

## A Review of Beyond Oil, The View from Hubbert's Peak

It has long been known by geologists that the world's oil supply is finite. Oil is not a renewable resource and it is found in relatively limited geological environments around the world. This is the subject of **Beyond Oil, The View from Hubbert's Peak**, by Kenneth S. Deffeyes, Professor Emeritus at Princeton University published in 2005, (202 pages, hardcover, Hill & Wang).

In general oil is found in a zone called the oil horizon located between 7,500 feet and 15,000 feet below the surface in organic rich sedimentary formations. Deeper than that, the temperature of the rock is too hot for oil molecules to stay together, and above that the hydrocarbons are not heated enough to separate into crude oil. Sandstone, dolomite and limestone form virtually all the host rock for oil production in the world and comprise only about 1% of the world's rock formations. In addition, specific geologic structures are required to trap the oil. According to Professor Deffeyes, seven specific criteria are required for oil to be present in a particular location. Without any one of these criteria, oil is not present, period.

While Saudi Arabia has the largest annual production of oil, the United States and Russia are second and third place according to Deffeyes. Saudi Arabia has 1,560 producing wells, Russia 41,192 wells and the United States has 521,070. The United States is one of the most drilled and explored places in the world.

Between 1901 and 2005, oil use and production consistently increased, first in the United States and then in the world. In 1956, M. King Hubbert, American geologist and geophysicist, predicted the United States oil production would peak and then start to decline by the early 1970s. When his predictions came true, Hubbert became an instant folk hero among energy conservationists. This became known as Peak Oil or the point when annual production of oil reaches a maximum and then starts to decline. It can be diagrammed as a bell shaped curve with a peak at the top.

Hubbert then turned his calculations on world oil production and supply. His methods worked the same way predicting the world oil supply as they did with the United States supply. Essentially, world oil production peaked early in the 21<sup>st</sup> century according to Hubbert.

Professor Deffeyes worked with M. King Hubbert, and explains in detail the process that Hubbert used to make these predictions. He discusses both oil and natural gas and the implications of being on the downward side of Hubbert's Peak. While Hubbert used some very complex mathematics in his initial calculations, Professor Deffeyes explains Hubbert's calculations using relatively simple mathematics. In fact, simple algebra forms

the basis of his analysis and it is understandable to many with a basis in high school mathematics.

There is a lot of information and disinformation about renewable energy. This book discusses many of today's energy sources and those of the foreseeable future. It dispels many of the myths and disinformation about energy so glibly passed around by a largely uninformed public, self serving political leaders and a media hungry for ratings.

Because oil has played such a large part of the world's economy, it is in everyone's best interest to become informed about energy supplies and sources. Energy fuels such as coal, geothermal, uranium and many of the so-called alternative energy sources all will be impacted by the declining amount of oil available on the downward side of the peak oil curve. This book is a must read for anyone interested in learning more than the common platitudes about energy and, in particular, oil.

H. Court Young, author and publisher  
Promoting awareness through the written word  
<http://www.burgyoungpublishing.com>  
<http://www.tmcco.com>

©March 2007