

Alternative Energy

IS THERE SPACE FOR THE SMALL INVESTOR?

WITH OIL AND NATURAL GAS PRICES AT THEIR PRESENT LEVELS THERE WOULD APPEAR LITTLE PRESSURE OR EVEN INCENTIVE TO INVEST BILLIONS OF DOLLARS IN ALTERNATIVE SOURCES OF ENERGY. BUT THE PRESENT STATE OF AFFAIRS IS LIKELY TO BE SHORT-LIVED, DESPITE THE BREAKTHROUGH IN RECENT YEARS OF FRACKING IN THE US AND THE RECENT DISCOVERY OF POTENTIALLY MASSIVE OIL DEPOSITS IN THE SOUTH OF ENGLAND.

Indonesia is now a net importer of oil and thanks to its population explosion and economic growth is unlikely ever to be self-sufficient in oil again.

Eventually this will be the fate of every oil-producing country in the world as finite supplies that took millions of years to form from plankton are devoured in just a few generations of human existence. Even with abundant coal supplies which will also run out within perhaps the same timespan, if the world does not develop alternative and renewable supplies of energy civilisation as we know it will not survive much beyond a hundred years.

So what are the alternative options and what are the considerations and drawbacks? Let's consider the main ones:

- **HYDROELECTRICITY** – needs an abundance of fast-flowing water.



Typically generated by building dams on major rivers. It is also possible to harness tidal flows. Drawbacks: fluctuating supplies and around 50% loss of energy fed into generators. Construction of dams can lead to environmental degradation.

- **SOLAR ENERGY** – abundant supply in warmer countries. Drawbacks: only 25% efficient and source of energy intermittent.
- **WIND** – plentiful in many parts of the world. Drawbacks: only 25% efficient and intermittent supply. Environmental objections in terms of noise and threat to bird life.
- **NUCLEAR** – ample supply and should in theory be 'clean'. Drawbacks: the ever-present risk of accident as at Chernobyl in the Ukraine or natural disaster such as the earthquake and tsunami at the Fukushima plant in Japan. Both disasters were on a devastating scale leaving damage that will impact for generations.
- **GEOTHERMAL** – in abundant supply in the volcanic regions of the world and highly efficient compared to solar and wind. Drawbacks: potential environmental damage and cost.
- **BIOFUELS** – first introduced in 1897 by Rudolph Diesel who created the

first diesel engine to run on peanut oil. Since then a whole range of plant-based sources have successfully been converted to fuel. Drawbacks: serious ethical issues as crops are diverted to produce energy at the expense of food supplies.

- **WASTE CONVERSION** – this process serves two purposes; not only does it produce a source of electricity but it also removes the need for landfills and avoids the damage caused by mountains of waste, particularly in developing countries. Drawbacks: the waste still has to be processed and the technology is in its infancy.

Cost is a major issue affecting all forms of alternative energy supplies. To supply national grids with a meaningful level of power generally requires investments in the billions of dollars. So it comes down to governments and taxpayers at the end of the day with the help of major corporations and global financial institutions.

BUT IS THERE A PLACE FOR THE SMALL INVESTOR?

If we are thinking in terms of direct investment to generate energy there is the potential for individuals to install solar panels on their roofs and some governments will even give small

tax breaks for the effort. Then again there have been cases of farmers fed up with the price of fuel who found a way to convert their plentiful supply of manure into methane gas to use in vehicles around the farm. This has led to amusing stories of visits from tax inspectors demanding that tax is paid on the fuel whether it comes from the oil pump or farm animals.

Personal choices can also make a small contribution to a reduction in the use of fossil fuels. An example would be the purchase of an electric or 'hybrid' car which can make use of electricity that is generated increasingly by alternative energy sources. Such investments should certainly contribute to a less polluted world and a slowdown in climate change, but while oil remains relatively cheap there will be little financial incentive in the short term.

But how can the small investor contribute to and benefit from the big picture and be involved in companies that actually help to fund or run the major projects? It's actually very easy as there are a number of mutual funds that have latched onto the theme of alternative energy.

THE ROLE OF MUTUAL FUNDS

One way small investors can invest in and share the potential profits of alternative and renewable energy is via mutual funds. For several years a number of major fund houses have been offering alternative energy funds. One of the largest funds is BlackRock New Energy with invested assets of over a billion US Dollars. It invests almost entirely in the US and Europe. The fund reached a peak in the technology boom at the turn of the millennium but like all technology funds fell spectacularly by around 80% in 2001. It then recovered sharply and rose to an even higher peak in 2008 only to crash again in the global financial crisis when the price of oil fell, only to rise once again as oil reached a new peak. When the price of oil fell unexpectedly to \$50 a barrel in 2014 the fund price fell yet

again, although this time by only a small amount, reflecting perhaps the growing maturity of the market.

A more recent entry onto the scene is the Guinness Alternative Energy Fund. Interestingly, this one invests close to 40% of its assets in China and Hong Kong, with the balance mainly in the US and Europe. Not surprisingly this has resulted in highly volatile returns with a loss of 42% in 2011 but a gain of 70% in 2013.

Another group of funds come under the 'Climate Change' theme, clearly hoping to appeal to environmentally-conscious or 'green' investors. They invest more broadly in major corporations that in turn invest in areas that contribute to a reduction in climate change. They will even include oil and automobile companies that are making serious efforts to diversify away from fossil fuels. While they do

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not outperform, these funds are less volatile than pure alternative energy funds and reflect more closely the movement of the broader markets.

SO SHOULD YOU CONSIDER INVESTING IN THESE FUNDS?

Clearly the alternative energy funds are highly volatile. Get in at the top of the market and you may suffer heavy losses. Move in at the right time however and you could double or treble your investment in just a few years. The funds are highly correlated with the price of oil. So when oil becomes expensive everyone is looking around in panic again at alternative sources of energy, which means good business

and profits for companies in that industry. But when oil becomes cheap, alternative energies fall quickly out of favour.

For long term investors there is little doubt that population growth alone will

put pressure on oil supplies and the price of oil will quickly rise again. At that point you can almost guarantee that attention will once more focus on alternative energy, causing related company shares and mutual fund prices to surge. Many will consider that going into this market right now would be premature but history has shown time and time again that when the market surges it can be sudden and most people miss the boat. A small allocation to the asset class might be appropriate if you can take a long term view. Coupled with an investment in one of the many conventional energy funds at the same time would give you complete coverage of the energy field.

A prudent way to invest in this asset class is via a regular savings or pension plan where it is not necessary to commit to a large lump sum at the outset but simply build up holdings gradually over a number of years. Profits can always be taken later by switching to other funds if there is a surge in prices. If you already have such a plan you should be able to switch into the funds without charge. A total energy (old and new) allocation of 5% to 8% of a portfolio might be appropriate but expect short term volatility as the price to pay for the occasional windfall or long term gain.

If there is a long wait for profits at least you will have the comfort of knowing that you are investing in a future where the world's valuable resources can be preserved.



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