indirect tax incentives, mandated levels of energy sourced from renewable power, programs requiring government agencies to enact cleaner buying patterns, direct infusions of capital, and guarantees on loans are among the many ways policymakers can spur interest in CleanTech advancements, products, and services. In fact, 29 states and the District of Columbia have instituted Renewable Portfolio Standards (“RPS”; see Figure 6). State RPSs require the increased production of energy from renewable energy sources, such as wind, solar, biomass, and

geothermal; some states allow improvements to energy efficiency to apply toward meeting the mandated standards. A federal RPS is currently under consideration by Congress.

The passage of the federal bailout bill, which included an extension of the Solar Investment Tax Credit (“ITC”),⁵ created an estimated \$400 billion, eight-year solar market opportunity. Based solely on the eight-year extension of the ITC, a \$400 billion market literally developed overnight. Though previously available only for commercial installations, the ITC was extended to residential installations, effectively removing the \$2,000 tax-benefit cap. Between 30 Gigawatts and 35 Gigawatts of new solar capacity will be added over the eight-year period beginning January 1, 2009. This compares quite favorably to the less-than-1 Gigawatt capacity that was installed in 2007.

Figure 6



Consumers

Consumer awareness of clean technologies is due in part to the educational efforts of numerous non-profits, but also to consumers’ conscious decisions to seek cleaner and healthier lifestyles. While some consumers currently pay a premium for cleaner and greener products and services, widespread consumer adoption of CleanTech offerings will increase in popularity as prices decline and become equal to, or even less than, incumbent options. Nevertheless, an increasing awareness of “green and clean” among consumers seems to be systematically growing, and such awareness is likely to increase with time.

⁵ Some details of the solar ITC extension: 1) Extended for eight years the 30-percent tax credit for commercial solar installations; 2) Eliminated the \$2,000 monetary cap for residential solar electric installations, creating a true 30-percent tax credit (effective for property placed in service after December 31, 2008); 3) Eliminated the prohibition on utilities from benefiting from the credit; 4) Allows Alternative Minimum Tax (AMT) filers, both businesses and individuals, to take the credit; 5) Authorizes \$800 million for clean energy bonds for renewable energy generating facilities, including solar.

Corporations

Many corporations have adopted “green screens” to identify and nurture opportunities to integrate clean technologies into their companies. While part of this behavioral change is likely a response to rising consumer demand, it is equally likely that motivations of corporate self-interest are also at work.

For instance, the basic laws of economics suggest that for companies to survive over the long term, they must constantly seek to become more efficient. These efforts to cut costs, such as lowered energy consumption and efficient product packaging, can be increasingly communicated to consumers as reflective of the company’s desire to become increasingly “green.” From a company’s perspective, it’s a win-win situation: the effort to put additional green (profits) into corporate coffers plays well with consumers demanding cleaner and greener corporations.

Demographics

As described earlier, growing populations with rising wealth are favoring clean and green options to compliment an improving standard of living. Furthermore, wealthier nations tend to consume more energy per capita than poorer nations.

In his book *Hot, Flat, and Crowded*, Thomas Friedman of the *New York Times* introduced readers to the concept of an “Americum:”⁶ a population of 300 million consumers with approximately the per-capita GDP and/or spending habits of Americans. In the 1950’s, there were 2.5 Americums in existence: the U.S., Western Europe, & Japan. Today, we are approaching nine Americums: the U.S., Western Europe, Eastern Europe, Central Europe, Russia, Japan, India, China, and South America.

India and China are each about to “give birth” to their second Americums, and as their middle classes grow, they will demand a variety of products and services. India and China - and perhaps Brazil - are expected to *double the size of their middle classes every decade for the foreseeable future*. Such demographic changes will likely drive increasing interest from consumers to adopt clean technologies.

Scarcity of Natural Resources

By our estimate, *the world consumes about 86.5 million barrels of oil each day, or more than 1,000 barrels every second*. Our planet’s resources are finite, and the availability of new resources is becoming increasingly difficult and more expensive to find. For instance, much of the remaining oil fields to be tapped are located in difficult environments (in the arctic circle, under miles of ocean, in unstable countries). This scarcity for cheap petroleum will have direct affects on the cost of energy, and the plethora of products that utilize petroleum as an input, such as plastics.

While some clean technologies seek to do more with fewer resources, ultimately we will require alternative, cleaner sources of energy that are not limited by their availability. The U.S.

⁶ The term Americum was coined by Tom Burke, an energy innovator from the U.K., and later popularized by Friedman in his books and newspaper columns.

Government argues that our dependence upon foreign and scarce resources poses threats to our national security.

Advancements in Scientific Research & Technology

The advancements of science and technology are growing the overall demand for power—*clean and reliable power*. Each new data center added to support corporate and internet-based computing systems requires many megawatts of power to run their computer chips and the expensive air conditioning systems (designed to cool the computers). Furthermore, these systems require extremely high quality energy to prevent damage to the sensitive circuitry.

The introduction of cellular phones to areas that never possessed traditional, land-line phones represents a technological “leap-frog” that is playing out in many regions of the world. Such cellular systems require tremendous investments in back-office computers, power back-up systems, and power-quality technologies. Clean technologies are ideally suited to address these situations and the inevitable problems that may arise.

CleanTech Consolidation Is Inevitable

Consolidation among CleanTech companies will come in fits and starts over the next decade, largely because different CleanTech sub-sectors are at different stages of development. The solar sub-sector, due to its development stage and the sheer number of companies attempting to serve this industry, will be one of the first to consolidate, and we expect only a few “pure plays” to survive long-term. Our pessimism about the survivability of most solar companies is due neither to any specific negativity we feel toward the group nor is it a statement about the prospects of the industry. It is simply based upon the following logic:

- The large tax credits (and modified-accelerated depreciation), cash grants, loan guarantees, and other incentives available to solar companies attracted an abnormally large number of entrepreneurs and companies to enter the sub-sector;
- Most of these players would not have entered the industry if these incentives were not available;
- These incentives are available equally to all competitors;
- These incentives will create an accelerated pace of turnover and technological advancement.

Therefore: Most solar companies will either develop a technology or service that will become obsolete quickly due to the redirection of economic incentives, or the costs of providing incentives will become so burdensome to state and federal authorities that these inducements will be scaled back, and the more-costly technologies will become uncompetitive and therefore fail.

Deflation Drives Fierce Price Competition; Look For Unique Business Models

The problem with investors is that they are human. They overextend spending and credit for a time, followed by periods of under-spending and frozen lending markets. They swing the pendulum too far in both directions. This makes deflationary forces even more caustic as companies compete for what little consumer buying remains. Fierce pricing pressure among CleanTech companies will result.

Investors should look for companies with unique business models. Clean Technology lends itself to new models that maintain strong operating leverage. Business models that provide competitive pricing will survive the current financial environment.

For instance, solar integrators (i.e. installers) are leveraging the availability of tax advantages to offer leasing models for the installation of solar panels at *no out-of-pocket cost to the landowner* while still reducing the landowner's overall electric bills. The solar integrator installs, operates, and maintains the photovoltaic ("PV") array on residential and commercial properties. In return, the property owner must provide the solar integrator access to the PV array whenever they require. The solar integrators figured out how, under the tax code, they could leverage large pools of "tax investors" seeking to acquire the tax benefits provided to renewable power installations. The tax investors provide the capital required to purchase, install, and maintain the solar arrays, and they acquire, in return, the tax advantages from the landowners. By selling off the tax benefits designed to accrue over many years, solar integrators collect today the present value of future streams of tax benefits for landowners, thereby reducing the overall cost of the solar installation.

Another interesting business model pays consumers to recycle: a private company in Philadelphia collects and sorts recyclable materials, then sells the materials to package manufacturers at below-market costs. This innovative company passes some of the proceeds from selling the materials to its waste-producing providers, thereby creating its own network of low-cost material suppliers.

Both of these examples demonstrate how low technology-risk, service-based business models are changing the way consumers think about clean technologies.

Issues to Consider When Assessing CleanTech Investment Opportunities

While substantial capital has flowed into private equity and venture capital, there are hundreds of publicly-traded CleanTech companies to consider around the globe. Our analysis has identified over 400 investable companies worldwide across four primary sectors and 30 subsectors. Lacking the background and expertise to choose between individual companies, investment advisors should consider the variety of professionally managed CleanTech funds. The following is a brief discussion of some of the issues investors should reflect on prior to investing in private or public funds.

Private Equity/VC Considerations

Private Equity and VC fund managers are better suited than the general public to review emerging clean technologies and evaluate the complexities inherent to start-up businesses. For this reason, hundreds of new, private investment funds were created over the past decade to address the enormous number of technologies and business plans emerging from this sector. Young companies and unproven technologies tend to require substantial oversight and guidance that VC fund managers are well-suited to provide.

Private fund managers often require three to five years to identify, vet, and perform due diligence on promising investments before deploying their fund's capital. It can take another three to five years before a portfolio of private investments is liquidated and capital is returned to investors. As such, investments in Private Equity and VC funds are inherently illiquid and extremely risky; advisors should consider their clients' risk tolerance and access to capital before considering placing capital with a VC fund manager.

Given the enormous amount of capital that has flowed into the CleanTech VC space, it is not surprising that the number of available funds has risen dramatically. By one count, there are over 1,000 VC and Private Equity funds currently deploying capital or liquidating investments in the CleanTech sector.⁷

The field of VC investors has quickly become crowded, and investment returns are likely to suffer as valuations rise due to competition for investment ideas. Recent interviews in the press support our conclusion, as VC fund managers are reportedly abandoning crowded early-stage (angel and seed rounds) investments in favor of expansion-stage opportunities.⁸

Public Equity Considerations

The process of “going public” involves substantial due diligence by bankers, investment professionals, auditors, and governmental bodies (such as the SEC and FINRA). Though investments in equities are not risk-free, public companies have endured this rigorous process, which may provide some reassurance to investors. Furthermore, public companies tend to be more mature and profitable than their VC brethren.

The number of available investment funds, exchange-traded funds (“ETFs”), and exchange-traded notes (“ETNs”) designed to invest in the CleanTech sector is currently quite small. Our analysis suggests there are about 30 total mutual funds and ETFs currently available to investors. Of this total, about half are passive⁹ (not actively managed by an investment professional) and are designed to track an underlying index of companies. Investing in a CleanTech ETF or index is not advisable, as the rate of technological progress requires an active approach to mitigate most competitive disruptions.

Of the remaining options, most are not “pure play” mutual funds in the CleanTech sector. Some focus on just one subsector, such as water or alternative energy.¹⁰ Interestingly, some mutual funds purporting to be CleanTech maintain positions in companies that are clearly not “CleanTech” businesses, such as automotive retailers, miners of oil sands, banks, and restaurants.¹¹

This presents investors with a quandary: are there enough CleanTech mutual funds from which to choose? It is likely that, as the CleanTech sector grows in importance and some of the private CleanTech companies “graduate” into the public sector, additional pure-play mutual funds will be launched. In the meantime, the universe of over 400 publicly-traded CleanTech companies globally is only likely to grow.

(See Figure 7 on Page 13 for an overview of the CleanTech & SRI Universe of Domestic Mutual Funds and ETFs)

⁷ Cleantech Group, LLC.

⁸ Dow Jones Clean Technology Insights Newsletter.

⁹ The following are the ticker symbols for the passive investment instruments identified: CGW, EVX, FAN, FIW, GEX, KWT, NLR, PBD, PBW, PHO, PIO, PUW, PWND, PZD, QCLN, TAN.

¹⁰ The following are the ticker symbols for the sector-specific mutual funds identified: ALTEX, AWTAX, CGAEX, GAAEX, GCEQX, KWINX, PFWAX.

¹¹ The following are the ticker symbols for the mutual funds that invest in shares of companies which are clearly not CleanTech: AECOX, NALFX, PGRNX, PORTX.

Figure 7

CleanTech & SRI Universe of Domestic Mutual Funds and ETFs

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| | Ticker | Actively Managed | Global | Alternative Energy | | | Nuclear | Clean Environment | Resource Conservation | Clean Water | |
|---|--|---------------------------------|--------|--------------------|---|-------|---------|----------------------|--------------------------|----------------|---|
| | | | | Solar | Wind | Other | | | | | |
| Mutual Funds | Leuthold Global Clean Technology Fd - Retail CI | LGCTX | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Pax World Global Green Fd Individual Inv CI | PGRNX | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | |
| | Allianz RCM Global EcoTrends Fund | AECOX | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | |
| | New Alternatives Fd Inc. | NALFX | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | |
| | Calvert Global Alternative Energy Fund Class A | CGAEX | ✓ | ✓ | ✓ | ✓ | † | | | | |
| | Guinness Atkinson Alternative Energy Fund | GAAEX | ✓ | ✓ | ✓ | ✓ | | | | | |
| | Firsthand Alternative Energy Fund | ALTEX | ✓ | ✓ | ✓ | ✓ | | | | | |
| | Fidelity Select Environmental Services Pt | FSLEX | ✓ | ✓ | | | | ✓ | ✓ | | |
| | Allianz RCM Global Water Fund Class A | AWTAX | ✓ | ✓ | | | | | | ✓ | |
| | Kinetics The Water Infrastructure Fund - No Load | KWINX | ✓ | ✓ | | | | | | ✓ | |
| | PFW Water Fund - CI A | PFWAX | ✓ | ✓ | | | | | ✓ | ✓ | |
| | Portfolio 21 | PORTX | ✓ | ✓ | Environmentally / Socially Responsible Mandate -- Difficult to classify | | | | | | |
| | Green Century Equity Fund | GCEQX | ✓ | | Environmentally / Socially Responsible Mandate -- Difficult to classify | | | | | | |
| | Exchange-Traded Funds | PowerShares Cleantech Portfolio | PZD | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| PowerShares WilderHill Clean Energy Portfolio | | PBW | | | ✓ | ✓ | ✓ | | | | |
| Market Vectors Global Alternative Energy ETF Trust | | GEX | | ✓ | ✓ | ✓ | ✓ | | | | |
| PowerShares Global Clean Energy Portfolio (ETF) | | PBD | | ✓ | ✓ | ✓ | ✓ | | | | |
| PowerShares WilderHill Progressive Energy Portfolio | | PUW | | | ✓ | ✓ | ✓ | | | | |
| First Trust NASDAQ Clean Edge Green Energy Index Fund | | QCLN | | | ✓ | ✓ | ✓ | | | | |
| First Trust ISE Global Wind Energy ETF | | FAN | | ✓ | | ✓ | | | | | |
| PowerShares Global Wind Energy Portfolio | | PWND | | ✓ | | ✓ | | | | | |
| Claymore/MAC Global Solar Energy Index ETF | | TAN | | ✓ | ✓ | | | | | | |
| Market Vectors-Solar Energy ETF | | KWT | | | ✓ | | | | | | |
| Market Vectors-Nuclear Energy ETF | | NLR | | | | | ✓ | | | | |
| Market Vectors ETF Environmental Services | | EVX | | | | | | ✓ | | | |
| PowerShares Water Resource Portfolio | | PHO | | | | | | | | ✓ | |
| PowerShares Global Water Portfolio (ETF) | | PIO | | ✓ | | | | | | ✓ | |
| Claymore S&P Global Water Index ETF | CGW | | ✓ | | | | | | ✓ | | |
| First Trust ISE Water Index Fund | FIW | | | | | | | | ✓ | | |

† Will consider investments that may be "involved" in nuclear technology, but will not invest in nuclear-plant operators.

Our Strategy to Investing in Clean Technology Companies

The Leuthold Group has a history of identifying important investment themes and profiting from them successfully. Steve Leuthold calls Clean Technology “one of the most important investment opportunities of the next several decades.” We have followed this sector for several decades, having first developed a thematic group in the 1980’s called Ecological Technology (“Eco-Teco”), which included numerous industries: alternative energy, energy conservation, and selected environmental services.

In the 1990s, a Clean Water thematic group was added, followed by an Energy Efficiency group, the Nuclear Energy group, and most recently, the “Green Wave” group.

Leveraging our in-house stock market and socio-political expertise, we identified the clean technology sectors and sub-sectors most likely to benefit. We divide the universe of over 400 public, investable companies into five sectors (Alternative Energy, Resource Conservations, Clean Environment, Clean Water, and Diversified) and 30 sub-sectors. As the CleanTech universe grows and develops, this flexible structure is designed to respond and adapt accordingly.

Utilizing quantitative and technical expertise developed over four decades of performing industry- and sector-level analysis, we attempt to identify the sub-sectors best positioned to benefit.

This quantitative and technical exercise, though, is designed to be a starting point, not a conclusion. The management team, which includes fundamental analysts and portfolio managers, then injects human logic to differentiate the results from a purely quantitative model.

The result is a “best-in-class” portfolio of global CleanTech companies which requires a substantial stock-picking effort directed by macro economic, geo-political, and financial market knowledge. *This approach provides for changing market conditions,* and maintains a very dynamic and flexible quality.

Figure 8

| | |
|---|--|
| <p><u>Resource Conservation</u> Batteries/Energy Storage Systems Efficient Lighting/LEDs Energy Efficiency/Conservation Products Energy From Waste/Biomass/Synthetic Recycling and Recycling Products Water Conservation Systems, Technology</p> | <p><u>Alternative Energy</u> Biofuels/Ethanol/Cellulosic/Synthetic Clean Power Storage, Delivery Technology Construction & Eng-Alt Energy Plants Div. Renewable Power Generation/Developers Fuel Cells Geothermal Hydro Electricity/Tidal Nuclear Energy Equipment & Services Renewable & Conventional Power Generation-Systems, Controls Renewable Power Generation-Support & Services Solar-Materials & Components Solar-Photovoltaic Cells, Wafers, Panels Turbines, Flywheel, Energy Transmission Uranium Mining Wind Turbines & Components/Wind Power</p> |
| <p><u>Clean Environment</u> Clean Agriculture Clean Transportation, Components, & Systems Environmental Services Pollution and Emissions Controls & Monitors</p> | <p><u>Diversified</u> Conglomerates Investment, ETFs, Funds, Envir. Trading</p> |
| <p><u>Clean Water</u> Clean Water, Water Treatment Technologies Water Infrastructure Rehabilitation Water Utilities</p> | <p>© 2009 The Leuthold Group</p> |

We believe this approach will prove to have substantial advantages in the future, as there will be no magic-bullet solution to “fix” the planet’s energy, water, transportation, and natural resource problems. Finding solutions will require broad thinking across global markets, policy changes, and technologies.

About Leuthold Weeden Capital Management

Leuthold Weeden Capital Management is the Adviser to Leuthold Funds. The Minneapolis-based investment research firm was originally founded in 1981 by Steve Leuthold; with investment management operations launched in 1987. Investment portfolios are team-managed, and under the advisement of an investment strategy committee consisting of all firm portfolio managers, and the senior analysts of the managing member of the Adviser, The Leuthold Group, LLC.

Disclosures

Investing in foreign securities may involve risks such as fluctuations in currency exchange rates, differences in financial and accounting standards, and instability of foreign governments and economies and may not be present in domestic investments. Investing in developing or emerging markets involves risks different from, or greater than, risks of investing in developed foreign countries, such as smaller capitalization, periods of illiquidity, significant price volatility and restrictions on foreign investments. Investing in small and mid-sized companies can involve such risks as having less publicly available information, higher volatility, and less liquidity than in the case of larger companies. Funds that concentrate investments in a certain sector may be subject to greater risk than funds that invest more broadly, as companies in that sector may share common characteristics and may react similarly to market developments or other factors affecting their values. Overweighting investments in certain sectors or industries increases the risk of loss due to general declines in the prices of stocks in those sectors or industries.

Investors should consider the investment objectives, risks, charges and expenses of the investment company carefully before investing. The Prospectus contains this and other information about the Funds. For current Prospectus, call toll-free, 1-800-273-6886, or download from our web site: www.LeutholdFunds.com. Please read the Prospectus carefully before you invest.

Not FDIC Insured No Bank Guarantee May Lose Value

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