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BETTING ON THE SUN

Tim Guinness made a bundle on traditional energy stocks, and he still likes them. So why in the world is he running a new fund that invests in alternatives like solar and wind power?

By Nicole Bullock

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LAST YEAR LONDON MONEY manager Tim Guinness hit the road to answer an important question: Is it possible to drive from Shenzhen to Beijing? As the manager of **Guinness Atkinson's Alternative Energy** fund (GAAEX), Guinness needs to know not just a company's balance sheet, but also the outlook for energy demand around the world. That includes, of course, the potentially great gas guzzler China, where Guinness wanted to determine if the roads were passable between the thriving former fishing village and the capital. Some 2,000 miles later, he had his answer: He made the entire trek by expressway and even slept in five-star hotels along the way. "Some people said that trip couldn't be done," he says. "But the roads are there."

For Guinness, 59, that's one more piece of evidence that rising demand for fossil fuels will keep oil prices high enough to help drive the alternative energy revolution. While conventional energy stocks may be the strongest play now, a cadre of experts think alternative energy will catch on as demand outstrips the supply of oil, natural gas and coal. Power from solar energy, wind and biofuels should also get a boost as concerns about global warming—once dismissed as the rhetoric of a small group of hard-core environmentalists—move into the mainstream. Even President Bush wants people to know he's green, pushing alternative energy technologies and proposing a 20 percent cut in the use of gasoline over the next 10 years.

Still, it's hard to find money managers going out on a limb in this unproven industry. Enter Guinness, who has been investing in traditional energy companies through the Guinness Atkinson Global Energy fund. A year ago he started the Alternative Energy fund, one of the first of its kind. It still has only $24 million in assets and, after losing 20 percent of its value early on, is now up just 2 percent. But the affable Guinness, a descendant of the famous Irish beer family, takes the ups and downs in stride. "On an extraordinary number of occasions, people have

said we are running out of oil," he says. "That doesn't worry me too much, because eventually, they will be right." All kidding aside, Guinness has made a name for himself finding the next big thing: international investments in the 1980s, Asia in the early 1990s and conventional energy in the past few years.

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Investors should expect the roller-coaster ride in alternative energy to continue. The bull market in traditional energy only makes the alternatives more competitive, but the reverse is also true. "If there is a downturn in oil and gas, it could really put the brakes on alternative energy," says Brady Hughes, an analyst at John S. Herold, a Norwalk, Conn., research firm that specializes in energy. That makes picking the winners tricky. "Especially with a developing industry, you have to study the companies yourself and kick all the tires," says Guinness. Or, in this case, the turbines.

SmartMoney sat down with Guinness at his office on Queen Anne's Gate—a few blocks from Buckingham Palace—to discuss global warming, solar panels and the ethanol bubble.

SMARTMONEY: *Let's start at the beginning. What is the alternative energy revolution?*

TIM GUINNESS: In 2003 the world got hit with a double demand shot for oil. We saw demand from developing Asia jump substantially—driven by China. That came alongside demand from America and the rest of the [industrialized world] also picking itself up off the floor. Suddenly, there's not enough oil to go around, and the world woke up to the fact that the oversupply created in the early 1980s has been worked off.

SM: *So we're running out of oil?*

TG: Cheap, easily extractable conventional oil is finite, and we are approaching the day when we have found and consumed nearly half of it. When that moment comes, it will be extremely hard to increase production. We've consumed about a trillion barrels of oil, and we have about another trillion barrels in reserves. There are a variety of views as to how much more there is to find, but I'm in the camp that says we could find another 2 trillion. We also have to recognize that it's not just oil that's running out. With much longer lead times, it's also coal and natural gas. So we have got to do two things. We have to become hugely more efficient, and we've got to find alternative sources of energy. That's pillar one of the alternative energy revolution.

SM: *In the 1970s, the last time oil prices spiked, people started to worry that oil was running out, and they turned to alternative sources. But the industry lost momentum when oil supply increased and prices fell. What's different now?*

TG: It is the scale of the problem. Since we discovered oil in Alaska, the North Sea and the Gulf of Mexico, our consumption has risen 50 percent. We'd have to find five of those sites now. And we are running out of places to look. Sure, there are reserves it makes sense to exploit at, say, $200 oil, but at that point, it also might make sense to use an alternative source.

SM: *What's the second pillar?*

TG: The growing awareness that we have a global warming problem and that we may be causing it. The likely suspect is carbon emissions, which are the result of burning hydrocarbons. The worst of these is coal. Oil is next and then gas, but they are all pretty bad. Even though the Bush administration has been slow to move on Kyoto [the international treaty that limits emissions of greenhouse gases], my sense is that there is a huge sea change in the U.S. If you believe that the amount of carbon dioxide in the atmosphere needs to be controlled and probably reduced if we are to stop significant global warming, then we've got to do some quite dramatic things to achieve that.

SM: *Doesn't it all come down to price?*

TG: One of the issues for alternative energy is that the cost has been higher than the fossil fuel alternatives. Rising fossil fuel prices are one way that [alternatives] will become more effective. Governments can accelerate that by providing subsidies for the use of alternative energies that are maybe two or three times too expensive today, but that,

Mixing stocks and science, Guinness and his son Ed Guinness (seated) are engineers. Analyst Matthew Page has a master's degree in physics.

as they become mass produced and gain some scale, will become economical in the long run.

SM: *How do you define alternative energy for the fund?*

TG: It's alternative to fossil fuels. We invest more or less in the alternatives to things that are going to run out. So biofuels, solar, fuel cells, wind, hydro, storage, geothermal, efficiency.

SM: *What's your take on ethanol?*

TG: We have reduced our ethanol exposure almost to zero. Ethanol will be a great business, but companies must capture market share and will go through periods of low profitability. The problem is that the main investments are in the refining space. The companies, like VeraSun Energy and Aventine Renewable Energy, which we sold, have to buy corn and sell ethanol, and recently, the price of corn has doubled.

SM: *Where are the biggest investing opportunities now in alternative energy?*

TG: Over the next 25 years, the biggest growth is in solar. Its use has been held back by the fact that it's expensive versus burning fossil fuels for electricity. Turning solar energy into electricity is a complicated, multistep process, and there are costs associated with each part. There is also a shortage of the type of silicon panels needed to turn solar rays into proper energy. The total cost of solar will come down as production rises. It's a potentially explosive growth business when the price of solar becomes cheap enough or the price of oil, gas and coal gets expensive enough.

SM: *When will that be?*

TG: I predict that the cost of solar will halve as the cost of fossil fuels doubles in five years at the earliest and 10 at the latest.

SM: *What companies do you like in the sector?*

TG: **Suntech Power** is a solar cell and module designer based in China. It's not cheap. It's a classic growth stock. It has a strong order book and has secured silicon supply. Over time, we think it should be the low-cost producer in the sector.

SM: *What about wind power?*

TG: Wind is a good growth business, and it's cost-competitive now with oil and gas for creating electricity. Here we like **Vestas.** It's the No. 1 wind turbine manufacturer, with a 30 percent market share, and it's expanding production plants in the U.S. and China. **Iberdrola** also has exposure to wind and hydropower.

SM: *Fuel cells?*

TG: *Despite billions of dollars and people's best efforts, fuel cells don't last long enough. We are potentially 20 to 30 years away from this technology being adapted for automobiles, which is why we have seen the advent of the hybrid car. We haven't had a tremendous amount of success with these investments, and we have trimmed them back.*

SM: *You also have a traditional energy fund, the Guinness Atkinson Global Energy fund. Should investors sell that and buy the Alternative Energy fund?*

TG: I think we still have a pretty good 30 years ahead of us in traditional energy. If oil will be very expensive, as we predict, the grandchildren of the people who own a bit of oil in the ground will be very happy. It's like owning a city block in Manhattan. You may go through ups and downs, but the long-term trend is up.

SM: *What's the biggest risk for the Alternative Energy fund?*

TG: Twenty-five-dollar oil.

SM: *How likely is that?*

TG: It's increasingly clear that we are in a new era of $60 oil, and the people who think we are ever going back to $30 oil are fewer and fewer. And those who do are plain wrong.

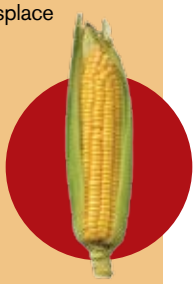
The Guinness Book

With high oil prices and the threat of global warming, alternative energy is getting lots of attention. But what are the best bets? Here's a sector-by-sector look, courtesy of Tim Guinness.

SOLAR Over the next 25 years, solar power has the largest growth potential of the alternative sources for electricity. High costs have hindered its use, but the cost is expected to become more competitive over the next five to 10 years. Solar companies make up the largest part of his fund–29 percent. A favorite: **Suntech Power** (STP, $37).

WIND Unlike solar, wind power already costs about the same as oil and gas for generating electricity, which bodes well for growth. There are limits, however, to the available sites. Wind farms are best in places with steady wind that are close to other infrastructure. Holdings in the sector make up 15 percent of the Alternative Energy fund and include **Vestas Wind Systems** (VWS, 291 Danish kroner) and **Iberdrola** (IBE, 35 euros).

HYDRO Hydropower, 13 percent of the fund, is a proven technology that has been around for years. Growth is limited because many of the best sites in the developed world are already being exploited. It's also environmentally controversial: Dams and other hydropower structures can displace communities and disturb ecosystems.



BIOFUELS The most versatile of the current alternative energy sources and the best near-term option for replacing oil for transportation. Guinness is bearish on ethanol stocks. But he has 15 percent of the fund in biofuels and says biodiesel companies such as **Biopetrol Industries** (B2I, 9 euros) stand to benefit from European demand.

FUEL CELLS Fuel cells combine hydrogen and oxygen to produce electricity, with water as a byproduct. But even after years of research and investment, they don't last that long. Guinness has cut back on this area–to 11 percent of the fund–because the technology is in the early stages of development, especially for use in cars. He still likes niche companies such as **FuelCell Energy** (FCEL, $7). **–N.B.**

Note: Stocks on overseas exchanges are available through most discount brokers, but commissions may be higher than for U.S.-listed stocks. Trades typically need to be made over the phone. 1 euro = $1.30. 1 Danish krone = 17.4 cents.

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