

## Book Review of February 25, 2004

*Out of Gas: The End of the Age of Oil* by David Goodstein, W. W. Norton & Company, New York, 2004

David Goodstein, vice-provost and professor of physics at the California Institute of Technology, describes the rise and now the beginning fall of fossil fuel resources. A crisis in the fuel supply will occur, not when all the fuel has been used, but when fuel is being used faster than new supplies are being discovered, which will occur after the peak of the bell curve of increasing supply has been reached. As fuel becomes increasingly scarce, its price will increase resulting in inflation, not just in the price of fuel but of everything made from it (plastics, chemicals, pharmaceuticals). Substitute fossil fuels require more energy to extract and/or the development of entirely new distribution systems (which take time and, yes, energy to build). And extraction and use of these alternatives will further damage the atmosphere. This short book clearly explains the scientific principles that govern how fuel is created and used, and demonstrates why certain alternative energy sources, such as ethanol, hydroelectric power, and wind will not adequately substitute for fossil fuels. The only realistic alternatives are nuclear power and sunlight, both of which will take significant time and effort to develop as adequate replacements. The peak of the bell curve for oil supplies in the lower forty-eight states was reached over thirty years ago; since then we have had to depend increasingly on foreign supplies. But the peak for the world supply is occurring during this decade. If we don't begin to develop the alternatives now, our civilization based on fossil fuels will not survive. Speedreading this book will provide one's Inner Guide with important knowledge that it can take into account as it solves one's problems and protects one from danger.

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