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EDUCATION

2009	Harvard University, Cambridge MA	Public Policy	Ph.D.
2003	Harvard University, Cambridge MA	Public Administration	M.P.A.
2000	University of Chicago, Chicago IL	Business Administration	M.B.A.
1996	Valparaiso University, Valparaiso IN	Mechanical Engineering	B.S.

PROFESSIONAL APPOINTMENTS

	The Ohio State University, Columbus OH
2019 – PRESENT	Associate Professor, Department of Civil, Environmental, and Geodetic Engineering
2019 – PRESENT	Associate Professor, John Glenn College of Public Affairs
2015 – PRESENT	Courtesy Faculty Appointment, City and Regional Planning, Knowlton School of Architecture
2013 – 2019	Assistant Professor, Department of Civil, Environmental, and Geodetic Engineering
2013 – 2019	Assistant Professor, John Glenn College of Public Affairs
2013 – PRESENT	Affiliated Faculty, Environmental Science Graduate Program
	Princeton University, Princeton NJ
2020 – PRESENT	Visiting Fellow*, Andlinger Center for Energy and Environment, Princeton University (*Non-Resident Fellow due to COVID-19 Pandemic)
	ETH-Zürich, Zurich Switzerland
2017	Guest Professor, Department of Earth Sciences, Geothermal Energy and Geofluids Group
	University of Minnesota, Minneapolis MN
2011 – 2015	Instructor, Boreas Leadership Program, Institute on the Environment
2011 – 2013	Research Associate, Center for Science, Technology, and Public Policy, Humphrey School of Public Affairs
2011 – 2013	Graduate Faculty, Humphrey School of Public Affairs
2010 – 2011	Post-Doctoral Student (Visiting Research Scientist), Center for Science, Technology, and Public Policy, Humphrey School of Public Affairs
	Oak Ridge National Laboratory, Oak Ridge TN
2009 – 2010	Weinberg Fellow, Energy and Transportation Science Division

2009 – 2010	<p>University of Tennessee, Knoxville TN Fellow for Energy and Environment, Howard Baker Center for Public Policy</p>
2006 – 2009	<p>Harvard University, Cambridge MA Research Fellow, Energy Technology Innovation Policy Group, Belfer Center for Science and International Affairs, Harvard Kennedy School</p>
2003 – 2005	<p>Teaching Fellow, Harvard Kennedy School: Analytic Frameworks for Policy Analysis (3x); Environmental Science for Policy Analysis; Game Theory, Strategic Decisions, and Negotiations; Individual and Collective Decision-Making</p>
2007	<p>Los Alamos National Laboratory, Los Alamos NM Graduate Research Assistant, Environmental and Spatial Analysis Group; Hydrology, Geochemistry, and Geology Group, Earth and Environmental Systems Division</p>
1996 – 2000	<p>Fermi National Acceleratory Laboratory, U.S. Department of Energy, Batavia IL Mechanical Engineer, Beams Division, Mechanical Support Department</p>
1993 – 1995	<p>Engineering Co-Op, Accelerator Division, Mechanical Support Department</p>
1996	<p>Laboratory for Laser Energetics, University of Rochester, Rochester NY Laboratory Engineer, Optical Manufacturing Department</p>

PROGRAMS

2006	Young Scientists Summer Program, International Institute of Applied Systems Analysis. Laxenburg, Austria
2004	Complex Systems Summer School, Santa Fe Institute. Santa Fe NM.

RESEARCH INTERESTS

Interactions between Energy and Environmental Systems and Policy; Carbon Management; Energy-Water Nexus; Renewable Energy; Integrated Assessment; Climate Change Adaptation, Mitigation, and Governance

HONORS, AWARDS, FELLOWSHIPS, CERTIFICATIONS

2019	Patent (Pending). “A Mine Reclamation Approach to Recover Rare Earth Elements from Acid Mine Drainage Using Alkaline Industrial By-Products.” Application No.: 62/878,286. Applicant: Ohio State Innovation Foundation. Inventors: Cheng, C-M., Bielicki, J. , Butalia, T., Lenhart, J. Filing Date: July 24, 2019. Country: United States. MCC Reference: 10336-644PV1. My Reference: T2019-375.
2019	R&D 100 Awards (2) for <i>SimCCS</i> : Software / Services; Special Recognition: Corporate Social Responsibility (Silver)
2017	2016 Lumley Research Award, College of Engineering, Ohio State University
2016	Semi-Finalist (Team TeraCOH), Carbon XPrize, Xprize Foundation
2015	Best Paper Presentations Award (co-author), Geothermal Resources Council Annual Meeting
2014	Best Paper Presentations Award (co-author), Geothermal Resources Council Annual Meeting
2013	Best Paper Presentations Award (co-author), Geothermal Resources Council Annual Meeting
2011	Outstanding Post-Doctoral Scholar Award, University of Minnesota
2009	Alvin Weinberg Fellowship, Oak Ridge National Laboratory

2004	Joseph G. Crump Fellowship, Environment and Natural Resources Program, Harvard University
1997	American Mensa
1996	Sigma Xi, the Scientific Research Society
1996	Mortar Board, Senior Honor Society
1996	Engineer in Training (EIT)
1994	Tau Beta Pi Engineering Honor Society
1992	Herman C. Hesse Outstanding Freshman Engineering Student Award, Valparaiso University
1992	Alpha Lambda Delta Freshman Honor Society
1991 – 1995	Lutheran Brotherhood Scholarship
1991 – 1995	Aid Association of Lutherans Scholarship

PROFESSIONAL MEMBERSHIPS

2016 – PRESENT	American Society of Engineering Education
2015 – PRESENT	Association of Environmental Engineering and Science Professors
2013 – PRESENT	European Geosciences Union
2009 – PRESENT	American Association for the Advancement of Science
2007 – PRESENT	American Geophysical Union
2005 – PRESENT	American Economic Society
1992 – PRESENT	American Society of Mechanical Engineers
2013 – 2017	Geothermal Resources Council
2004 – 2008	Society for Industrial and Applied Mathematics

PUBLICATIONS (STUDENTS: ADVISEE, *PRESENT INSTITUTION, **PRIOR INSTITUTION, ***OTHER INSTITUTION)

BOOK CHAPTERS

2018	1. Carlarne, C., Bielicki, J. (2018). “Nature and Human Well-Being: The Role of Environmental Law.” Van den Bosch, M., and Bird, W. (eds.). <u>Oxford Textbook of Nature and Public Health</u> . ISBN: 9780198725916.
2016	2. Khanal, S., Hochman, G., Shah, A., Bielicki, J. (2016). “Government Policy and Standards for Bioenergy.” in Li, Y. and Khanal, S. (eds.) <u>Bioenergy: Principles and Applications</u> . John Wiley and Sons. ISBN: 9781118568316.
2007	3. Bielicki, J. , Kalinowski, A., Zhao, L. (2007). “Getting it Done: Barriers and Incentives to Deploying Carbon Capture and Storage.” In <u>Fundamentals of Carbon Capture and Storage Technology</u> . Petroleum Economist: UK.

REFEREED PAPERS

ACCEPTED / IN PRESS	1. Adams, B., Vögler, D., Kuehn, T., Bielicki, J. , Garapati, N., Saar, M. (<i>Accepted, November 2020</i>). "Heat Depletion in Sedimentary Basins and its Effect on the Design and Electric Power Output of CO ₂ Plume Geothermal (CPG) Systems." <i>Renewable Energy</i> . https://doi.org/10.1016/j.renene.2020.11.145
2021	1. <u>Ogland-Hand, J.*</u> , Bielicki, J. , Adams, B., Buscheck, T., Sioshansi, R. (2021). “The Value of CO ₂ -Bulk Energy Storage with Wind in Transmission-Constrained Electricity Systems.” <i>Energy Conversion and Management</i> , 228 (15 January 2021), 113548. https://doi.org/10.1016/j.enconman.2020.113548

2020

2. Middleton, R., Ogland-Hand, J., Chen, B., **Bielicki, J.**, Ellett, K., Harp, D., Kammer, R. (2020). "Identifying Geologic Characteristics and Operational Decisions to Meet Global Carbon Sequestration Goals." *Energy & Environmental Science*, 12, 5000-5016. <https://doi.org/10.1039/D0EE02488K>
3. Middleton, R., **Bielicki, J.**, Chen, B., Clarens, A., Currier, R., Ellett, K., Harp, D., Hoover, B., Kammer, R., McFarlane, D., Ogland-Hand, J.*, Pawar, R., Stauffer, P., Viswanathan, H., Yaw, S. (2020). "Great SCO₂T! Rapid Tool for Carbon Sequestration Science, Engineering, and Economics." *Applied Computing and Geosciences*. 7, 2020, 100035. <https://doi.org/10.1016/j.acags.2020.100035>
4. Fleming, M.** , Adams, B., Kuehn, T., **Bielicki, J.**, Saar, M. (2020). "Increased Power Generation due to Exothermic Water Exsolution in CO₂ Plume Geothermal (CPG) Power Plants." *Geothermics*, 88, 101865. <https://doi.org/10.1016/j.geothermics.2020.101865>

2019

5. Wang, Y.*, Byers, E., Parkinson, S., Wanders, N., Wada, Y., Mao, J., **Bielicki, J.** (2019). "The Vulnerability of Coal-Fired Power Plants in Developing Asia to Changes in Climate and Water Resources." *Energy & Environmental Science*, 12(10), 3164-3181. <https://doi.org/10.1039/c9ee02058f>
6. **Bielicki, J.**, Beetstra, M.* , Kast, J.* , Wang, Y.*, Tang, S* . (2019). "Stakeholder Perspectives on Sustainability in the Food, Energy, and Water Nexus." *Frontiers in Environmental Science*. February 2019, 7(7). 1-18. <https://doi.org/10.3389/fenvs.2019.00007>
7. Ogland-Hand, J.*, **Bielicki, J.**, Wang, Y.*, Adams, B., Buscheck, T., Saar, M. (2019). "The Value of Bulk Energy Storage for Reducing CO₂ Emissions and Water Requirements from Regional Electricity Systems." *Energy Conversion and Management*, 181, 674-685. <https://doi.org/10.1016/j.enconman.2018.12.019>

2018

8. Tallis, H., Hawthorne, P., Polasky, S., Reid, J., Beck, M., Brauman, K., **Bielicki, J.**, Binder, S., Burgess, M., Cassidy, E., Clark, A., Costello, C., Fargione, J., Game, E., Gerber, J., Isbell, F., Kisecker, K., McDonald, R., Metian, M., Molnar, J., Mueller, N., O'Connell, C., Ovando, D., Troell, M., Boucher, T., McPeck, B. (2018) "Is a Hopeful Vision of Conservation and Human Well-Being Feasible?" *Frontiers of Ecology and Environment*. 16(10), 563-570. <https://doi.org/10.1002/fee.1965>
9. **Bielicki, J.**, Langenfeld, J.*, Tao, Z.*** , Middleton, R., Menefee, A.*** , Clarens, A. (2018). "The Geospatial and Economic Viability of CO₂ Storage in Hydrocarbon Depleted Fractured Shale Formations." *International Journal of Greenhouse Gas Control*, 75, 8-23. <https://doi.org/10.1016/j.ijggc.2018.05.015>
10. Dai, Z., Zhang, Y., **Bielicki, J.**, Amooie, M.* , Zhang, M., Yang, C., Zhou, Y., Ampomah, W., Xiao, T., Jia, W., Middleton, R., Zhang, W., Sun, Y., Moortgat, J., Soltanian, M., Stauffer, P. (2018). "Heterogeneity-Assisted Carbon Dioxide Storage in Marine Sediments." *Applied Energy*, 225, 876-893. <https://doi.org/10.1016/j.apenergy.2018.05.038>
11. Wang, Y.*, Sivandran, G., **Bielicki, J.** (2018). "The Stationarity of Two Statistical Downscaling Methods for Precipitation under Different Choices of Cross-Validation Periods." *International Journal of Climatology*. 38(suppl. 1), e330-e348. <https://dx.doi.org/10.1002/joc.5375>
12. Wang, Y.*, **Bielicki, J.** (2018). "Acclimation and the Response of Hourly Electricity Loads to Meteorological Variables." *Energy*, 142, 473-485. <https://doi.org/10.1016/j.energy.2017.10.037>

- 2017
13. Deng, H., **Bielicki, J.**, Oppenheimer, M., Fitts, J., Peters, C. (2017). "Leakage Risks of Geologic CO₂ Sequestration and the Impacts on the Global Energy System and Climate Mitigation." *Climatic Change*, 144(2), 151-163. <http://dx.doi.org/10.1007/s10584-017-2035-8>
 14. Harp, D., Pawar, R., Stauffer, P., O'Malley, D., Jiao, Z., Egenolf, E., Miller, T., Martinez, D.***, **Hunter, K.***, Middleton, R., **Bielicki, J.** (2017). "Development of Robust Pressure Management Strategies for Geologic CO₂ Sequestration." *International Journal of Greenhouse Gas Control*, 64, 43-59. <https://doi.org/10.1016/j.ijggc.2017.06.012>
- 2016
15. Buscheck, T., **Bielicki, J.**, White, J., Sun, Y., Hao, Y., Bourcier, W., Carroll, S., Aines, R. (2016) "Pre-Injection Brine Production in CO₂ Storage Reservoirs: An Approach to Augment the Development, Operation, and Performance of CCS while Generating Water." *International Journal of Greenhouse Gas Control*. 54(2), 499-512. <http://dx.doi.org/10.1016/j.ijggc.2016.04.018>
 16. Buscheck, T., **Bielicki, J.**, Edmunds, T., Hao, T., Sun, Y., Randolph, J., Saar, M. (2016). "Multi-Fluid Geo-Energy Systems: Using Geologic CO₂ Storage for Geothermal Energy Production and Grid-Scale Energy Storage in Sedimentary Basins." *Geosphere*, 12(3), 1-19. <http://geosphere.gsapubs.org/content/early/2016/05/05/GES01207.1.full.pdf>
 17. **Bielicki, J.**, Pollak, M., Deng, H.***, Wilson, E., Fitts, J., Peters, C. (2016) "The Leakage Risk Monetization Model for Geologic CO₂ Storage." *Environmental Science & Technology*, 50(10), 4923-4931. <http://dx.doi.org/10.1021/acs.est.5b05329>
 18. Buscheck, T., White, J., Carroll, S., **Bielicki, J.**, Aines, R. (2016) "Managing Geologic Storage with Pre-Injection at Brine Production: A Strategy Evaluated with a Model of CO₂ Injection at Snøhvit." *Energy & Environmental Science*, 9(4), 1504-1512. <http://dx.doi.org/10.1039/C5EE03648H>
- 2015
19. Buscheck, T., **Bielicki, J.** (2015). "Reducing Energy's Footprint by Producing Water and Storing CO₂." *Cornerstone*, 3(3), Autumn 2015. (invited contribution). <http://cornerstonemag.net/reducing-energys-footprint-by-producing-water-and-storing-co2/>
 20. Wattenberg, E., **Bielicki, J.**, Suchomel, A.**, Sweet, J.**, Vold, E.**, Ramachandran, G. (2015). "Assessment of Acute and Chronic Health Hazards of Hydraulic Fracturing Fluids." *Journal of Occupational and Environmental Hygiene*. <http://dx.doi.org/10.1080/15459624.2015.1029612>
 21. Middleton, R., Levine, J., **Bielicki, J.**, Visanawathan, H., Carey, J.W., Stauffer, P. (2015). "Jumpstarting Commercial-Scale CO₂ Capture and Storage with Ethylene Production and Enhanced Oil Recovery in the U.S. Gulf." *Greenhouse Gases: Science and Technology*. <http://dx.doi.org/10.1002/ghg.1490>
 22. **Bielicki, J.**, Peters, C., Fitts, J., Wilson, E. (2015). "An Examination of Geologic Carbon Sequestration Policies in the Context of Leakage Potential." *International Journal of Greenhouse Gas Control*, 37, 61-75. <http://dx.doi.org/10.1016/j.ijggc.2015.02.023>
 23. Adams, B.**, Kuehn, T., **Bielicki, J.**, Randolph, J., Saar, M. (2015). "A Comparison of the Electric Power Output of CO₂ Plume Geothermal (CPG) and Brine Geothermal Systems for Varying Reservoir Conditions." *Applied Energy*, 140, 365-377. <http://dx.doi.org/10.1016/j.apenergy.2014.11.043>
- 2014
24. Middleton, R., Clarens, A., Liu, X.***, **Bielicki, J.**, Levine, J. (2014). "CO₂ Deserts: Implications of Existing CO₂ Supply Limitations for Carbon Management." *Environmental Science & Technology*, 40, 11713-11720. <http://dx.doi.org/10.1021/es5022685>

25. Paine, N.**, Homans, F., Pollak, M., **Bielicki, J.**, and Wilson, E., (2014). “Why Rules Matter: Optimizing Pumped Hydroelectric Storage Under Different ISO Markets.” *Energy Economics*, 46, 10-19. <http://dx.doi.org/10.1016/j.eneco.2014.08.017>
26. **Bielicki, J.**, Calas, G.***, Ha-Duong, M., Middleton, R. (2014). “National Corridors for Climate Change Mitigation: Managing Industrial CO₂ Emissions in France.” *Greenhouse Gases: Science and Technology*, 4(3), 262-277. <http://dx.doi.org/10.1002/ghg.1395>
27. Adams, B.**, Kuehn, T., **Bielicki, J.**, Randolph, J., Saar, M., (2014). “On the Importance of the Thermosiphon Effect in CO₂ Plume Geothermal (CPG) Power Systems”. *Energy*, 69, 409-418. <http://dx.doi.org/10.1016/j.energy.2014.03.032>
28. **Bielicki, J.**, Pollak, M., Fitts, J., Peters, C., Wilson, E. (2014). “Causes and Financial Consequences of Geologic CO₂ Storage Reservoir Leakage and Interference with Other Subsurface Resources.” *International Journal of Greenhouse Gas Control*, 20, 272-284. <http://dx.doi.org/10.1016/j.ijggc.2013.10.024>
- 2013
29. Haase, R.**, **Bielicki, J.**, Kuzma, J., (2013). “Innovation in Emerging Energy Technologies: A Case Study Analysis to Inform the Path Forward for Algal Biofuels.” *Energy Policy*, 61, 1595-1607. <http://dx.doi.org/10.1016/j.enpol.2013.06.029>
30. Parish, E., Efrogmson, R., Dale, V., Dodder, R., Kline, K., McBride, A., Johnson, T., Hilliard, M., **Bielicki, J.** (2013). “Comparing Scales of Environmental Effects from Gasoline and Ethanol Production.” *Environmental Management*. 51, 307-338. <http://dx.doi.org/10.1007/s00267-012-9983-6>
31. Efrogmson, R., Dale, V., Kline, K., McBride, A., **Bielicki, J.**, Smith, R., Parish, E., Schweizer, P., Shaw, D. (2013). “Environmental Indicators of Biofuel Sustainability: What About Context?” *Environmental Management*. 51, 291-306. <http://dx.doi.org/10.1007/s00267-012-9907-5>
32. Johnson, T., **Bielicki, J.**, Dodder, R., Hilliard, M., Kaplan, O., Miller, C.A. (2013). “Advancing Sustainable Bioenergy: Evolving Stakeholder Interests and the Relevance of Research.” *Environmental Management*. 51, 339-353. <http://dx.doi.org/10.1007/s00267-012-9884-8>
- 2012
33. Lilliestam, J.***, **Bielicki, J.**, and Patt, A. (2012). “Comparing Carbon Capture and Storage (CCS) with Concentrated Solar Power (CSP): Potentials, Costs, Risks, and Barriers.” *Energy Policy*. 47, 447-455. <http://dx.doi.org/10.1016/j.enpol.2012.05.020>
34. Middleton, R., Kuby, M. **Bielicki, J.** (2012). “Generating Candidate Networks for Optimization: The CO₂ Capture and Storage Optimization Problem.” *Computers, Environment, and Urban Systems*. 36, 18-29. <http://dx.doi.org/10.1016/j.compenvurbsys.2011.08.002>
- 2011
35. Dammel, J.**, **Bielicki, J.**, Pollak, M., Wilson, E. (2011). “A Tale of Two Technologies: Hydraulic Fracturing and Geologic Carbon Sequestration.” *Environmental Science & Technology*, 45, 5075-5076. (editor-reviewed) <http://pubs.acs.org/doi/pdf/10.1021/es201403c>
36. Kuby, M., **Bielicki, J.**, Middleton, R. (2011). “The Optimal Spatial Deployment of CO₂ Capture and Storage with a Price on Carbon.” *International Regional Science Review*, 3, 285-305. <http://dx.doi.org/10.1177/0160017610397191>
- 2009
37. Middleton, R., **Bielicki, J.** (2009). “A Scaleable Infrastructure Model for Carbon Capture and Storage: *SimCCS*.” *Energy Policy*, 37, 1052-1060. <http://dx.doi.org/10.1016/j.enpol.2008.09.049>
- 1998
38. Palumbo, R., Lede, J., Boutin, O., Ricart, E., Steinfeld, A., Moller, S., Weidenkaff, A., Fletcher, E., **Bielicki, J.** (1998). “The Production of Zn from ZnO in a High Temperature Solar Decomposition Process – The Scientific Framework for the

Process.” *Chemical Engineering Science*. 53(14), 2503-2517.
[http://dx.doi.org/10.1016/S0009-2509\(98\)00063-33](http://dx.doi.org/10.1016/S0009-2509(98)00063-33)

IN REVISION

39. **Bielicki, J.**, Adams, B., **Choi, H.****, Jamiyson, B.**, Saar, M., Taff, S., Buscheck, T., **Ogland-Hand, J.*** (*In Revision, October 2017*). “Engineering Cost-Competitive Geothermal Electricity from Geologic CO₂ Storage.” *Energy Conversion and Management*.

IN REVIEW

1. Adams, B., Ogland-Hand, J., **Bielicki, J.** Schädle, P., Saar, M. (*submitted, January 2021*). “Estimating the Geothermal Electricity Generation Potential of Sedimentary Basins using genGEO (the generalizable GEOthermal techno-economic simulator).” *Energy & Environmental Science*.
2. Qin, Y., Zhou, M., Pan, D., Klimont, Z., Gingerich, D., Mauzerall, D., Zhao, L., **Bielicki, J.** (*Submitted, December 2020*). “Overlooked Environmental Consequences of China’s Adaptation to Natural Gas Insecurity ” *Nature Sustainability*.
3. Gingerich, D., Qin, Y., **Bielicki, J.** (*Submitted, September 2020*). “Post Pandemic Sustainability Investments for Jobs and Climate.” *Nature Communications*.

IN PREPARATION

1. **DeLuca, M.***, **Bielicki, J.**, (*in prep*). “Infrastructure Deployment for CO₂ Capture and Storage that is Robust to Reservoir Leakage Risk.” *Energy Policy*
2. **Ogland-Hand, J.***, **Bielicki, J.**, Buscheck, T., Mansoor, K. (*in prep*). “Optimal Heat Mining of Geothermal Reservoirs”. *Renewable Energy*
3. Fleming, M.**, Adams, B., Kuehn, T., **Bielicki, J.**, Saar, M. (*in prep*). “The Generation, Storage, Operation, and Cost of a Flexible CO₂-Plume Geothermal Energy Storage (CPGES) in a Low-Temperature Sedimentary Reservoir.” *Geothermics*
4. **Miranda, M.***, **Chun, S.***, **Bielicki, J.**, Chen, C-M. (*in prep*). “Economic and Environmental Evaluation of Rare Earth Element Extraction from Acid Mine Drainage.” *Environmental Science & Technology*.

CONFERENCE PAPERS AND PROCEEDINGS

2020

1. **Maldonado, S.***, **Bielicki, J.**, **Miranda, M.***, **Ogland-Hand, J.***, **Howard, C.*****, Adams, B., Buscheck, T., Saar, M. (2020). “Geospatial Estimation of the Electric Power Potential in Sedimentary Basin Geothermal Resources Using Geologically Stored Carbon Dioxide” *Proceedings World Geothermal Congress 2020*. Reykjavik, Iceland, April 26 – May 2, 2020. <https://pangea.stanford.edu/ERE/db/WGC/papers/WGC/2020/16094.pdf>

2019

2. Adams, B., Fleming, M.**, **Bielicki, J.**, Hansper, J., Glos, S., Langer, M., Wechsung, M., Saar, M. (2019). “Grid Scale Energy Storage using CO₂ in Sedimentary Basins: The Cost of Power Flexibility.” *European Geothermal Congress*, Den Haag, The Netherlands, June 11-14, 2019. <http://europeangeothermalcongress.eu/wp-content/uploads/2019/07/358.pdf>
3. **Ogland-Hand, J.***, **Bielicki, J.** (2018) “Mechanisms of Geologically Stored CO₂ for Energy Storage.” (2018). Proceedings of the *14th International Conference on Greenhouse Gas Technologies*. October 21-26, 2018. Melbourne, Australia. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3366322
4. **Ogland-Hand, J.***, **Miranda, M.***, **Bielicki, J.**, Adams, B., Buscheck, T., Saar, M. “Operational Characteristics of a Geologic CO₂ Storage Bulk Energy Storage Technology.” (2018). Proceedings of the *14th International Conference on Greenhouse Gas Technologies*. October 21-26, 2018. Melbourne, Australia. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3366316
5. Fleming, M.**, Adams, B., Kuehn, T., **Bielicki, J.**, Saar, M. (2019). “Benefits of Using Active Reservoir Management During CO₂-Plume Development for CO₂-Plume Geothermal (CPG) Systems.” *Proceedings 44th Workshop on Geothermal Reservoir*

Engineering, Stanford, CA, February 11-13, 2019. SGP-TR-214.
<https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2019/Fleming.pdf>

2018

6. Ogland-Hand, J.*, **Bielicki, J.**, Nelson, E., Adams, B., Buscheck, T., Saar, M., Sioshansi, R. (2018). "Effects of Bulk Energy Storage in Sedimentary Basin Geothermal Resources on Transmission Constrained Electricity Systems." *Proceedings of the 43rd Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 12-14, 2018. SGP-TR-213.
<https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2018/Oglandhand.pdf>
7. Fleming, M.** , Saar, M., Adams, B., Ogland-Hand, J.*, Kuehn, T., Buscheck, T., **Bielicki, J.**, Randolph, J. (2018). "High Efficiency and Large-Scale Subsurface Energy Storage with CO₂." *Proceedings of the 43rd Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 12-14, 2018. SGP-TR-213.
<https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2018/Fleming.pdf>

2017

8. Hunter, K.*, **Bielicki, J.**, Middleton, R., Stauffer, P., Harp, D., Pawar, R., Martinez, D.*** (2017). "Integrated CO₂ Storage and Brine Production." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 6331-6336.
<http://dx.doi.org/10.1016/j.egypro.2017.03.1769>
9. Ogland-Hand, J.*, **Bielicki, J.**, Buscheck, T. (2017). "The Value of CO₂-Bulk Energy Storage to Reducing CO₂ Emissions." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 6886-6892. <http://dx.doi.org/10.1016/j.egypro.2017.03.1830>
10. Langenfeld, J.*, **Bielicki, J.**, Tao, Z.***, Middleton, R., Menefee, A.***, Clarens, A. (2017). "Response of Integrated Carbon Dioxide Capture and Storage Systems in Saline Aquifers and Fractured Shale Formations to Changes in Capture Costs." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 4099-4105.
<http://dx.doi.org/10.1016/j.egypro.2017.03.1550>
11. Langenfeld, J.*, **Bielicki, J.** (2017). "Assessment of Sites for CO₂ Storage and CO₂ Capture, Utilization and Storage Systems in Geothermal Reservoirs." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 7009-7017.
<http://dx.doi.org/10.1016/j.egypro.2017.03.1842>
12. **Bielicki, J.**, Deng, H., Fitts, J., Peters, C., Wilson, E. (2017). "Monetizing Leakage Risk with Secondary Trapping in Intervening Stratigraphic Layers." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 4256-4261.
<http://dx.doi.org/10.1016/j.egypro.2017.03.1565>
13. Garapati, N., Adams, B., **Bielicki, J.**, Schaedle, P.***, Randolph, J., Kuehn, T., Saar, M. (2017). "A Hybrid Geothermal Energy Conversion Technology - A Potential Solution for Shallow Geothermal Resources." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 7107-7177. <https://doi.org/10.1016/j.egypro.2017.03.1852>
14. Middleton, R., Levine, J., **Bielicki, J.**, Stauffer, P. (2017). "Industrial CO₂ and Carbon Capture: Near-Term Benefit, Long-Term Necessity." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 7601-7605. <https://doi.org/10.1016/j.egypro.2017.03.1892>
15. Buscheck, T., **Bielicki, J.**, Randolph, J. (2017). "CO₂ Earth Storage: Enhanced Geothermal Energy and Water Recovery and Energy Storage." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 6870-6879.
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2016

16. Buscheck, T., **Bielicki, J.**, White, J., Sun, Y., Hao, Y., Bourcier, W., Carroll, S., Aines, R. (2017). "Managing Geologic CO₂ Storage with Pre-Injection Brine Production in Tandem Reservoirs." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. *Energy Procedia*, 114, 4757-4764.
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17. Dai, Z., Zhang, Y., Stauffer, P., Xiao, T., Zhang, M., Ampomah, W., Yang, C., Zhou, Y., DIng, M., Middleton, R. Soltanian, M. R., **Bielicki, J.**, (2017). "Injectivity Evaluation for Offshore CO₂ Sequestration in Marine Sediments." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. *Energy Procedia*, 114, 2921-2932.
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18. **Bielicki, J.**, Adams, B.** , Choi, H.**, Jamiyurasuren, B., Saar, M., Taff, S., Buscheck, T., Ogland-Hand, J.*, (2016). "Sedimentary Basin Geothermal Resource for Cost-Effective Generation of Renewable Electricity from Sequestered Carbon Dioxide." *Proceedings of the 41st Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 22-24, 2016. SGP-TR-209.
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19. **Bielicki, J.**, Blackwell, D., Harp, D., Karra, S., Kelley, S., Kelley, R., Middleton, R., Person, M., Sutula, G.* (2016). "Hydrogeologic Windows and Estimating the Prospectivity of Geothermal Resources." *Proceedings of the 41st Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 22-24, 2016. SGP-TR-209.
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20. Ogland-Hand, J.*, **Bielicki, J.**, Buscheck, T. (2016). "The Value of Bulk Energy Storage in Sedimentary Basin Geothermal Resources for Reducing CO₂ Emissions." *Proceedings of the 41st Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 22-24, 2016. SGP-TR-209.
<https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2016/Oglandhand.pdf>
21. Patel, I.*, **Bielicki, J.**, Buscheck, T. (2016). "A Reduced Form Representation of Temperature Drawdown in Sedimentary Basin Geothermal Reservoirs for the Development of Optimal Management Strategies." *Proceedings of the 41st Workshop on Geothermal Reservoir Engineering*. Stanford University, Stanford CA, February 22-24, 2016. SGP-TR-209.
<https://pangea.stanford.edu/ERE/db/GeoConf/papers/SGW/2016/Patel.pdf>

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22. Person, M., Kelley, S., Kelley, R., Karra, S., Harp, D., Witcher, J., **Bielicki, J.**, Sutula, G.*, Middleton, R., Pepin, J. (2015). "Hydrogeologic Windows: Detection of Blind and Traditional Geothermal Play Fairways in Southwestern New Mexico Using Conservative Element Concentrations and "Up-Winding." *39th Geothermal Resources Council. Annual Meeting*. September 20-23, 2015. Reno, NV. *GRC Transactions*, 39, 751-759.
23. Buscheck, T., **Bielicki, J.**, Chen, M., Sun, Y., Hao, Y., Edmunds, T., Saar, M., Randolph, J. (2015). "Multi-Fluid Sedimentary Geothermal Energy Systems for Dispatchable Renewable Electricity." *Proceedings World Geothermal Congress 2015*. Melbourne Australia, 19-25 April 2015.
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24. Saar, M., Buscheck, T., Jenny, P., Garapti, N., Randolph, J., Karvounis, D.***, Chen, M., Sun, Y., **Bielicki, J.** (2015). "Numerical Study of Multi-Fluid and Multi-Level Geothermal Fluid Systems." *Proceedings World Geothermal Congress 2015*. Melbourne Australia, 19-25 April 2015.
<https://pangea.stanford.edu/ERE/db/WGC/papers/WGC/2015/37006.pdf>

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25. **Bielicki, J.**, Middleton, R., Levine, J., Stauffer, P. (2014). "An Alternative Pathway for Stimulating Regional Deployment of Carbon Dioxide Capture and Storage." *12th*

- International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 7215-7224. <http://dx.doi.org/10.1016/j.egypro.2014.11.757>
26. Deng, H.***, **Bielicki, J.**, Oppenheimer, M., Fitts, J., Peters, C. (2014). "Policy Implications of Monetized Leakage Risk from Geologic CO₂ Storage Reservoirs." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 6852-6863. <http://dx.doi.org/10.1016/j.egypro.2014.11.719>
 27. Tao, Z.***, **Bielicki, J.**, Clarens, A. (2014). "Physiochemical Factors Impacting CO₂ Sequestration in Depleted Shale Formations: The Case of the Utica Shale." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 5153-5163. <http://dx.doi.org/10.1016/j.egypro.2014.11.545>
 28. Buscheck, T., White, J., Chen, M., Sun, Y., Hao, Y., Aines, R. Bourcier, W., **Bielicki, J.** (2014). "Pre-Injection Brine Production for Managing Reservoir Pressure in Compartmentalized CO₂ Storage Reservoirs." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 5333-5340. <http://dx.doi.org/10.1016/j.egypro.2014.11.565>
 29. **Bielicki, J.**, Clarens, A., Middleton, R., Liu, X.***, Barbosa de Carvalho, M.***, Giovanini Junior, N.*** (2014). "Shifting Sands in a CO₂ Desert: Replacing Extracted CO₂ with Byproduct CO₂ for Use in Enhanced Oil Recovery." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 6567-6564. <http://dx.doi.org/10.1016/j.egypro.2014.11.692>
 30. Buscheck, T., **Bielicki, J.**, Chen, M., Sun, Y., Hao, Y., Edmunds, T., Saar, M., Randolph, J. (2014). "Integrating CO₂ Storage with Geothermal Resources for Dispatchable Renewable Electricity." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. *Energy Procedia*, 63, 7619-7630. <http://dx.doi.org/10.1016/j.egypro.2014.11.796>
 31. Edmunds, T., Sotorrio, P., **Bielicki, J.**, Buscheck, T. (2014). "Geothermal Power for Integration of Intermittent Generation." *38th Geothermal Resources Council. Annual Meeting*. September 28-October 1, 2014. Portland, OR. <https://e-reportsext.llnl.gov/pdf/776358.pdf>
 32. Buscheck, T., **Bielicki, J.**, Randolph, J., Chen, M., Hao, Y., Edmunds, T., Sun, Y. (2014). "Multi-Fluid Geothermal Energy Systems in Stratigraphic Reservoirs: Using Brine, N₂, and CO₂ for Dispatchable Renewable Power Generation and Bulk Energy Storage" *Proceedings of the 39th Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 24-26, 2014. SGP-TR-202. <https://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2014/Buscheck.pdf>
- 2013
33. Buscheck, T., Chen, M., Hao, Y., **Bielicki, J.**, Randolph, J., Sun, Y., Choi, H.** (2013). "Multi-Fluid Geothermal Energy Production and Storage in Stratigraphic Reservoirs." *37th Geothermal Resources Council. Annual Meeting*. September 29 – October 2, 2013. Las Vegas, NV. <https://e-reports-ext.llnl.gov/pdf/755658.pdf>
 34. Pollak, M., **Bielicki, J.**, Dammel, J.**, Wilson, E., Fitts, J., Peters, C. (2013). "The Leakage Impact Valuation (LIV) Method for Leakage from Geologic CO₂ Storage Reservoirs." *11th International Conference on Greenhouse Gas Technologies*. Kyoto, Japan. November 18-22, 2012. *Energy Procedia*, (37) 2819-2827. <http://dx.doi.org/10.1016/j.egypro.2013.06.167>
 35. **Bielicki, J.**, Pollak, M., Wilson, E., Fitts, J., Peters, C. (2013). "A Methodology for Monetizing Basin-Scale Leakage Risk and Stakeholder Impacts." *11th International Conference on Greenhouse Gas Technologies*. Kyoto, Japan. November 18-22, 2012. *Energy Procedia*, (37), 4665-4672. <http://dx.doi.org/10.1016/j.egypro.2013.06.375>
 36. Randolph, J., Saar, M., **Bielicki, J.** (2013). "Geothermal Energy Production at Geologic CO₂ Sequestration sites: Impact of Thermal Drawdown on Reservoir Pressure." *11th International Conference on Greenhouse Gas Technologies*. Kyoto, Japan. November 18-22, 2012. *Energy Procedia* (37), 6625-6635. <http://dx.doi.org/10.1016/j.egypro.2013.06.595>,
 37. Buscheck, T., Chen, M., Lu, C., Sun, Y., Hao, Y., Celia, M. Elliot, T., **Bielicki, J.**, Choi, H.** (2013). "Analysis of Operational Strategies for Utilizing CO₂ for

- Geothermal Energy Production.” *Proceedings of the 38th Workshop on Geothermal Reservoir Engineering*, Stanford University, Stanford CA, February 11-13, 2013. SGP-TR-198. <https://pangea.stanford.edu/ERE/pdf/IGAstandard/SGW/2013/Buscheck.pdf>
- 2011
38. Middleton, R., Keating, G., Pawar, R., Stauffer, P., **Bielicki, J.** (2011). “Jumpstarting CCS using Oil Refinery CO₂ for Enhanced Oil Recovery.” *10th International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. *Energy Procedia*, 4, 2185-2191. <http://dx.doi.org/10.1016/j.egypro.2011.02.105>,
39. Kuby, M., Middleton, R., Keating, G., **Bielicki, J.** (2011). “Analysis of Cost Savings from Networking Pipelines in CCS Infrastructure Systems.” *10th International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. *Energy Procedia*, 4, 2393-2400. <http://dx.doi.org/10.1016/j.egypro.2011.02.185>,
- 2009
40. Middleton, R., **Bielicki, J.** (2009). “A Comprehensive Carbon Capture and Storage Infrastructure Model.” *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20, 2008. *Energy Procedia*, 1(1), 1691-1698. <http://dx.doi.org/10.1016/j.egypro.2009.01.211>
41. **Bielicki, J.** (2009). “Spatial Clustering and Carbon Capture and Storage Deployment.” *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20, 2008. *Energy Procedia*, 1(1), 1611-1616. <http://dx.doi.org/10.1016/j.egypro.2009.01.221>
42. Stephens, J., **Bielicki, J.**, Rand, G. *** (2009). “Learning about Carbon Capture and Storage: Changing Stakeholder Perception with Expert Information.” *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20, 2008. *Energy Procedia* 1(1), 4655-4663. <http://dx.doi.org/10.1016/j.egypro.2009.02.288>,
43. **Bielicki, J.** (2008). “Returns to Scale for Carbon Capture and Storage Infrastructure and Deployment,” *7th Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA May 5-8. http://belfercenter.ksg.harvard.edu/files/Bielicki_CCSReturnsToScale.pdf
- 2006
44. **Bielicki, J.** Schrag, D. (2006). “On the Influence of Carbon Capture and Storage on the Location of Electric Power Generation.” *Proceedings of the 8th International Conference on Greenhouse Gas Technologies*. Trondheim, Norway. June 19-22, 2006.
- 1999
45. Bieniosek, F., Kurnaev, O., Cherepakhin, A. **Bielicki, J.**, Dinkel, J. “Beam Sweeping System.” (1999) *Proceedings of the 18th Particle Accelerator Conference*, 2, 1249-1251. New York; May 1999. <https://accelconf.web.cern.ch/accelconf/p99/PAPERS/TUA74.PDF>

TECHNICAL REPORTS AND OTHER PUBLICATIONS

- 2018
1. Numerous Authors, “Crosscut Priority Research Direction: Developing Tools to Integrate Life-Cycle Techno-Economic, Environmental and Social Considerations to Guide Technology Portfolio Optimization.” Edited by: Powell, J., Buchanan, M. (Co-Chairs) *Mission Innovation – Accelerating the Clean Energy Revolution*. Carbon Capture, Utilization, and Storage Experts’ Workshop. Houston, TX. September 25-29, 2017. https://www.energy.gov/sites/prod/files/2018/05/f51/Accelerating%20Breakthrough%20Innovation%20in%20Carbon%20Capture%2C%20Utilization%2C%20and%20Storage%20_0.pdf

- 2017
2. Saar, M., **Bielicki, J.**, Kuehn, T., Randolph, J., Taff, S. Final Report for NSF Award #1230691: "SEP: A Novel Method Using CO₂ and Geothermal Resources for Sustainable Energy Production and Storage." September, 2017.
 3. **Bielicki, J.**, Buscheck, T. Final Report for NSF SedHeat RCN Award: "Incubator Workshop: Energy Storage in Sedimentary Basin Geothermal Resources." August, 2017.
 4. **Bielicki, J.**, Final Report for USGS/OHRC Award: 2016OH508B "Co-Optimizing Enhanced Water Recovery and CO₂ Sequestration in Ohio." April, 2017.
- 2016
5. **Bielicki, J.**, Final Report for USGS/OHRC Award: G11AP20099 "Developing Integrated Assessments of Water and Energy in Ohio." April, 2017.
- 2015
6. **Bielicki, J.**, Blackwell, D., Harp, D., Karra, S., Kelley, S., Kelley, R., Middleton, R. (PI), Pepin, J., Person, M., Sutula, G., Witcher, J. Final Report for U.S. DOE Award DE-FOA-0000841 / 310130: "DOE Hydrogeologic Windows Final Report." October, 2015
- 2010
7. Numerous Authors, "Technology and Applied R&D Needs for Carbon Capture: Beyond 2020." Resource document for the workshop on basic research needs for carbon capture. "Basic Research Needs for Carbon Capture: Beyond 2020". Edited by: Alivisatos, P., Buchanan, M. (Co-Chairs). *U.S. Department of Energy, Offices of Basic Energy Sciences and of Fossil Energy*. Report of Carbon Capture: Beyond 2020. March 4-5, 2010. Gaithersburg, MD.
http://science.energy.gov/~media/bes/pdf/reports/files/Basic_Research_Needs_for_Carbon_Capture_rpt.pdf
 8. Numerous Authors, "Grand Challenges for Biological and Environmental Research: A Long-Term Vision". Edited by: Stacey, G. (Chair). *U.S. Department of Energy*. (DOE-SC0135). A Report from the Biological and Environmental Research Advisory Committee March 2010 Workshop. March 2-5, 2010. Gaithersburg, MD.
http://science.energy.gov/~media/ber/pdf/Ber_ltv_report.pdf
 9. Numerous Authors, "CCS Guidelines for Community Engagement: Guidelines for Community Engagement in Carbon Dioxide Capture, Transport, and Storage Projects.". Edited by: Forbes, S., Almendra, F., Ziegler, M. Washington: *World Resources Institute*. ISBN 978-1-56973-756-9
http://www.wri.org/sites/default/files/pdf/ccs_and_community_engagement.pdf
- 2009
10. **Bielicki, J.** (2009). Integrated Systems Analysis and Technological Findings for Carbon Capture and Storage Deployment. Ph.D. Thesis. Harvard University. Cambridge, MA.
- 2008
11. Numerous Authors, "CCS Guidelines: Guidelines for Carbon Dioxide Capture, Transport, and Storage". Edited by: Forbes, S., Verma, P., Currey, T., Bradley, M., Friedmann, J., Wade, S. Washington: *World Resources Institute*. ISBN 978-1-56973-701-9 http://pdf.wri.org/ccs_guidelines.pdf
 12. Stephens, J., **Bielicki, J.** "Public Perception of Carbon Capture and Storage Technology". Cambridge: *Belfer Center for Science and International Affairs*. Harvard Workshop on Public Perception of Carbon Capture and Storage Technology, June 2-3, 2008. Cambridge, MA.
http://belfercenter.ksg.harvard.edu/files/CCS_Public_Perception_Workshop_Report.pdf

RESEARCH FUNDING

I have been active in organizing research from various perspectives, with awards from competitive entities such as the U.S. National Science Foundation, the U.S. Department of Energy, and the Ohio Water Resources Center / U.S. Geologic Survey, as well as other awards from the Ohio Coal Development Office, and elsewhere. Altogether, I have been PI, Co-PI, or Senior Personnel on awards totaling \$20.0M (\$17.9M while at Ohio State University, OSU, with \$17.7M for OSU). My research does not require equipment or other costly resources, and expenditures to date for my Energy Sustainability Research Laboratory at OSU amount to \$1.7M (including planned expenditures for my lab over the next few years).

ACTIVE GRANTS (ACTUAL/ANTICIPATED EXPENDITURES FOR MY EFFORTS ARE SHOWN IN PARENTHESES.)

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| 05/2020 -
PRESENT | 1. Sloan Foundation, Energy and Environment Program. “CO ₂ Utilization for Geothermal Energy Production and Renewable Energy Storage.” PI: Ellis, B. (Michigan). Co-PIs: Bielicki, J. , Johnson, J. (North Carolina State University). Total: \$613,144. (\$187,000). |
| 10/2019 -
PRESENT | 2. U.S. Department of Energy, Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) (DE-SC0018744). “CO ₂ Plume Geothermal (CPG™) – Innovative, Dispatchable Geothermal Power Production Using Non-Water Working Fluids.” PI: Randolph, J. (TerraCOH LLC). Co-PIs: Bielicki, J. , Buscheck, T. (LLNL), Ellis, B. (Michigan), Griffin, J. (TerraCHO, LLC), Held, T. (Echogen). Total Award: \$991,574. (\$40,000). |
| 09/2019 -
PRESENT | 3. National Socio-Environmental Synthesis Center (SESYNC). “Characterizing FEW System Typologies Across the Continental U.S. for Informed FEW Research.” PIs: Muenich, R. (ASU), Hale, R. (Idaho State). Co-PIs: Bielicki, J. , Bumham, M. (Idaho State), Calder, R. (Duke), Daher, B. (Texas A&M), Grady, C. (Penn State), Hannibel, B. (Texas A&M), Jackson-Smith, D. (OSU), Jueland, M. (Duke), Keerthi, S. (Nature Conservancy), Kirchoff, C. (UConn), Prasse, C. (Johns Hopkins), Reyes, J. (USDA), Stillwell, A. (UIUC), Theide, B. (Penn State). Total Award: Pursuit Award for travel and convening of four meetings of twelve participants each, ~\$100,000. (\$0) |
| 08/2019 -
PRESENT | 4. U.S. National Science Foundation, National Research Traineeship (1922666). “NRT-HDR: Convergent Graduate Training and EmPOWERment for a Sustainable Energy Future.” PI: Sioshansi, R. (OSU). Co-PIs: Bielicki, J. , Irwin, E., Mayhew, M. Ramnath, R. Senior Personnel: Agrawal, A., Blanco, C., Carlarne, C., Dormady, N., Froyd, J., Newton, E., Jacquet, J., Quiring, S., Shah, A., Sintov, N. Total Award: \$2,980,383 (\$124,748). |
| 12/2017 –
PRESENT | 5. U.S. Department of Energy, National Energy Technology Laboratory (DE-FE0031566). “Concentrating Rare Earth Elements in Acid Mine Drainage Using Coal Combustion By-Products Through Abandoned Mine Land Reclamation.” PI: Cheng, C.-M. (OSU). Co-PIs: Bielicki, J. , Buttaglia, T., Lenhart, J. Total Award: \$487,386. (\$66,449). |
| 09/2017 –
PRESENT | 6. U.S. National Science Foundation, Innovations at the Nexus of Food, Energy, and Water Systems (1739909). “INFEWS/TI: Impacts of Deglobalization on the Sustainability of Regional Food, Energy, Water Systems” U.S. National Science Foundation. PI: Irwin, E. (OSU). Co-PIs: Bakshi, B., Bielicki, J. , Cai, Y., Fiksel, J., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I., Wilson, R. Total Award: \$2,431,141. (\$300,973). |
| 08/2017 –
PRESENT | 7. Ohio Coal Development Office (OER-CDO-D-17-14). “Mineralizing Carbon Dioxide using Stabilized Flue Gas Desulfurization Material in the Presence of Acid Mine Drainage.” PI: Cheng, C.-M. (OSU). Co-PIs: Bielicki, J. , Buttaglia, T. Total Award: \$308,863. (\$73,890). |

10/2016 –
PRESENT

8. OSU Sustainable and Resilient Economy Discovery Theme Program. “Energy Transitions and Bridges: Does What We Emphasize Take Us Where We Want to Be?” PI: **Bielicki, J.**, Co-PIs: Bakshi, B., Sohngen, B., Wilson, R. Total Award: \$31,099. (\$31,099).

COMPLETED PROJECTS (ACTUAL/ANTICIPATED EXPENDITURES FOR MY EFFORTS ARE SHOWN IN PARENTHESES.)

08/2015 –
08/2019

9. U.S. National Science Foundation (CBET 1508994). “UNS: Collaborative Research: Measurement and Modeling of the Pathways of Potential Fugitive Methane Emissions During Hydrofracking.” PI: Bohrer, G. Co-PIs: **Bielicki, J.**, Bohrerova, Z. Total Award: \$175,812. (\$0).

09/2018 –
09/2019

10. OSU Sustainable and Resilient Economy Program. “Developing Capacity for Seasonal Energy Storage.” PI: **Bielicki, J.** Co-PIs: Ogland-Hand, J.*, Sioshansi, R., Moortgat, J. Total Award: \$21,450. (\$21,450)

03/2018 –
09/2019

11. OSU Subsurface Energy Resources Center. “Engineering the Subsurface to Seasonally Store Energy While Sequestering CO₂” PI: **Bielicki, J.** Total Award: \$16,000. (\$16,000)

03/2016 –
08/2018

12. OSU Sustainable and Resilient Economy Discovery Theme Program. “Earth Services: Full Accounting of Human Well-Being Derived from the Planet.” PI: **Bielicki, J.** Co-PIs: Carlarne, C., Gopolakrishnan, S. Total Award: \$29,319. (\$29,319).

10/2014 –
09/2017

13. U.S. Department of Energy, National Energy Technology Laboratory. (DE-FE0024357). “Utica Shale Energy and Environment Laboratory (USEEL).” PI: Daniels, J. / Cole, D. (OSU). Co-PIs: OSU - Basta, N., **Bielicki, J.**, Bisesi, M., Lanno, R., Blue, T., Cook, A., Darrah, T., Dutta, P., Martin, K. Mouser, P., Schwartz, F., Prakash, S., Sawyer, D., Wilkins, M., Toman, E. Wolfe, B.; Miami – Brudzinski, M.; WVU – Bilgesu, I., Carr, T., McCawley, M., Wilson, T., Ziemkiewicz, P. Total Award: \$9,137,479. (\$62,242 expended of \$274,560 originally budgeted).

09/2012 –
08/2017

14. U.S. National Science Foundation, Sustainable Energy Pathways Program (1230691). “A Novel Method for Using CO₂ and Geothermal Resources for Sustainable Energy Production and Storage.” PI: Saar, M. (U-MN). Co-PI: **Bielicki, J.**, Keuhn, T. (U-MN), Randolph, J. (U-MN), Taff, S. (U-MN). Total Award: \$1,900,000 (\$625,513).

09/2016 –
08/2017

15. OSU Subsurface Energy Resources Center. “Community Perceptions of and Resilience to Shale Energy Development in Eastern Ohio.” PI: **Bielicki, J.** Total Award: \$5,619. (\$5,619).

03/2016 –
03/2017

16. Ohio Water Resources Center / U.S. Geological Survey. (2016OH508B). “Co-Optimizing Enhanced Water Recovery and CO₂ Sequestration in Ohio.” PI: **Bielicki, J.** Total Award: \$27,306. (\$27,306).

02/2016 –
02/2017

17. SedHeat NSF Research Coordination Network / Texas Christian University. “Incubator Workshop: Energy Storage in Sedimentary Basin Geothermal Resources.” PI: **Bielicki, J.** Co-PI: Buscheck, T. (LLNL). Total Award: \$22,960. (\$22,960).

03/2015 -
02/2016

18. Ohio Water Resources Center / U.S. Geologic Survey / OSU Office of Energy and Environment (G11AP20099). “Developing Integrated Assessments of Water and Energy in Ohio.” PI: **Bielicki, J.** Total Award: \$37,373. (\$37,273)

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| 06/2015 –
12/2015 | 19. U.S. National Science Foundation (SES 1541844). “FEW Workshop on Migration, Climate Change, and the Resilience of Regional Food, Water, and Energy Systems.” PI: Irwin, E. (OSU). Co-PIs: Faggian, A., Fiksel, J., Hoy, C., Martin, J. Senior Personnel: Bayraksan, G., Bielicki, J. ; Breyfogle, N., Brooks, J., Casterline, J., Dormady, N., Greenbaum, R., Klaiber, A., Lal, R., Shafieezadeh, A., Shum, C.K., Shearer, S., Thompson, E. Total Award: \$97,496. (\$0) |
| 08/2014 -
10/2015 | 20. U.S. Department of Energy (DE-FOA-0000841 / 310130). “Hydrogeologic Windows: Regional Signature Detection for Blind and Traditional Geothermal Play Fairways. PI: Middleton (LANL); OSU PI: Bielicki, J. Co-PIs: Jacobs, E. (LANL), Karra, S. (LANL), Kelley, S. (NM Tech), Kelley R. (LANL), Person, M. (NM Tech), Witcher, J. (Witcher and Associates), Total Award: \$400,000. (\$39,511). |
| 07/2012 –
06/2014 | 21. Office of Vice President of Research, University of Minnesota. “Defining and Mitigating Against Environmental Impacts of Oil and Gas Fracking.” Total Award: \$250,000. (\$41,667) |
| 07/2012 -
06/2013 | 22. Ormat Technologies (as cost-share for DOE grant DE-FOA-0000336). “Assessment of Integrated CO ₂ -Geothermal Reservoirs.” Total Award: \$33,000. (\$33,000) |

INVITED PRESENTATIONS

INVITED SEMINARS

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|------|---|
| 2019 | <ol style="list-style-type: none"> 1. Bielicki, J. “Incentives and Challenges for Mitigating Climate Change by Using Carbon Dioxide to Produce and Store Energy.” <i>Glenn College Colloquium</i>, John Glenn College of Public Affairs. Ohio State University. Columbus, OH. September, 16, 2019. 2. Bielicki, J. “Don’t Emit It, Use It. CO₂-Enabled Geothermal Energy Production.” <i>Department of Physical Resource Theory, Chalmers University</i>. Gothenberg, Sweden. May 23, 2019. |
| 2018 | <ol style="list-style-type: none"> 3. <u>Wang, Y.*</u> (Presenter), Bielicki, J. “Modeling Food-Energy-Water Nexus Based on Integrated Hybrid Input-Output Analysis.” <i>School of Geographic Sciences, East China Normal University</i>. January 5, 2018. Oral. |
| 2017 | <ol style="list-style-type: none"> 4. Bielicki, J. “Using CO₂ to Produce and Store Energy.” <i>Chalmers University, Institute for Energy and Environment</i>, Gothenburg, Sweden. June 19, 2017. Oral. 5. Bielicki, J. (Presenter), <u>Langenfeld, J.*</u>, Tao, Z.***, Middleton, R., Menefee, A.***, Clarens, A. “Viability of Using in Hydrocarbon Depleted Fractured Shale Formations for Geologic CO₂ Storage.” <i>Center for Climate and Decision-Making, Carnegie Mellon University</i>. Pittsburgh, PA. March 3, 2017. Oral. |
| 2016 | <ol style="list-style-type: none"> 6. Bielicki, J. "Energy Storage in Sedimentary Basins." Presented at <i>National Energy Technology Laboratory (NETL) Seminar</i>. U.S. Department of Energy. Morgantown, West Virginia, United States. October, 28 2016. Oral. 7. Bielicki, J. “Using Carbon Dioxide for Renewable Energy Generation, Integration, and Climate Change Mitigation.” <i>Bureau de Recherches Géologiques et Minières (BRGM, the French Equivalent of the U.S. Geologic Survey)</i>. Orleans, France. May 27, 2016. Oral. 8. Buscheck, T. (Presenter), Bielicki, J. “Storing CO₂ in the Earth for Enhanced Geothermal Energy and Water Recovery and Utility-Scale Energy Storage.” <i>University</i> |

- of Wyoming School of Energy Resources Speaker Series*. Laramie, WY. March 4, 2016. Oral.
- 2015 9. **Bielicki, J.** “CO₂ Plume Geothermal: What About Context?” *Geoenergy and Geofluids Group, Department of Earth Sciences. ETH-Zurich*. November 9, 2015. Zürich, Switzerland. Oral.
- 2014 10. **Bielicki, J.** “Producing Renewable Energy While Sequestering Carbon Dioxide.” *Earth and Environmental Systems Division Seminar, Los Alamos National Laboratory*. September 2, 2014. Oral.
11. **Bielicki, J.** (Presenter), Buscheck, T., Saar, M. “Emerging Options for Engineering Geothermal Resources for Energy Sustainability” *Department of Earth and Atmospheric Sciences Seminar, Cornell University, Ithaca, NY*. March 5, 2014. Oral.
12. **Bielicki, J.** “Interactions Between Energy and Environmental Systems and Policy in Emerging Subsurface Energy Technologies.” *John Glenn School of Public Affairs Colloquium, The Ohio State University*. March 3, 2014. Oral.
- 2013 13. **Bielicki, J.** “Risks and Opportunities of Emerging Subsurface Technologies.” *Atmospheric, Earth, and Energy Division, Lawrence Livermore National Laboratory*, December 16, 2013. Oral.
14. **Bielicki, J.** “Energy Sustainability and Emerging Uses of the Subsurface.” *Environmental Science Graduate Program Seminar, The Ohio State University*. November 1, 2013. Oral.
15. **Bielicki, J.** “Unconventional Hydrocarbon Resources and the Health Hazards of Hydraulic Fracturing Fluids.” *Centre International de Recherche sur l’Environnement et le Développement (CIRED)*. Paris, France. July 11, 2013. Oral.
16. **Bielicki, J.** “Energy Sustainability and Emerging Use of the Subsurface” *Department of Civil, Environmental, and Geodetic Engineering; City and Regional Planning Section, Knowlton School of Architecture. College of Engineering, The Ohio State University, Columbus, Ohio*. February 7, 2013. Oral.
17. **Bielicki, J.** “Energy Sustainability and Emerging Use of the Subsurface” *Center for Advanced Energy Studies, Idaho Falls, Idaho*. January 17, 2013. Oral.
- 2012 18. **Bielicki, J.** “Sustainability, Learning, and the Evolution of Energy Technology Deployment.” *Arizona State University, School of Sustainability Studies*, March 26, 2012. Oral.
19. **Bielicki, J.** “Your View or Mine: Spatial CO₂ Storage Risk from Various Stakeholder Perspectives.” *Los Alamos National Laboratory, Earth and Environmental Science Seminar*. March 12, 2012. Oral.
20. **Bielicki, J.** “Interdisciplinary and Multiscale Interactions and the Geography of Energy Technology Deployment.” *The Pennsylvania State University, Department of Geography*, February 10, 2012. Oral.
- 2011 21. **Bielicki, J.** “Efficient Climate Change Mitigation: Returns to Scale Lessons for Carbon Dioxide Capture and Storage Technology Deployment.” *Environmental and Natural Resource Economics Seminar, University of Minnesota*. St. Paul, MN. February 14, 2011. Oral.
22. **Bielicki, J.** (Presenter), Middleton, R., Kuby, M., Phillip, B. “*SimCCS/SimWIND*: Scaleable infrastructure model for Carbon Capture and Storage/Wind-Generated Electricity” *VTT Technical Research Centre of Finland*. Helsinki, Finland. Oral.

2010

23. **Bielicki, J.** “Energy System Sustainability and Scale: Case Studies for Carbon Dioxide Capture and Storage and Lessons for Technology Deployment.” *School of Natural Resources and Environment*, University of Michigan. February 15, 2010. Oral.
24. **Bielicki, J.** “Mitigating Climate Change at Scale: Case Studies for Carbon Dioxide Capture and Storage and Lessons for Technology Deployment.” *Energy and Environment Luncheon*. University of Tennessee and Oak Ridge National Laboratory. Oak Ridge, TN. April 30, 2010. Oral.
25. **Bielicki, J.** “Mechanisms for Deploying Carbon Dioxide Capture and Storage: Learning, Risk, and Governance.” *Earth and Energy Seminar Series*, National Energy Technology Laboratory, U.S. Department of Energy. Pittsburgh, PA. October 21, 2010. Oral.

2009

26. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage.” *Department of Engineering and Public Policy*, Carnegie Mellon University. Pittsburgh, PA. January 22, 2009. Oral.
27. **Bielicki, J.** “Scaling and Organizing Carbon Dioxide Capture and Storage Deployment.” *Climate Change Research Network*, Vanderbilt University, Nashville, TN. December 4, 2009. Oral.
28. **Bielicki, J.** “Organizing Large Scale Deployment of Carbon Dioxide Capture and Storage,” *Earth and Environmental Sciences Division*, Los Alamos National Laboratory, Los Alamos, NM. July 24, 2009. Oral.
29. **Bielicki, J.** “Organizing Carbon Capture and Storage Deployment,” *Weinberg Fellowship Committee*, Oak Ridge National Laboratory. Oak Ridge, TN. April 13, 2009. Oral.
30. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage,” *Energy and Transportation Science Division*, Oak Ridge National Laboratory. Oak Ridge, TN. March 16, 2009. Oral.
31. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Deployment.” *Princeton Environmental Institute*, Princeton University. Princeton, NJ. March 10, 2009. Oral.
32. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Deployment.” *Energy and Resources Group*, University of California at Berkeley. Berkeley, CA. February 4, 2009. Oral.
33. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Deployment.” *Resources for the Future*. Washington, DC. February 2, 2009. Oral.
34. **Bielicki, J.** “Infrastructure Deployment for Carbon Capture and Storage,” *National Energy Technology Laboratory*, U.S. Department of Energy. Morgantown, WV. January 23, 2009. Oral.

2008

35. **Bielicki, J.** “Geospatial Modeling to Organize Carbon Capture and Storage,” *Earth and Environmental Sciences Division*, Los Alamos National Laboratory, Los Alamos, NM. July 23, 2008. Oral.
36. **Bielicki, J.** “Organizing Carbon Capture and Storage,” *Center for Global Change, Climate Change Partnership, Nicholas Institute for the Environment*, Duke University. May 21, 2008. Oral.
37. **Bielicki, J.** “The Viability of Permanent Carbon Dioxide Storage in Deep Sea Sediment,” *Oak Ridge National Laboratory, Computational Sciences and Engineering Division*, Oak Ridge, TN. January 2008. Oral.

INVITED CONFERENCES AND WORKSHOPS [WITH (A)BSTRACT]

2020

1. **Bielicki, J., Oglan-Hand, J.***, Buscheck, T., Adams, B., Saar, M. “Sedimentary Basin Geothermal Resources for Energy Production and Storage and Positive Effects in Regional Electricity Systems.” KAUST Research Conference on Geothermal Energy Maturation. Saudi Arabia, January 23-27, 2020. Oral.

2019

2. **Bielicki, J.**, Irwin, E., Bakshi, B., Cai, Y., Doidge, M., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I., Wilson, R. "Food, Energy, and Water: Resilience and the Governance in Multi-Scale, Multi-Region, Multi-Actor Settings." To be presented at the *American Geophysical Union Fall Meeting*. GC42A-05. San Francisco, CA. December, 12, 2019. Oral. A.
3. **Bielicki, J.** "Mapping Socioeconomic Scenarios for Subnational FEW Research." *13th Annual US-China Eco-Environmental Symposium*. Seattle, WA. October 27, 2019. Oral.
4. **Bielicki, J.**, Ogland-Hand, J.*, Miranda, M.* (Presenter), Maldonado, S.*, Howard, C.***, Adams, B., Saar, M., Middleton, R. "Geospatial Optimization of Infrastructure for CO₂-based Geothermal Electricity Generation". *INFORMS Annual Meeting*. Seattle, WA. October, 21, 2019. Oral.
5. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Nelson, E.***, Adams, B., Buscheck, T., Saar, M., Sioshansi, R. "Using Geologically Stored CO₂ and Geothermal Energy to Decarbonize the Electricity System." *INFORMS Annual Meeting*. Seattle, WA. October, 20, 2019. Oral.
6. **Bielicki, J.** "Isolating CO₂ (Underground) Away from the Atmosphere." *Research to Action: The Science of Drawdown*. Penn State University. September, 17, 2019. Oral.
7. **Bielicki, J.** "Safe Operating Spaces for Academics." *Living on the Edge: Enhancing the Sustainability of Coupled Human-Environment Systems in the Gulf of Mexico Region*. Gulf of Mexico Research Initiative. Mobile, AL. July 11, 2019. Oral.
8. **Bielicki, J.** "Energy Impacts: Mitigation and Decarbonization of Energy Systems." *Climate Symposium*. Byrd Polar Center. Ohio State University. Columbus, OH. March 22, 2019. Oral.

2018

9. Buscheck, T. (Presenter), Upadhye, R., Randolph, J., Ogland-Hand, J.*, **Bielicki, J.** "Earth Battery: Storing Excess Electricity and Heat for Dispatching Low-Carbon Electricity." *American Geophysical Union Fall Meeting*. H11N-1639. Washington, DC. December, 14, 2018. Poster. A.
10. **Bielicki, J.** "Removal of Carbon Dioxide from the Atmosphere." *COMPAS Conference: Geoengineering and Human Values*. Center for Ethics and Human Values. Ohio State University, Columbus, OH. November 16, 2018. Oral.
11. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Wang, Y.*, Adams, B., Buscheck, T., Saar, M. "Using Integrated Models to Value the Use of Bulk Energy Storage for Reducing CO₂ Emissions from Regional Electricity Systems." Presented at *INFORMS Annual Meeting*. Phoenix, AZ. November 4-7, 2018. Oral.
12. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Nelson, E.***, Adams, B., Buscheck, T., Saar, M., Sioshansi, R. "Optimizing the Use of CO₂ Bulk Energy Storage for Transmission Deferral." Presented at *INFORMS Annual Meeting*. Phoenix, AZ. November 4-7, 2018. Oral.
13. **Bielicki, J.**, Newton, E. "Integrating Engineering and Public Affairs." *Arizona State University / Syracuse University. Workshop on Linking Engineering and Public Policy*. Phoenix, AZ. September 24, 2018. Oral.
14. **Bielicki, J.** "Techno-Economic Modeling of Geothermal Energy: A Case Study of CO₂ Plume Geothermal Energy Production." *Great Lakes SedHEAT Incubator Workshop*. Case Western University. Cleveland, OH. February 19, 2018. Oral.

2017

15. Saar, M., Flemings, M., Adams, B., Ogland-Hand, J.*, Nelson, E.***, Randolph, J., Sioshansi, R., Kuehn, T., Buscheck, T., **Bielicki, J.** (Presenter). "Large Temporal Scale and Capacity Subsurface Bulk Energy Storage with CO₂." *American Geophysical Union Fall Meeting*. H42D-01. New Orleans, LA. December 14, 2017. Oral. A.

2016

16. **Bielicki, J.** "Using CO₂ to Produce and Store Renewable Energy." *16th Polish-American Science & Technology Conference*. Warsaw, Poland. May 16-17, 2016. Oral.

17. Griffin, J. (Presenter), **Bielicki, J.**, Buscheck, T., Randolph, J., Saar, M. "TeraCOH XPrize." Presented at *XPrize Foundation - 2nd Round Workshop*. New Orleans, Louisiana, United States. December 7, 2016.
18. **Bielicki, J.** (Presenter), Deng, H., Pollak, M., Wilson, E., Fitts, J., Peters, C., "Lessons from Monetizing Leakage Risk for Monetizing Monitoring Costs." With Deng, H., Pollak, M., Wilson, E., Fitts, J., and Peters, C. *IEAGHG 2nd Combined Meeting of the Modeling and Monitoring Networks*. July 6-8, 2016. Edinburgh, Scotland.
19. **Bielicki, J.** (Presenter), Buscheck, T., Randolph, J. "Carbon Dioxide Plume Geothermal: Using CO₂ for Renewable Energy Generation, Integration, and Climate Change Mitigation." With Buscheck, T. and Randolph, J. *ARMA-AAPG NSF SedHeat Workshop on Successful Engineering of Sedimentary Geothermal Systems*. June 24-26, 2016. Houston, TX.
20. Buscheck, T. (Presenter), **Bielicki, J.**, Randolph, J. "Nitrogen Plume Geothermal and Multi-Fluid Earth Battery Options." *ARMA-AAPG NSF SedHeat Workshop on Successful Engineering of Sedimentary Geothermal Systems*. June 24-26, 2016. Houston, TX.
- 2015
21. **Bielicki, J.** (Presenter), Buscheck, T., Saar, M. "Using CO₂ to Produce and Store Geothermal Energy." *15th Polish-American Science & Technology Conference*. Columbus OH. May 28-29, 2015. Oral.
- 2014
22. **Bielicki, J.** (Presenter), Buscheck, T., Saar M., Ogland-Hand, J.* "Using Carbon Dioxide for Renewable Energy Production from Geothermal, Wind, and Solar Resources." *Ohio Conference on the Sustainable Use of Greenhouse Gases*. August 18, 2014. Columbus, OH. Oral.
- 2010
23. **Bielicki, J.** "Issues and Lessons for Carbon Dioxide Capture and Storage." *Political Economy of Science and Technology*, University of Tennessee. March 23, 2010. Oral.
24. **Bielicki, J.** "Data Generated and Needs for Carbon Dioxide Capture and Storage." (2010). *Earth System Information Partners Summer Meeting, Energy Cluster*. Knoxville, TN. July 22, 2010. Oral.
- 2009
25. **Bielicki, J.** "Issues for Carbon Dioxide Capture and Storage," *Environmental Policy's New Horizon: From the Clean Air Act to Greenhouse Gas Regulations*, Baker Center for Public Policy, University of Tennessee, Knoxville, TN. October 29, 2009. Oral.
26. **Bielicki, J.** "Organizing Large Scale Deployment of Carbon Dioxide Capture and Storage," *Research Experience in Carbon Sequestration 2009*, University of New Mexico, Albuquerque, NM. July 27, 2009. Oral.
- 2008
27. **Bielicki, J.** "Infrastructure Modeling and Organizing Carbon Capture and Storage," *Research Experience in Carbon Sequestration 2008*, University of New Mexico, Albuquerque, NM. July 29, 2008. Oral.
28. **Bielicki, J.** "Geospatial Modeling and Organizing Carbon Capture and Storage Deployment," *North American Carbon Capture and Storage Association Annual Meeting*. Washington DC. December 3, 2008. Oral.
29. **Bielicki, J.** "Infrastructure Modeling for Carbon Capture and Storage: Issues for Scale and Viability" *Workshop on Subseabed Storage of CO₂*, Lenfest Center for Sustainable Energy, Columbia University. April 29, 2008. Oral.
- 2007
30. **Bielicki, J.** "The Influence of Carbon Capture and Storage on the Location of Industrial Facilities," *Research Experience in Carbon Sequestration 2007*, Montana State University, Bozeman, MT. August 2007. Oral.

31. **Bielicki, J.** “Worldwide Prospectivity for Permanent CO₂ Storage in Deep Sea Sediment,” *Research Experience in Carbon Sequestration 2007*, Montana State University. Bozeman, MT. August 2007. Poster.

CONFERENCE AND WORKSHOP PRESENTATIONS [WITH (A)BSTRACT, (P)APER]

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| 2020 | <ol style="list-style-type: none"> 1. <u>Chun, S.*</u> (Presenter), <u>Miranda, M.*</u>, Bielicki, J., Cheng, C-M. “Environmental Benefits of Producing Rare Earth Elements and Treating Acid Mine Drainage.” <i>Environmental Science Graduate Program Research Seminar</i>. Columbus, OH. February 28, 2020. Poster. |
| 2019 | <ol style="list-style-type: none"> 2. <u>Ogland-Hand, J.*</u> (Presenter), Bielicki, J., <u>Miranda, M.*</u>, <u>Patel, I.*</u>, Adams, B., Buscheck, T. Mansoor, K., Saar, M. “Optimal Heat Mining for Geothermal Energy Production.” <i>INFORMS Annual Meeting</i>. Seattle, WA. October, 20, 2019. Oral. 3. Cheng, C-M. (Presenter), Butalia, T., Bielicki, J., Lenhart, J. “Recovering Rare Earth Elements from Acid Mine Drainage through Abandoned Mine Land Reclamation.” <i>World of Coal Ash Conference</i>. St. Louis, MO. May 13-16, 2019. Oral. 4. Bielicki, J., Irwin, E. Bakshi, B., Cai, Y., Jackson-Smith, D., Martin, J., Randall, A. Sheldon, I. Wilson, R. Doidge, M., <u>Beetstra, M.</u>, <u>Chun, S.*</u>, <u>Cultice, B.</u>, <u>Gong, Z.</u>, <u>Guo, Z.</u>, <u>Kast, J.</u>, <u>Tang, S.</u>, <u>Wang, Y.*</u>, <u>Pottschmidt, A.*</u>, <u>Dora de Melo, D.*</u> “Scenarios and their Construction for Investigating the Effects of Trade Barriers on the Sustainability of Food, Energy, and Water Systems in the U.S. Midwest.” <i>Scenarios Forum</i>. University of Denver. Denver, CO. March 11-13, 2019. Oral. |
| 2018 | <ol style="list-style-type: none"> 5. Bielicki, J., Irwin, E. Bakshi, B., Cai, Y., Jackson-Smith, D., Martin, J., Randall, A. Sheldon, I. Wilson, R. Doidge, M., <u>Beetstra, M.</u>, <u>Chun, S.</u>, <u>Cultice, B.</u>, <u>Gong, Z.</u>, <u>Guo, Z.</u>, <u>Kast, J.</u>, <u>Tang, S.</u>, <u>Wang, Y.*</u>, “The Dynamic Regional Food, Energy, Water Systems Framework for Investigating Effects of Deglobalization.” GC52B-06. <i>American Geophysical Union. Fall Meeting</i> Washington DC. December 14, 2018. Oral. A. 6. Cai, Y., Tang, S.* (Presenter), Cultice, B.*, Wang, Y.*, Bielicki, J., Randall, A., Sheldon, I., Irwin, E. “DRFEWS: A Dynamic Regional Integrated Framework of Food, Energy and Water Systems.” <i>INFORMS Annual Meeting</i>. Phoenix, AZ. November 4, 2018. Oral. 7. <u>Ogland-Hand, J.*</u>, <u>Miranda, M.*</u>, Bielicki, J., Adams, B., Buscheck, T., Saar, M. “Potential Mechanisms for Using Geologically Stored CO₂ for Seasonal Energy Storage.” <i>14th International Greenhouse Gas Technologies Conference</i>. Melbourne, Australia. October 23, 2018. Oral. 8. <u>Ogland-Hand, J.*</u>, <u>Miranda, M.*</u>, Bielicki, J., Adams, B., Buscheck, T., Saar, M. “Operational Characteristics of Geologic CO₂ Storage Bulk Energy Storage Technology.” <i>14th International Greenhouse Gas Technologies Conference</i>. Melbourne, Australia. October 23, 2018. Poster. 9. Cheng, C., Butalia, T., Bielicki, J., Lenhart, J. Ziemkiewicz, P. “Recovering Rare Earth Elements from Acid Mine Drainage.” <i>Ohio Mineland Partnership 2018 Fall Conference</i>. New Philadelphia, OH. October 16, 2018. Oral. 10. <u>Ogland-Hand, J.*</u>, <u>Miranda, M.*</u>, Bielicki, J., Adams, B., <u>Nelson, E.*</u>, Buscheck, T., Saar, M. Sioshansi, R. “Using Geothermal Resources to Increase Utilization of Wind Energy Technologies and Transmission Infrastructure.” <i>Geothermal Resources Council Annual Meeting</i>. Las Vegas, NV. October 8, 2018. Oral. 11. <u>Wang, Y.*</u> (Presenter), Bielicki, J. "Input-Output Modeling of Food-Energy-Water Nexus-Economy Interactions for the United States." <i>International Conference on Resource Sustainability (icRS)</i>. Beijing, China. June 27, 2018. Oral. 12. Bielicki, J. (Presenter), <u>Ogland-Hand, J.*</u> “Optimally Extracting Geothermal Heat from Sedimentary Basins using Carbon Dioxide.” <i>Resources for Future Generations 2018</i>. Vancouver, BC. Canada. June 20, 2018. Oral. |

2017

13. Wang, Y.*, Byers, E., Parkinson, S., **Bielicki, J.** (Presenter), Wanders, N., Wada, Y. "Water Limitations on Coal-Fired Power Plants Planning in Asia with Climate Warming." *Resources for Future Generations 2018*. Vancouver, BC. Canada. June 20, 2018. Oral.
14. Fleming, M.** (Presenter), Adams, B., Randolph, J., Ogland-Hand, J.*, Kuehn, T., Buscheck, T., **Bielicki, J.**, Saar, M. (2018). "High Efficiency and Large-Scale Subsurface Energy Storage with CO₂." *43rd Workshop on Geothermal Reservoir Engineering*. Stanford, CA. February 14, 2018. Oral. P.
15. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Nelson, E.***, Adams, B., Buscheck, T., Saar, M., Sioshansi, R. (2018). "Effects of Bulk Energy Storage in Sedimentary Basin Geothermal Resources on Transmission Constrained Electricity Systems." *43rd Workshop on Geothermal Reservoir Engineering*. Stanford, CA. February 14, 2018. Oral. P.
16. **Bielicki, J.** (Presenter), Irwin, E., Bakshi, B., Cai, Y., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I., Wilson, R., Fiksel, R. (2017). "Deglobalization and Its Discontents in Interconnected Regional Food, Energy, and Water Systems." *American Geophysical Union Fall Meeting*. GC33A-1063. New Orleans, LA. December 13, 2017. Poster. A.
17. Wang, Y.* (Presenter), Byers, E., Parkinson, S., **Bielicki, J.**, Wanders, N., Wada, Y. "Low Flows and Water Temperature Risks to Asian Coal Power Plants in a Warming World." *American Geophysical Union Fall Meeting*. GC31D-1023. New Orleans, LA. December 13, 2017. Poster. A.
18. Hunter, K.* (Presenter), **Bielicki, J.**, Ogland-Hand, J.*, Harp, J., Middleton, R., Stauffer, P., Pawar, R. (2017). "Integrating CO₂ Capture and Storage with Enhanced Water Recovery." *Women in Clean Energy C3E Symposium*. Massachusetts Institute of Technology, Cambridge, MA. November 17, 2017. Poster.
19. Garapati, N. (Presenter), Adams, B., **Bielicki, J.**, Randolph, J., Kuehn, T., Saar, M. "Hybrid Geothermal Energy Conversion – A Potential Solution for Low-Temperature Geothermal Resources." *2017 AiChE Annual Meeting*. October 31, 2017. Minneapolis, MN. Oral.
20. Randolph, J. Saar, M., **Bielicki, J.**, Griffin, J., Adams, B. (Presenter) "Carbon Dioxide as a Geothermal Heat Mining Fluid in Sedimentary Basins – Technical and Economic Analysis of Its Use in Hydrocarbon Fields." Presented at *AAPG | SEG International Conference and Exhibition 2017*. London, United Kingdom. October 15-18, 2017. Oral.
21. Hagley, P.* (Presenter), **Bielicki, J.** "Perceptions of Shale Energy Development in Eastern Ohio." *Energy Impacts Symposium 2017*. Columbus, OH. July 26, 2017. Poster.
22. **Bielicki, J.**, Langenfeld, J.* (Presenter), Tao, Z.***, Middleton, R., Menefee, A.***, Clarens, A. "The Geospatial and Economic Viability of CO₂ Storage in Hydrocarbon Depleted Fractured Shale Formations." *Gordon Conference on CO₂ Capture, Utilization, and Storage*. June 11-16, 2017. New London, NH. Poster.
23. Buscheck, T. (Presenter), **Bielicki, J.**, Ogland-Hand, J.*, Saar, M., Randolph, J. "CO₂ Earth Battery: Creating a Business Case for Geologic CO₂ Storage." *2017 Carbon Capture, Utilization, and Storage Conference*. April 2017, Chicago IL. Oral.

2016

24. Buscheck, T. (Presenter), **Bielicki, J.**, Saar, M., and Randolph, J. "Earth Battery: An Approach for Reducing the Carbon and Water Intensity of Energy" *American Geophysical Union Fall Meeting*. H13O-06. December 12-16, 2016. San Francisco, CA. Oral. A.
25. Pawar, R. (Presenter), Harp, D., **Bielicki, J.**, Stauffer, P., Middleton, R., Martinez, D.*** "Robust Pressure Management Strategies for CO₂ Sequestration." *American Geophysical Union Fall Meeting*. GC41C-1106. December 12-16, 2016. San Francisco, CA. Poster. A.

26. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Buscheck, T. "The Value of CO₂-Geothermal Bulk Energy Storage to Reducing CO₂ Emissions Compared to Conventional Bulk Energy Storage Technologies." *American Geophysical Union Fall Meeting*. H13G-1490. December 12-16, 2016. San Francisco, CA. Poster A.
27. **Bielicki, J.**, Wang, Y.* (Presenter) "Evolutions in Water Withdrawal and Consumption Factors for Thermoelectric Power Plants in the United States." *American Geophysical Union Fall Meeting*. H32C-05. December 12-16, 2016. San Francisco, CA. Oral. A.
28. Hunter, K.*, **Bielicki, J.**, Middleton, R., Stauffer, P., Harp, D., Pawar, R., Martinez, D.*** "Integrated CO₂ Storage and Brine Extraction." *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Oral. P.
29. Ogland-Hand, J.* (Presenter), **Bielicki, J.**, Buscheck, T. "The Value of CO₂-Bulk Energy Storage for Reducing CO₂ Emissions" *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Oral. P.
30. Langenfeld, J.*, **Bielicki, J.** (Presenter), Tao, Z.***, Middleton, R., Menefee, A.***, Clarens, A. "Viability of Integrated CO₂ Capture and Storage Systems in Depleted Shale Formations" *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Oral. P.
31. Langenfeld, J.*, **Bielicki, J.** (Presenter). "Assessment of Sites for CO₂ Storage and CO₂ Capture, Utilization, and Storage Systems in Geothermal Reservoirs." *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Poster. P.
32. **Bielicki, J.** (Presenter), Deng, H., Fitts, J., Peters, C., Wilson, E. "Monetizing Leakage Risk with Secondary Trapping in Intervening Stratigraphic Layers." *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Oral. P.
33. Garapati, N. (Presenter), Adams, B., **Bielicki, J.**, Schaedle, P.***, Randolph, J., Kuehn, T., Saar, M. "A Hybrid Geothermal Energy Conversion Technology - A Potential Solution for Shallow Geothermal Resources." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. Oral. P.
34. Middleton, R., Levine, J., **Bielicki, J.**, Stauffer, P. (Presenter). "Industrial CO₂ and Carbon Capture: Near-Term Benefit, Long-Term Necessity." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. Poster. P.
35. Buscheck, T., **Bielicki, J.** (Presenter), Randolph, J. "CO₂ Earth Storage: Enhanced Geothermal Energy and Water Recovery and Energy Storage." *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Oral. P.
36. Buscheck, T., **Bielicki, J.**, White, J., Sun, Y., Hao, Y., Bourcier, W., Carroll, S., Aines, R. "Managing Geologic CO₂ Storage with Pre-Injection Brine Production in Tandem Reservoirs." *13th International Conference on Greenhouse Gas Control Technologies*. November 14-18, 2016, Lausanne, Switzerland. Poster. P.
37. Dai, Z., Zhang, Y., Stauffer, P. (Presenter), Xiao, T., Zhang, M., Ampomah, W., Yang, C., Zhou, Y., Ding, M., Middleton, R. Soltanian, M. R., **Bielicki, J.**, "Injectivity Evaluation for Offshore CO₂ Sequestration in Marine Sediments." *13th International Conference on Greenhouse Gas Technologies*. November 14-18, 2016. Lausanne, Switzerland. Poster. P.
38. Hunter, K.* (Presenter), **Bielicki, J.**, "Optimizing Water Extraction and Carbon Dioxide Storage in Saline Aquifers." *WaterSmart Innovations Conference*. October 5-7, 2016. Las Vegas, NV. Poster.
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65. Deitz, J.* (Presenter), **Bielicki, J.,** Deng, H.***, Buscheck, T., Langenfeld, J.*, Volzer, C.* “Integrating CO₂ Capture, Utilization, and Storage into the Global Change Assessment Model: Using CO₂ to Produce Electricity from Geothermal Resources.” *14th Annual Carbon Capture, Utilization, and Storage Conference*. Pittsburgh, PA. April 28 – May 1, 2015. Oral.
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 70. Buscheck, T., **Bielicki, J.** (Presenter), Chen, M., Sun, Y., Hao, Y., Edmunds, T., Saar, M., Randolph, J. "Multi-Fluid Sedimentary Geothermal Energy Systems for Dispatchable Renewable Electricity." *World Geothermal Congress 2015*. April 19-25, 2015. Melbourne, Australia. Oral. P.
 71. Saar, M. (Presenter), Buscheck, T., Jenny, P., Garapti, N., Randolph, J., Karvounis, D.***, Chen, M., Sun, Y., **Bielicki, J.** "Numerical Study of Multi-Fluid and Multi-Level Geothermal Fluid Systems." *World Geothermal Congress 2015*. Melbourne Australia, April 19-25, 2015. Oral. P.
 72. Buscheck, T. (Presenter), Randolph, J., Saar, M., Hao, Y., Sun, Y., **Bielicki, J.** "Multi-Fluid Geo-Energy Systems for Bulk and Thermal Energy Storage and Dispatchable Renewable and Low-Carbon Electricity." H41I-02. *American Geophysical Union Fall Meeting*, December 15-19, 2014. San Francisco, CA. Oral. A.
 73. Deng, H.*** (Presenter), **Bielicki, J.**, Peters, C., Fitts, J., Oppenheimer, M. "How CO₂ Leakage May Impact the Role of Geologic Carbon Storage in Climate Mitigation." *American Geophysical Union Fall Meeting*, GC41B-0565. December 15-19, 2014. San Francisco, CA. Poster. A.
 74. **Bielicki, J.** (Presenter), Peters, C., Fitts, J., Wilson, E. "Geologic Carbon Sequestration: Leakage Potential and Policy Implications." *American Geophysical Union Fall Meeting*, H51J-0740. December 15-19, 2014. San Francisco, CA. Poster. A.
 75. **Bielicki, J.** (Presenter), Middleton, R., Levine, J., Stauffer, P "An Alternative Pathway for Stimulating Regional Deployment of Carbon Dioxide Capture and Storage." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. Poster. P.
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 79. **Bielicki, J.** (Presenter), Clarens, A., Middleton, R., Liu, X.***, Barbosa de Carvalho, M.***, Giovanini Junior, N.*** "Shifting Sands in a CO₂ Desert: Replacing Extracted CO₂ with Byproduct CO₂ for Use in Enhanced Oil Recovery." *12th International Conference on Greenhouse Gas Control Technologies*, October 5-9, 2014. Poster. P.
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 81. Edmunds, T. (Presenter), Sotorrio, P., **Bielicki, J.**, Buscheck, T. (2014). "Geothermal Power for Integration of Intermittent Generation." *38th Geothermal Resources Council Annual Meeting*. September 28-October 1, 2014. Portland, OR. Oral. P.
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- Kelley, S., Kelley, R., Jacobs, E., Person, M., Blackwell, D., Witcher, J. 38th *Geothermal Resources Council. Annual Meeting*. September 28-October 1, 2014. Portland, OR. Oral. P.
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84. Middleton, R., Levine, J. (Presenter), **Bielicki, J.**, Stauffer, P. "The Price Must Be Right: A New Pathway to Jumpstarting CCUS." *13th Annual Carbon Capture, Utilization, and Storage Conference*. April 28 - May 2, 2014. Pittsburgh, PA. Oral.
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89. Middleton, R. (Presenter), Stauffer, P., **Bielicki, J.**, Gorski, A. "The Real Cost of CO₂ Capture and Storage: Variable Electricity Generation for Coal-Fired Power Plants." *12th Annual Carbon Capture, Utilization, and Storage Conference*. April 2013. Pittsburgh, PA.
90. **Bielicki, J.** (Presenter), Fitts, J., Peters, C., Wilson, E. "Monetizing Leakage Risk of Geologic CO₂ Storage using Wellbore Permeability Frequency Distributions". *European Geosciences Union General Assembly*. EGU2013-10924. April 7-12, 2013. Vienna, Austria. Oral. A.
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92. Guo, B.***(Presenter), Fitts, J., Dobossy, M., **Bielicki, J.**, Peters, C. "Accounting for Geochemical Alterations of Caprock Fracture Permeability in Basin-Scale Models of Leakage from Geologic CO₂ Reservoirs." *American Geophysical Union Fall Meeting*. H23A-1344. December, 3-7, 2012. San Francisco, CA. Poster. A.
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94. Randolph, J., Saar, M., **Bielicki, J.** (Presenter) "Geothermal Energy Production at Geologic CO₂ Sequestration Sites: Impact of Thermal Drawdown on Reservoir

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95. **Bielicki, J.** (Presenter), Pollak, M., Wilson, E., Fitts, J., Peters, C. “Quantifying Basin Scale Leakage Risk and Stakeholder Impacts.” *11th International Conference on Greenhouse Gas Technologies*. Kyoto, Japan. November 18-22, 2012. Oral. P.
96. Pollak, M., **Bielicki, J.** (Presenter), Dammel, J.**, Wilson, E., Fitts, J., Peters, C. “Potential Cost of Leakage from Geologic Sequestration in the Michigan Basin” *11th International Conference on Greenhouse Gas Technologies*. Kyoto, Japan. November 18-22, 2012. Oral. P.
97. **Bielicki, J.** “Energy Sustainability: Pillars, Values, and Policy” *Worlds within Reach: From Science to Policy, IIASA 40th Anniversary Conference*. October 24-26, 2012. Vienna, Austria. Poster.
98. **Bielicki, J.**, Pollak, M. (Presenter), Wilson, E., Peters, C., Fitts, J. “Spatially Integrated Assessment of Leakage Risk from CO₂ Storage Reservoirs from Multiple Stakeholder Perspectives”. *DOE-NETL 10th Annual Conference on Carbon Capture, Utilization, and Sequestration*. Pittsburgh, PA. April 30-May 3, 2012. Poster.
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100. Saar, M., Adams, B.**, Kuehn, T., Mevissen, A.**, Paine, N.**, Pollak, M. (Presenter), Randolph, J.**, Smale, A.**, Taff, S., **Bielicki, J.**, Wilson, E., “CO₂ Plume Geothermal (CPG) Energy Production at Geologic Sequestration Sites.” *DOE-NETL 10th Annual Conference on Carbon Capture, Utilization, and Sequestration*. Pittsburgh, PA. April 30-May 3, 2012. Poster.
101. **Bielicki, J.** (Presenter), Pollak, M., Wilson, E., Elliot, T., Guo, B.***, Nogues, J.***, Peters, C., Fitts, J. “Your View or Mine: Spatially Quantifying CO₂ Storage Risk from Multiple Stakeholder Perspectives.” *American Geophysical Union Fall Meeting*. H42C-08. San Francisco, CA. December 5-9, 2011. Oral. A.
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105. Kuby, M. (Presenter), Middleton, R., **Bielicki, J.** “Benefits of Network Optimization for Planning Carbon Capture and Storage Infrastructure Systems.” *Association of American Geographers Annual Meeting*. Seattle, WA. April 12-16, 2011. Oral.
106. Pollak, M. (Presenter), **Bielicki, J.**, Dammel, J.**, Rahimi, M.**, Wilson, E. “Integrating Geologic Carbon Dioxide Storage with Other Subsurface Activities.” (2011). *DOE-NETL 9th Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Oral.
107. Pollak, M. (Presenter), Bael, D.**, **Bielicki, J.**, Rahimi, M.**, Wilson, E. “Interference and CO₂ Storage.” *DOE-NETL 9th Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Oral.
108. Saar, M., Adams, B.**, **Bielicki, J.**, Janke, B.**, Kuehn, T., Mevissen, A.**, Parker, C., Pollak, M. (Presenter), Randolph, J.**, Smale, A.**, Taff, S., Wilson, E. “Carbon Dioxide Plume Geothermal Energy: Making Electricity (and Money) from Geologic Sequestration of Carbon Dioxide.” *DOE-NETL 9th Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Poster

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109. Kuby, M., Middleton, R., Keating, G., **Bielicki, J.** (Presenter) “Analysis of Cost Savings from Networking Pipelines in CCS Infrastructure Systems.” *10th International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. Poster. P.
110. Middleton, R. (Presenter), Keating, G., Pawar, R., Stauffer, P., **Bielicki, J.** “Jumpstarting CCS using Oil Refinery CO₂ for Enhanced Oil Recovery.” (2010). *10th International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. Oral. P.
111. **Bielicki, J.** “Evolving Carbon Dioxide Capture and Storage Deployment: Lessons from CO₂ Enhanced Oil Recovery.” (2010). *DOE-NETL 8th Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA May 5-8, 2010. Oral.

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113. **Bielicki, J.** “The State of Carbon Dioxide Capture and Storage,” *Carbon Capture and Storage Workshop, Oak Ridge National Laboratory*, Oak Ridge, TN. September 9, 2009. Oral.
114. Kuby, M., Middleton, R. (Presenter), **Bielicki, J.** “The Spatial Deployment of Carbon Capture and Storage with a Price on Carbon Dioxide.” *Geological Science of America Annual Meeting*, Portland OR, October 18-21, 2009. Oral.
115. **Bielicki, J.** “An Empirical Learning Curve for Geologic CO₂ Injection.” *DOE-NETL 7th Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA. May 4-7, 2009. Oral.
116. Kuby, M., **Bielicki, J.** (Presenter), Middleton, R. “The Spatial Deployment of Carbon Capture and Storage with a Price on Carbon Dioxide.” *DOE-NETL 7th Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA. May 4-7, 2009. Oral.

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117. **Bielicki, J.** “Spatial Clustering and Carbon Capture and Storage Deployment.” (2008) *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20, 2008. Oral. P.
118. Middleton, R. (Presenter), **Bielicki, J.** “A Comprehensive Carbon Capture and Storage Model.” (2008) *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20, 2008. Poster. P.
119. Stephens, J. (Presenter), **Bielicki, J.**, Rand, G. *** “Learning about Carbon Capture and Storage: Changing Stakeholder Perception with Expert Information.” *9th International Greenhouse Gas Technologies Conference*, Washington DC. November 17-20. Oral. P.
120. Middleton, R., **Bielicki, J.**, Kuby, M. (Presenter) “A Pipeline Network Design Model for Geologic Carbon Sequestration and Carbon Credit Pricing.” (2008) *ISOLDE: International Symposium on Locational Decisions*, Santa Barbara, CA, July, 2008. Oral.
121. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Infrastructure and Deployment,” *DOE- NETL 6th Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA. May 5-8. Oral. P.

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122. **Bielicki, J.** “The Viability of Permanent Carbon Capture and Storage in Deep Sea Sediment,” (2007) *American Geophysical Union Fall Meeting*. U42A-04. San Francisco, CA. Oral. A.
123. Middleton, R. (Presenter), **Bielicki, J.** “The Carbon Capture and Storage Optimization Problem.” *North American Regional Science Conference*. Savannah, GA. November 2007. Oral.

- 2006 124. **Bielicki, J.** (Presenter), Schrag, D. “The Influence of Carbon Capture and Storage on the Location of Electric Power Generation.” *8th International Conference on Greenhouse Gas Technologies*. Trondheim, Norway. June 19-22, 2006. Poster. P.
- 1999 125. Bieniosek, F. (Presenter), Kurnaev, O. Cherepakhin, A., **Bielicki, J.**, Dinkel, J. “Beam Sweeping System” (1999) *IEEE Particle Accelerator Conference*, New York, NY. May 1999, Oral. P.
- 1992 126. Peterson, M., Bora, B. and others. “An Expert System for Design for Manufacturability using the Gold Works III Expert System Shell” *Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics*, Argonne National Laboratory, Argonne, IL. November 1992. Poster.

OTHER PRESENTATIONS

- 2020 1. **Bielicki, J.** “How I Teach (Educate?, Endow?, Motivate?, Inspire?)” *Department of Civil, Environmental, and Geodetic Engineering*. Ohio State University. Columbus, OH. April 3, 2020. Oral.
2. **Bielicki, J.** “(Quantifying and) Mapping Socioeconomic Scenarios for Subnational FEWS Research.” INFEWS Team Meeting. Ohio State University. Columbus, OH. February 17, 2020. Oral.
- 2019 3. Miranda, M.* (Presenter), Chun, S.*, **Bielicki, J.**, Cheng, C-M. “Techno Economic Assessment for Recovery of Rare Earth Elements from AMD Waters.” *Visit from U.S. Department of Energy, National Energy Technology Laboratory, Program Officer*. October 9, 2019. Oral.
4. **Bielicki, J.** “Scenarios and their Construction.” *Research Advisory Council Meeting of INFEWS Deglobalization Project*. May 1, 2019. Columbus OH. Oral.
5. **Bielicki, J.** “Bielicki Research Chart.” *Ford Automotive Visit*. Ohio State University. Columbus, OH. April 4, 2019. Oral.
- 2017 1. Wang, Y.* (Presenter), Simon, E., Parkinson, S., Wada, Y., Riahi, K., **Bielicki, J.** “The Vulnerability of Electricity Generation under Changes in Water Temperature and Availability.” *Young Scientists Summer Program Symposium, International Institute of Applied Systems Analysis*. Laxenburg, Austria. August 22, 2017. Oral.
2. Nelson, E.*** (Presenter), **Bielicki, J.**, Sioshansi, R., Ogland-Hand, J.* “The Value of Using Carbon Dioxide and Geothermal Resources in Transmission Constrained Electricity Systems.” *2017 Summer Research Opportunities Program*. Columbus, OH. July 27, 2017. Oral.
3. Nelson, E.*** (Presenter), **Bielicki, J.**, Sioshansi, R., Ogland-Hand, J.* “The Value of Using Carbon Dioxide and Geothermal Resources in Transmission Constrained Electricity Systems.” *2017 Summer Research Opportunities Program*. Columbus, OH. July 27, 2017. Poster.
4. Wang, Y.* (Presenter), Simon, E., Parkinson, S., Wada, Y., Riahi, K., **Bielicki, J.** “The Vulnerability of Coal-Fired Power Plants to Water Shortage in Asia under Climate Change and Capacity Expansion.” *Hayes Graduate Forum. The Ohio State University*. Columbus, OH. March 2, 2018. Oral.
5. **Bielicki, J.** (Presenter), Rath, A.*, Gopalakrishnan, S., Carlarne, C. “Earth Services: Fuller Accounting of Human Benefit from the Planet.” *OSU Discovery Theme Showcase*. Columbus, OH., November 15, 2017. Oral.

- 2016
6. **Bielicki, J.** "Energy Storage in Sedimentary Basin Geothermal Resources." *NSF SedHeat Research Coordination Network Incubator Workshop*. August 15-16, 2016. Columbus, Ohio. Oral.
 7. DeLuca, M.* (Presenter), **Bielicki, J.** "Infrastructure Deployment for CO₂ Capture and Storage that is Robust to Reservoir Leakage Risk." *The Richard D. and Martha J. Denman Undergraduate Research Forum*. Columbus, OH. March 30, 2016. Oral.
 8. Shaheen, N.* (Presenter), **Bielicki, J.** "Spatial Association Analysis of Geothermal Tracer Pathways." *Spring Undergraduate Research Expo*. The Ohio State University. Columbus, OH. March 30, 2016. Poster.
- 2015
9. **Bielicki, J.** "Pillars of Energy Sustainability." *Integrated Assessment Modeling Group, Sustainable and Resilient Economy Discovery Theme Program*. The Ohio State University. Columbus, OH. October 14, 2015. Oral.
 10. Langenfeld, J.* (Presenter), **Bielicki, J.**, "Geospatial and Economic Viability of CO₂ Storage in Fractured Shale and Saline Aquifers." *Graduate Engineering Research Colloquium*. The Ohio State University. Columbus, OH. October 2, 2015. Poster.
 11. Patel, I.* (Presenter), **Bielicki, J.**, "Optimal Operation of Geothermal Heat Extraction." *Graduate Engineering Research Colloquium*. The Ohio State University. Columbus, OH. October 2, 2015. Poster.
 12. **Bielicki, J.** (Presenter), Deng, H.***, Pollak, M., Wilson, E., Fitts, J., Peters, C., "Monetizing Geologic CO₂ Storage Leakage Risk." Presented at *U.S. Department of Energy Carbon Storage R&D Project Review Meeting*. August 18-20, 2015. Pittsburgh, PA. Poster.
 13. **Bielicki, J.** "Personal, Climatic, and Research Juxtapositions: Using CO₂ for Renewable Energy Generation." *STEAM Exchange*, Ohio State University. Columbus, OH. January 22, 2015. Oral.
- 2014
14. **Bielicki, J.** "Moneyball and the Glenn School." *M.P.A. Orientation*. John Glenn School of Public Affairs. The Ohio State University. August 20, 2014. Columbus, OH. Oral.
- 2013
15. **Bielicki, J.** (Presenter). "Summary of Multi-Fluid Geothermal". (2013). *Penrose Conference: Predicting and Detecting Natural and Induced Flow Paths for Geothermal Fluids in Deep Sedimentary Basins*. October 19-23, 2013. Park City, UT. Oral.
 16. **Bielicki, J.** (Presenter), Gilley, S., "Geothermal Energy: Enhancing our Future". (2013). *Penrose Conference: Predicting and Detecting Natural and Induced Flow Paths for Geothermal Fluids in Deep Sedimentary Basins*. October 19-23, 2013. Park City, UT. Oral.
 17. Saar, M., **Bielicki, J.** (Presenter), Kuehn, T., Randolph, J., Taff, S. "A Novel Method Using Carbon Dioxide and Geothermal Resources for Sustainable Energy Production and Storage." *NSF Sustainable Energy Pathways Grantees Meeting*. June, 2013. Washington DC. Oral.
- 2012
18. **Bielicki, J.** (Presenter), Pollak, M., Fitts, J., Wilson, E., Peters, C. "Your View or Mine: Spatial CO₂ Storage Risk from Various Stakeholder Perspectives." *Carbon Sequestration Workshop*, Carnegie Mellon University. January 17, 2012. Oral.
 19. **Bielicki, J.** (Presenter), Pollak, M., Fitts, J., Wilson, E., Peters, C. "Your View or Mine: Spatial CO₂ Storage Risk from Various Stakeholder Perspectives." *United States Department of Energy, National Energy Technology Laboratory, Project Update Meeting*. January 16, 2012. Oral.
- 2009
20. **Bielicki, J.** "Climate Change Impacts Science at Oak Ridge National Laboratory." *Halcrow Visit to Oak Ridge National Laboratory*, Oak Ridge, TN. October 27, 2009.

- | | |
|------|--|
| 2008 | 21. Bielicki, J. “Infrastructure Deployment for Carbon Capture and Storage,” <i>CO₂ Pipeline Modeling Meeting</i> . <i>CO₂ Pipeline Modeling Meeting</i> . National Energy Technology Laboratory, U.S. Department of Energy. Pittsburgh PA. January 21, 2009. |
| 2007 | 22. Bielicki, J. “Princeton’s Wedge Game,” <i>Research Experience in Carbon Sequestration 2008</i> , University of New Mexico, Albuquerque, NM. July 20, 2008. |
| 2004 | 23. Bielicki, J. “Princeton’s Wedge Game,” <i>Research Experience in Carbon Sequestration 2007</i> , Montana State University, Bozeman, MT. July 2007. |
| | 24. Bielicki, J. (Presenter), Landguth, E.(Presenter) “Embedding Ameriflux Data.” Presented at <i>Santa Fe Institute Complex Systems Summer School</i> , Santa Fe, NM. June, 2004. |
| | 25. Bendor, T. (Presenter), Bielicki, J. (Presenter), Powell, B. (Presenter), Robinson, D. (Presenter), “Embedding Ameriflux Data.” Presented at <i>Santa Fe Institute Complex Systems Summer School</i> , Santa Fe, NM. June, 2004. |

OUTREACH, CONTINUING EDUCATION, AND BROADER IMPACTS OF RESEARCH

DECISION-MAKERS AND FORUMS

- | | |
|------|---|
| 2019 | Invited Speaker and Panelist. “CO ₂ EGS Systems.” Geothermal Energy Frontiers Forum 2019. <i>Energy Options Network</i> . Center for the National Interest. Washington, DC. May 7, 2019. Speaker and Panelist. |
| 2016 | Invited Panelist. “Energy Storage: Capturing Opportunity.” <i>Grid Modernization: Understanding Technology Advancements, Midwest Governor’s Association Annual Meeting</i> , The Ohio State University. Columbus, OH. October 5, 2016. Panel. |
| | Invited Speaker and Discussant. “The Earth Battery: An Emerging Approach for Energy Storage to Integrate Renewable Energy Sources into the Electricity Grid.” <i>Les Enjeux Technologiques De L’Integration Des Energies Reouvelables au Reseau Electrique</i> (Public hearing on integrating renewable energy into the electricity grid) <i>Assemblée Nationale</i> (French National Assembly, the lower house of the French Parliament). May 26, 2016. Paris, France. |
| 2014 | Invited Speaker. “Benefits and Concerns with Unconventional Hydrocarbon Development.” <i>Glenn School Leadership Forum</i> , October 17, 2014. Columbus, OH. Oral. |
| 2009 | Invited Speaker. “CO ₂ Pipeline Modeling for the Midwestern United States,” <i>Midwest Governors Association Renewable Electricity, Advanced Coal and Carbon Capture with Storage Advisory Group Meeting</i> . Traverse City, MI. (Remote from Cambridge, MA). March 20, 2009. |
| 2008 | Invited Speaker. “Infrastructure Modeling for Carbon Capture and Storage,” (2008). <i>Midwest Governors Association, CO₂ Infrastructure Subcommittee Meeting</i> , Washington DC. June 19-20, 2008. |

PRESS CONFERENCES

- | | |
|------------|--|
| APRIL 2015 | “Using CO ₂ to Produce and Store Energy.” <i>Reducing Emissions: Renewable Energies & Carbon Capture and Storage</i> . <i>European Geosciences Union, General Assembly</i> , April 13, 2015. Vienna, Austria. http://www.egu.eu/news/168/egu-2015-general-assembly-media-advisory-4-pressconferences-live-stream-on-site-registration/ |
|------------|--|

PRESS RELEASES

- SEPTEMBER 2019 “Water May Be Scarce for New Power Plants in Asia.” *Ohio State University*, Columbus, OH. <https://news.osu.edu/water-may-be-scarce-for-new-power-plants-in-asia/>
- SEPTEMBER 2019 “Ohio State Awarded \$3M NSF Grant for STEM Traineeship in Ohio.” *Ohio State University*, Columbus, OH. <https://si.osu.edu/news/ohio-state-awarded-3-million-nsf-grant-stem-traineeship-program>
- MARCH 2019 “From Art to Zooplankton, the Effects of Climate Change are Far-Reaching.” *Ohio State University*, Columbus, OH. <https://news.osu.edu/from-art-to-zooplankton-the-effects-of-climate-change-are-far-reaching/>
- DECEMBER 2018 “New study will track how trade wars affect the Midwest.” *Ohio State University*, Columbus, OH. <https://news.osu.edu/new-study-will-track-how-trade-wars-affect-the-midwest/>
- SEPTEMBER 2017 “Leaks will not sink carbon capture and storage.” *Princeton University*, Princeton, New Jersey, United States. <https://www.princeton.edu/news/2017/09/01/leaks-will-not-sink-carbon-capture-and-storage>
- DECEMBER 2013 “Can we turn unwanted CO₂ into electricity?” *American Geophysical Union Fall Meeting*, San Francisco, California, United States. <https://news.osu.edu/news/2013/12/12/geothermal/>

QUOTES AND FEATURES

- FEBRUARY 2020 Wired Magazine. Daniel Oberhaus. “Want Unlimited Clean Energy? Just Drill the World’s Hottest Well.” <https://www.wired.com/story/want-unlimited-clean-energy-just-drill-the-worlds-hottest-well/>
- SEPTEMBER 2019 Ohio State University Alumni Magazine. “Our Roots are Showing” Kristen Schmidt. <https://www.osu.edu/alumni/news/ohio-state-alumni-magazine/issues/fall-2019/ohio-state-trade-tariffs-study.html>
- MARCH 2019 Ohio State University. Laura Arenscheidung. “From Art to Zooplankton, the Effects of Climate Change are Far-Reaching.” <https://news.osu.edu/from-art-to-zooplankton-the-effects-of-climate-change-are-far-reaching/>
- OCTOBER 2017 XPrize Foundation. “How to power the grid with renewables 24/7? Use stored CO₂, says Team TerraCOH”. <https://twitter.com/xprize/status/921438475315851264>
- MAY 2017 Climate Central. “Budget Guts U.S. Carbon Capture, Storage Research.” by Bobby Magill of Climate Central.” <http://www.climatecentral.org/news/budget-guts-us-carbon-capture-storage-research-21478>
- MARCH 2017 Columbus Dispatch. “Trump doing what he said he’d do on environment.” Marion Renault. <http://www.dispatch.com/news/20170330/trump-doing-what-he-said-hed-do-on-environment>
- NOVEMBER 2016 Columbus Dispatch. “Trump’s pledges to reverse climate-change policies worry some.” Marion Renault. <http://www.dispatch.com/content/stories/local/2016/11/19/trumps-pledges-to-reverse-climate-change-policies-worry-some.html>

JUNE 2016	Scientific American. <i>Scientists turn carbon dioxide emissions into stone.</i> Bobby Magill https://www.scientificamerican.com/article/scientists-turn-carbon-dioxide-emissions-into-stone-video/
AUGUST 2015	Earth Magazine. <i>“Down to Earth With: Engineer Jeffrey Bielicki”</i> Terry Cook. http://www.earthmagazine.org/article/down-earth-engineer-jeffrey-bielicki
JULY/AUGUST 2015	Discover Magazine. <i>“Geothermal’s Carbon Dioxide Boost.”</i> Xiaoshi Lim. http://discovermagazine.com/2015/july-aug/20-geothermal-co2-boost
APRIL 2015	Deutschlandfunk. <i>“Strom aus Kohlendioxid.”</i> Dagmar Rölich. http://www.deutschlandfunk.de/geothermisches-kraftwerk-strom-aus-kohlendioxid.676.de.html?dram:article_id=317049
DECEMBER 2014	Huffington Post. <i>“An Open Letter to Warren Buffett.”</i> Clay Faris Naff. http://www.huffingtonpost.com/clay-naff/an-open-letter-to-warren_b_6387076.html

MEDIA AND PUBLIC

2019	Invited Speaker. “Geoengineering: Treat the Fever or the Virus?” <i>Franklinton Friday. STEAM Factory</i> . Columbus, OH. May 10, 2019. Invited Speaker. “Don’t Emit It. Use It. Climate Mitigation and Energy Decarbonization.” <i>Franklinton Friday. STEAM Factory</i> . Columbus, OH. April 12, 2019.
2014	Invited Speaker. “Can We Turn Unwanted Carbon Dioxide into Electricity?” <i>Science Writers 2014: Lunch with a Scientist</i> , October 19, 2014. Columbus, OH.
2014	Invited Speaker. “To Frack or Not to Frack: Energy Sustainability and Emerging Subsurface Development.” <i>Marion Science Café</i> . The Ohio State University, Marion. April 1, 2014.
2013	Gilley, S., and Bielicki, J. “Geothermal Energy: Enhancing Our Future.” Computer Animated Video, available at www.energypathways.org and https://www.youtube.com/watch?v=GR-AA3dINRs
2012	Keynote Speaker. “Energy Sustainability and Solar Energy Technology Innovation.” <i>Solar Energy Workshop</i> , West Central Research and Outreach Center, University of Minnesota at Morris. June 12, 2012.
2007	Invited Panelist. Chewonki Carbon Capture and Storage Public Meeting, Wiscasset ME. October 24, 2007.

CONTINUING EDUCATION

2017	Invited Speaker. “Using CO ₂ to Produce and Store Energy.” <i>Engineers Foundation of Ohio</i> , Columbus, OH. November 3, 2017.
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2014 | Invited Speaker. “Benefits and Concerns of Emerging Subsurface Development Activities.” *Ohio Energy: Emerging Issues in Law, Finance, and Regulation*. Moritz College of Law, The Ohio State University. April 9, 2014.

SERVICE

EXPERT PARTICIPATION AND CONSULTATION

2017 | *Mission Innovation – Accelerating the Clean Energy Revolution: Carbon Capture, Utilization, and Storage Experts Workshop*. September 25-29, 2017 Houston, TX. Report forthcoming.

2012 | Social Aspects of Bioenergy Sustainability Workshop, *U.S. Department of Energy - Office of Biological and Environmental Research*, Washington, DC.

2011 | Quadrennial Technology Review, *Technical Workshop on Clean Electricity*. U.S. Department of Energy, June 7, 2011. Boulder, CO. Report.

2010 | Grand Challenges Workshop, *U.S. Department of Energy - Office of Biological and Environmental Research*, March 2-5, 2010. Bethesda, MD.

2009 | “U.S.-China Cooperation on Low-Emission Coal Technologies: Realities and Opportunities.” *Atlantic Council and the U.S./China Energy and Environment Technology Center at Tsinghua and Tulane Universities*, Beijing China. June 24-26, 2009.

2008 | CCS Guidelines: Guidelines for Carbon Dioxide Capture, Transport, and Storage Workshop, *World Resources Institute*, June 2008. Washington, DC.

2008 | Carbon Capture and Storage Working Group. *National Commission on Energy Policy*, Washington, DC. Fall 2008.

ADVISORY BOARDS

2020 - PRESENT | Bharco and Pacific Eco Innovations Inc. For-Profit Company. Hawaii, United States and Paris, France. Executive Advisory Board

2016 - 2018 | “Premisser för bioenergi med koldioxidavskiljning och lagring det ramtida globala klimatarbetet” (Premises for bioenergy with carbon capture and storage in the global response to climate change). Research Project. Linköping University and Chalmers University, Sweden.

2016 - PRESENT | TerraCOH LLC. Start-up Company. Minneapolis, MN.

UNIVERSITY SERVICE

Ohio State University

2019 – PRESENT | Research Co-Lead. Sustainable Energy Program. OSU Sustainability Institute.

2019 – PRESENT | Member. Faculty Advisory Board, OSU Sustainability Institute.

2019 – PRESENT | Member. Faculty Advisory Committee, Center for Energy Research, Training, and Innovation (CERTAIN)

2019 – PRESENT	Member. Budget and Strategic Planning Committee. John Glenn College of Public Affairs.
2019 - PRESENT	Member. Vision Bridge Team. Department of Civil, Environmental, and Geodetic Engineering.
2018 – PRESENT	Coordinator. Junior Faculty Peer Mentoring Group. Department of Civil, Environmental, and Geodetic Engineering
2018 – PRESENT	Member. Graduate Studies Committee. Department of Civil, Environmental, and Geodetic Engineering
2018 – PRESENT	Member. Mentoring Committee. Department of Civil, Environmental, and Geodetic Engineering
2017 – PRESENT	Member. Science, Engineering, and Public Policy Program Development. College of Engineering
2017 - 2020	Member. Energy Academic Collaboration Council. University (reports to the Provost)
2018 – 2019	Member. Engie Endowed Chair in Resilient Power Systems Faculty Search Committee. Ohio State University.
2013 - 2018	Member. Doctoral Committee. John Glenn College of Public Affairs
2017 – 2018	Member. Faculty Search Committee - Agricultural Sensing and Sustainability Indicators. Food, Agricultural, and Biological Engineering
2016 – 2017	Member. Faculty Search Committee - Smart Buildings. Department of Civil, Environmental, and Geodetic Engineering.
2015 – 2017	Associate Director. Subsurface Energy Resources Center
2014 – 2017	Member. Graduate Studies Committee. Environmental Science Graduate Program
2014 – 2017	Member. Faculty Advisory Committee. Subsurface Energy Resources Center
2014 – 2015	Member. Faculty Search Committee - Infrastructure. Department of Civil, Environmental, and Geodetic Engineering.
	University of Minnesota
2010 – 2013	Organizer. Science, Technology, and Environmental Policy Feedback and Research (STEP-FAR) Seminar. Humphrey School of Public Affairs.
2011 – 2012	Member. Ph.D. Program Development Committee. Humphrey School of Public Affairs.

EXPERT AND PEER REVIEWS

JOURNAL
REFEREE

2020	<i>Energy & Environmental Science (3)</i>
2019	<i>Energy & Environmental Science (3), Energy, International Journal of Greenhouse Gas Control</i>
2018	<i>Nature Energy (2), Energy & Environmental Science (2), International Journal of Greenhouse Gas Control (2), Energy Economics, Geothermal Energy, Complexity, Energy (2), Earth</i>
2017	<i>Energy & Environmental Science (3), Applied Energy, SPE Economics & Management</i>
2016	<i>Advances in Water Resources, Environmental Science & Technology, Energy & Environmental Science (2), Energy Policy, Environmental Engineering Science (2),</i>
2015	<i>Energy Policy (7), Journal of Cleaner Production, Energy Economics, International Journal of Greenhouse Gas Control, Environmental Science & Technology,</i>
2014	<i>Energy Policy (7), International Journal of Greenhouse Gas Control (2), Science and Public Policy, Sedimentary Record, Energies</i>
2013	<i>SPE Economics & Management, Energy Policy (4)</i>
2012	<i>Energy Policy</i>
2011	<i>Energy Economics, SPE Economics & Management, Greenhouse Gases: Science & Technology, Energy Policy (2)</i>
2010	<i>Energy Policy, International Journal of Greenhouse Gas Control</i>
GRANT PANELS AND PROPOSALS	
2019	Review Panel Member. U.S. Department of Energy, ARPAe. Performance-Based Energy Resource Feedback, Optimization, and Risk Management (PERFORM) concept papers.
2019	Review Panel Member. NSF Chemical, Biotechnology, and Environmental Technology, Environmental Sustainability. CAREER Proposals.
2019	Reviewer Panel Member. NSF Chemical, Biotechnology, and Environmental Technology NSF INFEWS China DCL Proposals.
2017	Reviewer Panel Member. NSF Chemical, Biotechnology, and Environmental Technology. Unsolicited Panel Proposals
2016	Reviewer Panel Member. NSF Chemical, Biotechnology, and Environmental Technology. Unsolicited Panel Proposals
2016	Proposal Reviewer. Ohio Agricultural Research and Development Center (OARDC). Ohio State University.

REPORTS

2012	Intergovernmental Panel on Climate Change, Fifth Assessment Report. Working Group III. First Order Draft.
2010	Shaping the Future of CCS: Understanding Carbon Capture and Storage Systems and Knowledge from Social Science Perspectives.
2009	International Energy Agency. Technology Roadmap: Carbon Capture and Storage 2009.
SCHOLARLY COMPETITIONS	
2017	Midwestern Association of Graduate Schools (MAGS). MAGS Distinguished Master's Thesis Competition.
CONFERENCE PAPERS	
2019 – 2020	American Society of Engineering Education

CONFERENCE SESSION AND WORKSHOP CONVENER / ORGANIZER

DECEMBER 2018	Conference Session Co-convener. <i>“Complexities of Subsurface Fluid Emplacement for Energy Storage in Porous Formations”</i> American Geophysical Union Fall Meeting. Washington, DC.
DECEMBER 2016	Conference Session Co-convener. <i>“Conventional, Enhance, and Emerging Geothermal Systems: Characterization, Integration, Stimulation, Simulation, Induced Seismicity, and Reservoir Energy Management”</i> American Geophysical Union Fall Meeting. San Francisco, CA.
AUGUST 2016	Workshop Organizer. <i>“Energy Storage in Sedimentary Basins Workshop.”</i> Columbus, OH.
OCTOBER 2015	Conference Session Co-Organizer. <i>“Educating Energy Professionals of the Future.”</i> 2015 AASHE (Association for the Advancement of Sustainability in Higher Education) Conference and Expo. Minneapolis, MN.
MAY 2015	Conference Session Chair. <i>“Energy and Environment”</i> 15 th Polish-American Science & Technology Conference. Columbus, OH.

AFFILIATION TO PROFESSIONAL SOCIETIES

2016 – PRESENT	Member. American Society of Engineering Education
2015 – PRESENT	Member. Association of Environmental Engineering and Science Professors
2013 – PRESENT	Member. European Geosciences Union
2009 – PRESENT	Member. American Association for the Advancement of Science
2007 – PRESENT	Member. American Geophysical Union
2005 – PRESENT	Member. American Economic Society
1992 – PRESENT	Member. American Society of Mechanical Engineers
2013 – 2017	Member. Geothermal Resources Council
2004 – 2008	Member. Society for Industrial and Applied Mathematics

ACADEMIC MENTORING (WITH NOTABLE ACCOMPLISHMENTS)

PH.D. STUDENTS (COMPLETED: 2; PRESENT: 4; INCOMING: 0)

- | | |
|----------------|---|
| 2020 - PRESENT | <p>1. Yang, Qingrun: Ph.D. Student, Department of Civil, Environmental, and Geodetic Engineering
 Received University Fellowship (2020)
 Received ENGE-Axiom Sustainability Science Graduate Fellowship (2020)
 Selected to participate in the OSU EMPOWERment National Research Traineeship program (2020)</p> |
| 2019 - PRESENT | <p>2. Malloy, Samuel: Ph.D. Student, Environmental Science Graduate Program</p> |
| 2018 - PRESENT | <p>3. Miranda, Marcos: Ph.D. Student, Department of Civil, Environmental, and Geodetic Engineering.
 Received Environmental Research Foundation Scholarship (2020)
 Received Marcelo Lippman Scholarship, Geothermal Resources Council (2020)
 Received U.S. DOE Mickey Leland Energy Fellowship (2019)
 Received OSU Diversity Fellowship (2018).
 Receives College of Engineering Diversity Fellowship (2018).</p> |
| 2018 - PRESENT | <p>4. Chun, Soomin: Ph.D. Student, Environmental Science Graduate Program</p> |
| 2014 - 2019 | <p>5. Ogland-Hand, Jonathan: Ph.D. Student, Environmental Science Graduate Program
 Graduated: 2019.
 Present Position: Post-Doc. ETH Zürich.
 Lead author of published peer reviewed paper; co-author of paper in revision.
 Lead author of three, and co-author of two, conference papers.
 Received Graduate Scholarship from Geothermal Resources Council (\$2,500). (2018)
 One of four OSU students selected to participate in AAAS Catalyzing Advocacy in Science and Engineering (CASE) workshop in (Washington, DC, 2018).
 Inducted into Sigma Xi, the Scientific Research Society (2016).
 Received OSU Environmental Policy Initiative Research Grant (\$4,500) (2016).
 One of 100 graduate students nationwide selected to participate in the ARPAe Innovation Summit in Washington, DC (2016).
 Received two ESGP travel grants (2016, 2x), one OSU Office of Energy and Environment Travel Grant (2015).
 Received honorable mention for NSF Graduate Research Fellowship (2015, 2016)
 Received OSU University Fellowship (2014).</p> |
| 2014 - 2018 | <p>6. Wang, Yaoping: “Climate Change and Its Effects on Energy and Water.” Environmental Science Graduate Program. Graduated: 2018.
 Present Position: Research Assistant Professor, University of Tennessee.
 Lead author of three published peer-reviewed papers; co-author of paper in revision.
 Received Peccei Award from the International Institute of Applied Systems Analysis (IIASA), Laxenburg Austria (2018)
 One invited talk at international university (East China Normal University, School of Geographic Sciences. China, 2018).
 Selected to participate in OSU Hayes Graduate Research Forum (2018).</p> |

One of 52 students from 30 countries selected to participate in the Young Scientists Summer Program (YSSP) at IIASA, Laxenburg, Austria. (2017)
 Received OSU Office of Energy and Environment Sustainability Grant (\$2,500) (2014).

M.S. STUDENTS (CURRENT: 0; COMPLETED: 8)

- | | |
|-------------|---|
| 2017 - 2020 | 1. Starkey, Dan: M.S. Student, Department of Civil, Environmental, and Geodetic Engineering. Non-thesis. |
| 2018 - 2019 | 2. Maldonado, Stephen: M.S. Student, Department of Civil, Environmental, and Geodetic Engineering. Non-thesis.
Received OSU Diversity Fellowship |
| 2016 – 2018 | 3. Rath, Amlan: “Identifying Refractures and their Contributions to Unconventional Natural Gas Production.” Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2018. Present Position: Employed at ESRI. |
| 2015 – 2017 | 4. Hunter, Kelsey: “CO ₂ -Enhanced Water Recovery through Integrated CO ₂ Injection and Brine Extraction in the Rock Springs Uplift Formation in Southwest, WY.” Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2017.
Co-author of published peer-reviewed paper.
Finalist, 2017 C3E Women in Clean Energy Symposium.
Lead author of conference paper.
One of 100 graduate students nationwide selected to participate in the ARPAe Innovation Summit in Washington, DC (2016).
Scholarship from the Ohio Water Resources Center to attend a Water Smart Innovation Conference (2016).
Inducted into Sigma Xi, the Scientific Research Society (2016).
Best Poster Award at the "CO ₂ Summit II: Technologies and Opportunities" conference (2016).
U.S. DOE Mickey Leland Energy Fellowship (2016) |
| 2015 – 2017 | 5. Hagley, Paige: “Empowerment, Uncertainty, and Perceived Impacts of Shale Energy Development in Eastern Ohio.” Environmental Science Graduate Program. Graduated: 2017.
Co-author of published peer-reviewed paper. |
| 2014 – 2016 | 6. Langenfeld, Julie: “Geospatial and Economic Viability of CO ₂ Storage in Fractured Shale.” Department of Civil, Environmental, and Geodetic Engineering (M.S.) and John Glenn College of Public Affairs (M.P.A.). Graduated: 2016.
Co-author of published peer-reviewed paper.
Lead author of two conference papers.
Inducted into Sigma Xi, the Scientific Research Society (2016)
Received OSU University Fellowship (2014) |
| 2014 – 2016 | 7. Patel, Iti: “Optimal Heat Extraction for Geothermal Energy Applications.” Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2016.
Inducted into Sigma Xi, the Scientific Research Society (2016) |

Received Sigma Si Grant in Aid of Research (GIAR) (\$1,000) (2016)

Lead author of one conference paper.

2014 – 2016

8. **Sutula, Glenn:** “Developing a Framework for the Purposes of Locating Undiscovered Hydrogeologic Windows.” Environmental Science Graduate Program. Graduated: 2016.
Inducted into Sigma Xi, the Scientific Research Society (2016)
Co-author of two conference papers

UNDERGRADUATE STUDENTS (CURRENT: 3; COMPLETED/FORMER: 19)

2018 – PRESENT

1. **de Melo, Dora:** B.S., Department of Civil, Environmental, and Geodetic Engineering.

2018 – PRESENT

2. **Oyler, William:** B.S. Department of Chemical and Biomolecular Engineering.

2019 – 2019

3. **Goetz, Joshua:** B.S. Department of Civil, Environmental, and Geodetic Engineering.
B.A. Department of Political Science

2019 - 2019

4. **Pottschmidt, Audrey:** B.S., Integrated Business and Engineering.

2019 - 2019

5. **Olszewski, Sarah:** B.S., Department of Civil, Environmental, and Geodetic Engineering.

2015 – 2017

6. **DeLucca, Maria:** B.S., Department of Civil, Environmental, and Geodetic Engineering.
Graduated: 2017.
Selected to participate in the Denman Undergraduate Research Forum

2016 – 2017

7. **Pfister, Cody.** B.S., Department of Civil, Environmental, and Geodetic Engineering.
Graduated: 2017.

2016 – 2017

8. **Elderbrock, Andrew:** B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2017.

2015 – 2016

9. **Shaheen, Nora:** B.S., Department of Chemical and Biomolecular Engineering.
Graduated: 2017.

2016

10. **Peters, Travis:** B.S., Department of Materials Science and Engineering. Graduated: 2018.

2015

11. **Rossini Lupinnaci, Julia:** B.S., Universidade Federal de Vicosa. Brazilian Scientific Mobility Program. Graduated: 2016.

2015

12. **Oliveira de Azevedo, Bianca:** B.S., Universidade Tecnológica Federal do Parana. Brazilian Scientific Mobility Program. Graduated: 2016.

2015

13. **Cardoso Cascais, Valniele:** B.S., Universidade do Estado do Para. Brazilian Scientific Mobility Program. Graduated: 2016.

2015	14. Ferreira Alves, Rafael: B.S., Centro Universitario UNA. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	15. Alves Pereira, Erica: B.S., Universidade Federal de Vicosa. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	16. Sforsin Pereira da Cunha, Gabriel: B.S., Universidade Federal do Tocantins. Brazilian Scientific Mobility Program. Graduated: 2016.
2014	17. Barbosa de Carvalho, Mariana: B.S., UNESP – Universidade Estadual Paulista. Brazilian Scientific Mobility Program. Graduated: 2015. Received fellowship from FAPESP (Sao Paulo Research Foundation, Brazil)
2014	18. Giovannini Junior, Nelson: B.S., UNESP – Universidade Estadual Paulista. Brazilian Scientific Mobility Program. Graduated: 2015.
2014	19. Beasley, Emma: B.S. student, Department of Chemistry
2014	20. Miner, Jonathan: B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2014.
2014	21. Kesavan, Supreya: B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2015.

GRADUATE COMMITTEE MEMBERSHIP

PH.D. COMMITTEES (Current: 4; Completed: 4)

2019 - PRESENT	1. Lee, Kyuha: Department of Chemical and Biomolecular Engineering. The Ohio State University.
2019 - PRESENT	2. Cochran, Sam: Environmental Science Graduate Program. The Ohio State University.
2017 – PRESENT	3. Haines, Sarah: Environmental Science Graduate Program. The Ohio State University.
2018 - PRESENT	4. Junod, Anne: School of Environment and Natural Resources. The Ohio State University.
2017 – PRESENT	5. Ezekiel, Justin: Department of Earth Sciences. ETH-Zürich.
2015 – PRESENT	6. Vines, Chante’: Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University
2014 – 2018	7. Rey-Sanchez, Andres-Camillo: Environmental Science Graduate Program. The Ohio State University.
2015 – 2018	8. Saltos, Theodore: Agricultural, Environmental, and Developmental Economics. The Ohio State University.

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| 2016–2017 | 9. Morin, Tim: “The Nexus of Observing and Modeling Methane Emissions from Inland Water Bodies.” Environmental Science Graduate Program. The Ohio State University. Graduated: 2017. |
| 2014–2016 | 10. Matheny, Ashley: “Development of a Novel Plant-Hydrodynamic Approach for Modeling of Forest Transpiration during Drought and Disturbance.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016. |

MASTER’S COMMITTEES (CURRENT: 0; COMPLETED: 15)

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| 2019 - 2019 | 11. Cochran, Sam: “Improved quantification of fungal exposures in house dust from homes of asthmatic children using quantitative Polymerase Chain Reaction (qPCR)” Environmental Science Graduate Program. The Ohio State University. |
| 2017–2019 | 12. Haines, Sarah: “Quantitative evaluation of bioaerosols in different particle size fractions in dust collected on the International Space Station (ISS)” Environmental Science Graduate Program. The Ohio State University. Graduated: 2019. |
| 2018 | 13. Luma, Johnson: “Sleep Loss and Environmental Exposures in Asthma Patients (SLEEAP): Chemical Analysis and Significance Testing for Interior Aerosols from Buffalo, NY Residences.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2018. |
| 2017–2018 | 14. Rey-Sanchez, Andres-Camillo: “Measurements of Evaporation and Carbon Dioxide Fluxes over a Coastal Reef using the Eddy-Covariance Technique.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2018. |
| 2017 | 15. Bittinger, Adam: “Sludge Stabilization and Biosolids Production Processes.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2017. |
| 2016 | 16. Wright, Mathew: Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016. |
| 2016 | 17. Compton, Rosemary: “An Analysis of CO ₂ -Switchable Poly Allylamine Gels as Alternative Fracking Fluids.” Chemical and Biomolecular Engineering. The Ohio State University. Graduated: 2016. |
| 2014 - 2016 | 18. Herak, Patrick: “A Comparison of Several Models for Determining Critical Sources in the Context of Seasonal Variation.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016. |
| 2015 | 19. Thomas, Nathaniel: “ <i>Qanat</i> : Ancient Water Delivery.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2015. |
| 2015 | 20. McClain, Krystaal: “Environmental Drivers of Migration in Two Israeli Raptor Species.” Environmental Science Graduate Program. The Ohio State University. Graduated: 2015. |

2014	21. Ohanian, Nicholas: “The Examination of Fiber and Breaker Effects on the Rheological and Settling Rate Characteristics of Hydraulic Fracturing Fluids.” Chemical and Biomolecular Engineering. The Ohio State University. Graduated: 2014.
2012 – 2013	22. Gilley, Shannon: “Sci-Candy: Principles of Animation-Based Learning and the Next Wave of Science Education.” Minneapolis College of Art and Design. Graduated: 2013.
2012 – 2013	23. Suchomel, Ashley: “Potential Hazards of Hydraulic Fracturing Fluids for Public Health in the Bakken Shale Play of North Dakota.” Public Health. University of Minnesota, Graduated: 2013.
2011 – 2012	24. Haase, Rachel: “Innovation in Emerging Energy Technologies: A Case Study Analysis to Inform the Path Forward for Algal Biofuels.” Humphrey School of Public Affairs. University of Minnesota, Graduated: 2012.
2011 – 2012	25. Kemp, Mary: “Palm Oil Sustainability.” Humphrey School of Public Affairs. University of Minnesota, Graduated: 2012.

UNDERGRADUATE HONORS (CURRENT: 2; COMPLETED: 3)

2019 - PRESENT	1. De Melo, Dora: Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University.
2019 - PRESENT	2. Goetz, Joshua: Department of Chemical and Biomolecular Engineering, and Department of Political Science. The Ohio State University.
2017	3. Haines, Sarah: “Modeling Microbial Growth in Carpet Dust under Diurnal Variations in Relative Humidity.” Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2017.
2016	4. Berkeley, Randall: “Measuring Soil Moisture with Radio-Waves.” Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016.
2015	5. Merriam, Charles: “Agriculture and Policy: Policy Shifts and their Impact on the Upper Big Walnut Creek Watershed.” Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2015.

OTHER RESEARCH ADVISING (CURRENT: 0; COMPLETED/FORMER: 5)

2013 – 2015	1. Deng, Hang: “Policy Implications of Monetized Leakage Risk from Geologic CO ₂ Storage Reservoirs.” Civil and Environmental Engineering Ph.D. Student -- Woodrow Wilson School of International Affairs. Science, Technology, and Environmental Policy Graduate Certificate. Princeton University. Graduated: 2015.
2014 – 2015	2. Jiang, Zhongnan: “Learning by Doing, Technological Changes, Expansion and Productivity in CO ₂ Enhanced Oil Recovery and Policy Implications.” John Glenn College of Public Affairs. The Ohio State University. First-Year Paper Advisee.
2015	3. Benham, Claudia: Fenner School of Environment and Society. Australia National University. Visiting Scholar – Ph.D. student.

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| 2014 | 4. Ray, Andy: “Improving Public Safety & Reducing Greenhouse Gas Emissions by Replacing Vintage Gas Distribution Pipelines in Michigan, New York, Pennsylvania, and Ohio.” M.S. Energy Policy and Climate. Johns Hopkins University. Graduated: 2014. |
| 2010 – 2011 | 5. Calas, Guillaume: “Le transport de dioxyde de carbone par canalization: Modalités de développement et modélisation en France des réseaux de transport dans le cadre du captage et stockage de CO ₂ .” M.S. AgroENGREF Paris Tech, Paris. Graduated: 2010. |

TEACHING

GRADUATE

The Ohio State University

Analytic Frameworks for Science, Engineering, and Policy (ENVENG 6610): Sp20

Science, Engineering, and Public Policy (PUBAFRS/ENVENG 5600): Sp15, Sp16, Sp17, Sp18, Sp19, Sp20

Special Topics - Science, Engineering, and Public Policy (PUBAFRS 5800), co-taught with Caroline Wagner: Sp14

University of Minnesota

Empirical Analysis I (PA 5031-008): Au12

Systems Thinking and Modeling (PA 5022-011): Sp13

Environmental and Natural Resource Economics (APEC 5076): Sp13

Game Theory and Interdependent Actions (PA 5022-007): Sp11, Sp12, Sp13

UNDERGRAD.

The Ohio State University

Engineering Economic Evaluation and Optimization in Civil and Environmental Engineering (CIVILEN 3080): Sp15, Sp16 (two sections), Sp17 (two sections), Sp18 (two sections), Sp19, Au19

Science, Engineering, and Public Policy (PUBAFRS/ENVENG 5600): Sp15, Sp16, Sp17, Sp18, Sp19, Sp20

Special Topics - Science, Engineering, and Public Policy (PUBAFRS 5800), co-taught with Caroline Wagner: Sp14

PROFESSIONAL

The Ohio State University

Science, Engineering, and Public Policy, Masters of Global Engineering Leadership (MGEL ENVENG 5600): Sp17, Sp18, Sp19, Sp20

SHORT COURSES

University of Minnesota

Systems Thinking and Tools, Boreas Leadership Program: Au11, Sp12, Sp13, Au14, Au15,

GUEST LECTURES

The Ohio State University

Hydraulic Fracturing: Environmental and Socioeconomic Considerations (EEOB 8896): Sp16

Sustainability Metrics (ENR 3900): Au15

Energy MBA Program (OSU Fisher College of Business): Sp15

Ecological Engineering (ENVENG 5310): Au14

Issues in Environmental Science (ENVSCI 7899): Au13

Applied Hydrology (ENVENG 5130): Au13

University of Minnesota

Science and Policy of Global Environmental Change (EEB/FR 4126): Sp11
Environment and Natural Resource Economics Seminar: Sp11