

PROBLEMS AT THE PUMP

Copyright © ELCA—Lutheran
Partners, 2004



Evangelical Lutheran Church in America
God's work. Our hands.

By: George L. Murphy

I'm writing in early May as gasoline prices across the country have begun to rise sharply. Perhaps it is a result of concerns about Iraq, and prices do fluctuate, but this may give us a taste of future problems.

An article by an Iranian, Samsam Bakhtiari, in the April 26 issue of *Oil and Gas Journal* uses a model of global oil resources to predict that world oil production will peak around 2006–2007. This is not an isolated prediction, for a number of oil experts have concluded that peaking will probably occur in this particular decade. This sort of analysis was pioneered by M. King Hubbert of Shell Oil who in 1956 predicted that oil production in the United States (then 48 states) would peak around 1969. This was criticized as unduly pessimistic, but production did reach its maximum in 1970. This does not mean that the world will run out of oil in a couple of years. About half of the amount present in the earth when the first oil well was drilled in 1859 is still here. But at that point oil extraction starts getting more difficult, and the amount produced each year begins to slowly decline. This will have major economic and political consequences.

Models and theoretical projections have limits. They require estimates of the total oil reserves of the planet, and there could be surprises that would push the date of peaking back a bit. But we would have to discover about two new fields equivalent to Prudhoe Bay in Alaska each year to keep up with the game. That isn't likely for very long.

We would like oil supplies to last longer, but one sign of maturity is realizing that wishing won't make it so. New technologies may enable us to replace oil with other energy sources, but there is no certainty that this will be feasible on the scales that are needed. And in the long run we will all be dead, but an oil shortage will come in the lifetimes of our children and grandchildren.

Religious Aspects

There are also religious expressions of those hopes. God will take care of us — but God has not promised to supply us with all the oil we want. The Second Coming might be soon, but I don't think the *parousia* is timed to make sure we have the resources we want right up to the end. More serious theological and ethical reflection about resources, and oil in particular, will consider not only God's provision for our needs but also our responsibility for stewardship — of the earth and of resources for our descendants.

We could criticize the apparent lack of stewardship of oil that our generation and previous ones have exercised. A resource that developed over more than a hundred million years has been half used up in less than 150 years! But, while this oil could have been used more efficiently, one can argue that it was needed to be used if an advanced technological society was to be developed in large parts of the world. It is more urgent to think about the forms that our stewardship should be taking now and in the future.

Individuals can practice conservation, and congregations should encourage such efforts. "What kind of car would Jesus drive?" really isn't a bad thing to think about.

And demand for oil would be lessened if more Americans could get rid of their attitude that "only wusses ride the busses" and other public transportation.

In a scientific and technological world the church, more than ever, needs to have an adequate social ethic and be prepared to speak up in the political and economic arenas. The problem has to be dealt with primarily at a national and even global level. The oil supply is not going to be prolonged for very long by car pooling.

What types of policies should be advocated? Nothing we can do right now is going to have a significant effect on energy supplies immediately. We may be in for some at least moderately tough times as far as prices for gas and home heating oil are concerned. A church that speaks of the cost of discipleship ought to be able to talk realistically about this.

Some moderation of our energy use is in order, but there are limits to what can be done without returning to a pre-industrial society. (Whatever romantics may think, this would not be the good old days for most people.) Clearly we need to find alternatives to oil as an energy source. It is also required for many petrochemicals — plastics, fertilizer, and so on — and we shouldn't just keep burning it.

Alternative Energy Sources

Many Americans are fearful about energy from fission of uranium or plutonium, and we do need to be careful with it. The fact

that some nuclear wastes remain dangerous for tens of thousands of years is enough reason for caution. But a lot of the fear of nuclear power is excessive and stems from ignorance. The minor accident at Three Mile Island and even the Chernobyl disaster have to be compared with the deaths, injuries, and environmental damage from fossil fuels (fires, smog, greenhouse gases, oil spills, etc.).

We would like oil supplies to last longer, but one sign of maturity is realizing that wishing won't make it so.

Controlled fusion of light nuclei is a more attractive prospect, but there is one major problem: In spite of intensive work for fifty years, we don't know how to do it. It always seems that controlled fusion as a realistic source of power is twenty or thirty years in

the future. Perhaps it will come, but the fact that stars can do it doesn't guarantee that we can.

Solar power heads the list of environmentally friendly alternatives. It can make a contribution in some areas but will not be able to bear the full load of a modern technological society. In any case, all the alternatives mentioned have the drawback relative to oil that they are not convenient for personal transportation. Here the "hydrogen economy" may come into play. Hydrogen burns in oxygen to form water and release energy, and the same process can be carried out by a fuel cell, which can be used to power a car.

But earth has no mines of pure hydrogen! We would get that fuel by using the same amount of energy to break water down into hydrogen and oxygen. So hydrogen would essentially be a way of storing and making portable the energy from other sources.

I have not been so foolish as to try to solve the oil crisis in 1,200 words, and I have not mentioned all the possibilities. I do encourage congregations and larger expressions of the church to engage faithfully and realistically with issues of environmental stewardship and social justice raised by our need for energy.

Kenneth S. Deffeyes, *Hubbert's Peak: The Impending World Oil Shortage* (Princeton, 2001) is a lively introduction to oil exploration and extraction and future prospects. Colin J. Campbell and Jean H. Laherrère, "The End of Cheap Oil," *Scientific American*, March 1998, and Glenn Morton's Web site provide further information. The titles of David Bodansky, *Nuclear Energy* (American Institute of Physics, 1996), and Matthew L. Wald, "Questions about a Hydrogen Economy," *Scientific American*, May 2004, are self-explanatory.

George L. Murphy, an ELCA pastor and physicist living in Tallmadge, Ohio, is an adjunct faculty member at Trinity Lutheran Seminary in Columbus and a pastoral associate at St. Paul's Episcopal Church in Akron.