ENERGY & CAPITAL
Practical Investment Analysis in the New Energy Economy

Alternative Energy Stocks: Facts and Myths

Special R

Before Investing in Alternative Energy Stocks, Know the Facts. . .

For decades, Big Oil & Big Auto have created a smokescreen of misinformation about the validity of alternative energy markets.

And who could blame them?

The best way to beat potential competition is to smother the market with confusion.

But today, with peak oil a reality and climate change concerns effecting energy policy, the truth about alternative energy is breaking through t clouds.

And savvy investors are using this opportunity to load up now — while the opportunities are still abundant.

But many of the myths created by alternative energy opponents can still be found all over the Internet. Most of these can be traced back to ur and unethical sources.

And in order to make a wise investment in today's fast-moving alternative energy stock sector, you have to be able to separate the myths fror facts.

Think about it. . .

How much do you think alternative energy investors would've made in solar over the past few years, had they believed some of the lies they' told about solar? Deceptions such as "solar will never be competitive," and "the technology can only provide a miniscule amount of electricity

Fortunately for these investors, the myths have already been separated from the facts.

And That's the Premise of Our Alternative Energy Stocks report. . .

Because the opportunities for investors in alternative energy stocks are just heating up. And there's absolutely no reason you should miss ou them because of faulty information and questionable data.

Solar Energy

Myth: Solar energy can only serve a tiny fraction of U.S. or world electricity needs.

Fact: Solar photovoltaic (PV) technology can meet electricity demand on any scale. The solar energy resource in a 100-mile-square area of l could supply the U.S. with its entire electricity demand using modestly efficient commercial PV modules. Bear in mind, the market capitalisati pure-play solar companies has jumped from $1 billion in 2004 to over $118.3 billion today.

Myth: Solar energy cannot significantly offset global warming.

Fact: If the industry continues to grow by 25% per year (the current prediction), PV in the United States will offset 10 million metric tons of CO year by 2027. That's equivalent to the annual increase emitted by U.S. electricity generation from fossil fuels.

Myth: A solar device requires more energy to manufacture than it will produce in its lifetime.

Fact: A PV system will produce much more energy than it consumes over its lifetime. In the worst case, the energy payback for PV is less tha years. A PV module's lifetime is typically more than 20 years.

Myth: Solar is too expensive to catch on.

Fact: Every solar panel purchased makes the next one cheaper. As opposed to non-renewable sources, which become scarcer and more ex with every ton that is burned. When all is said and done, each cumulative production doubling drops the price by about 20%.

Geothermal Energy

Myth: Geothermal energy is still new and experimental.

Fact: Geothermal energy is been used to generate electricity since 1904. Today, the United States has nearly 2,800 MW of geothermal elect connected to the grid that generates a yearly average of 15 billion kilowatt hours of power. That's comparable to burning about 25 million bar or six million short tons of coal per year. (These are simply ESTIMATES!)

Myth: Geothermal power plants emit smoke.

Fact: The visible plumes seen rising from geothermal power plants are actually water vapor emissions, not smoke. No combustion of fuels o produce electricity at a geothermal facility.

Myth: Extraction and injection of geothermal brines contaminates drinking water.

Fact: No contamination of groundwater has ever occurred as a result of geothermal activity.

Wind Energy

Myth: Wind turbines are loud and create noise pollution.

Fact: An operating modern wind farm at a distance of 750 to 1,000 feet is no noisier than a kitchen refrigerator.

Myth: Wind turbines harm property values.

Fact: There is no evidence that the presence of a commercial wind farm within sight of a property decreases that property's value. Better yet nationwide study conducted in 2003 surveyed property near multiple wind farms and found that not only do wind farms not harm property val in some cases they actually increase them.

Myth: Wind turbines kill birds and bats.

Fact: Regardless of how extensively wind is developed in the future, bird deaths from wind energy are unlikely ever to be more than a small f of bird deaths caused by other sources, such as cats and buildings.

Myth: Wind farms fragment wildlife habitats.

Fact: Wind farms are typically built in areas close to transmission lines, where habitat has already been modified and fragmented.

Myth: Wind turbines operate only a small fraction of the time.

Fact: Wind turbines generate electricity between 65% and 80% of the time, though the amount of output is variable. The fact is, no power pla generates at 100% nameplate capacity 100% of the time. The only thing that comes close is geothermal, which is about 98%.

Myth: Wind energy only provides a small amount of electricity.

Fact: The U.S. Department of Energy estimates America's wind energy potential to be larger than total U.S. electricity consumption today. *Fi News Online* estimates the wind sector, which has been developing for more than 10 years in Europe and for about five years in the U.S., co in annual revenues of $10 billion to $12 billion.

Hybrid Vehicles

Myth: Hybrid batteries will lose their charge and leave you with a $3,000 repair bill.

Fact: Hybrid batteries last for the life of the vehicle. In fact, Toyota, the maker of the Prius, has said that it has never had a charge-related wa claim.

Myth: Hybrids are slow.

Fact: Most hybrids are actually faster than comparable cars without hybrid electric motors. In fact, the Honda Accord hybrid is the fastest fam sedan on the market.

Myth: You'll never recoup the high price premium.

Fact: Depending upon how often you drive, the payback on a conventional hybrid vehicle can be as little as 2.2 years. And that's based on gasoline.

Electric Cars

Myth: At some point, these electric car batteries will just end up in a landfill.

Fact: Although lithium-ion batteries are actually rated for landfill disposal, it is highly unlikely that they'll end up in one. Because these batteri contain materials such as nickel, cobalt, and various rare earth metals, the batteries are far too valuable to send to a landfill...

In fact the recycling of these batteries is going to be a huge opportunity for recycling companies. Just ask Toxco, Inc., which recently landed $ million to expand its recycling facility in Ohio to process vehicle-grade batteries.

Myth: No one wants them

Fact: I've heard this argument a number of times, yet there is no objective data to back up such a claim. Moreover, it's dangerous to assume consumers don't want them when commercial sales of electric vehicles (other than pre-orders) haven't even begun yet.

That being said, in September, 2010, Nissan reached its goal of 20,000 reservations for its all-electric LEAF. That was three months ahead o schedule.

Myth: Electric cars are no less pollutive than conventional vehicles because most of our electricity is generated from coal.

Fact: In a 2006 DOE report, researchers noted that although most of today's power plants emit greenhouse gases, with electric vehicles, the levels of greenhouse gas emissions would be reduced because the entire process of moving a car one mile is more efficient using electricity producing gasoline and burning it in a car's engine.

Also worth noting is that as many of our older coal-fired power plants retire, new solar, wind, and geothermal operations will pick up some of t slack, thereby increasing the amount of clean energy being sent to the grid.

Myth: Our grid can't handle it.

Fact: According to a 2007 study conducted by the Pacific Northwest Laboratory, if every vehicle on the road was a plug-in electric vehicle, to grid could support more than 75% of them charging at night without adding a single power plant.

It is highly unlikely that any of us will see a 100% penetration of electric vehicles in our lifetimes. And while many in Washington want to temp the promise of ten percent penetration in ten years, it is likely that within the next ten years, less than 5% of the vehicles on the nation's highv be electric.

So the fear of our outdated grid being unable to handle an influx of electric cars is overblown.

Myth: Electric cars are not as energy efficient as gasoline-powered cars.

Fact: According to the DOE, about 20% of the energy from the fuel you put in your tank actually gets used to move your car or run accessori remainder is lost to engine and driveline inefficiencies and idling.

Electric drive systems, however, see about 75% or more of the energy from a battery reaching the wheels. So even with transmission and dis losses, electric cars still come out ahead.

Myth: Can't sell electric cars without subsidies

Fact: Bottom line: Oil is heavily subsidized, and the price you pay at the pump *does not reflect* the true cost. If all direct and indirect subsidies figured into the equation, you'd likely be paying anywhere between $8.00 to $11.00 a gallon for 87 Octane.

Yet how often do we hear people asking how well internal combustion engine vehicles could sell if we weren't subsidizing our oil addiction?

End the tax payer support for oil *and* electric vehicles, and see which sells the best. I'll give you a hint: When 87 Octane hit $4.00 a gallon, ca were paying above sticker price to get their hands on a Prius, Toyota's hybrid superstar which now gets 50 miles per gallon.

What do you think will happen when we hit $4.00 a gallon again?

You think you'll need a tax credit to sell a Nissan LEAF or a Chevy Volt?

Just something to think about.

You can view the HTML version here: Alternative Energy Stocks: Facts and Myths

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