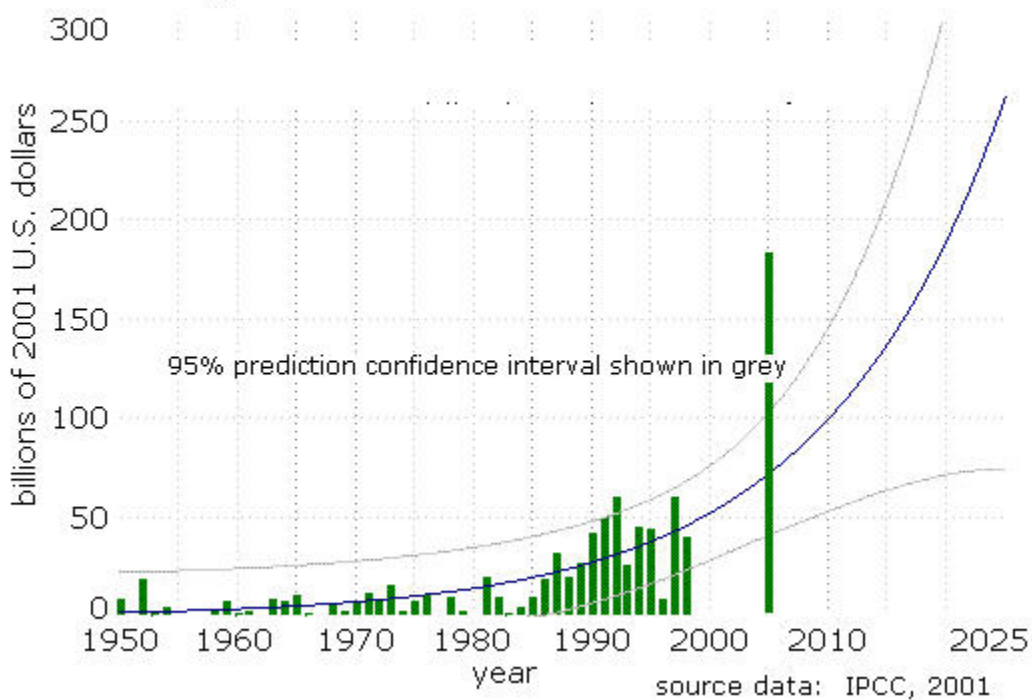


Hello Clean Energy Technology Investors!

In this issue of Clean Energy Technology, we will cover the things you need to know to be a profitable clean energy investor.

On the government policy front, you may have heard about new provisions to the latest national defense budget that includes a study that will investigate National Security issues as they relate to Global Warming. This is great news, as I believe global warming is a far greater threat to national security than terrorism. We spend about 100 times the money on terrorist related national security than we do to fight global warming. However, I would guess the security threat is 100 times greater from global warming as it is from terrorists. Famine, fires and flooding resulting from global warming can cause great economic and security imbalances that promote terrorist style activities. We just need to look at a place like Darfur in the Sudan to see what kind of actions take place after chronic droughts. As we speak, a massive 200,000 acre wildfire on the Florida Georgia border is raging out of control, and an 86 square mile fire in Minnesota is threatening homes, and a fire on Catalina Island here in California was just contained yesterday, after getting close to burning down the town of Avalon. The cause? It is dry and hot. If you think these events are within normal statistical range, you are probably wrong. Just ask the insurance companies as they have seen a 10 year acceleration of losses from weather related events.

Inflation-adjusted cost of extreme weather events worldwide



The great news about all this is entrepreneurs and business owners are taking a leadership role in combating global warming while reducing our dependence and funding of unstable, anti-western governments. Even the bosses at Fortune 500 companies including GE, DuPont and Alcoa as part of the US Climate Action Partnership recently pleaded with the Bush administration to address climate change. Why would they do such a thing? This is a global economy, and the US is woefully behind other

countries in adopting green house gas reduction policies. These business leaders know the policies are inevitable, and they need to know the framework in order to make long term decisions.

To give you an example of this consider Duke Energy, the \$25 billion dollar power producer in the south eastern United States. As electrical power demand grows from both increased temperatures (more air conditioning) and greater industrial demand, they need to add more power plants. The cheapest plants today are coal fired plants. However, if you add in the cost of the carbon emissions for a coal plant, costs can double or triple. Renewable energy from sun and wind can handily beat the cost of coal with the carbon tax added in. Now, let's say the plant has a 30 year life, and you have to start paying the tax in 3 years after a carbon tax is imposed. In that case, you need to build renewable power plants. You see, these CEOs need to be responsible to their shareholders and need to justify their capital expenditures.

With billions of dollars in these long term decisions on the table, they would rather know sooner what the actual tax policy will be so they can make the right decision.

Innovation at work

So, you may ask how are entrepreneurs addressing climate change, and where should I invest? Here I will highlight a few of our favorite investments and investment targets in The Blue Earth Fund, LP. Of course, you need to take personal responsibility for buying any of these stocks by researching these selections on your own and consulting your financial advisor. It is interesting to note that inconsistent policy incentives from the US government has meant that most renewable energy product companies are headquartered **outside** the US. Only one of the top 10 global wind power turbine producers and zero of the top ten global solar producers are headquartered in the USA. If the US wants a bigger global cut of the jobs and money from this quickly growing business, they will have to make some lasting, consistent policy changes.

Solar

Photovoltaic solar is an extremely dynamic marketplace, and since it only contributes .2% of electric generation around the globe, is growing at 35% per year and will match conventional grid pricing within 5 years, its future looks bright.

JA Solar (JASO) This Chinese manufacturer has displayed world-class execution fulfilling its business plan, and is undervalued compared to its competitors. Since this manufacturer is part owned by China's largest silicon wafer manufacturer, it both has a steady supply of wafers lined up at very competitive pricing. This capability has helped push orders for the companies product in 2007 to \$295 million, and it is expecting to earn \$1.00 per share, a 168% increase over last year. More importantly, this company's expected 105 MW of production this year is helping to take 273,000 tons of CO2 per year out of the atmosphere as compared to coal production. JA Solar's current price: 25.44 and our January 1, 2009 price target is \$40.00. We started purchasing this stock at \$18.65 on 3/30/2007 and currently have a 28.51% gain in the stock.

SunPower Corp. (SPWR) This US based manufacturer with production in the Philippines who makes the most efficient commercial photovoltaics on the market. This gives them an advantage in that they get more power production per square foot of surface than any other product on the market. This power density advantage improves SunPower's margins and lowers installation costs for the end consumer. SunPower also recently purchased PowerLight, a global module manufacturer, system integrator and installer of Photovoltaics. This was an extremely smart move for SunPower as PowerLight components control 60% of the solar supply chain. SunPower's purchase gained validation when PowerLight was one of the winners in the Wal-Mart contract to install PV cells on 22 stores. JA solar also provides PowerLight with solar cells. We started purchasing SunPower at \$40.36 on 1/22/07 and it now trades at \$57.30 for an gain of 29.81%.. Our price target for SunPower is \$100 by January 2009. In 2007 earnings should grow 118% to \$1.11 per share and production will reach about 225 MW, enough to power 40,000 homes.

Wind

Wind opportunities are limited for US investors. You can buy stock in GE, but the wind component only contributes about 1% of sales and analysts say it probably losses money. For now you will have to go offshore exchanges to purchase your piece of the wind pie. Some of the newest wind turbines can produce electricity at a competitive rate to coal plants, wind is a worthwhile area to invest. Currently wind is in its teenage years in the US with yearly installations reaching 3,000 MW or power for 600,000 homes. Turbines are sold out at least through 2008 for all manufacturers. Of course wind turbines depend on wind, and the power is not "firm" meaning there is no consistency to its production. Wind and solar needs better power storage to more effectively serve normal power requirements of people and business.

Clipper Wind (CWP) Clipper is headquartered in Santa Barbara, California, but is publicly traded in the UK on the London AIM exchange. Clipper boasts some of the world's most technologically advanced wind turbines that allow the turbines to produce grid friendly power in varying wind conditions. The design also should reduce servicing costs by reducing the torque by a factor of 16 on critical parts. They recently signed a \$1 billion dollar order with BP Wind and are sold out of production through the first half of 2009. They manufacture in Cedar Rapids Iowa with a 150,000 square foot facility and started installing production units in the first quarter of 2007.

Vestas Wind Systems (VWS.L) Vestas is the top wind turbine manufacturer in the world with a 34% market share. That is 3 times the size of GE's wind program. After struggling from turbine maintenance issues for most of 2006, the stock has doubled in value since November of 2006. This is a good stock to own if you want a hedge against further declines in the US dollar. When the US dollar declines and someone makes all their money in USD, then the price of commodities rise for the USD spending person. So, it is always good to own a few of these great foreign stocks in your portfolio.

Power Storage

Power storage is an incredibly important part of our future with renewable energy. Since renewable energy from solar and wind is variable, we must store the excess power generated when we don't need it and deliver it when we do need it. We believe that a battery breakthrough will be forthcoming within the next 4 years, where recharge times are reduced 95%, power density is doubled and costs are cut in half. This will be important for electric cars to gain significant market share. Our vision is that by 2010, production electric cars will be available for less than \$25,000 that can recharge in 5 minutes and cost about \$6.00 in electricity to travel 300 miles. On top of that, vehicle owners with solar panels will be able to charge directly from their solar systems, cutting out the pollution generating fossil fuel powered middle men (the oil companies and power companies) completely. Maintenance costs on electric autos will be greatly reduced as well with 60% fewer parts in the drive system. This is a classic disruptive technology that the incumbents (GM, Ford and Chrysler) will hate to adopt as it will cannibalize their existing supply chain and business model. Let's look at some power storage companies you can buy today that are making good progress on this front.

Advanced Battery (ABAT). Advanced Battery is a Chinese manufacturer of advanced polymer lithium-ion batteries. These batteries are currently used in cell phones, digital music players, mining lamps and more recently transportation vehicles. ABAT stock jumped from 50 cents recently to \$2.85 a share when they announced winning a \$10 million dollar order to supply batteries for 3,000 new electric garbage trucks that will be picking up trash at the Olympic venues in Beijing in 2008. This is by far the largest heavy duty commercial electric vehicle order ever, and the Chinese are building them top to bottom. ABAT just opened a sales office in the United States and has started shipping sample batteries to several automobile manufacturers. To date ABAT has generated all of its sales in Asia. ABAT is profitable, has 1200 employees, and earned 13 cents per share in 2006 and we expect 22 cents profit in 2007. They are currently working with Reno, Nevada based Altairnano to lower the cost and commercialize Altairnano's fast charge (5 minute) Nanosafe batteries. ABAT's current batteries take 5 hours to reach a full charge. Our target price on the stock is \$7.50 by mid-2008. The company is also looking to list on the Nasdaq within 18 months, making it more attractive investment for risk-adverse investors. This stock is a new purchase for us, and can trade with too much volatility for the conservative investor.

EEstor. EEstor is based in Cedar Falls, Texas and is backed by powerful technology insiders like Kleiner Perkins and Morton Topher the former Vice Chairman of Dell. Instead of nano technology, EEstor is using highly refined computer disk drive technology to produce an Ultracapacitor battery. This battery technology is completely disruptive. It sports twice the power density (1/2 the volume and weight of the next best battery on the market), immediate charge if given the power, fast discharge and almost unlimited cycles (ie lasts along time). EEstor has just been issued the first of 13 patents filed with the US patent and trademark office. EEstor says they will ship production batteries to Zenn Motors by the end of 2007. I believe they could take an extra

year to really get all the issues ironed out for this ground-breaking technology. My main concern is that nobody - including the CEO of Zenn - has admitted to seeing a prototype working. I would think that by now, the company would have to be testing prototypes for things vehicles may encounter like extreme shaking, heat, cold and collisions. After all, car owners would not want to be the focal point of a wayward discharge from this powerful system. The only way to buy EEstor is to invest in Toronto, Canada based Zenn Motor ([ZNN](#)). Zenn intelligently began it's relationship with EEstor in 2004 when it bought the rights to produce all vehicles under 1400 kg (about the weight of a Honda Accord) using the EEstor batteries. This agreement includes golf carts and forklifts. Zenn also recently made a direct investment in EEstor buying what we estimate is 4% of the company.

Zenn Motors (Zero Emission No Noise) is an emerging company expected to deliver about \$10 million in sales this year for its 25mph Neighborhood Electric Vehicle (NEV). However, buying Zenn with a \$80 million dollar market capitalization we are banking on EEstor to come through in the next 18 months and deliver on its promise. Without EEstor, Zenn will struggle to differentiate its plain looking 2 seater NEV against sexier 4 seat electric car offerings coming in 2009 from China, India and Japan. With EEstor, Zenn will be able to partner with all those other manufacturers to offer EEstore battery components that Zenn will offer as "Zenenergy Drive". We bought a small position in Zenn at \$2.65 CDN and it now trades at \$3.39 CDN for a 27.92% gain. Zenn is a highly speculative investment.

Biofuels - Coming of Age - feed mid-east regimes or mid-west farmers?

Biofuels can be produced from plants and animal fats and burning biofuels produces no net carbon emissions. Technology can improve ethanol yeilds per acre of planting to 5x what they are today. In fact Brazil has been successful at tripling ethanol yields per acre of sugar cane since production started in 1975. This is a new stance for us here at Longboard, because regular corn is a very inefficient producer of ethanol. However, technology drives ahead and the horizon is beginning to draw closer for unsubsidized biofuels to bring the price of gas down to \$2.00 per gallon. For instance new "Spartan Corn" developed at the University of Michigan could double ethanol yields per acre. Spartan Corn has a built in enzymes that allows the cellulose in the corn stocks and leafs to be broken down into sugars. Other grasses and processes being developed can further improve ethanol per acre yields.

As you can tell, there are many exciting facets to the upcoming clean tech revolution. Enjoy the ride!

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