

Curriculum Vitae January 2017

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Senior Research Economist and Technical Executive, Energy and Environmental Analysis Research Group
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Current positions

- Senior Research Economist and Technical Executive**, Energy and Environmental Analysis Research Group, Electric Power Research Institute (EPRI), Oct 2008 – present.
- Appointed Committee Member**, Committee on Assessing Approaches to Updating the Social Cost of Carbon, The National Academies of Sciences, Engineering, and Medicine, 2015 – present.
- Expert Panelist**, EPA's Science Advisory Board Biogenic Carbon Emissions Panel, reviewed EPA's initial and revised biogenic carbon emissions accounting frameworks, 2011 – 2012 and 2014 – present.
- Co-Chair**, Bioenergy and Land Modeling Subgroup, Stanford University's Energy Modeling Forum, 2005 – present.
- Expert**, U.S. Carbon Cycle Scientific Steering Group, U.S. Carbon Cycle Science Program, 2011 – present.
- Deputy Associate Editor**, *Climatic Change*, current.

Additional professional responsibilities and honors

- Scientific Steering Committee**, Integrated Assessment Modeling Consortium, 2009 – present.
- Graduate Faculty**, Department of Economics, Purdue University, Special appointment 2008 – 2013.
- Lead Author**, Climate Change Impacts in the United States: The Third National Climate Assessment.
- Lead Author**, IPCC 4th and 5th Climate Change Assessments of Working Group III.
- Contributing Author**, IPCC 4th and 5th Climate Change Assessments of Working Group III.
- Research Fellow**, Global Trade Analysis Project (GTAP), 2008-2011, Purdue University.
- Board Member**, Global Trade Analysis Project (GTAP), Purdue University, 2009 – 2015.
- Co-winner 2008 Nobel Peace Prize**, IPCC Lead Author
- 2008 Outstanding Article of the Year**, *Choices Magazine*, peer reviewed magazine of the Agricultural & Applied Economics Association
- Technical Expert**, Member of the U.S. Delegation, IPCC Working Group III, Fourth Assessment Report Approval Meeting, Bangkok, Thailand, 2007.
- Expert**, U.S. Government Review Panel, IPCC Fourth Assessment Report, Working Groups II and III and Synthesis Report.
- Guest Editor**, *Environment and Development Economics*, Special Issue on Reduced Emissions from Deforestation and Forest Degradation, 2010 – 11.

Education

- Ph.D., Economics**, Cornell University, 2000
 - Major Field: Environmental and Natural Resource Economics
 - Minor Fields: Applied econometrics and mathematical programming, microeconomics, experimental economics, and development economics
- B.A., Economics with Mathematical Emphasis, honors distinction**, Univ. of Wisconsin-Madison, 1989
 - Minor Fields: Mathematics, econometrics, computer science, liberal arts studies
 - Honors: Phi Beta Kappa, Phi Kappa Phi, Dean's List, Omicron Delta Epsilon

Publications

- Expert Committee Member and Author, 2017. National Academies of Sciences, Engineering, and Medicine. *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*. Committee on Assessing Approaches to Updating the Social Cost of Carbon, Board on Environmental Change and Society, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press. doi: 10.17226/24651.
- Rose, S.K. D. Diaz, G. Blanford, in review. Understanding the Social Cost of Carbon: A Diagnostic and Inter-comparison of the US Government Modeling.
- Rose, S.K., R. Richels, G. Blanford, T. Rutherford, in review. The Paris Agreement and Next Steps in Limiting Global Warming. [Discussion Paper – EPRI Report #3002007427, <http://epri.co/3002007427>]
- Rose, S.K., J. Petrusa, L. Davis, in review. Regional Non-CO₂ Greenhouse Gas Abatement Potential in the United States to 2030. [Discussion Paper – EPRI Report #3002001675, <http://epri.co/3002001675>]
- Expert Committee Member and Author, 2016. National Academies of Sciences, Engineering, and Medicine. *Assessment of Approaches to Updating the Social Cost of Carbon: Phase 1 Report on a Near-Term Update*. Committee on Assessing Approaches to Updating the Social Cost of Carbon, Board on Environmental Change and Society. Washington, DC: The National Academies Press. doi: 10.17226/21898.
- Contributing Author, 2016. *Forestry for a low-carbon future: Integrating forests and wood products in climate change strategies*. Food and Agriculture Organization of the United Nations.
- Rose, S., 2016. Estimating Benefits of Reducing Greenhouse Gas Emissions. *Public Utilities Fortnightly* (August): 52-55.
- Rose, S and J. Bistline, 2016. *Applying the Social Cost of Carbon: Technical Considerations*. EPRI, Palo Alto, CA. Report #3002004659, <http://epri.co/3002004659>.
- Rose, S.K., 2016. "The Paris Agreement on Climate Change: What Countries Have Committed To and Implications for the Electric Sector." *EPRI Quick Insights*, February.
- Aldy, J., W. Pizer, M. Tavoni, L. Aleluia Reis, K. Akimoto, G. Blanford, C. Carraro, L.E. Clarke, J. Edmonds, G.C. Iyer, H.C. McJeon, R. Richels, S. Rose, F. Sano, 2016. Economic tools to promote transparency and comparability in the Paris Agreement. *Nature Climate Change* 6: 1000–1004.
- Burke, M., M. Craxton, C. D. Kolstad, C. Onda, H. Allcott, E. Baker, L. Barrage, R. Carson, K. Gillingham, J. Graf-Zivin, M. Greenstone, S. Hallegatte, W.M. Hanemann, G. Heal, S. Hsiang, B. Jones, D. L. Kelly, R. Kopp, M. Kotchen, R. Mendelsohn, K. Meng, G. Metcalf, J. Moreno-Cruz, R. Pindyck, S. Rose, I. Rudik, J. Stock, R.S.J. Tol, 2016. Opportunities for advances in climate change economics: Target carbon's costs, policy designs, and developing countries. *Science* 352 (6283): 292-293.
- Rose, S.K., R. Beach, K. Calvin, B. McCarl, J. Petrusa, B. Sohngen, R. Youngman, A. Diamant, F. de la Chesnaye, J. Edmonds, R. Rosenzweig, M. Wise, in press. *Market Realities for Global Mitigation Supplies: Accounting for Risks and Incentives*. Report #1025510.
- Calvin, K., S. Rose, M. Wise, H. McJeon, L. Clarke, J. Edmonds, 2015. Global climate, energy, and economic implications of international energy offsets programs. *Climatic Change* 133(4): 583–596.
- Blanford, G., D. Diaz, R. Richels, S. Rose, T. Rutherford, 2015. *CO₂ Mitigation for Climate Risk Management*. EPRI, Palo Alto, CA. Report #3002005831, <http://epri.co/3002005831>.
- Richels, R. and S. Rose, 2015. Value of International Emissions Trading Partnerships, *GHG Market Report 2015*, <http://www.ieta.org/ghgmarket2015>.
- Rose, S.K., 2015. The Inevitability of Climate Adaptation in U.S. Agriculture. *Choices* 30(2) [Journal of the Agriculture and Applied Economics Association].
- Rose, S.K. D. Turner, G. Blanford, J. Bistline, F. de la Chesnaye, and T. Wilson, 2014. *Understanding the Social Cost of Carbon: A Technical Assessment*. EPRI, Palo Alto, CA. Report #3002004657, <http://epri.co/3002004657>.
- Kriegler E., J. Weyant, G. Blanford, L. Clarke, J. Edmonds, A. Fawcett, V. Krey, G. Luderer, K. Riahi, R. Richels, S. Rose, M. Tavoni, and D. van Vuuren, 2014. The role of technology for achieving climate policy

- objectives: Overview of the EMF 27 study on global technology and climate policy strategies. *Climatic Change* 123 (3-4): 353-367. doi: 10.1007/s10584-013-0953-7.
- Rose, S.K., E. Kriegler, R. Bibas, K. Calvin, A. Popp, D. van Vuuren, J. Weyant, 2014. Bioenergy in energy transformation and climate management, *Climatic Change* 123(3-4): 477-493.
- Popp, A., S.K. Rose, K. Calvin, D.P. van Vuuren, J. Phillip Dietrich, M. Wise, E. Stehfest, F. Humpenöder, P. Kyle, J. van Vliet, N. Bauer, H. Lotze-Campen, D. Klein, E. Kriegler, 2014. Land-use transition for bioenergy and climate stabilization: model comparison of drivers, impacts and interactions with other land use based mitigation options. *Climatic Change* 123(3-4): 495-509. doi: 10.1007/s10584-013-0926-x.
- Blanford, G., R. Mendelsohn, S. Rose, R. Richels, 2014. *The Price of a Degree: Marginal Mitigation Costs of Achieving Long-Term Temperature Targets*. EPRI, Palo Alto, CA. 3002003937, <http://epri.co/3002003937>.
- Waldhoff, S., D. Anthoff, S. Rose, and R.S.J. Tol, 2014. The Marginal Damage Costs of Different Greenhouse Gases: An Application of FUND. *Economics: The Open-Access, Open-Assessment E-Journal*, 8 (2014-31): 1—33. <http://dx.doi.org/10.5018/economics-ejournal.ja.2014-31>.
- Rose, S.K., 2014. Integrated assessment modeling of climate change adaptation in forestry and pasture land use: A review. *Energy Economics* 46: 548-554.
- Lead Author, 2014. Assessing Transformation Pathways (Chapter 6), *Climate Change 2014: Mitigation of Climate Change*. Fifth Assessment Report, Mitigation Working Group (Working Group III), Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Contributing Author, 2014. Agriculture, Forestry and Other Land Use (AFOLU) (Chapter 11), *Climate Change 2014: Mitigation of Climate Change*. Fifth Assessment Report, Mitigation Working Group (Working Group III), Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Contributing Author, 2014. Drivers, Trends, and Mitigation (Chapter 5), *Climate Change 2014: Mitigation of Climate Change*. Fifth Assessment Report, Mitigation Working Group (Working Group III), Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Lead Author, 2014. Energy, Water, and Land Use (Chapter 10). *Climate Change Impacts in the United States: The Third National Climate Assessment*, U.S. Global Change Research Program, 257-281. doi:10.7930/JOJW8BSF.
- Ahmed, S.A., S.K. Rose, T. Hertel, Z.B. Irfanoglu, 2014. Development of the version 8 non-co2 GHG emissions dataset, Documentation Accompanying Dataset, March 13.
- Wicke, B., van der Hilst, F., Daioglou, V., Banse, M., Beringer, T., Gerssen-Gondelach, S., Heijnen, S., Karsenberg, D., Laborde, D., Lippe, M., van Meijl, H., Nassar, A., Powell, J., Prins, A. G., Rose, S.K., Smeets, E. M. W., Stehfest, E., Tyner, W. E., Versteegen, J. A., Valin, H., van Vuuren, D. P., Yeh, S. and Faaij, A. P. C., 2015, Model collaboration for the improved assessment of biomass supply, demand, and impacts. *GCB Bioenergy* 7(3): 422-437. doi: 10.1111/gcbb.12176.
- Creutzig, F., N. H. Ravindranath, G. Berndes, S. Bolwig, R. Bright, F. Cherubini, H. Chum, E. Corbera, M. Delucchi, A. Faaij, J. Fargione, H. Haberl, G. Heath, O. Lucon, R. Plevin, A. Popp, C. Robledo-Abad, S. Rose, P. Smith, A. Stromman, S. Suh, O. Masera, 2015. Bioenergy and climate change mitigation: an assessment. *GCB Bioenergy* 7(5): 916-944.
- Blanford, G., J. Merrick, R. Richels, S.K. Rose, 2013. Trade-offs between mitigation costs and temperature change. *Climatic Change* 123(3-4): 527-541.
- Rose, S.K., R. Richels, S. Smith, K. Riahi, J. Strefler, D. van Vuuren, 2013. Non-Kyoto Radiative Forcing in Long-Run Greenhouse Gas Emissions and The Role of Non-Kyoto Gas Forcing in GHG Stabilization Scenarios. *Climatic Change*, published online October 27, 2013. doi: 10.1007/s10584-013-0955-5.
- Latta, G.S., J.S Baker, R.H. Beach, S.K. Rose, B.A McCarl, 2013. A multi-sector intertemporal optimization approach to assess the GHG implications of U.S. forest and agricultural biomass electricity expansion. *Journal of Forest Economics* 19(4): 361-383.

- Mosnier A., P. Havlík, H. Valin, J. Baker, B. Murray, S. Feng, M. Obersteiner, B. A. McCarl, S. K. Rose, U. A. Schneider, 2013. Alternative U.S. Biofuel Mandates and Global GHG emissions: The Role of Land Use Change, Crop Management and Yield Growth, *Energy Policy* 67: 602-614.
- Rose, S.K., A.A. Golub, B. Sohngen, 2013. Total factor and relative agricultural productivity and deforestation. *American Journal of Agricultural Economics* 95(2): 426-434; doi: 10.1093/ajae/aas113, available on-line December 14, 2012.
- Lubowski, R.N. and S.K. Rose, 2013. The potential of REDD+: Economic modeling insights and issues. *Review of Environmental Economics and Policy* (Winter 2013) 7 (1): 67-90. doi: 10.1093/reep/res024.
- Rose, S.K., 2013. Assessing the Social Cost of Carbon, *EPRI Journal*, Winter.
- Smith, P., H. Haberl, A. Popp, K-H. Erb, C. Lauk, R. Harper, F.N. Tubiello, A. De Siqueira Pintok, M. Jafari, S. Sohi, O. Masera, H. Böttcher, G. Berndes, M. Bustamante, H. Ahammad, H. Clark, H. Dong, E.A. Elsidig, C. Mbow, N.H. Ravindranath, C.W. Rice, C. Robledo Abad, A. Romanovskaya, F. Sperling, M. Herrero, J.I. House, S. Rose, 2013. How much land-based greenhouse gas mitigation can be achieved without compromising food security and environmental goals? *Global Change Biology* 19: 2285–2302, doi: 10.1111/gcb.12160.
- Rose, S.K., 2012. The role of the social cost of carbon in policy. *WIREs Climate Change* 3:195–212. doi: 10.1002/wcc.163.
- Khanna, Madhu, Robert Abt, Morton Barlaz, Richard Birdsey, Marilyn Buford, Mark Harmon, Jason Hill, Stephen Kelley, Richard Nelson, Lydia Olander, John Reilly, Charles Rice, Steven Rose, Daniel Schrag, Roger Sedjo, Ken Skog, Tristram West, Peter Woodbury, 2012. *SAB Review of EPA's Accounting Framework for Biogenic CO2 Emissions from Stationary Sources (September 2011)*, September 28, 2012, <http://yosemite.epa.gov/sab/SABPRODUCT.NSF/81e39f4c09954fcb85256ead006be86e/2f9b572c712ac52e8525783100704886!OpenDocument&TableRow=2.3#2>.
- Blanford, G.J., S.K. Rose, M. Tavoni, 2012. Baseline projections of energy and emissions in Asia. *Energy Economics* 34 (Supplemental 3): S284–S292.
- Rose, S., H. Ahammad, B. Eickhout, B. Fisher, A. Kurosawa, S. Rao, K. Riahi, D. van Vuuren, 2012. Land-based mitigation in climate stabilization, *Energy Economics* 34: 365-380, available on-line June 20, 2011 (doi:10.1016/j.eneco.2011.06.004).
- Golub, A.A., B.B. Henderson, T.W. Hertel, P. Gerber, S.K. Rose, and B. Sohngen, 2012. Global climate policy impacts on livestock, land use, livelihoods, and food security, *Proceedings of the National Academies of Sciences*, available on-line September 27, 2012 (doi:10.1073/pnas.1108772109).
- van Vuuren, D., K. Riahi, R. Moss, J. Edmonds, A. Thomson, N. Nakicenovic, T. Kram, F. Berkhout, R. Swart, A. Janetos, S.K. Rose and N. Arnell, 2012. A proposal for a new scenario framework to support research and assessment in different climate research communities. *Global Environmental Change* 1: 21-35.
- Skaggs, R., K. Hibbard, P. Frumhoff, T. Lowry, R. Middleton, R. Pate, V. Tidwell, J. Arnold, K. Averyt, A. Janetos, C. Izaurrealde, J. Rice, S. Rose, 2012. *Climate and Energy-Water-Land System Interactions*, Technical Report to the U.S. Department of Energy in Support of the National Climate Assessment. Pacific Northwest National Laboratory Report PNNL-21185.
- Choi, S-W, Sohngen, B., Rose, S., Hertel, T., and A. Golub, 2011. Total factor productivity change in agriculture and emissions from deforestation, *American Journal of Agricultural Economics* 93(2): 349-355.
- Avetisyan, M., A. Golub, T. Hertel, S. Rose, B. Henderson, 2011. "Why a Global Carbon Policy Could Have a Dramatic Impact on the Pattern of the Worldwide Livestock Production," *Applied Economic Perspectives and Policy* 33 (4): 584-605.
- Contributing Author, 2011. *Bridging the Emissions Gap*. United Nations Environment Programme (UNEP).
- Rose, S.K. and B. Sohngen, 2011. Global Forest Carbon Sequestration and Climate Policy Design, *Environment and Development Economics* 16: 429-454.

- Bosetti, V. and S.K. Rose, 2011. "Reducing carbon emissions from deforestation and forest degradation: issues for policy design and implementation." *Environment and Development Economics* 16: 357-360.
- van Vuuren, D.P., J. Edmonds, M. Kainuma, K. Riahi, A. Thomson, K. Hibbard, G.C. Hurtt, T. Kram, V. Krey, J. F. Lamarque, T. Matsui, M. Meinshausen, N. Nakicenovic, S.J. Smith, S.K. Rose, 2011. The Representative Concentration Pathways: An overview, *Climatic Change* 109: 5-31.
- Rose, S., M. Avetisyan, T. Hertel, 2010. "Development of the Preliminary version 7 non-CO2 GHG emissions dataset," GTAP Research Memorandum No. 17, January.
- Manning, M. R., J. Edmonds, S. Emori, A. Grubler, K. Hibbard, F. Joos, M. Kainuma, R. F. Keeling, T. Kram, A. C. Manning, M. Meinshausen, R. Moss, N. Nakicenovic, K. Riahi, S. K. Rose, S. Smith, R. Swart, D. P. van Vuuren, 2010. "Misrepresentation of the IPCC CO2 emission scenarios," *Nature Geoscience* 3: 376-377.
- Moss, R.H., J.A. Edmonds, K.A. Hibbard, M.R. Manning, S.K. Rose, D.P. van Vuuren, T.R. Carter, S. Emori, M. Kainuma, T. Kram, G.A. Meehl, J.F.B. Mitchell, N. Nakicenovic, K. Riahi, S.J. Smith, R.J. Stouffer, A.M. Thomson, J.P. Weyant, T.J. Wilbanks, 2010. "The next generation of scenarios for climate change research and assessment," *Nature* 463: 747-756, 11 February 2010.
- Baker, J.S., B.A. McCarl, B.C. Murray, S.K. Rose, R.J. Alig, D. Adams, G. Latta, R. Beach, A. Daigneault, 2010. "Net Farm Income and Land Use under a U.S. Greenhouse Gas Cap and Trade," *Policy Issues* 17 (April):1-5 [Agricultural & Applied Economics Association].
- Hibbard, K., A. Janetos, D.P. van Vuuren, J. Pongratz, S.K. Rose, R. Betts, M. Herold, and J.J. Feddema, 2010. "Research Priorities in Land Use and Land Cover Change for Earth System and Integrated Assessment Modeling," *International Journal of Climatology* 30 (13): 2118-2128.
- Rose, S., 2010. "Federal decision-making on the uncertain impacts of climate change: incremental vs. non-incremental climate decisions," invited paper, Pew Center on Global Climate Change, Assessing the Benefits of Avoided Climate Change: Cost-Benefit Analysis and Beyond, <http://www.c2es.org/events/2009/03/workshop-assessing-benefits-avoided-climate-change>.
- Clarke, L., J. Edmonds, V. Krey, R. Richels, S. Rose, M. Tavoni, 2009. "International climate policy architectures: Overview of the EMF 22 International Scenarios," *Energy Economics* 31 (Supplement 2): S64-S81.
- Golub, Alla, Thomas Hertel, Huey-Lin Lee, Steven Rose, and Brent Sohngen, 2009. "The Opportunity Cost of Land Use and the Global Potential for Greenhouse Gas Mitigation in Agriculture and Forestry," *Resource and Energy Economics* 31: 299-319.
- Hertel, Thomas, Steven Rose, Richard Tol (eds.), 2009. *Economic Analysis of Land Use in Global Climate Change Policy*, Routledge Publishing.
- Hertel, Thomas, Steven Rose, and Richard S.J. Tol, 2009. "Land use in computable general equilibrium models: and overview", in Thomas Hertel, Steven Rose, Richard Tol (eds.), *Economic Analysis of Land Use in Global Climate Change Policy*, Routledge Publishing.
- Hertel, T., H-L Lee, S. Rose, B. Sohngen, 2009. "Modeling Land-use Related Greenhouse Gas Sources and Sinks and their Mitigation Potential" in T.W. Hertel, S. Rose, R. Tol (eds.), *Economic Analysis of Land Use in Global Climate Change Policy*, Routledge Publishing.
- Lee, H-L, T.W. Hertel, S. Rose, M. Avetisyan, 2009. "An Integrated Global Land Use Data Base for CGE Analysis of Climate Policy Options" in T.W. Hertel, S. Rose, R. Tol (eds.), *Economic Analysis of Land Use in Global Climate Change Policy*, Routledge Publishing.
- Rose, Steven and Huey-Lin Lee, 2009. "Non-CO2 Greenhouse Gas Emissions Data for Climate Change Economic Analysis" in Thomas W. Hertel, Steven Rose, Richard Tol (eds.), *Economic Analysis of Land Use in Global Climate Change Policy*, Routledge Publishing.
- Del Grosso, S., D. Ojima, W.J. Parton, E. Stehfest, B. DeAngelo, and S. Rose, 2009. "Global scale DAYCENT model analysis of greenhouse gas mitigation strategies for cropped soils," *Global and Planetary Change*, Vol 67 (1-2): 44-50.

- Principle Author, 2008. *Technical Support Document on Benefits of Reducing GHG Emissions*, U.S. Environmental Protection Agency, June 12, 2008, www.regulations.gov (search phrase "Technical Support Document on Benefits of Reducing GHG Emissions").
- Rose, S., B. McCarl, 2008. "Greenhouse gas emissions, stabilization and the inevitability of adaptation: challenges for agriculture," *Climate Change Economics Special Issue, Choices* 23(1): 15-18. Agricultural & Applied Economics Association Outstanding Article of the Year, awarded 2009.
- Beach, R.H., B.J. DeAngelo, S.K. Rose, C. Li, W. Salas, and S.J. DelGrosso, 2008. Mitigation potential and costs for global agricultural greenhouse gas emissions, *Agricultural Economics* 38: 1-7. Recipient of the 2006 T.W. Schultz Prize for best paper by a young economist by International Association of Agricultural Economists.
- Contributing Author, 2008. Long-term scenarios and land-use (Chapter 4), *International Assessment of Agricultural Science and Technology for Development*, World Bank.
- Moss, Richard, Mustafa Babiker, Sander Brinkman, Eduardo Calvo, Tim Carter, Jae Edmonds, Ismail Elgizouli, Seita Emori, Lin Erda, Kathy Hibbard, Roger Jones, Mikiko Kainuma, Jessica Kelleher, Jean Francois Lamarque, Martin Manning, Ben Matthews, Jerry Meehl, Leo Meyer, John Mitchell, Nebojsa Nakicenovic, Brian O'Neill, Ramon Pichs, Keywan Riahi, Steven Rose, Paul Runci, Ron Stouffer, Detlef van Vuuren, John Weyant, Tom Wilbanks, Jean Pascal van Ypersele, Monika Zurek, 2008. *Towards New Scenarios for Analysis of Emissions, Climate Change, Impacts, and Response Strategies: IPCC Expert Meeting Report, 19–21 September, 2007, Noordwijkerhout, The Netherlands*, www.ipcc.ch.
- Rose, S., H. Ahammad, B. Eickhout, B. Fisher, A. Kurosawa, S. Rao, K. Riahi, D. van Vuuren, 2008. *Land in climate stabilization modeling: Initial observations*, Energy Modeling Forum Report #21 (EMF #21), Stanford University.
- Contributing analyst, 2007-2008, United States Environmental Protection Agency's Analysis of Senate Climate Bills S.2191, S.1766, S.280 in the 110th Congress, <http://www.epa.gov/climatechange/economics/economicanalyses.html>
- Lead Author, 2007. Long-term mitigation (Chapter 3), *Climate Change 2007. Fourth Assessment Report, Mitigation Working Group (Working Group III)*, Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Contributing Author, 2007. Agriculture (Chapter 8), *Climate Change 2007. Fourth Assessment Report, Mitigation Working Group (Working Group III)*, Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Contributing Author, 2007. Forestry (Chapter 9), *Climate Change 2007. Fourth Assessment Report, Mitigation Working Group (Working Group III)*, Intergovernmental Panel on Climate Change (IPCC), www.ipcc.ch.
- Ramankutty, Navin, Tom Hertel, Huey-Lin Lee, Steven K. Rose, 2007. "Global Agricultural Land Use Data for Integrated Assessment Modeling," *Human-Induced Climate Change: An Interdisciplinary Assessment*, Cambridge University Press
- DeAngelo, B., S. Rose, R. Beach, W. Salas, C. Li, T. Sulzur, S. Del Grosso, 2006. *Global Mitigation of Non-CO2 Greenhouse Gases, Chapter V: Agriculture*, United States Environmental Protection Agency, Washington, DC, 430-R-06-005.
- Li, C., W. Salas, B. DeAngelo, and S. Rose, 2006. "Assessing Alternatives for Mitigating Net Greenhouse Gas Emissions and Increasing Yields from Rice Production in China Over the Next 20 Years," *Journal of Environmental Quality* 35(4): 1554-1565.
- Ibarraran, M., E. La Rovere, S. Rose, M. Heil, P. Runci, H. Pitcher, 2006. "Latin America modeling in global scenarios: observations and recommendations," Report developed from the Latin America Modeling and Scenarios Workshop, Rio de Janeiro, Brazil, September, 2006.
- Houghton, J., S. Rose, S. Smith, and T. Wilson, 2006. "Sessions on Biotechnologies: Land, Production, Transformation, and Economics", Report from the Energy Modeling Forum Workshop on Critical Issues in Climate Change, Snowmass, Colorado, Aug 2-3, 2006.

- Andrasko, K., S. Rose, R. Alig, J. Lewandrowski, R. MacGregor, and B. Murray, 2005. "Agriculture, Forestry and Greenhouse Gases: Research provides insights for public policy," Farm Foundation, September
- Lee, H-L, T. Hertel, B. Sohngen, and N. Ramankutty in collaboration with F. de la Chesnaye and S. Rose, 2005. "Towards an integrated land use database for assessing the potential for greenhouse gas mitigation," GTAP Technical Paper No. 25.
- Rose, S.K. and D. Chapman, 2003. "Timber Harvest Adjacency Economies, Hunting, Species Protection, and Old Growth Value: Seeking the Dynamic Optimum," *Ecological Economics* 44: 325-344.
- Rose, S.K., 2003. *Military Water Rights: Issues Affecting Water Reliability and Efficiency*, CNA Research Memorandum D0009067.A2, October.
- Rose, S.K., 2003. *Identifying and Assessing Training-Range Encroachment and Resources*, CNA Research Memorandum D0007497.A2, January.
- Rose, S.K., J. Clark, G.L. Poe, D. Rondeau, W.D. Schulze, 2002. "The Private Provision of Public Goods: Tests of a Provision Point Mechanism for Funding Green Power Programs," *Resource And Energy Economics* 24 (1-2): 131-155.
- Rose, S.K., 1998. "Non-market Valuation Techniques: The State of the Art." Report prepared for The World Bank Group, October. Based on a Cornell University working paper: Working Paper Series in Environmental and Resource Economics ERE 99-01, Cornell University, January, 1998.
- Rose, S.K., 1998. "The International Public Good Literature—A Review." Report prepared for The World Bank Group, October.
- Rose, S.K. and S. Volskaya-Winbourne, 1998. "Ukrainian Public Timber Allocation and Forest Management." Report prepared for USAID project Environmentally Sound Business Development for Ukraine, contract no. AEP-5470-I-00-5034-00, March.

Working papers/work in progress

- Rose, S.K., "Managing Climate Damages: Exploring Potential Trade-offs"
- Rose, S.K., Richels, R., G. Blanford, T. Rutherford, "The Potential Value of International Emissions Trading Partnerships."
- Blanford, G., R. Mendelsohn, S. Rose, "The Price of a Degree: Marginal Mitigation Costs of Limiting Long-Term Temperature Increase."
- Rose, S.K., B. McCarl, G. Latta, "Biomass supply for power & environmental implications."
- Anthoff, D., S. Rose, R.S.J. Tol, and S. Waldhoff, "Regional and Sectoral Estimates of the Social Cost of Carbon: An Application of FUND," ESRI Working Paper No. 375, <http://www.esri.ie/UserFiles/publications/WP375/WP375.pdf>.
- Anthoff, D., S. Rose, R.S.J. Tol, S. Waldhoff, "The Time Evolution of the Social Cost of Carbon: An Application of FUND," ESRI Working Paper 405, <http://www.esri.ie/UserFiles/publications/WP405/WP405.pdf>.
- Rose, S.K., A. Golub, B. Sohngen, T. Hertel, "Agricultural impacts of reduced tropical deforestation (RED)."
- Rose, S.K., S. Finn, E. Scheele, J. Mangino, K. Delhotal, J. Siedenbug, and H. Perez. "Detailed non-CO₂ and non-fossil fuel combustion CO₂ greenhouse gas emissions data for global economic modeling."
- Golub, A., T. Hertel, S. Rose, B. Sohngen, "Global interactions between bioenergy and climate policies."
- Kim, Y., B. Sohngen, A. Golub, T. Hertel, S. Rose, "Impact of US and European Biofuel Policies on Forest Carbon."
- Rose, S., R.H. Beach, C. Li, W. Salas. "Modeling marginal abatement cost curves for agricultural GHG emissions when producers adopt multiple mitigation options."

Selection of recent presentations

- Rose, S., "A Carbon Tax and the Social Cost of Carbon," Harvard Electricity Policy Group, 85th Plenary Session, December 8-9, 2016.
- Rose, S., "What is the Real Cost of Carbon? Social Cost of Carbon Modeling, Use, & Future," EPRI Web Course, November 17, 2016.
- Rose, S., "What is the Real Cost of Carbon? Understanding the Social Cost of Carbon," EPRI Web Course, November 11, 2016.
- Rose, S., "Insights for Emissions Trading Partnerships," IEA-IETA-EPRI Annual Workshop on GHG Emissions Trading, OECD, Paris, October 19, 2016.
- Rose, S., "Limiting Global Warming: Sizing Up the Ambition and Challenge," Rutgers Energy Institute Policy Seminar Series, Rutgers University, September 9, 2016.
- Rose, S., "Managing Climate Damages: Exploring Potential Trade-offs," International Energy Workshop, University College Cork, Ireland, June 3, 2016.
- Rose, S., "Energy Research and the Road From Paris," International Energy Workshop, University College Cork, Ireland, June 2, 2016.
- Rose, S., "Challenges and Opportunities on the Road Forward from the Paris Climate Agreement," ENV-VISION Conference, Washington, DC, May 11, 2016.
- Rose, S., "Calculating the Social Cost of Carbon: A Detailed Perspective," Climate Action 2016 Forum, University of Maryland, May 4, 2016.
- Rose, S., "The Paris Climate Agreement – Implementation and States," Women's Council on Energy and the Environment Washington, DC, April 29, 2016.
- Rose, S., "Challenges and Opportunities on the Road From Paris," NARUC Winter Meeting, Washington, DC, February 16, 2016.
- Rose, S., "Characterizing & Advancing Understanding of the Social Cost of Carbon: Deconstructing the Modeling," Center for Climate and Energy Decision Making, Carnegie Mellon University, February 8, 2016.
- Rose, S., "The Road From Paris: Current and Future Pledges, Global Temperatures, and The Potential Value of International Emissions Trading Partnerships," UNFCCC COP-21, Le Bourget, France, December 10, 2015.
- Rose, S., "Characterizing & Advancing Understanding of the Social Cost of Carbon," UNFCCC COP-21, Le Bourget, France, December 2, 2015.
- Rose, S., "Mitigating and Adapting to Climate Change in Nebraska – An Energy Perspective," invited, University of Nebraska-Lincoln Energy Roundtable, October 22, 2015.
- Rose, S., "Important Frontiers for Climate Change Economics," invited, Research Frontiers in the Economics of Climate Change, Stanford University, October 10, 2015.
- Rose, S., "Perspectives on Policies to Implement the COP-21 Paris Agreement," invited, World Energy Council North America Regional Energy Forum, October 8, 2015.
- Rose, S., "Exploring the Potential for International Mitigation 'Clubs' for the Road from Paris," invited, 15th IEA-IETA-EPRI Annual Workshop on Greenhouse Gas Emission Trading, Paris, France, September 29, 2015.
- Rose, S., "Understanding Integrated Assessment Modeling of the Social Cost of Carbon," invited, Committee on Assessing Approaches to Updating the Social Cost of Carbon, National Academies of Sciences, Engineering, and Medicine, September 2, 2015.
- Rose, S., "Understanding the Social Cost of Carbon: A Technical Assessment—Carbon Cycle and Climate Modeling," invited, US CCSSG 30th Meeting, May 27, 2015.
- Rose, S., "Measuring the Benefits of GHG Emissions Reductions: The Social Cost of Carbon," ENV-VISION Conference, Crystal City, VA, May 12, 2015.

- Rose, S., "Global Bioenergy Potential in Long-run Energy System Transformation and Climate Management," invited, Berkeley Bioeconomy Conference, University of California – Berkeley, April 1, 2015.
- Rose, S., "A Technical Assessment of Aggregate Climate Damage Functions and Future Needs," invited, Global Climate Risk Forum, European Commission JRC-IPTS, December 1-2, 2014.
- Rose, S., "Clean Power Plan Proposal Climate (CO₂) Benefits," invited, Resource for the Future/EPRI Webinar, December 16, 2014.
- Rose, S., "Understanding the Social Cost of Carbon: A Technical Assessment," invited, U.S. Energy Association, December 8, 2014.
- Rose, S., "Bioenergy in Energy Transformation and Climate Management," invited, EPA Office of Transportation and Air Quality, November 7, 2014.
- Rose, S. et al., "Market Realities for Global Mitigation Supply: Accounting for Investment Risks," Integrated Assessment Modeling Consortium Annual Meeting, College Park, Maryland, November 17, 2014.

Selection of other professional experience

- Advisory Board**, International Council on Clean Transportation Study on Indirect Land-use Change, 2011.
- Expert Panel**, Council on Sustainable Biomass Production Biofuel and Biopower Greenhouse Gas Standards, 2010.
- Steering Committee**, Workshops of the Forestry and Agriculture Greenhouse Gas Modeling Forum.
- Expert Reviewer**, U.S. Climate Action Report 2010, Fifth National Communication of the United States of America Under the United Nations Framework Convention on Climate Change, 2010.
- Expert Peer Reviewer**, IPCC Fourth Assessment Report of Working Group II (Climate Change Impacts) and Working Group III (Mitigation). 2005-2007
- Federal Advisor**, Climate Change Science Program (CCSP) Synthesis and Assessment Product 2.1B: Global Change Scenarios: Their Development and Use. Spring 2006 – Winter 2006
- Expert Peer Reviewer**, CCSP Synthesis and Assessment Product 2.1A: Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations. 2006-2007
- Senior Research Economist**, U.S. Environment Protection Agency, Office of Air and Radiation, Office of Atmospheric Programs, Climate Change Division, Oct 2003 – Oct 2008.
- Economist**, The CNA Corporation, Environment Program, Resource Analysis Division, June 2001 – Oct 2003.
- Assistant Professor**, Joint appointments in the Departments of Economics and Environmental Studies, Washington College, Chestertown, MD, August 2000 – June 2001.
- Researcher**, Hatch Research Project, Cornell University, Ithaca, New York, 1999. "Public Forest Land Allocation: A Dynamic Spatial Perspective on Environmental Timber Management."
- Consulting Economist**, The World Bank Group—Special Programs, 1998.
- Resource Economist**, USAID via Management Systems International, Inc., Washington DC, 1998.
- Journal referee** – *Review of Environmental Economics and Policy, Ecological Economics, Energy Economics, Energy Journal, Climatic Change, Environment and Development Economics, Climate Policy, Environmental Research Letters, Human-Induced Climate Change: An Interdisciplinary Assessment (book), Mitigation and Adaptation Strategies for Global Change, Technological Forecasting and Social Change, Society and Natural Resources.*