

Sally M. Benson Bio (As of January 2017)

Director, Global Climate and Energy Project, Stanford University

Co-Director, Precourt Institute for Energy, Stanford University

Professor, Energy Resources Engineering, School of Earth, Energy & Environmental Sciences, Stanford University

Sally M. Benson joined Stanford University in 2007. She holds three appointments at Stanford: director of the Global Climate and Energy Project (GCEP), a pioneering university-industry partnership to develop innovative, low-carbon energy supplies to meet global energy needs; professor of energy resources engineering in the School of Earth, Energy & Environmental Sciences; and co-director of the Precourt Institute for Energy, the campus-wide hub of energy research and education. An internationally recognized scientist with extensive management experience, Professor Benson is responsible for fostering cross-campus collaborations on energy through the Precourt Institute and guiding the growth and development of GCEP's diverse research portfolio.

Prior to coming to Stanford, Professor Benson was at Lawrence Berkeley National Laboratory, a leading research center supported by the U.S. Department of Energy and managed by the University of California. She held a variety of key positions during her 29-year tenure at Lawrence Berkeley, including deputy director of operations (2001-2004). She also served as director of the Earth Sciences Division and associate laboratory director for Energy Sciences. From 1990 to 1998, she was also a visiting professor in the Department of Environmental Engineering and Earth Sciences at Clemson University in South Carolina.

A groundwater hydrologist and reservoir engineer, Professor Benson is widely regarded as a leading authority on carbon capture and storage, and emerging energy technologies. In 2012, she served as a convening lead author of the Global Energy Assessment (GEA), a multinational project coordinated by the International Institute for Applied Systems Analysis. The GEA was the first fully integrated assessment analysis of the energy challenges, opportunities and strategies for developing, industrialized and emerging economies. The final GEA report presents a new global energy policy agenda, one that transforms the way society thinks about, uses and delivers energy.

Professor Benson's research interests include technologies for a low-carbon future and net energy analysis, a scientific method that weighs the energetic cost of energy production against the energy produced with the goal of quantifying the overall energy efficiency of the production process. She and her GCEP colleagues conducted a groundbreaking series of net energy analyses calculating the energetic costs of wind turbines, solar photovoltaics and grid-scale renewable energy storage. Professor Benson also leads a research laboratory at Stanford that studies fundamental aspects of geologic carbon dioxide (CO₂) sequestration in saline aquifers. In 2005, she served as a coordinating lead

author of a special report on CO₂ capture and storage published by the Intergovernmental Panel on Climate Change (IPCC). Professor Benson contributed to the reports of the IPCC, which was awarded the Nobel Peace Prize in 2007.

The author of more than 160 journal papers and book chapters, Professor Benson is the co-founding editor of the journal, *MRS Energy and Sustainability*. Since 2006, she has delivered more than 200 invited talks on topics ranging from energy policy to carbon sequestration. She has also testified at U.S. Congressional hearings on climate change technology and CO₂ sequestration. Her honors include the 2012 Greenman Award from the IEA Greenhouse Gas Program, the ARCS 2009 American Pacesetter Award and the 2009 Michel T. Halbouty Distinguished Lecture Award from the Geological Society of America.

Professor Benson serves on the boards of directors of the U.S. National Renewable Energy Laboratory and Climate Central. She is a member of the advisory board of the Lahore University of Management Sciences in Pakistan; the Andlinger Center for Energy & the Environment at Princeton University; the Carbon Management Initiative; the Energy, Climate and Infrastructure advisory board of the Sandia National Laboratory; the Energy and Environment Program Directorate at Pacific Northwest National Laboratory; the BIGCCS Scientific Committee of the Research Council of Norway; and the Innovation for Cool Earth Forum in Japan. In 2010, she served on the State of California's Panel on Carbon Capture and Storage, and on the WRI Task Force on CCS in China. From 2002 to 2005 she served as the coordinating lead author for the Underground Geological Storage chapter of the IPCC Special Report on Carbon Dioxide Capture and Storage.

Professor Benson received a B.S. in geology from Barnard College at Columbia University, and an M.S. and Ph.D. in materials science and mineral engineering from the University of California-Berkeley. (692 words)