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Changes in the Alt. Energy Investment Landscape

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Neal Dikeman submits: Is the time right to invest in alternative energy? We've seen a lot of this before in the 1970s and 1980s. Solar and biomass hot, big regulatory pushes, and then companies and investors lost a lot of money when things changed. We're still a bit skeptical. We're also all about not getting pulled into each and every overpriced hype (read, the ethanol race) – but fundamentals are fundamentals. And they're hard to ignore and pretty darn impressive. We think the real question today is not "are alternatives a good investment?" but rather, "which ones have legs and make a good investment bet?"

In four words – broad-based critical mass – Unlike alternative energy of yesteryear, this alternative energy explosion has been slowly building for 10 to 15 years, and is reaching critical mass in multiple markets. Take a couple of examples – the solar market is on pace for a $20 Billion per year number globally within three years (SolarBuzz.com), across several major jurisdictions (in the 1980s we were talking less than 5% of that). World ethanol production is on the order of $12 Billion/year. In the U.S., wind capacity production has been growing at 25%+ per year for the last two years and wind generation capacity additions have been second only to gas-fired generation adds in the U.S. mix.

"It's the global economy, stupid" – Don't forget, this is global now, and it wasn't really like that 25 years ago. The U.S. pioneered solar photovoltaics, but Japan and Germany (with China catching up) are the biggest markets today. The U.S. pioneered large scale wind power (remember Altamont Pass?), but three of the top four wind turbine companies today are European. The U.S. engineered cap and trade in carbon, but Kyoto is a European-driven engine. There are a lot of examples of why it's not just us anymore. For an investor worried about

the legs of the industry, that's a really major point.

In two words – cost structure – alternative energy is still more expensive than conventional energy – that's why we call it "alternative." But the cost curves for each and every alternative energy source have fundamentally changed for the better over the last 10 years (NREL), are moving into striking distance and continue to improve. This trend is not going to reverse, so it's just a matter of time.

In three words – carbon, carbon, carbon – The carbon credit trading market, driven by Kyoto protocol, was $21.5 Billion in the first three quarters of last year (World Bank and IETA) – that's up from virtually zero three years ago. Now we're talking real numbers. The U.S. has been left out of this so far, but not for long. California is committed, the Democrats are in control of Congress, and we will likely be seeing a strengthening of some sort of cap and trade system before long.

The bottom line – alternative energy is cool and the consumer cares. Of all this activity, it's really high gas and electricity prices and climate change that have put alternative energy on the map in the consumers' minds. And they care. And they vote. And they blog. And they are buying hybrids, uneconomic hybrids, lots of them. And as the battery technology continues to advance (think lithium ion overtaking nickel metal hydride), they'll start buying HEVs and Plug-in HEVs in massive quantities. And they are buying green power. And little pieces of paper certifying their green power. In enough quantities for Toyota and Walmart and GE and Google to brand green as part of their core strategies. How's all that for impact?

And finally, the regulations are here. Don't kid yourself, alternative energy has ALWAYS been a regulatory-driven market. But now the regulations are pretty widespread. Take electric power, for example – it's not just the federal production tax credit anymore, or just the solar tax credit, or the state solar subsidy programs – 23 U.S. states now have Renewable Portfolio Standards for electricity production (Pew Center) , including Texas, California, Pennsylvania, Arizona, Illinois, etc. That's up

from one in 1991. Put another way, if you could swing the electoral votes from just the RPS states, you'd have a landslide presidential victory.

Yes, it's still possible that if oil and gas prices prices fall back to 1990s levels (we expect them to pull back somewhat, but are afraid to make a precise prediction) and we have five or six normal, cool winters that make the climate change debate disintegrate, then a new political wave will come in (in 30 different western countries), and each and every major alternative energy regulatory program along with all the consumer demand will collapse – in a dozen major nations worldwide. But as the saying goes, that ain't the way to bet it.