

Amory B. Lovins (1947–), an American consultant experimental physicist and 1993 MacArthur Fellow, has been active at the nexus of energy, resources, economy, environment, development, and security in more than 50 countries for over 40 years, including 14 years based in England. He is widely considered among the world's leading authorities on energy—especially its efficient use and sustainable supply—and a fertile innovator in integrative design and in superefficient buildings, factories, and vehicles.

After two years at Harvard, Mr. Lovins transferred to Oxford, and two years later became a don at 21, receiving in consequence an Oxford MA by Special Resolution (1971) and, later, 12 honorary doctorates of various U.S. and U.K. universities. He has been Regents' Lecturer at the U. of California both in Energy and Resources and in Economics; Grauer Lecturer at the University of British Columbia; Luce Visiting Professor at Dartmouth; Distinguished Visiting Scholar at the University of Oklahoma; Distinguished Visiting Professor at the University of Colorado; Oikos Visiting Professor of Business, University of St. Gallen; an engineering visiting professor at Peking U.; 2007 MAP/Ming Professor at Stanford's School of Engineering; and 2011– Professor of Practice at the Naval Postgraduate School.

During 1979–2002, Mr. Lovins worked as a team with L. Hunter Lovins (his wife 1979–99). They shared a 1982 Mitchell Prize, a 1983 Right Livelihood Award (often called the “alternative Nobel Prize”), the 1999 Lindbergh Award, and *Time*'s 2000 Heroes for the Planet Award. In 1989 he won the Onassis Foundation's first DELPHI Prize for their “essential contribution towards finding alternative solutions to energy problems.” That contribution included the “end-use / least-cost” redefinition of the energy problem (in *Foreign Affairs* in 1976)—asking what quantity, quality, scale, and source of energy will do each task in the cheapest way. This economically based approach first permitted successful foresight in the competitive energy-service marketplace. In 1993 he received the Nissan Prize for inventing superefficient ultralight-hybrid cars (www.hypercar.com), and in 1999, partly for that work, the World Technology Award (Environment). He also received the Heinz Award, the Happold Medal of the [UK] Construction Industry Council, the Benjamin Franklin Medal of the [UK] Royal Society of Arts (Life Fellow), and in 2007, the Blue Planet Prize, Volvo Prize, honorary membership of the American Institute of Architects, Foreign Membership of the Royal Swedish Academy of Engineering Sciences, *Time International*'s Hero of the Environment award, *Popular Mechanics*' Breakthrough Leadership award, and honorary Senior Fellowship of the Design Futures Council. In 2008 he was named one of America's 24 Best Leaders by *U.S. News & World Report* and Harvard's Kennedy School, and received the first Aspen Institute / *National Geographic* Energy and Environment Award for Individual Thought Leadership. In 2009, he received the National Design Award and an Ashoka Fellowship, while *Time* named him among the world's 100 most influential people, and *Foreign Policy*, one of the 100 top global thinkers. In 2011, he was co-Runner-Up for the Zayed Future Energy Prize.

In 1982, the Lovinses cofounded Rocky Mountain Institute (www.rmi.org), an independent, entrepreneurial, nonprofit think-and-do tank. RMI's ~80 staff drive the efficient and restorative use of resources to help make the world thriving, verdant, and secure, for all, for ever. Ms. Lovins left RMI in 2002; Mr. Lovins is now its Chief Scientist and Chairman Emeritus. The Institute's ~\$12-million annual revenue comes both from programmatic enterprise, chiefly private-sector consultancy, and from grants and donations. RMI's balance sheet comes largely from Mr. Lovins's having cofounded, led, spun off, and in 1999 sold (to the *Financial Times* group) E SOURCE, the premier source of information on advanced electric efficiency (www.esource.com).

Mr. Lovins led the energy design for his home (and RMI's original headquarters), whose ~99% savings in space- and water-heating energy (to –44°C or –47°F) and ~90% in home electricity paid back in ten months with 1983 technology. An \$18-million utility experiment he cofounded and -steered in the 1990s, PG&E's “ACT²,” validated his claim that very large energy savings could cost less than small or no savings, e.g. in houses comfortable with no air conditioner at up to +46°C (+115°F) yet costing less to build. He founded and until 2007 chaired RMI's fourth spinoff, the advanced-composites technology developer Fiberforge Corporation (www.fiberforge.com), and is RMI's lead practitioner—lately helping redesign >\$30 billion worth of facilities in 29 sectors—in implementing for major firms the tenets of *Natural Capitalism* (www.natcap.org), which shared the 2001 Shingo Prize (Research), the “Nobel Prize for Manufacturing.” In 2004, he led a Pentagon-cosponsored synthesis of how to eliminate U.S. oil use, led by business for profit (www.oilendgame.com), and in 2007, became the first member of the Transformation Advisory Council for the Executive Chairman of Ford Motor Company. He has advised the leaders of Coca-Cola, Deutsche Bank, Holcim, Interface, Wal-Mart, and several startup firms.

Mr. Lovins's clients have also included Accenture, Allstate, AMD, Anglo American, Anheuser-Busch, Bank of America, Baxter, Borg-Warner, BP, HP Bulmer, Carrier, Chevron, CIBA-Geigy, CLSA, ConocoPhillips, Corning, Dow, EDS, Equitable, Ford, GM, HP, Invensys, Lockheed Martin, Mitsubishi, Monsanto, Motorola, Norsk Hydro, Petrobras, Prudential, Rio Tinto, Royal Dutch/Shell, Shearson Lehman Amex, STMicroelectronics, Sun Oil, Suncor, Texas Instruments, UBS, Unilever, Westinghouse, Xerox, major developers, and over 100 energy utilities. His public-sector clients have included OECD, UN, RFF, the Australian, Canadian, Dutch, German, and Italian governments, 13 states, Congress, and the U.S. Energy and Defense Departments. He has been profiled in *The Wall Street Journal* (twice), *Fortune*, *Harvard*, *The New Yorker*, and *The Economist*. His latest book, with 60 RMI coauthors, is *Reinventing Fire* (2011).

Mr. Lovins has briefed 23 heads of state, given expert testimony in eight countries and 20+ states, delivered thousands of lectures, and published 31 books and over 480 papers, as well as poetry, landscape photography, music (he was a pianist and composer), and an electronics patent. In 1980–81 he served on the U.S. Department of Energy's senior advisory board, and in 1999–2001 and 2006–08, on Defense Science Board task forces on military energy strategy. He is a member of the Chief of Naval Operations' Advisory Board and the National Petroleum Council. In 1984 he was elected a Fellow of the American Association for the Advancement of Science “for his book *Soft Energy Paths* and many other noteworthy contributions to energy policy,” in 1988, of the World Academy of Arts and Sciences, and in 2001, of the World Business Academy. Dr. Alvin Weinberg, former Director of Oak Ridge National Laboratory, called him “surely the most articulate writer on energy in the whole world today”; *Newsweek*, “one of the Western world's most influential energy thinkers.” Dr. John Ahearne, then Vice President of Resources for the Future, remarked that “Amory Lovins has done more to assemble and advance understanding of [energy] efficiency opportunities than any other single person.” *The Wall Street Journal*'s Centennial Issue named him among 39 people in the world most likely to change the course of business in the 1990s; *Car* called him the 22nd most powerful person in the global car industry; and *The Economist* wrote in 2008 that “history has proved him right.”

An occasional advisor to the National Association of Regulatory Utility Commissioners and World Business Council for Sustainable Development, Mr. Lovins has addressed hundreds of fora sponsored by such groups as The Engineering Foundation, Association of Energy Engineers, ASHRAE, Society of Automotive Engineers, Royal Academy of Engineering, National Academy of Sciences, American Physical Society, International Association for Energy Economics, Montreux Energy Forum, Institution of Electrical Engineers, McKinsey and Company, Accenture, Merrill Lynch, JPMorgan, Allen & Co., News Corporation, *Fortune*, *Forbes*, *Time*, ULI, IDRC, CoreNet, AIA, API, AAPG, AGA, EEI, EPRI, CRIEPI, Hoover and Brookings Institutions, CSIS, Chatham House, Council on Foreign Relations, Pacific Council, Commonwealth Club, Keidanren, Conference Board, World Economic Forum, Tällberg Conference, TED, FiRE, eg, World Bank, GBN, Highlands Forum, NPS, NWC, NDU, DAU, Aspen Design Conference, Royal Society, and Royal Society of Arts. He collaborates on landscape photography and orangutan conservation with his wife, fine-art landscape photographer Judy Hill Lovins (www.judyhill.com).