

# Winning the **Oil** Endgame

*Innovation for Profits, Jobs,  
and Security*

## Quotes



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## General quotations about the transition beyond oil

“We’ve embarked on the beginning of the Last Days of the Age of Oil. Nations of the world that are striving to modernize will make choices different from the ones we have made. They will have to. And even today’s industrial powers will shift energy use patterns....[T]he market share for carbon-rich fuels will diminish, as the demand for other forms of energy grows. And energy companies have a choice: to embrace the future and recognize the growing demand for a wide array of fuels; or ignore reality, and slowly—but surely—be left behind.”

— Mike Bowlin, Chairman and CEO, ARCO,  
and Chairman, American Petroleum Institute,  
9 Feb. 1999

“My personal opinion is that we are at the peak of the oil age and at the same time the beginning of the hydrogen age. Anything else is an interim solution in my view. The transition will be very messy, and will take many and diverse competing technological paths, but the long-term future will be in hydrogen and fuel cells.”

— Herman Kuipers, Business Team Manager,  
Innovation & Research, Shell Global Solutions,  
21 Nov. 2000

“The days of the traditional oil company are numbered, in part because of emerging technologies such as fuel cells....”

— Peter I. Bijur, Chairman and CEO, Texaco, Inc.,  
late 1990s

“Market forces, greenery, and innovation are shaping the future of our industry and propelling us inexorably towards hydrogen energy. Those who don’t pursue it...will rue it.”

— Frank Ingriselli, President, Texaco Technology  
Ventures, 23 April 2001

“...[W]e’ll evolve from a world of hydrocarbon dependency to a mixture of hydrocarbon and alternative energies use. Vast quantities of liquid hydrocarbons (oil and gas) will be left behind in the ground, just as solid hydrocarbons (coal) are being left behind today.”

— Chris Gibson-Smith, Managing Director, BP,  
25 Sept. 1998

“Thirty years from now there will be a huge amount of oil—and no buyers. Oil will be left in the ground. The Stone Age came to an end, not because we had a lack of stones, and the Oil Age will come to an end not because we have a lack of oil....[Fuel cell technology] is coming before the end of the decade and will cut gasoline consumption by almost 100 per cent....On the supply side it is easy to find oil and produce it, and on the demand side there are so many new technologies, especially when it comes to automobiles.”

— Sheikh Zaki Yamani,  
Oil Minister of Saudi Arabia (1962–86), June 2000

## General quotations about the transition beyond oil (continued)

“So why is Sheikh Yamani predicting the end of the Oil Age? Because he believes that something fundamental has shifted since...[1973]—and, sadly for countries like Saudi Arabia, he is quite right. Finally, advances in technology are beginning to offer a way for economies...to diversify their supplies of energy and reduce their demand for petroleum, thus loosening the grip of oil and the countries that produce it....The only long-term solution...is to reduce the world’s reliance on oil. Achieving this once seemed pie-in-the-sky. No longer. Hydrogen fuel cells are at last becoming a viable alternative....One day, these new energy technologies will toss the OPEC cartel in the dustbin of history. It cannot happen soon enough.”

— “The End of the Oil Age,” editorial,  
*The Economist*, 25 Oct. 2003

“The markets for renewable energy are the fastest growing energy markets in the world today. \*\*\*[S]uccessfully promoting renewables over the period to 2030 will prove less expensive than ...‘business as usual’...within any realistic range of real discount rates.\*\*\*[T]he G8 should give priority to efforts to trigger a step change in renewable energy markets.”

— G8 Renewable Energy Task Force, July 2001

“We...need to make great strides in transport efficiency...We need to engage the consumer, not force him or her into public transport. A European Environment minister once asked me how to get people off their love affair with the motor car. I believe we should not even try and interfere with that love. It is deeply imbedded, and interfering in other people’s love affairs is seldom productive. But the love is with personal movement and space and the freedom that it brings, not the internal combustion engine *per se*. We have to make eco-efficiency as fashionable as 4-wheel-drive vehicles. We need to use the powers of social pressure and the attraction of beautiful engineering. This is not hairshirt stuff—it should be eco-hedonism—taking pleasure from comfort, operating performance as well as eco-efficiency.”

— Sir Mark Moody-Stuart, Chairman,  
AngloAmerican, and former Chairman,  
Royal Dutch/Shell Group, May 2002

“...I believe fuel cells will finally end the 100-year reign of the internal combustion engine.... Fuel cells could be the predominant automotive power source in 25 years.”

— William Clay Ford, Jr., Chairman and CEO,  
Ford Motor Company, 5 Oct. 2000

“There have already been two oil crises; we are obligated to prevent a third one. The fuel cell offers a realistic opportunity to supplement the ‘petroleum monoculture’ over the long term. All over the world, the auto industry is working in high gear on the fuel cell. We intend to be the market leader in this field. Then we will have the technology, the secured patents and the jobs on our side. In this manner, we will optimize conditions for profitable growth.”

— Jürgen Schrempp, Chairman of the Board of  
Management, DaimlerChrysler, Nov. 2000

“General Motors absolutely sees the long-term future of the world being based on a hydrogen economy.\*\*\*Forty-five percent of *Fortune* 50 companies will be affected, impacting almost two trillion dollars in revenue.”

— Larry Burns, VP R&D and Planning, General Motors  
Corporation, undated and 10–11 Feb. 2003

## Quotations about *Winning the Oil Endgame*

“This exciting synthesis of how to eliminate America’s oil dependence could be the most important step in many years toward secure and affordable energy. Its novel but persuasive ideas, which hold promise of revitalizing American industry and agriculture, should appeal to conservatives and liberals alike.”

— President Jimmy Carter

“...[T]his fact-filled study...[p]art technology handbook, part cool-headed advocacy...argues that a dramatic reduction in oil dependency is both possible and desirable during the next two decades, at economic savings compared with business as usual.”

— Richard N. Cooper, Maurits C. Boas Professor of International Economics at Harvard University, in *Foreign Affairs*

“...Rocky Mountain Institute has recently published a report, *Winning the Oil Endgame*, which emphasizes the promise of using in automobile construction less expensive versions of the very strong carbon composites now used in aircraft construction—a step that could further contribute to our having vehicles that are lighter and substantially more fuel efficient but also stronger and safer than existing vehicles.”

— R. James Woolsey, Vice President, Booz Allen Hamilton; former Director of Central Intelligence

“We can, as Amory Lovins and his colleagues show vividly, win the oil endgame...[A]n intriguing case that is important enough to merit careful attention by all of us, private citizens and business and political leaders alike.”

— George P. Shultz, Distinguished Fellow at the Hoover Institution, Stanford University; former Secretary of State, the Treasury, and Labor

“[T]his compelling synthesis...demonstrates that innovative technologies can achieve spectacular [oil] savings...with no loss of utility, convenience and function. It makes the business case for how a profitable transition for the automotive, truck, aviation, and oil sectors can be achieved...The refreshingly creative government policies suggested...merit serious attention,...and I suspect they could win support across the political spectrum...This report will help to launch, inspire, and inform a new and necessary conversation about energy and security, economy and environment. Its outcome is vital for us all.”

— Sir Mark Moody-Stuart, Chairman, AngloAmerican plc; former Chairman, Royal Dutch/Shell Group

“Amory Lovins has had more impact on our energy use than any single person in the world. Now his team has produced one of the most important energy studies in decades. It merits careful examination as a profitable strategy for achieving energy security, economic prosperity, and environmental quality through smart business strategies accelerated by efficient government policy.”

— William Martin, Chairman, Council on Foreign Relations Energy Security Group

“One of the best analyses of energy policy yet produced.”

— *Time* magazine

“Perhaps the most rigorous...analysis of what it will take to wean us from foreign oil was tasked by the Pentagon and carried out by...Rocky Mountain Institute, a respected center of hard-headed, market-based research...[T]he book’s powerful summary...argues persuasively that by 2035 we can be entirely independent of imported oil and that ‘it will cost less to displace all of the oil that the United States now uses than it will cost to buy that oil.’”

— Robert C. McFarlane (National Security Advisor to President Reagan), *Wall Street Journal*, 20 Dec. 2004

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