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Cleantech is More Than a Buzzword

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I recently had the pleasure of presenting at the annual Environmental Financial Workshop in Toronto where private equity, green building developers, and several Canadian venture capital clean tech funds presented. One great overview, which I will share in this **Issue*Alert*®** was Nick Parker's presentation on Cleantech investment patterns. Nick not only coined the term "cleantech" (it could have been greentech, he noted) but also founded the Cleantech Venture Network which is the best resource on the Web for information and networking in the space (www.cleantech.com). Nick feels that clean tech is now a “smart industrial revolution” as a next wave of venture innovation.

The three market drivers of sustained high energy prices, accelerated technology shift, and increased environmental concerns have formed the perfect storm for cleantech investment now. To put this in some perspective, we must look at where it came from, what is driving it and where it is all going for the foreseeable future. Today, it is the fifth largest share of venture capital in North America at 10 percent of market share and rising. $8.2 billion was invested in this sector from 1999 through 2005. It is now very conservatively estimated that $8.5 billion will be invested in this sector through 2010. Not only venture capital, but both private equity and hedge funds, will supply billions more as new technology will increasingly be rapidly commercialized on deployed globally. The need is that great.

The current global growing pains of this sector can be seen in the shortage of wind turbines, polysilica for solar, and even geothermal parts. The whole world is doing the cleantech dance at the same time.

How Did This Happen

The opportunities are immense. World demand is accelerating. Renewable energy mandates are proliferating from the United States, the European Union and China. The “Kyoto Factor” and in the need for carbon credits is accelerating, as well as the need for less carbon intensive technology is needed.

Also, this is much more market driven than regulatory driven as before. While there continues to be a focus on the regulatory regime, the greater demand is pushing out product faster. Biological and materials sciences are also contributing to this effort on a new level in the form of both biofuels and nanotechnology, for example. There is a higher use of IT than ever before that tweaks many efficiency gains that makes projects fly particularly in advanced metering and sensing.

Plus, higher sustained energy prices are setting up the price floor to push it faster than ever before. And the technology is also becoming more cost effective. According to the Cleantech Venture Network, 43 percent of these projects are in energy.

The Impacts are Vast

Energy, agriculture, manufacturing, transportation and water are all under the cleantech tent. This leads to many applications and cross fertilization between different scientific disciplines. The list is long, but includes bio-based fuels, microirrigation systems, distributed energy, renewables, energy storage, advanced

packaging, natural chemistry, hybrid vehicles, lighter materials, smart logistics software, water recycling desalination, and newer applications of sensing equipment.

Climate Change as the New Driver

The impending climate change regime in the United States will add an extra dimension to the drive for both greater energy efficiency and reduction of emissions footprint for carbon. What is not followed very much in the United States is the movement into “carbon finance.” This extra dimension of monetization of carbon credits for green project finance will increase ROI for many projects. The bottom line is that more energy efficiency and renewable projects will take root as technology continues to shift.

It also seems reasonable that more rapid deployment of these cleantech investments will be needed to scale the rising environmental needs in energy usage both in the United States and around the world. It is no accident that there is a shortage of renewable equipment today. A flattened world both levels the playing field for new technology but also creates more market opportunities. Since it should not be forgotten that two billion people do not have access to electric power, and three billion people do not have potable water throughout the world. The global demand that is evident is in the BRIC (Brazil, Russian, India and China) economies with **800 million** middle class consumers with money in their pocket wanting consumer goods and products just like the developed world. Most economic projections have underestimated this need just as no one estimated or anticipated how much electricity the Internet would use.

The point is everyone has underestimated the scale of the cleantech revolution. It is a growing global phenomenon that will be rising in developing countries in coming years and cycle in much more innovation than be imagined today. The market demand is just there in both the developing and developed world. One leapfrogging technology and one replacing antiquated infrastructure. Green is the new gold, watch it accelerate.

Peter C. Fusaro coined the terms "green trading" and "green finance." He recently ran the Wall Street Green Trading Summit. The DVD and CD-ROM of that two day conference are available for sale at www.hedgeconnection.com/wsgts