A Short Summary: “The Future of Alternative Energy”

As we recently learned in our textbook’s chapter 20, there are several types of alternative energy, each with its own specific set of assets and faults. In an article entitled “The Future of Alternative Energy” by Cameron Walker, the author discusses some of these types of alternative energy in regards to what role they will play in the future of the United State’s energy “crisis.” In addition, he makes specific reference to both companies in Boulder, CO as well as NREL, so this article has sufficient grounding in our classroom discussions.

The Department of Energy (DOE) predicts that residential use of energy supplies will increase by 25% in the next 20 or so years for the United States; and that a small, but increasing amount of that energy will come from alternative energy sources such as solar power, wind power, and ground heat. A scientist at the American Solar Energy Society in Boulder, CO points out that the future of energy lies in renewable resources since oil and natural gas are going to run out—it is only a matter of time. An engineer at the National Renewable Energy Laboratory (NREL) in Golden, Colorado points out that renewable energy resources are generally more expensive than conventional energy means (such as oil and natural gas), but that in the long run, they do save both fossil fuels and reduce pollution to the environment. In addition, he points out that the values that we hold (in regards to protecting the environment or ourselves from pollution) can be motivating factors in paying a little bit extra in order to use renewable energy resources on a personal level.

The article states that solar power is still more expensive than national electricity costs by about 60%. A new technology is also introduced in the article: a high-tech coating that can be
placed on the surfaces of buildings, boats, RVs, etc. to absorb solar electricity. There are boats
and RVs that already have this product that are available for sale to the public. The article also
explains that a shingle-type product is being made with this material; with this product, one
installs both shingles and solar panels at the same time (since the new product will act as both).
NREL researchers are currently trying to find ways to make solar power more cost-effective and
efficient.

A second energy source, wind power, is a fairly popular trend, especially since it costs
about 50% less than conventional energy. Wind power is currently used to power about nine
million U.S. homes. However, few houses generate their own wind power and because of this,
the initiative for wind power needs to be on a larger level. For example, the state of Colorado
just introduced a ballot that would require electricity companies to produce at least 10% of their
electricity from wind power and other renewable sources by 2015.

Finally, the third and final type of alternative energy source that the article discusses is
ground heat. By tapping into the ground for heat sources, it helps to regulate household
temperatures, and thus, lower energy bills. The EPA found that ground energy systems could
save up to 70% in heating costs for landowners.

Reference
Database]. Retrieved February 8, 2007, from