Economic Incentives for Alternative Energy

By

Jim McCool

Abstract

The US is using non-renewable fossil fuels for energy at an unsustainable rate, polluting the environment. Clean and renewable alternative energy sources are currently available, but the country continues to focus on development of fossil fuel sources rather than switching to alternatives. The reasons for this are economic. Pollution is free, so the true cost of fossil fuels is not reflected in the market, giving it an unfair economic advantage over alternative energy. Most businesses and individuals will choose the cheapest energy. Economic incentives are required to encourage the switch to alternative energy. Incentives given to business make alternative energy more competitive, and often have a trickle down effect that all consumers can benefit from.

5 November 2005

Economic Incentives for Alternative Energy

It is generally agreed that current US energy consumption is unsustainable, and needs to reduce dependence on fossil fuel imports. In addition to this, the fossil fuels that most of our energy is based on are harmful to the environment, and may be contributing to global warming. These problems can be alleviated through reducing consumption (unlikely), or through the development of alternative sources of energy. Since the cost of alternative energy is not economically competitive with conventional energy sources, the government needs to provide business incentives to encourage the development and use of alternative energy.

The market drives energy choices

Most businesses exist to make a profit. Maximizing profit requires minimizing costs and maximizing inflows. Naturally, choosing to use a more expensive source of energy is counterproductive to the profit motive. There are a few businesses that market the idea that they are environmentally friendly, counting on increased inflows or premium pricing to offset the added costs. While this approach may justify higher costs, it is only valuable to a limited market. The unfortunate reality is that most businesses are more concerned with the bottom line in a broader market, than with the perception of being environmentally friendly. Thus, there is no incentive for most businesses to use alternate energy technology.

Not only does business lack incentive to use alternatives, but artificially low costs provide incentive to keep using conventional energy. Conventional energy sources such as coal, oil, and natural gas are considered inexpensive relative to alternative energy sources. While true in terms of cash layout for the consumer, the reality is that the cost of polluting the environment is not paid by the fuel consumer. In effect, the public is subsidizing conventional energy. For alternative energy sources to be competitive, they need an environmental bonus, in the form of government tax incentives.

Tax incentives can provide the profit motive to use alternative energy. Tax breaks for industries using qualifying alternative energy can easily offset the higher out of pocket cost of that energy, thus supplying the profit motive for business to switch to alternative energy sources.

Incentives increase investment in alternative energy

As incentives provided to energy users encourage them to switch from conventional to alternative sources of energy, the increased demand for alternative energy will drive investment in new sources of alternative energy. However, development of alternative energy is expensive. When congress failed to renew a tax credit for wind energy in 2004, “new wind farm development came almost to a halt” (Tax Credits). The relationship between tax credits and new wind farm development illustrates the important role of government in providing additional incentive for development of new energy sources. Through the use of incentives, the government can lower the high cost of developing and maintaining alternative energy sources, making this kind of energy more competitive in the market. “When Congress delayed renewing the 1.8 cents per kwh credit for wind power […] the business tanked until the credit was restored” (Carey, et al). Alternative energy production is not yet able to compete without this support

Research grants can help fund the search for new sources of energy, and aid in the further refinement of current production techniques to lower cost of alternative energy sources currently being used. This does not mean the government is solely responsible for financing new development. Howard H. Newman, vice-chairman of private equity investor Warburg Pincus states that "If people are convinced that subsidies will remain, capital will follow" (qtd in Carey, et al). Venture capital will go where the profit is. As long as the government ensures the profitability of alternative energy investment, more capital will continue to feed the industry.

Incentives reduce alternative energy cost and benefit everyone

Even private individuals benefit from tax incentives to business. Obviously, everyone benefits from a cleaner environment, but that is not the only benefit. A tax credit for “wind power has [caused the cost to drop] from 45 cents per kilowatt-hour in 1980 to less than 3 cents [in 2005], making it competitive with natural gas- or coal-fired plants” (Tax Credits). The credits given to the power producer are passed on to the consumer in terms of lower energy costs.

As more businesses invest in alternative energy, the technology and the cost of producing that energy will come down in price. Combine this with the increasing cost of conventional energy sources, and these new sources of energy become more affordable to individuals.

Incentives change the energy market

Market forces are what determine the energy utilization and where that energy comes from. The relatively low cost of fossil fuel energy coupled with the profit motive has virtually guaranteed that the primary energy source in the US is from environmentally harmful fossil fuels. The fossil fuels actually have an unfair economic advantage, since the cost of polluting is not paid directly by the user; it is essentially free, subsidized by the environment. For alternative energy sources to be competitive, they also must be subsidized. The government needs to provide economic incentive to make alternative energy attractive.

Government energy policy needs to level the economic playing field in the energy market to reduce dependence on non-renewable, environmentally damaging fossil fuels. A judicious combination of pollution taxes on conventional energy and tax credits on alternative energy will level the economic playing field and encourage the switch to more environmentally friendly sources of energy. The government should continue and expand programs to support the production of new sources of alternative energy. Increasing fossil fuel cost by removing the pollution subsidy, and reducing the cost of clean, renewable energy sources, will contribute to the well being of businesses, and will benefit the entire public.

Works Cited

Tax Credits Put Wind In The Sails Of Renewables *John Carey in Washington*. Business Week. New York: Jan 10, 2005., Iss. 3915; pg. 94 Online. Proquest. 17 Oct 2005

Carey, John., et al. “ALTERNATE POWER: A CHANGE IS IN THE WIND”. Business Week.3941 (2005): pg. 36 Online. Proquest. 17 Oct 2005

Additional Reading

Carey, John. “Kerry's High-Wattage Energy Plan” Business Week. New York: Aug 9, 2004., Iss. 3895; pg. 29 Online. Proquest. 17 Oct 2005

Carey, John, et al “Energizing Energy” Business Week. New York: Mar 28, 2005., Iss. 3926; pg. 36 Online. Proquest. 17 Oct 2005

Clark, John F., Logeman, David M. “The Energy Problem”. Business and Economic Review. Columbia: Apr/May/Jun 1988.Vol.34, Iss. 3; pg. 7, 5 pgs Online. Proquest. 17 Oct 2005

EPA web site; alternative energy
http://nepis.epa.gov/ doc #600f01019

Holman, Walter R., Fletcher, Harold D. “Assessment of the Potential of Small-Scale Hydroelectric Power in New England and the Effectiveness of Economic Incentives” New England Journal of Business & Economics. Kingston: Fall 1982.Vol.9, Iss. 1; pg. 1, 18 pgs Online. Proquest. 17 Oct 2005

Landers, Jim. “Ethanol's sweet allure” Knight Ridder Tribune Business News. Washington: Jun 9, 2005. pg. 1 Online. Proquest. 17 Oct 2005

“Old battles resume on market power issue: co-ops, industrials versus grid-owning IOUs” McGraw - Hill's Power Markets Week. New York: Jan 12, 2004. pg. 1 Online. Proquest. 17 Oct 2005

“RFS LEGISLATION WOULD HELP FARMER ENERGY PROFITS, EXPERTS SAY” Oxy - Fuel News. Potomac: Aug 6, 2001.Vol.13, Iss. 31; pg. 1 Online. Proquest. 17 Oct 2005

Roth, Kristin. “Fueling the Future” Popular Mechanics. October 2005: 80.

Smith, Vernon L. “Power to the People” Wall Street Journal. (Eastern edition). New York, N.Y.: Aug 12, 2005. pg. A.8 Online. Proquest. 17 Oct 2005

"Tax Briefing: A Look at the Energy Tax Incentives Act of 2005 and the SAFE Transporation Equity Act of 2005" Corporate Business Taxation Monthly. New York: Sep 2005.Vol.6, Iss. 12; pg. 11, 9 pgs Online. Proquest. 17 Oct 2005

Tregarthen, Timothy, and Libby Rittenberg. Microeconomics. New York: Worth, 2000