Stanford

Sarah Dawn Saltzer

Managing Director of SCCS, Energy Science & Engineering

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Dr. Sarah Saltzer is the Managing Director of the Stanford Center for Carbon Storage (SCCS), the Smart Fields Consortium (SFC) and the Stanford University Energy Transition Research Institute B (SUETRI-B) Reservoir Simulation program. She was also recently named to the Biden-Harris Administration's Carbon Dioxide Capture, Utilization and Sequestration (CCUS) Non-Federal Lands Task Force.

Sarah spent 25 years in the oil and gas industry where she held a series of scientific, managerial, and executive roles. She has a diversity of experience in positions of increasing responsibility, including geology research and teaching, petroleum engineering, leading exploration teams, competitor analysis and business planning and strategy. Dr. Saltzer holds a M.S. and B.S. from the Massachusetts Institute of Technology and a Ph.D. from Stanford University.

The Stanford Center for Carbon Storage (SCCS) uses a multidisciplinary approach to address critical questions related to flow physics, monitoring, geochemistry, and simulation of the transport and fate of CO2 stored in geologic media. The Smart Fields Consortium is a multidisciplinary program that performs state-of-the-art research in computational optimization, history matching (data assimilation), uncertainty quantification, and data interpretation for storage of CO2. SUETRI-B reservoir simulation program is dedicated to research and development of advanced numerical techniques that enhance the value of reservoir simulation technology for geologic storage of CO2.

CURRENT ROLE AT STANFORD

Managing Director Stanford Center for Carbon Storage

Managing Director Smart Fields Consortium

Managing Director SUETRI-B

EDUCATION AND CERTIFICATIONS

- MS & BS, Massachusetts Institute of Technology , Geology (1986)
- PhD, Stanford University , Geology (1992)

Publications

PUBLICATIONS

- **Pathways to zero emissions in California's heavy-duty transportation sector** *ENVIRONMENTAL RESEARCH: INFRASTRUCTURE AND SUSTAINABILITY*
  Hennessy, E. M., Singh, M., Saltzer, S., Azevedo, I. M. L.

2024; 4 (3)

- **Assessment of hydrogen storage potential in depleted gas fields and power-to-hydrogen conversion efficiency: A northern California case study** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
  Okoroafor, E. R., Nazari, N., Kim, T. W., Watkins, H. Y., Saltzer, S. D., Kovscek, A. R.
  2024; 71: 982-998

- **Criteria and workflow for selecting saline formations for carbon storage** *INTERNATIONAL JOURNAL OF GREENHOUSE GAS CONTROL*
  Callas, C., Davis, J., Saltzer, S. D., Hashemi, S. S., Wen, G., Gold, P. O., Zoback, M. D., Benson, S. M., Kovscek, A. R.
  2024; 135

- **A Methodology for Fueling Mobility Markets with Hydrogen from Natural Gas plus Carbon Capture and Sequestration** *INTERNATIONAL JOURNAL OF GREENHOUSE GAS CONTROL*
  Okoroafor, E. R., Bracci, J., Boness, N. L., Saltzer, S. D., Shrimali, G., Hennessy, E. M., Kim, T., Seamon, A., Benson, S. M., Zoback, M. D., Kovscek, A. R.
  2024; 133

- **Intercomparison of numerical simulation models for hydrogen storage in porous media using different codes** *ENERGY CONVERSION AND MANAGEMENT*
  Okoroafor, E., Sampaio, L., Gasanzade, F., Claro, Y., Zhou, J. D., Saltzer, S. D., Bauer, S., Kovscek, A. R.
  2023; 292

- **Criteria and workflow for selecting depleted hydrocarbon reservoirs for carbon storage** *APPLIED ENERGY*
  Callas, C., Saltzer, S. D., Davis, J., Hashemi, S. S., Kovscek, A. R., Okoroafor, E. R., Wen, G., Zoback, M. D., Benson, S. M.
  2022; 324

- **Toward underground hydrogen storage in porous media: Reservoir engineering insights** *INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*
  Okoroafor, E., Saltzer, S. D., Kovscek, A. R.
  2022; 47 (79): 33781-33802

- **Assessment of oil and gas fields in California as potential CO2 storage sites** *International Journal of Greenhouse Gas Control*
  Kim, T., Callas, C., Saltzer, S. D., Kovscek, A. R.
  2022; 114 (103579)