

## Biography



**Amory Bloch Lovins** (born November 13, 1947 in Washington, DC) [\[3\]](#) is Chairman and Chief Scientist of the Rocky Mountain Institute. For four decades he has worked in energy policy and related areas.

Lovins worked professionally as an environmentalist in the 1970s and since then as an analyst of a "**soft energy path**" for the United States and other nations. He has promoted energy efficiency, the use of renewable energy sources, and the generation of energy at or near the site where the energy is actually used. Lovins has also advocated a "**new gawatt revolution**"

" arguing that utility customers don't want kilowatt-hours of electricity; they want energy services. In the 1990s, his work with Rocky Mountain Institute included the design of an ultra-efficient automobile, the **Hypercar**

Lovins has received ten honorary doctorates and won many awards. He has provided expert testimony in eight countries, briefed 19 heads of state, and published 29 books. These books

include *Winning the Oil Endgame*, *Small is Profitable*, *Factor Four*, and *Natural Capitalism*

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2009,

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*Time* magazine

named Lovins as one of the world's 100 most influential people.

## // Early history

Lovins spent much of his youth in Silver Spring, Maryland and in Amherst, Massachusetts. In 1964, Lovins entered Harvard College. After two years there, he transferred in 1967 to Magdalen College, Oxford, England, where he studied physics and other topics. In 1969 he became a Junior Research Fellow in Oxford's Merton College, where he received an Oxford master of arts (M.A.) as a result of becoming a university don. However, the University would not allow him to pursue a doctorate in energy, as it was two years before the 1973 oil embargo, and energy was not yet considered an academic subject. Lovins resigned his Fellowship and moved to London to pursue his energy work. He moved back to the U.S. in 1981 and settled in Western Colorado in 1982. [\[4\]](#)

In 1979 he married L. Hunter Sheldon, a lawyer, forester, and social scientist. Hunter received her undergraduate degree in sociology and political studies from Pitzer College, and her J.D. from Loyola University's School of Law. They separated in 1989 and divorced in 1999. [\[5\]](#) In 2007, he married Judy Hill Lovins, a fine-art landscape photographer.

## Work

### Friends of the Earth

Each summer from about 1965 to 1981, Lovins guided mountaineering trips and photographed the White Mountains of New Hampshire, contributing photographs to *At Home in the Wild: New England's White Mountains*

. In 1971 he wrote about the endangered Snowdonia National Park in the book, *Eryri, the Mountains of Longing*

, commissioned by David Brower, president of Friends of the Earth.

[\[6\]](#)

Lovins spent about a decade as British Representative for Friends of the Earth.

During the early seventies, Lovins became interested in the area of resource policy, especially energy policy. The 1973 energy crisis helped create an audience for his writing and an essay originally penned as a U.N. paper grew into his first book concerned with energy, *World Energy Strategies*

(1973). His next book was

*Non-Nuclear Futures: The Case for an Ethical Energy Strategy*

(1975), co-authored with John H. Price. Lovins published a 10,000-word essay "Energy Strategy: The Road Not Taken?" in

*Foreign Affairs*

, in October 1976. Its contents were the subject of many seminars at government departments, universities, energy agencies, and nuclear energy research centers, during 1975-1977.

[\[7\]](#)

The article was expanded and published as

*Soft Energy Paths: Toward a Durable Peace*

in 1977.

## Rocky Mountain Institute

By 1978 Lovins had published six books, consulted widely, and was active in energy affairs in some 15 countries. In 1982, he and Hunter Lovins founded Rocky Mountain Institute, based in Snowmass, Colorado. Together with a group of colleagues, the Lovinses fostered efficient resource use and sustainable development. [\[6\]](#)

Lovins has briefed 19 heads of state, provided expert testimony in eight countries, and published 29 books and several hundred papers. [\[4\]](#) His clients have included many Fortune 500 companies, major real-estate developers, and utilities.

[\[4\]](#)

Public-sector clients have included the OECD, UN, Resources for the Future, many national governments, and 13 US states.

[\[4\]](#)

Lovins served in 1980-81 on the U.S. Department of Energy's Energy Research Advisory Board, and in 1999-2001 and 2006-08 on Defense Science Board task forces on military energy efficiency and strategy. His visiting academic chairs most recently included a visiting professorship in Stanford University's School of Engineering.

[\[8\]](#)

Since 1982, RMI has grown into a broad-based "think-and-do tank" with more than 85 staff and an annual budget of some \$13 million. [\[4\]](#) RMI has spun off five for-profit companies. [\[9\]](#)

## Ideas

### Soft energy paths



## Negawatt revolution



A "negawatt revolution" would involve the rapid deployment of electricity-saving technologies, such as compact fluorescent lamps.

A negawatt is a unit in watts of energy saved. It is basically the opposite of a [watt](#) . Amory Lovins has advocated a "negawatt revolution", arguing that utility customers don't want kilowatt-hours of electricity; they want energy services such as hot showers, cold beer, lit rooms, and spinning shafts, which can come more cheaply if electricity is used more efficiently. [\[13\]](#)

According to Lovins, energy efficiency represents a profitable global market and American companies have at their disposal the technical innovations to lead the way. Not only should they "upgrade their plants and office buildings, but they should encourage the formation of negawatt markets". [\[14\]](#) Lovins sees negawatt markets as a win-win solution to many environmental problems. Because it is "now generally cheaper to save fuel than to burn it, global warming, acid rain, and urban smog can be reduced not at a cost but at a profit". [\[14\]](#)

Lovins explains that many companies are already enjoying the financial and other rewards that come from saving electricity. Yet progress in converting to electricity saving technologies has been slowed by the indifference or outright opposition of some utilities. [\[13\]](#) A second obstacle to

efficiency is that many electricity-using devices are purchased by people who won't be paying their running costs and thus have little incentive to consider efficiency. Lovins also believes that many customers "don't know what the best efficiency buys are, where to get them, or how to shop for them". [\[13\]](#)

### Hypercar

Amory Lovins has developed the design concept of the Hypercar. This vehicle would have ultra-light construction with an aerodynamic body using advanced composite materials, low-drag design, and hybrid drive. [\[15\]](#) Designers of the Hypercar claim that it would achieve a three- to fivefold improvement in fuel economy, equal or better performance, safety, amenity, and affordability, compared with today's cars. [\[16\]](#)

### Awards

Amory Lovins has received ten honorary doctorates and was elected a Fellow of the American Association for the Advancement of Science in 1984, of the World Academy of Arts and Sciences in 1988, and of the World Business Academy in 2001. He has received the World Technology Award, the Right Livelihood Award, the Blue Planet Prize, Volvo Environment Prize, the 4th Annual Heinz Award in the Environment in 1998, [\[17\]](#) and the National Design (Design Mind), Jean Meyer, and Lindbergh Awards.

[\[3\]](#)

[\[4\]](#)

Lovins is also the recipient of the *Time* Hero for the Planet awards, the Benjamin Franklin and Hapgood Medals, and the Shingo, Nissan, Mitchell, and Onassis Prizes. He has also received a MacArthur Fellowship and is an honorary member of the American Institute of Architects (AIA), a Foreign Member of the Royal Swedish Academy of Engineering Sciences, and an Honorary Senior Fellow of the Design Futures Council. [\[3\]](#) [\[4\]](#)

In 2009, *Time magazine* named Lovins as one of the world's 100 most influential people. [\[4\]](#) [\[18\]](#)

### Books

This is a list of books which are authored or co-authored by Amory B. Lovins, or which include a foreword by him: [\[3\]](#)

- *Eryri, the Mountains of Longing* San Francisco, Friends of the Earth, 1972. (with Philip Evans) ISBN 978-0841501294. 181 p.
- *Openpit Mining* London : Earth Island, 1973. ISBN 978-0856440205. 118 p.
- *World Energy Strategies: Facts, Issues, and Options* London : Friends of the Earth Ltd for Earth Resources Research Ltd, 1975. 131 p. ISBN 978-0884106012.
  
- *Nuclear power: Technical Bases for Ethical Concern* (1975, 2nd edition). 39 p. ISBN 978-0950327365
- *Soft Energy Paths: Towards a Durable Peace* San Francisco : Friends of the Earth International, 1977 231p. ISBN 0-06-090653-7
  
- *The Energy Controversy: Soft Path Questions and Answers* (1979) ISBN 978-0913890226
- *Non-Nuclear Futures: The Case for an Ethical Energy Strategy* (with John H. Price) San Francisco, 1980. 223p. ISBN 978-0060907778
  
- *A Golden Thread: 2500 Years of Solar Architecture & Technology* (1980) ASIN: B000MWEXMC
- *Energy/War, Breaking the Nuclear Link* San Francisco : Friends of the Earth, 1981 161p. ISBN 978-0913890448
- *Least-Cost Energy: Solving the CO2 Problem* Andover, Mass. : Brick House Pub. Co., 1982 184p. ISBN 978-0931790362
- *Brittle Power: Energy Strategy for National Security* (with L Hunter Lovins) Andover, Mass. : Brick House, 1982 re-released in 2001. 486p. ISBN 0-931790-28-X
  
- *The First Nuclear World War* (with Patrick O'Heffernan; L Hunter Lovins) New York : Morrow, 1983. 444 p ISBN 978-0091558307
- *Energy Unbound: A Fable for America's Future* (with L Hunter Lovins; Seth Zuckerman) San Francisco : Sierra Club Books, 1986. 390 p ISBN 0-87156-820-9
  
- *Consumer Guide to Home Energy Savings* (1991) ISBN 978-0918249098
- *Reinventing Electric Utilities: Competition, Citizen Action, and Clean Power* (1996) ISBN 978-1559634557
  
- *Factor Four: Doubling Wealth - Halving Resource Use: A Report to the Club of Rome* (1997) ISBN 978-1853834073
  
- *Natural Capitalism: Creating the Next Industrial Revolution* (2000) ISBN 1-85383-763-6
- *Small is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size* (2003) ISBN 1-881071-07-3
- *The Natural Advantage Of Nations: Business Opportunities, Innovation And Governance in the 21st Century* (2004) ISBN 1-84407-121-9
- *Winning the Oil Endgame: Innovation for Profit, Jobs and Security* (2005) ISBN 1-84407-194-4 (Available Online in PDF)
  
- *Let the Mountains Talk, Let the Rivers Run: A Call to Save the Earth* (2007) ISBN

978-1578051380

## Non-English

- *Faktor vier. Doppelter Wohlstand - halbiertes Verbrauch* (1997) ISBN 978-3426772867
- *Facteur 4 : deux fois plus de bien-être en consommant deux fois moins de ressources: Rapport au Club de Rome* (1997) ISBN 978-2904082672
- *Öko-Kapitalismus: Die industrielle Revolution des 21. Jahrhunderts* (2002) ISBN 978-1400039418

## See also

- [Renewable energy commercialization](#)
- [Renewable energy policy](#)
- [Renewable energy industry](#)
- [Energy security and renewable technology](#)
- [Anti-nuclear movement in the United States](#)
- [Al Gore](#)
- [Hermann Scheer](#)
- [Benjamin K. Sovacool](#)
- [Eric Martinot](#)
- [Mark Diesendorf](#)

## References

1. [^](#) Right Livelihood Award. [Amory and Hunter Lovins \(USA\) \(1983\)](#)
2. [^](#) Amory B. Lovins. [Energy Strategy: The Road Not Taken?](#) *Foreign Affairs*, October 1976.
3. [^](#) [a](#) [b](#) [c](#) [d](#) *The International Who's Who 2010*, 73rd edition, Routledge, 2009, p. 1338.
4. [^](#) [a](#) [b](#) [c](#) [d](#) [e](#) [f](#) [g](#) [h](#) Lovins Bio
5. [^](#) [Iconoclast Gets Consultant Fees To Tell Big Oil It's Fading Fast](#)
6. [^](#) [a](#) [b](#) [c](#) [Profile of the 2007 Blue Planet Prize Recipient](#)
7. [^](#) Amory Lovins (1977). *Soft Energy Paths*, p. 220.
8. [^](#) [Stanford Energy Lectures](#)
9. [^](#) Most recently [www.esource.com](#), [www.fiberforge.com](#), and [www.brightautomotive.com](#)
10. [^](#) [a](#) [b](#) Amory Lovins (1977). *Soft Energy Paths: Towards a Durable Peace* ISBN 0-06-090653-7
11. [^](#) Amory Lovins. Nuclear Power and Nuclear Bombs, *Foreign Affairs*, Summer 1980.
12. [^](#) [Nuclear Energy Publications](#)
13. [^](#) [a](#) [b](#) [c](#) Amory B. Lovins. *The Negawatt Revolution Across the Board*, Vol. XXVII No.

9, September 1990, pp. 21-22.

14. <sup>^</sup> [a](#) [b](#) Amory B. Lovins. The Negawatt Revolution *Across the Board*, Vol. XXVII No. 9, September 1990, p. 23.

15. <sup>^</sup> [Hypercars, hydrogen, and the automotive transition](#) *International Journal of Vehicle Design* , Vol. 35, Nos. 1/2, 2004.

16. <sup>^</sup> [Diesendorf, Mark \(2007\). \*Greenhouse Solutions with Sustainable Energy\*](#) , UNSW Press, pp. 191–192.

17. <sup>^</sup> [The Heinz Awards, Amory Lovins profile](#)

18. <sup>^</sup> [Carl Pope. \*The 2009 TIME 100: Amory Lovins\*](#) *TIME magazine*, April 30, 2009.

## External links

- [The Rocky Mountain Institute's home page](#)
- [Lectures series on energy efficiency](#) , March 2007
- [Amory Lovins' biography at Right Livelihood Award](#)
- [Congressional testimony on nuclear power](#)
- [America's Best Leaders: Amory Lovins, Energy Scientist](#)
- [TED Talks: Amory Lovins on winning the oil endgame](#) at TED in 2005
- [Internet Archive \(archive.org\) video and audio](#)