

Investing In “Clean Energy,” “Solar, and “Wind” Stock Mutual Funds and ETFs

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Diversification Is Often Called The “Only Free Lunch In Investing.” Diversification tends to reduce “specific company risk” – the risk that the price of one company’s stock could dramatically fall due to adverse events and hence affect the accomplishment of one’s financial goals. Accordingly, our firm stresses diversification through extremely low-cost, institutional-style stock mutual funds with extremely low annual expense ratios and low “hidden fees and costs.”

However, there has been a great deal of interest in investing in “wind energy” or “solar energy” or “clean energy” companies. While *our investment advisory firm does not recommend investments in individual stocks, nor in sector-only stock mutual funds and ETFs*, as an aid to investors interested in this sector, as evidenced by the number of inquiries made in PickensPlan.com forums, we provide this research report as an overview of investing in this sector.

Stock Mutual Funds and ETFs, Generally. We generally suggest that those interested in investments in stock market investing do so through low-cost stock mutual funds and exchange traded funds (ETFs). Both mutual funds and ETFs pool together investors’ funds to invest in a more diversified basket of stocks than most individual investors can cost-efficiently put together on their own. The advantage offered – diversification among hundreds (if not thousands) of different stocks – is the key attribute of mutual fund and ETF investing.

Having said that, when one undertakes investments in sector-only funds, especially a sector such as this which has only recently been considered for investment vehicles, it is difficult to find highly diversified stock funds and ETFs. Investors may be tempted to invest in individual stocks owned by those companies. Even using a “buy-and-hold” approach, there can be significant costs to acquiring stock issues – including brokerage commissions and the often-high (especially for smaller company stocks) “bid-ask spreads.” In addition, investments in foreign stocks may expose investors to other costs, such as exchange fees, taxes, etc., as well as liquidity constraints.

The Inherent Risks of “Sector” Investing. Investing in one “sector” of the economy – such as wind energy – brings with it significant risks. These include, but are not limited to, changes in the economic and/or fiscal attractiveness of the sector. For example, if oil and/or natural gas prices fall dramatically, power companies would be more inclined to purchase electricity from plants of this nature (subject to certain government restrictions, or existing contracts). Technology could leapfrog existing wind energy, leaving existing “windmill farms” or “solar farms” or “solar power plants” a relic of the past. (This type of risk is sometimes referred to as industry’s exposure to “disruptive technologies.”) Production tax credits

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(essential to the deployment of wind farms in the U.S.), and investment tax credits (essential to the deployment of solar energy in the U.S.) could not be renewed or possess limited life spans. Other investor-friendly tax policies (accelerated depreciation in many instances) may not continue forever, and government subsidies for research and development may cease or be directed elsewhere. Other risks exist, as well, such as growing opposition from certain residents of various localities, may increase costs of deployment of the technologies.

Another risk is found in the high “price-earnings” ratios of many of the companies found in this sector, as well as other valuation ratios. As a result, stock mutual funds and ETFs which own stocks in this sector tend to have a substantial “growth” tilt. “Value” investors will likely not be interested in these funds and ETFs. We note that, historically, and over long periods of time (15 years or greater), diversified baskets of “value” stocks beat out diversified baskets of “growth” stocks. (For more on the “value” and “small cap” effects, please read our book, *The Science of Investing*, available through our firm’s web site, [www.JosephCapital.com / resources / books.](http://www.JosephCapital.com/resources/books)) Hence, the “growth” tilt of most of these stock funds and ETFs implicates another risk that investors may assume by investing in this sector at this time.

Without broad diversification, sector stock mutual funds and ETFs remain subject to a great deal of volatility. The prices of individual companies in the “clean energy” sector often rise and fall dramatically, and often the prices of many companies in the sector rise and fall at the same time. For example, a substantial drop in oil costs might cause investors to believe this sector is less attractive, in terms of potential future profits of the companies themselves, causing a substantial drop in the value of the stock mutual fund or ETF. If you invest in one of these funds or ETFs, expect a high degree of price volatility.

We strongly encourage individual investors who remain interested to undertake substantial due diligence as to the funds and ETFs mentioned herein. At a minimum, a fund or ETF’s *prospectus* and *Statement of Additional*

Information should be obtained and reviewed before investments are undertaken. Individual investors should also commit only a small portion of their overall investment portfolio to any one sector or industry. Finally, those individual investors who utilize an investment advisory firm should consult with their investment counsel prior to investing, in order to ensure that the investment, if purchased, is undertaken in the correct type of account (taxable, tax-free, or tax-deferred) and otherwise integrates with the investor's overall portfolio and goals.

Also be aware that many of these funds vary in their composition. Some of the funds are heavily invested in utility companies that only have a fraction of their operations in solar and/or wind energy projects. Even mighty General Electric is a holding of many of these funds and ETFs.

Fund Differences: U.S. vs. World Focus. While many of these funds tend to diversify in companies which are headquartered in several different countries, this aspect of diversification may not be attractive to many investors. Indeed, the wind sector is dominated by European companies at this time. Many U.S. individual investors desire to invest only in American wind energy companies, which substantially limits the diversification potential of the stock mutual funds and ETFs, as many leading renewable energy companies in the wind sector are not traded on U.S. stock exchanges (and also don't possess American Depository Receipts (ADRs). Nevertheless, we list stock mutual funds and ETFs which are both U.S.-only and "world" in focus.

Our "Fees and Costs" Screen. Following our belief that investment fees and costs do matter and must be kept reasonable, we list only no-load stock mutual funds and ETFs which possess an annual expense ratio of less than 1%. Investors should be aware that the "annual expense ratio" is often dwarfed by other fees and costs relating to transactions and/or cash holdings within the fund, and due to often-limited data we have not analyzed these aspects of the funds. (For more on such "hidden" fees and costs, please view our white paper, "Estimating the Total Costs of Stock Mutual Funds," found at www.JosephCapital.com, under "Resources".)

We also do not screen for tax efficiency of the funds surveyed herein. However, we note that for investors committing funds from taxable accounts, tax efficiency is usually a material consideration and an appropriate analysis of tax characteristics should be undertaken.

So, and with all of those caveats, and with the understanding that all of the risks of stock fund investing have not been discussed, and with the further understanding that our firm does not recommend investing in sector-only funds such as those discussed herein, we provide an overview of the lower-cost stock mutual funds and ETFs in this sector.

We were tempted to name this research report: "Wind Sector Funds: Don't Get Blown Away" or "Solar Sector ETFs: Don't Get Burned." Investors beware.

Clean Energy Stock Mutual Funds and ETFs.

Powershares Wilderhill Clean Energy Portfolio (PBW) has an annual expense ratio of 0.66% and a U.S. focus (even then, foreign stocks account for about 27% of the fund's holdings). It is the oldest ETF in this sector, and invests in 53 individual stocks. The "Top 10" holdings constitute about 28% of the ETF. Annual turnover is 20%. (All data as of June 30, 2008, and is provided Morningstar.com.)

Powershares Global Clean Energy (PBD) has an annual expense ratio of 0.75% and a global focus. Foreign stocks constitute about 69% of the fund. The fund has 86 holdings and a low reported portfolio turnover rate of 4%. The "Top 10" holdings of the fund constitute approximately 22% of the fund. (All data is as of June 30, 2008, and is provided by Morningstar.com.)

Van Eck Global Alternative Energy Fund (GEX) has a 0.65% annual expense ratio and a global focus. The "Top 10" holdings constitute nearly 62% of the fund, which has total holdings of 30 stocks. The annual turnover of the fund is reported at 5%. Foreign stocks constitute about 69% of the fund. (All data is as of June 30, 2008, and is provided by Morningstar.com.)

First Trust NASDAQ Clean Edge US Liquid (QCLN) has a 0.40% annual expense ratio, and a U.S.-only focus. About 56% of the fund's assets are found in its Top 10 stock holdings, and the fund reports 59 total holdings. Foreign stocks constitute only 13.4% of the fund's holdings. (All data is as of June 30, 2008, and is provided by Morningstar.com.)

Solar Energy Stock Mutual Funds and ETFs.

Market Vectors/Van Eck Solar Energy (KWT) has an annual expense ratio of 0.65%. Foreign stock holdings account for 72% of the fund, which has a total of 34 holdings.

Claymore/MAC Global Solar Energy (TAN) also has an annual expense ratio of 0.65%. The fund has only 25 stock holdings, and foreign stocks account for nearly 66% of the fund's holdings.

Neither of these ETFs is old enough to possess a portfolio turnover ratio. (All data as of June 30, 2008, per Morningstar and the funds.)

Wind Energy Stock Mutual Funds and ETFs.

The PowerShares NASDAQ OMX Clean Edge Global Wind Energy Index (PWND) is a fund which invests in 32 companies and an expense ratio of 0.75%. Country allocations are as follows: Spain 22.33%, Germany 15.68%, Denmark 13.72%; United States 11.45%; France 8.31%; United Kingdom 6.63%; Belgium 5.58%; China 5.03%; Switzerland 3.76%; Canada 2.82%. The "Top 10" holdings constitute a whopping 65%, approximately, of the fund's holdings. (All data as of August 15, 2008, per the fund.)

The First Trust ISE Global Wind Energy Index (FAN), has a 0.60% expense ratio. FAN's top countries are Germany (23%), the United States (17.9%) and Spain (16.1%). While this ETF has 66 holdings, the "Top 10" stock holdings constitute about 57% of the index. (All data as of June 30, 2008, per Morningstar.)