Stanford



Amory B Lovins

Senior Precourt Scholar for Integrative Design and Energy Efficiency, Precourt Institute for Energy

Bio

BIO

Physicist Amory Lovins (1947–) is Cofounder (1982) and Chairman Emeritus, and was Chief Scientist (2007–19), of RMI (Rocky Mountain Institute, www.rmi.org), where he continues to collaborate. He has designed many superefficient buildings, vehicles, and industrial plants, and synthesized an "integrative design" method and practice that can make the energy efficiency resource severalfold larger, yet cheaper, often with increasing returns. Since 1973 he has advised major firms and governments in >70 countries on advanced energy efficiency and strategy, linked with renewables, grid integration, resources, environment, security, development, and economy. He is a Senior Precourt Scholar of Integrative Design and Energy Efficiency, and has worked in ~20 disciplines.

Lovins has received the Blue Planet, Volvo, Zayed, Onassis, Nissan, Shingo, and Mitchell Prizes, MacArthur and Ashoka Fellowships, 12 honorary doctorates, the Heinz, Lindbergh, Right Livelihood, National Design, and World Technology Awards, many other energy and environment recognitions, and Germany’s highest civilian honor (the Officer’s Cross of the Order of Merit). A Harvard and Oxford dropout, former Oxford don, honorary US architect, Swedish engineering academician, and 2011–18 member of the US National Petroleum Council, he has taught at ten universities—most recently the US Naval Postgraduate School and Stanford (spring 2007 MAP/Ming Visiting Professor, half-time 2020–24 Adjunct Professor of Civil and Environmental Engineering, then Lecturer)—teaching only subjects he hasn’t formally studied, so as to cultivate beginner’s mind. In 2009, Time named him one of the world’s 100 most influential people; Foreign Policy, one of the 100 top global thinkers; and Stanford's Scopus analysis, in the top 2% of world scientists.. His most recent books, mostly coauthored, include Natural Capitalism (1999), Small Is Profitable (2002), Winning the Oil Endgame (2004), The Essential Amory Lovins (2011), Reinventing Fire (2011), and a volume of aviation essays (2022–24, aspenflyright.org). His avocations include fine-art landscape photography (the profession of his wife Judy Hill Lovins, www.judyhill.com), music, writing, orangutans, great-ape language, linguistics, and Taoist thought.

COURSES: Lovins and Dr. Joel Swisher PE, as CEE Adjunct Professors, cotaught in 2025 iterations 13–14 of their flagship course applying whole-system thinking and integrative design for radical energy efficiency and profitable climate solutions: CEE 107R/207R. They repeated it in 2026 and will offer iterations 17–18 in Winter and Spring Quarters 2027.

PUBLICATIONS

Lovins has authored 32 books and 950+ papers in a wide range of disciplines. His recent peer-reviewed papers include:

"How big is the energy efficiency resource?," Env. Res. Ltrs., Sep 2018, https://doi.org/10.1088/1748-9326/aad965

"Recalibrating climate prospects," coauthored, Env. Res. Ltrs., Dec 2019, https://doi.org/10.1088/1748-9326/ab55ab

"Can a virus and viral ideas speed the world's journey beyond fossil fuels?," with K. Bond, Env. Res. Ltrs., Feb 2021, https://doi.org/10.1088/1748-9326/abc3f2

"Reframing automotive fuel efficiency," SAE J-STEEP, Apr 2020, https://doi.org/10.4271/13-01-01-0004

His Aug/Sep 2020 Electricity Journal interview on the future of electricity is at https://doi.org/10.1016/j.tej.2020.106827.

His 02 June 2025 Energy Seminar (from 8:33) is at https://energy.stanford.edu/events/lecturepresentationtalk/stanford-energy-seminar-quintupling-global-energy-end-use-efficiency.

Profitably abating heavy transport and industrial heat: https://www.rmi.org/profitable-decarb/ and ($6.95 paywall) https://sloanreview.mit.edu/article/decarbonizing-our-toughest-sectors-profitably/, both 2021.

“US nuclear power: status, prospects, and climate implications,” El. J., 6 May 2022, https://doi.org/10.1016/j.tej.2022.107122.

CURRENT ROLE AT STANFORD

Adjunct Professor of Civil and Environmental Engineering, Sept 2019 – June 2024, then retitled Lecturer in CEE, with the same responsibilities, because the definition changed and Lovins lacks a PhD. Senior Precourt Scholar for Integrative Design and Energy Efficiency, Precourt Institute for Energy.

ACADEMIC APPOINTMENTS

- Senior Precourt Scholar for Integrative Design and Energy Efficiency, Precourt Institute for Energy
- Affiliate, Precourt Institute for Energy

Teaching

COURSES

2026-27

- E^3: Extreme Energy Efficiency: CEE 107R, CEE 207R (Win, Spr)

2025-26

- E^3: Extreme Energy Efficiency: CEE 107R, CEE 207R (Win, Spr)

2024-25

- E^3: Extreme Energy Efficiency: CEE 107R, CEE 207R (Win, Spr)

2023-24

- E^3: Extreme Energy Efficiency: CEE 107R, CEE 207R (Win, Spr)

Publications

PUBLICATIONS

- **US nuclear power: Status, prospects, and climate implications** *ELECTRICITY JOURNAL*
  Lovins, A. B.
  2022; 35 (4)