



Steven J. Davis

Professor of Earth System Science, Senior Fellow at the Precourt Institute for Energy and Professor, by courtesy, of Energy Science and Engineering

Bio

BIO

Steve Davis is a highly-cited researcher and expert in earth system science, emissions and energy scenarios, climate impacts and solutions, and corporate climate strategy. He is a Professor of Earth System Science in the Stanford Doerr School of Sustainability and leads the Sustainable Solutions Lab, a research group dedicated to quantifying how different human activities are affecting climate and air quality, how those environmental changes in turn jeopardize human wellbeing, and the relative priority of solutions.

Steve was a Contributing Author of two Working Group III chapters in the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), serves on the Scientific Steering Committee of the Global Carbon Project, was the Lead Author of the Mitigation chapter in the U.S. Fifth National Climate Assessment, and is a member of the Technical Council of the Science Based Targets Initiative.

Prior to his science career, Steve worked as a lawyer to venture-backed companies in Silicon Valley, and holds degrees from Stanford University, the University of Virginia School of Law and the University of Florida, where he double-majored in Political Science and Philosophy.

ACADEMIC APPOINTMENTS

- Professor, Earth System Science
- Senior Fellow, Precourt Institute for Energy
- Professor (By courtesy), Energy Science & Engineering

LINKS

- Sustainable Solutions Lab: <https://sustainablesolutions.stanford.edu/>

Teaching

COURSES

2025-26

- Counting Carbon for Climate Action: ESS 333 (Aut)
- Science for Sustainable Solutions: EARTHSYS 115, EARTHSYS 215, SUST 215 (Win)

2024-25

- Science for Sustainable Solutions: EARTHSYS 115, EARTHSYS 215, SUST 215 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Rob Buechler, Dimitri Saad

Postdoctoral Faculty Sponsor

Pablo Busch, Julianne DeAngelo, Lamprini Papargyri, Koen van Greevenbroek

Master's Program Advisor

Khandaker Aqib, Lawrence Chen, Lauryn Franzese, Anant Singhal

Doctoral Dissertation Co-Advisor (AC)

Abigail Fitzgibbon

Doctoral (Program)

Lauren Moody

Publications

PUBLICATIONS

- **Large CO₂ removal potential of woody debris preservation in managed forests** *NATURE GEOSCIENCE*
Luo, Y., Wei, N., Lu, X., Zhou, Y., Tao, F., Quan, Q., Liao, C., Jiang, L., Xia, J., Huang, Y., Niu, S., Xu, X., Sun, et al
2025
- **Globally interconnected solar-wind system addresses future electricity demands.** *Nature communications*
Jiang, H., Yao, L., Qin, J., Bai, Y., Brandt, M., Lian, X., Davis, S. J., Lu, N., Zhao, W., Liu, T., Zhou, C.
2025; 16 (1): 4523
- **A path to US Tribal energy sovereignty.** *Science (New York, N.Y.)*
Seibel, S., Luarkie, R., Cardenas, D., Mayer, C., Sanchez, R., Dannenberg, M., Panek, B. M., Bond, A., Gordon, Z., Morishige, D., Hadrick, K., Stahnke, G., Fofrich, et al
2025; 387 (6732): 372