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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**

<b>The Ohio State University, Columbus OH</b>	
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
<b>Princeton University, Princeton NJ</b>	
2020 – 2021	Visiting Fellow*, Andlinger Center for Energy and Environment, Princeton University (*Non-Resident Fellow due to COVID-19 Pandemic)
<b>ETH-Zürich, Zurich Switzerland</b>	
2017	Guest Professor, Department of Earth Sciences, Geothermal Energy and Geofluids Group
<b>University of Minnesota, Minneapolis MN</b>	
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
<b>Oak Ridge National Laboratory, Oak Ridge TN</b>	
2009 – 2010	Weinberg Fellow, Energy and Transportation Science Division
<b>University of Tennessee, Knoxville TN</b>	
2009 – 2010	Fellow for Energy and Environment, Howard Baker Center for Public Policy
<b>Harvard University, Cambridge MA</b>	
2006 – 2009	Research Fellow, Energy Technology Innovation Policy Group, Belfer Center for Science and International Affairs, Harvard Kennedy School
2003 – 2005	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

2007	<b>Los Alamos National Laboratory</b> , Los Alamos NM Graduate Research Assistant, Environmental and Spatial Analysis Group; Hydrology, Geochemistry, and Geology Group, Earth and Environmental Systems Division
1996 – 2000 1993 – 1995	<b>Fermi National Acceleratory Laboratory, U.S. Department of Energy</b> , Batavia IL Mechanical Engineer, Beams Division, Mechanical Support Department Engineering Co-Op, Accelerator Division, Mechanical Support Department
1996	<b>Laboratory for Laser Energetics, University of Rochester</b> , Rochester NY Laboratory Engineer, Optical Manufacturing Department

#### 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

2023	<i>2023 AEESP/Mary Ann Liebert Award for Publication Excellence in Environmental Engineering Science</i> for “Recovering Rare Earth Elements from Coal Mine Drainage Using Industrial Byproducts: Environmental and Economic Consequences”.
2022	United States Patent. Cheng, C-M., <b>Bielicki, J.</b> , Butalia, T., Lenhart, J. “A Mine Reclamation Approach to Recover Rare Earth Elements from Acid Mine Drainage Using Alkaline Industrial By-Products.” United States Patent US 2022/0289585 A1. United States Patent and Trademark Office. September 15, 2012. <a href="https://patentimages.storage.googleapis.com/c8/82/43/1cb4885e4a6cf3/US20220289585A1.pdf">https://patentimages.storage.googleapis.com/c8/82/43/1cb4885e4a6cf3/US20220289585A1.pdf</a>
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., <b>Bielicki, J.</b> (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., <b>Bielicki, J.</b> (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. <b>Bielicki, J.</b> , 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. <u>Miranda, M.*</u> , Ogland-Hand, J., <b>Bielicki, J.</b> , DaneshFar, R., Moghanloo, J., Middleton, R. ( <i>Accepted, October 2023</i> ) “Developing a Roadmap for Carbon Capture, and Storage in Oklahoma by Assessing the Viability of Stacked Storage.” <i>Greenhouse Gases: Science and Technology</i> .
2024	1. Birdsell, D., Adams, B., Paromita, D., Ogland-Hand, J., <b>Bielicki, J.</b> , Fleming, M., Saar, M. (2024) “Analytical Solutions to Evaluate the Geothermal Energy Generation Potential from Sedimentary-Basin Reservoirs.” <i>Geothermics</i> . 116, 102843, 1-14. <a href="https://doi.org/10.1016/j.geothermics.2023.102843">https://doi.org/10.1016/j.geothermics.2023.102843</a>
2023	2. Qin, Y., Wang, Y., Li, S., Deng, H., Wanders, N., Bosmans, J. H. C., Huang, L., Hong, C., Byers, E., Gingerich, D., <b>Bielicki, J.</b> , He, G. (2023). “Integrated Power Sector Planning Needed Under Water-Carbon Dual Challenges.” <i>Nature Water</i> , 1, 682-693. <a href="https://doi.org/10.1038/s44221-023-00120-6">https://doi.org/10.1038/s44221-023-00120-6</a>
	3. <b>Bielicki, J.</b> , <u>Leveni, M.</u> , Johnson, J., Ellis, B. (2023). “The Promise of Coupling Geologic CO <sub>2</sub> Storage with Sedimentary Basin Geothermal Power Generation.” <i>iScience</i> , 26(2), 105618. <a href="https://doi.org/10.1016/j.isci.2022.105618">https://doi.org/10.1016/j.isci.2022.105618</a>
2022	4. Khan, Z., Abraham, E., Aggarwal, S., Ahmad, M., Arguellos, R., Babbar-Sebens, M., Lacal Bereslawski, J., <b>Bielicki, J.</b> , Elia Campana, P., Eugenia Silva Carrazzone, M., Castanier, H., Chang, F-J., Clarke, L., Collins, P., Conchado, A., Rao Dagani, K., Daher, B., Dekker, S., Delgado, R., Diuana, F., Doelman, J., Elshorbagy, A., Fan, C., Gaudioso, R., Gebrechorkos, S., Geli, H., Grubert, E., Huang, D., Huang, T., Ilyas, A., Ivakhnenko, A., Jewitt, G., João Ferreira dos Santos, M., J., Jones, J.L. Kellner, E., Krueger, E., Kumar, I., Lamontagne, J., Lansu, A., Lee, S., Li, R., Linares, P., Marazza, D., Pía Mascari, M., McManamay, R., Meng, M., Mereu, S., Miralles-Wilhelm, F., Mohtar, R., Muhammad, A., Kafayat Opejin, A., Pande, S., Parkinson, S., Payet-Burin, R., Ramdas, M., Pereira Ramos, E., Ray, S., Ricciardi, L., Roberts, P., Sampedro, J., Sanders, K., Hassanzadeh Saray, M., Schmidt, J., Shanafield, M., Siddiqui, S., Suriano, M., Taniguchi, M., Trabucco, A., Tuninetti, M., Vinca, A., Weeser, B., White, D., Wild, T., Yadav, K., Yogeswaran, N., Yokohata, T., Yue, Q. (2022). “Emerging Themes and Future Directions of Multi-Sector Nexus Research and Implementation.” <i>Frontiers in</i>

- Environmental Science*. August 2022. Volume 10. Article 918085. 1-11. <https://doi.org/10.3389/fenvs.2022.918085>
5. Miranda, M.\*, **Bielicki, J.**, Chun, S.\*, Cheng, C-M. (2022). "Recovering Rare Earth Elements from Coal Mine Drainage Using Industrial Byproducts: Environmental and Economic Consequences." *Environmental Engineering Science*, 38(9), 770-783. <https://doi.org/10.1089/ees.2021.0378>. NOTE: This paper received the 2023 AEESP/Mary Ann Liebert Award for Publication Excellence in *Environmental Engineering Science*
  6. Fleming, M.\*\*\*, Adams, B., Ogland-Hand, J., **Bielicki, J.**, Kuehn, T., Saar, M. (2022). "Flexible CO<sub>2</sub>-Plume Geothermal (CPG-F): Using Geologically Stored CO<sub>2</sub> to Provide Dispatchable Power and Energy Storage." *Energy Conversion and Management*. Volume 253, 1 February 2022, 115082. <https://doi.org/10.1016/j.enconman.2021.115082>
  7. Qin, Y., Zhou, M., Pan, D., Klimont, Z., Gingerich, D., Mauzerall, D., Zhao, L., He, G., **Bielicki, J.** (2022). "Overlooked Environmental Consequences of China's Adaptation to Natural Gas Insecurity." *Environmental Science & Technology*, 56(2), 1183-1193. <https://doi.org/10.1021/acs.est.1c03685>
  8. Adams, B., Vögler, D., Kuehn, T., **Bielicki, J.**, Garapati, N., Saar, M. (2021). "Heat Depletion in Sedimentary Basins and its Effect on the Design and Electric Power Output of CO<sub>2</sub> Plume Geothermal (CPG) Systems." *Renewable Energy*, 172, July, 1393-1403. <https://doi.org/10.1016/j.renene.2020.11.145>
  9. Ogland-Hand, J.\*, **Bielicki, J.**, Adams, B., Nelson, E.\*\*\*, Buscheck, T., Saar, M., Sioshansi, R. (2021). "The Value of CO<sub>2</sub>-Bulk Energy Storage with Wind in Transmission-Constrained Electricity Systems." *Energy Conversion and Management*, 228 (15 January 2021), 113548. <https://doi.org/10.1016/j.enconman.2020.113548>
  10. 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>
  11. 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 SCO<sub>2</sub>T! 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>
  12. Fleming, M.\*\*\*, Adams, B., Kuehn, T., **Bielicki, J.**, Saar, M. (2020). "Increased Power Generation due to Exothermic Water Exsolution in CO<sub>2</sub> Plume Geothermal (CPG) Power Plants." *Geothermics*, 88, 101865. <https://doi.org/10.1016/j.geothermics.2020.101865>
  13. 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>
  14. **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>
  15. Ogland-Hand, J.\*, **Bielicki, J.**, Wang, Y.\*, Adams, B., Buscheck, T., Saar, M. (2019). "The Value of Bulk Energy Storage for Reducing CO<sub>2</sub> 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

16. 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>
17. **Bielicki, J.**, Langenfeld, J.\*, Tao, Z.\*\*\*, Middleton, R., Menefee, A.\*\*\*, Clarens, A. (2018). "The Geospatial and Economic Viability of CO<sub>2</sub> 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>
18. 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>
19. 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>
20. 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

21. Deng, H., **Bielicki, J.**, Oppenheimer, M., Fitts, J., Peters, C. (2017). "Leakage Risks of Geologic CO<sub>2</sub> 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>
22. 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 CO<sub>2</sub> Sequestration." *International Journal of Greenhouse Gas Control*, 64, 43-59. <https://doi.org/10.1016/j.ijggc.2017.06.012>

2016

23. Buscheck, T., **Bielicki, J.**, White, J., Sun, Y., Hao, Y., Bourcier, W., Carroll, S., Aines, R. (2016) "Pre-Injection Brine Production in CO<sub>2</sub> 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>
24. Buscheck, T., **Bielicki, J.**, Edmunds, T., Hao, T., Sun, Y., Randolph, J., Saar, M. (2016). "Multi-Fluid Geo-Energy Systems: Using Geologic CO<sub>2</sub> 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>
25. **Bielicki, J.**, Pollak, M., Deng, H.\*\*\*, Wilson, E., Fitts, J., Peters, C. (2016) "The Leakage Risk Monetization Model for Geologic CO<sub>2</sub> Storage." *Environmental Science & Technology*, 50(10), 4923-4931. <http://dx.doi.org/10.1021/acs.est.5b05329>
26. 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 CO<sub>2</sub> Injection at Snøhvit." *Energy & Environmental Science*, 9(4), 1504-1512. <http://dx.doi.org/10.1039/C5EE03648H>

2015

27. Buscheck, T., **Bielicki, J.** (2015). "Reducing Energy's Footprint by Producing Water and Storing CO<sub>2</sub>." *Cornerstone*, 3(3), Autumn 2015. (invited contribution). <http://cornerstonemag.net/reducing-energys-footprint-by-producing-water-and-storing-co2/>

2014

28. 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>
29. Middleton, R., Levine, J., **Bielicki, J.**, Visanawathan, H., Carey, J.W., Stauffer, P. (2015). "Jumpstarting Commercial-Scale CO<sub>2</sub> 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>
30. **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>
31. Adams, B.\*\*, Kuehn, T., **Bielicki, J.**, Randolph, J., Saar, M. (2015). "A Comparison of the Electric Power Output of CO<sub>2</sub> 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>
32. Middleton, R., Clarens, A., Liu, X.\*\*\*, **Bielicki, J.**, Levine, J. (2014). "CO<sub>2</sub> Deserts: Implications of Existing CO<sub>2</sub> Supply Limitations for Carbon Management." *Environmental Science & Technology*, 40, 11713-11720. <http://dx.doi.org/10.1021/es5022685>
33. 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>
34. **Bielicki, J.**, Calas, G.\*\*\*, Ha-Duong, M., Middleton, R. (2014). "National Corridors for Climate Change Mitigation: Managing Industrial CO<sub>2</sub> Emissions in France." *Greenhouse Gases: Science and Technology*, 4(3), 262-277. <http://dx.doi.org/10.1002/ghg.1395>
35. Adams, B.\*\*, Kuehn, T., **Bielicki, J.**, Randolph, J., Saar, M. (2014). "On the Importance of the Thermosiphon Effect in CO<sub>2</sub> Plume Geothermal (CPG) Power Systems". *Energy*, 69, 409-418. <http://dx.doi.org/10.1016/j.energy.2014.03.032>
36. **Bielicki, J.**, Pollak, M., Fitts, J., Peters, C., Wilson, E. (2014). "Causes and Financial Consequences of Geologic CO<sub>2</sub> 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

37. 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>
38. Parish, E., Efroymson, 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>
39. Efroymson, 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>
40. 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

41. 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>
42. Middleton, R., Kuby, M. **Bielicki, J.** (2012). "Generating Candidate Networks for Optimization: The CO<sub>2</sub> Capture and Storage Optimization Problem." *Computers*,

	<i>Environment, and Urban Systems.</i> 36, 18-29. <a href="http://dx.doi.org/10.1016/j.compenvurbsys.2011.08.002">http://dx.doi.org/10.1016/j.compenvurbsys.2011.08.002</a>
2011	<p>43. Dammel, J.*, <b>Bielicki, J.</b>, Pollak, M., Wilson, E. (2011). "A Tale of Two Technologies: Hydraulic Fracturing and Geologic Carbon Sequestration." <i>Environmental Science &amp; Technology</i>, 45, 5075-5076. (editor-reviewed) <a href="http://pubs.acs.org/doi/pdf/10.1021/es201403c">http://pubs.acs.org/doi/pdf/10.1021/es201403c</a></p> <p>44. Kuby, M., <b>Bielicki, J.</b>, Middleton, R. (2011). "The Optimal Spatial Deployment of CO<sub>2</sub> Capture and Storage with a Price on Carbon." <i>International Regional Science Review</i>, 3, 285-305. <a href="http://dx.doi.org/10.1177/0160017610397191">http://dx.doi.org/10.1177/0160017610397191</a></p>
2009	45. Middleton, R., <b>Bielicki, J.</b> (2009). "A Scaleable Infrastructure Model for Carbon Capture and Storage: <i>SimCCS</i> ." <i>Energy Policy</i> , 37, 1052-1060. <a href="http://dx.doi.org/10.1016/j.enpol.2008.09.049">http://dx.doi.org/10.1016/j.enpol.2008.09.049</a>
1998	46. Palumbo, R., Lede, J., Boutin, O., Ricart, E., Steinfeld, A., Moller, S., Weidenkaff, A., Fletcher, E., <b>Bielicki, J.</b> (1998). "The Production of Zn from ZnO in a High Temperature Solar Decomposition Process – The Scientific Framework for the Process." <i>Chemical Engineering Science</i> . 53(14), 2503-2517. <a href="http://dx.doi.org/10.1016/S0009-2509(98)00063-33">http://dx.doi.org/10.1016/S0009-2509(98)00063-33</a>
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| 2006 | 55. <b>Bielicki, J.</b> Schrag, D. (2006). "On the Influence of Carbon Capture and Storage on the Location of Electric Power Generation." <i>Proceedings of the 8<sup>th</sup> International Conference on Greenhouse Gas Technologies</i> . Trondheim, Norway. June 19-22, 2006.  |
| 1999 | 56. Bieniosek, F., Kurnaev, O., Cherepakhin, A. <b>Bielicki, J.</b> , Dinkel, J. "Beam Sweeping System." (1999) <i>Proceedings of the 18<sup>th</sup> Particle Accelerator Conference</i> , 2, 1249-1251. New York; May 1999.<br><a href="https://accelconf.web.cern.ch/accelconf/p99/PAPERS/TUA74.PDF">https://accelconf.web.cern.ch/accelconf/p99/PAPERS/TUA74.PDF</a> |

#### TECHNICAL REPORTS AND OTHER PUBLICATIONS

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|------|---|
| 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) <i>Mission Innovation – Accelerating the Clean Energy Revolution</i> . Carbon Capture, Utilization, and Storage Experts' Workshop. Houston, TX. September 25-29, 2017. <a href="https://www.energy.gov/sites/prod/files/2018/05/f51/Accelerating%20Breakthrough%20Innovation%20in%20Carbon%20Capture%2C%20Utilization%2C%20and%20Storage%20_0.pdf">https://www.energy.gov/sites/prod/files/2018/05/f51/Accelerating%20Breakthrough%20Innovation%20in%20Carbon%20Capture%2C%20Utilization%2C%20and%20Storage%20_0.pdf</a>   |
| 2017 | 2. Saar, M., <b>Bielicki, J.</b> , Kuehn, T., Randolph, J., Taff, S. Final Report for NSF Award #1230691: "SEP: A Novel Method Using CO <sub>2</sub> and Geothermal Resources for Sustainable Energy Production and Storage." September, 2017.<br>3. <b>Bielicki, J.</b> , Buscheck, T. Final Report for NSF SedHeat RCN Award: "Incubator Workshop: Energy Storage in Sedimentary Basin Geothermal Resources." August, 2017.<br>4. <b>Bielicki, J.</b> , Final Report for USGS/OHRC Award: 2016OH508B "Co-Optimizing Enhanced Water Recovery and CO <sub>2</sub> Sequestration in Ohio." April, 2017.  |
| 2016 | 5. <b>Bielicki, J.</b> , Final Report for USGS/OHRC Award: G11AP20099 "Developing Integrated Assessments of Water and Energy in Ohio." April, 2017.   |
| 2015 | 6. <b>Bielicki, J.</b> , 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). <i>U.S. Department of Energy, Offices of Basic Energy Sciences and of Fossil Energy</i> . Report of Carbon Capture: Beyond 2020. March 4-5, 2010. Gaithersburg, MD.<br><a href="http://science.energy.gov/~media/bes/pdf/reports/files/Basic_Research_Needs_for_Carbon_Capture_rpt.pdf">http://science.energy.gov/~media/bes/pdf/reports/files/Basic_Research_Needs_for_Carbon_Capture_rpt.pdf</a><br>8. Numerous Authors, "Grand Challenges for Biological and Environmental Research: A Long-Term Vision". Edited by: Stacey, G. (Chair). <i>U.S. Department of Energy</i> . (DOE-SC0135). A Report from the Biological and Environmental Research Advisory Committee March 2010 Workshop. March 2-5, 2010. Gaithersburg, MD.<br><a href="http://science.energy.gov/~media/ber/pdf/Ber_ltv_report.pdf">http://science.energy.gov/~media/ber/pdf/Ber_ltv_report.pdf</a><br>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: <i>World Resources Institute</i> . ISBN 978-1-56973-756-9<br><a href="http://www.wri.org/sites/default/files/pdf/ccs_and_community_engagement.pdf">http://www.wri.org/sites/default/files/pdf/ccs_and_community_engagement.pdf</a> |

2009	10. <b>Bielicki, J.</b> (2009). <u>Integrated Systems Analysis and Technological Findings for Carbon Capture and Storage Deployment</u> . 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: <i>World Resources Institute</i> . ISBN 978-1-56973-701-9 <a href="http://pdf.wri.org/ccs_guidelines.pdf">http://pdf.wri.org/ccs_guidelines.pdf</a> 12. Stephens, J., <b>Bielicki, J.</b> "Public Perception of Carbon Capture and Storage Technology". Cambridge: <i>Belfer Center for Science and International Affairs</i> . Harvard Workshop on Public Perception of Carbon Capture and Storage Technology, June 2-3, 2008. Cambridge, MA. <a href="http://belfercenter.ksg.harvard.edu/files/CCS_Public_Perception_Workshop_Report.pdf">http://belfercenter.ksg.harvard.edu/files/CCS_Public_Perception_Workshop_Report.pdf</a>

### 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, U.S. Environmental Protection Agency, the Alfred P. Sloan Foundation, and the U.S. Geologic Survey / Ohio Water Resources Center, as well as 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 [in brackets] amount to \$1.8M.

### ACTIVE GRANTS

(EXPENDITURES FOR MY EFFORTS / ENERGY SUSTAINABILITY RESEARCH LABORATORY ARE SHOWN IN BRACKETS.)

07/23 - PRESENT	1. U.S. Environmental Protection Agency. "Facilitating Local Electrified Energy and Transportation Services for All (FLEETS for All)." (84055501). PI: <b>Bielicki, J.</b> Co-PIs: Gingerich, D., Hood, D., Jacquet, J., Le, H., May, A. Total: \$1,120,314 (+\$299,409 negotiated cost share) [\$376,086].
06/23 - PRESENT	2. Ohio Environmental Protection Agency. "Collecting Water Rate Data in Ohio." PI: Gingerich, D. Co-PI: <b>Bielicki, J.</b> \$18,308 [\$0].
01/23 - PRESENT	3. OSU Office of Research. Presidential Research Excellence (PRE) Catalyst Grant. "Pathways for the Hydrogen Economy to Enhance Sustainability." PI: <b>Bielicki, J.</b> Co-PIs: Carlarne, C., Gingerich, D., Jacquet, J., <u>Leveni, M.</u> , Turro, C., Zhai, S. Total: \$200,000. [\$40,000].
05/20 - PRESENT	4. Sloan Foundation, Energy and Environment Program. "CO <sub>2</sub> Utilization for Geothermal Energy Production and Renewable Energy Storage." (Grant No. 2020-12,466). PI: Ellis, B. (Michigan). Co-PIs: <b>Bielicki, J.</b> , Johnson, J. (North Carolina State University). Total: \$613,144. [\$187,000].
08/19 - PRESENT	5. U.S. National Science Foundation, National Research Traineeship (1922666). "NRT-HDR: Convergent Graduate Training and EmPOWERment for a Sustainable Energy Future." PI: <b>Bielicki, J. (2022-present)</b> , Sioshansi, R. (OSU, 2019-2022). Co-PIs: <b>Bielicki, J. (2019-2022)</b> , Irwin, E., Mayhew, M. Ramnath, R., Chen, C. (2023-present) 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].
10/16 – PRESENT	6. OSU Sustainable and Resilient Economy Discovery Theme Program. "Energy Transitions and Bridges: Does What We Emphasize Take Us Where We Want to Be?" PI: <b>Bielicki, J.</b> , Co-PIs: Bakshi, B., Sohngen, B., Wilson, R. Total Award: \$31,099. [\$31,099].

## COMPLETED PROJECTS

(EXPENDITURES FOR MY EFFORTS / ENERGY SUSTAINABILITY RESEARCH LABORATORY ARE SHOWN IN BRACKETS.)

09/17 – 05/23	7. 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. Co-PIs: Bakshi, B., <b>Bielicki, J.</b> , Cai, Y., Fiksel, J., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I., Wilson, R. Total Award: \$2,431,141. [\$300,973].
03/22 – 02/23	8. Ohio Water Resources Center / U.S. Geological Survey. “Evaluating Current and Future Drinking Water Affordability in Ohio”. PI: Gingerich, D. co-PI: <b>Bielicki, J.</b> Total: \$20,607 [\$0].
07/21 – 06/22	9. OSU Sustainability Institute. “Developing Water Supply Curves for the Food-Energy-Water Nexus” PI: Gingerich, D. co-PI: <b>Bielicki, J.</b> \$29,872 [\$0]
05/21 – 04/22	10. OSU Sustainability Institute. “Ohio’s Coal Transition: Pathways for Community Resilience.”. PI: Jacquet, J. Co-PIs: <b>Bielicki, J.</b> , Dugdale, T., Fox, M., Hunt, C., Marcus, D., McClatchy, K., Stewart, G., Woodworth, M. Total: \$35,000 (+ \$18,073 negotiated cost share). [\$0].
05/21 – 04/23	11. Battelle Endowment for Technology, Humanities, and Arts. “Ohio’s Coal Transition: Pathways for Community Resilience.” PI: Jacquet, J. Co-PIs: <b>Bielicki, J.</b> , Dugdale, T., Fox, M., Marcus, D., McClatchy, K., Woodworth, M. Total: \$55,499 (+\$19,731 negotiated cost share). [\$5,000].
09/19 – 04/22	12. 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: <b>Bielicki, J.</b> , Burnham, M. (Idaho State), Calder, R. (Duke), Daher, B. (Texas A&M), Grady, C. (Penn State), Hannibal, 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]
10/19 – 09/21	13. U.S. Department of Energy, Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR) (DE-SC0018744). “CO <sub>2</sub> Plume Geothermal (CPG™) – Innovative, Dispatchable Geothermal Power Production Using Non-Water Working Fluids.” PI: Randolph, J. (TerraCOH LLC). Co-PIs: <b>Bielicki, J.</b> , Buscheck, T. (LLNL), Ellis, B. (Michigan), Griffin, J. (TerraCHO, LLC), Held, T. (Echogen). Total Award: \$991,574. [\$40,000].
12/17 – 04/20	14. 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: <b>Bielicki, J.</b> , Buttaglia, T., Lenhart, J. Total Award: \$399,886 (+\$87,500 negotiated cost share). [\$66,449].
08/17 – 07/20	15. 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: <b>Bielicki, J.</b> , Buttaglia, T. Total Award: \$308,863. (\$73,890).
08/15 – 08/19	16. 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: <b>Bielicki, J.</b> , Bohrerova, Z. Total Award: \$175,812. (\$0).
09/18 – 09/19	17. OSU Sustainable and Resilient Economy Program. “Developing Capacity for Seasonal Energy Storage.” PI: <b>Bielicki, J.</b> Co-PIs: <u>Ogland-Hand, J.*</u> , Sioshansi, R., Moortgat, J. Total Award: \$21,450. (\$21,450)
03/18 – 09/19	18. OSU Subsurface Energy Resources Center. “Engineering the Subsurface to Seasonally Store Energy While Sequestering CO <sub>2</sub> ” PI: <b>Bielicki, J.</b> Total Award: \$16,000. (\$16,000)
03/16 – 08/18	19. OSU Sustainable and Resilient Economy Discovery Theme Program. “Earth Services: Full Accounting of Human Well-Being Derived from the Planet.” PI: <b>Bielicki, J.</b> Co-PIs: Carlarne, C., Gopolakrishnan, S. Total Award: \$29,319. (\$29,319).
10/14 – 09/17	20. 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., <b>Bielicki, J.</b> , 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).
09/12 – 08/17	21. U.S. National Science Foundation, Sustainable Energy Pathways Program (1230691). “A Novel Method for Using CO <sub>2</sub> and Geothermal Resources for Sustainable Energy Production and Storage.” PI: Saar, M. (U-MN). Co-PI: <b>Bielicki, J.</b> , Keuhn, T. (U-MN), Randolph, J. (U-MN), Taff, S. (U-MN). Total Award: \$1,900,000 (\$625,513).
09/16 – 08/17	22. OSU Subsurface Energy Resources Center. “Community Perceptions of and Resilience to Shale Energy Development in Eastern Ohio.” PI: <b>Bielicki, J.</b> Total Award: \$5,619. (\$5,619).
03/16 – 03/17	23. Ohio Water Resources Center / U.S. Geological Survey. (2016OH508B). “Co-Optimizing Enhanced Water Recovery and CO <sub>2</sub> Sequestration in Ohio.” PI: <b>Bielicki, J.</b> Total Award: \$27,306. (\$27,306).
02/16 – 02/17	24. SedHeat NSF Research Coordination Network / Texas Christian University. “Incubator Workshop: Energy Storage in Sedimentary Basin Geothermal Resources.” PI: <b>Bielicki, J.</b> Co-PI: Buscheck, T. (LLNL). Total Award: \$22,960. (\$22,960).
03/15 - 02/16	25. 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: <b>Bielicki, J.</b> Total Award: \$37,373. (\$37,273)
06/15 – 12/15	26. 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., <b>Bielicki, J.</b> ; 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)
08/14 - 10/15	27. 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: <b>Bielicki, J.</b> 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).



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| 07/12 – 06/14 | 28. 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) |
| 07/12 - 06/13 | 29. Ormat Technologies (as cost-share for DOE grant DE-FOA-0000336). “Assessment of Integrated CO <sub>2</sub> -Geothermal Reservoirs.” Total Award: \$33,000. (\$33,000)              |

#### INVITED PRESENTATIONS

#### INVITED SEMINARS

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| 2023 | 1. <b>Bielicki, J.</b> , XXX “Equitable Energy Transition in Our Backyard.” <i>John Glenn College Public Affairs Colloquium</i> . The Ohio State University. October 2, 2023.   |
| 2021 | 2. <b>Bielicki, J.</b> , “Renewable Energy, Carbon Management, and Carbon Storage: Enabling Renewable Energy Production by Using Carbon Dioxide.” <i>Penn State Sustainability Institute’s Showcase Speaker Series</i> . The Pennsylvania State University. October 22, 2021.<br>3. <b>Bielicki, J.</b> , “Enabling Renewable Energy Production by Using Carbon Dioxide.” <i>Andlinger Center for Energy + the Environment, Center for Policy Research on Energy and the Environment, Princeton University</i> . Princeton, NJ. March 19, 2021. |
| 2020 | 4. <b>Bielicki, J.</b> , “Incentives and Challenges for Mitigating Climate Change by Using Carbon Dioxide to Produce and Store Renewable Energy.” <i>Conversations on the Environment, Responsible Energy, and Life – CEREAL, Princeton University</i> . Princeton, NJ. October 20, 2020.   |
| 2019 | 5. <b>Bielicki, J.</b> “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.<br>6. <b>Bielicki, J.</b> “Don’t Emit It, Use It. CO <sub>2</sub> -Enabled Geothermal Energy Production.” <i>Department of Physical Resource Theory, Chalmers University</i> . Gothenberg, Sweden. May 23, 2019.  |
| 2018 | 7. <u>Wang, Y.*</u> (Presenter), <b>Bielicki, J.</b> “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 | 8. <b>Bielicki, J.</b> “Using CO <sub>2</sub> to Produce and Store Energy.” <i>Chalmers University, Institute for Energy and Environment</i> , Gothenburg, Sweden. June 19, 2017. Oral.<br>9. <b>Bielicki, J.</b> (Presenter), <u>Langenfeld, J.*</u> , Tao, Z.***, Middleton, R., Menefee, A.***, Clarens, A. “Viability of Using in Hydrocarbon Depleted Fractured Shale Formations for Geologic CO <sub>2</sub> Storage.” <i>Center for Climate and Decision-Making, Carnegie Mellon University</i> . Pittsburgh, PA. March 3, 2017. Oral.   |
| 2016 | 10. <b>Bielicki, J.</b> “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.<br>11. <b>Bielicki, J.</b> “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.                     |

	12. Buscheck, T. (Presenter), <b>Bielicki, J.</b> “Storing CO <sub>2</sub> in the Earth for Enhanced Geothermal Energy and Water Recovery and Utility-Scale Energy Storage.” <i>University of Wyoming School of Energy Resources Speaker Series</i> . Laramie, WY. March 4, 2016. Oral.
2015	13. <b>Bielicki, J.</b> “CO <sub>2</sub> Plume Geothermal: What About Context?” <i>Geoenergy and Geofluids Group, Department of Earth Sciences. ETH-Zurich</i> . November 9, 2015. Zürich, Switzerland. Oral.
2014	14. <b>Bielicki, J.</b> “Producing Renewable Energy While Sequestering Carbon Dioxide.” <i>Earth and Environmental Systems Division Seminar</i> , Los Alamos National Laboratory. September 2, 2014. Oral. 15. <b>Bielicki, J.</b> (Presenter), Buscheck, T., Saar, M. “Emerging Options for Engineering Geothermal Resources for Energy Sustainability” <i>Department of Earth and Atmospheric Sciences Seminar</i> . Cornell University. Ithaca, NY. March 5, 2014. Oral. 16. <b>Bielicki, J.</b> “Interactions Between Energy and Environmental Systems and Policy in Emerging Subsurface Energy Technologies.” <i>John Glenn School of Public Affairs Colloquium</i> , The Ohio State University. March 3, 2014. Oral.
2013	17. <b>Bielicki, J.</b> “Risks and Opportunities of Emerging Subsurface Technologies.” <i>Atmospheric, Earth, and Energy Division</i> , Lawrence Livermore National Laboratory, December 16, 2013. Oral. 18. <b>Bielicki, J.</b> “Energy Sustainability and Emerging Uses of the Subsurface.” <i>Environmental Science Graduate Program Seminar</i> , The Ohio State University. November 1, 2013. Oral. 19. <b>Bielicki, J.</b> “Unconventional Hydrocarbon Resources and the Health Hazards of Hydraulic Fracturing Fluids.” <i>Centre International de Recherche sur l'Environnement et le Développement (CIRED)</i> . Paris, France. July 11, 2013. Oral. 20. <b>Bielicki, J.</b> “Energy Sustainability and Emerging Use of the Subsurface” <i>Department of Civil, Environmental, and Geodetic Engineering; City and Regional Planning Section, Knowlton School of Architecture. College of Engineering</i> . The Ohio State University, Columbus, Ohio. February 7, 2013. Oral. 21. <b>Bielicki, J.</b> “Energy Sustainability and Emerging Use of the Subsurface” <i>Center for Advanced Energy Studies</i> , Idaho Falls, Idaho. January 17, 2013. Oral.
2012	22. <b>Bielicki, J.</b> “Sustainability, Learning, and the Evolution of Energy Technology Deployment.” <i>Arizona State University, School of Sustainability Studies</i> , March 26, 2012. Oral. 23. <b>Bielicki, J.</b> “Your View or Mine: Spatial CO <sub>2</sub> Storage Risk from Various Stakeholder Perspectives.” <i>Los Alamos National Laboratory, Earth and Environmental Science Seminar</i> . March 12, 2012. Oral. 24. <b>Bielicki, J.</b> “Interdisciplinary and Multiscale Interactions and the Geography of Energy Technology Deployment.” <i>The Pennsylvania State University, Department of Geography</i> , February 10, 2012. Oral.
2011	25. <b>Bielicki, J.</b> “Efficient Climate Change Mitigation: Returns to Scale Lessons for Carbon Dioxide Capture and Storage Technology Deployment.” <i>Environmental and Natural Resource Economics Seminar</i> , University of Minnesota. St. Paul, MN. February 14, 2011. Oral 26. <b>Bielicki, J.</b> (Presenter), Middleton, R., Kuby, M., Phillip, B. “SimCCS/SimWIND: Scaleable infrastructure model for Carbon Capture and Storage/Wind-Generated Electricity” <i>VTT Technical Research Centre of Finland</i> . Helsinki, Finland. Oral.

2010

27. **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.
28. **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.
29. **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

30. **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.
31. **Bielicki, J.** “Scaling and Organizing Carbon Dioxide Capture and Storage Deployment.” *Climate Change Research Network*, Vanderbilt University, Nashville, TN. December 4, 2009. Oral.
32. **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.
33. **Bielicki, J.** “Organizing Carbon Capture and Storage Deployment,” *Weinberg Fellowship Committee*, Oak Ridge National Laboratory. Oak Ridge, TN. April 13, 2009. Oral.
34. **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.
35. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Deployment.” *Princeton Environmental Institute*, Princeton University. Princeton, NJ. March 10, 2009. Oral.
36. **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.
37. **Bielicki, J.** “Returns to Scale for Carbon Capture and Storage Deployment.” *Resources for the Future*. Washington, DC. February 2, 2009. Oral.
38. **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

39. **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.
40. **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.
41. **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]

2023

1. **Bielicki, J.,** “T-ing Up a Hydrogen Economy that Enhances Sustainability: Interdisciplinary Breadth Among Disciplinary Depth.” *The Hydrogen-Powered Future: Transition to a New Energy Economy*, University of Oklahoma, Norman, OK. April 29, 2023. Oral
2. **Bielicki, J.,** “*EmPOWERment*: an NSF National Research Traineeship in Convergent Graduate Training for a Sustainable Energy Future.” Academic

	<p>Collaborations that Achieve Sustainable Operations. <i>American Association for Sustainability in Higher Education (AASHE)</i>. Webinar. February 16, 2023. Oral.</p>
2022	<ol style="list-style-type: none"> <li>3. <b>Bielicki, J.</b>, “Earth Services in Support of Flexible Geoenergy Systems.” <i>American Geophysical Union Fall Meeting</i>. GC12D-01. Chicago, IL. Hybrid. December, 12, 2022. Oral. A.</li> <li>4. <b>Bielicki, J.</b>, “Integrating Carbon Management and Renewable Energy for the Sake of the Planet.” <i>C-FARMS (Carbon Farming Alliance for Research and Management) Launch</i>. The Ohio State University. Columbus, OH. November 2, 2022. Oral.</li> <li>5. <u>Yang, Q.*</u> (presenter), <b>Bielicki, J.</b> “Pathways of Methane Control to Address Climate Change.” <i>INFORMS Annual Meeting</i>. Indianapolis, IN. Hybrid. October 18, 2022. Oral.</li> <li>6. <b>Bielicki, J.</b>, “Importance of the Energy Transition to Sustainable Energy.” <i>Research in Summer Experience (RISE), EMPOWERment Program</i>, Ohio State University. May 16, 2022. Oral.</li> </ol>
2021	<ol style="list-style-type: none"> <li>7. <b>Bielicki, J.</b>, “Carbon Management with Ohio State and Proctor &amp; Gamble.” <i>Proctor &amp; Gamble Visit</i>. November 15, 2021. Oral.</li> <li>8. <b>Bielicki, J.</b>, “Importance of the Energy Transition to Sustainable Energy.” <i>Research in Summer Experience (RISE), EMPOWERment Program</i>, Ohio State University. June 7, 2021. Oral.</li> <li>9. <b>Bielicki, J.</b>, “Energy@OSU.” <i>OSU-ENGIE Collaborative Research and Innovation Visioning Workshop, The Ohio State University</i>. Columbus, OH (Virtual). March 31, 2021. Oral.</li> <li>10. <b>Bielicki, J.</b>, “Pathways and Considerations in Alt-Academia.” <i>Undergrad to Grad Jumpstart Conference</i>. Society for Women Engineers. The Ohio State University. (Virtual). Columbus, OH. March 28, 2021. Panelist.</li> <li>11. <b>Bielicki, J.</b>, “Leakage Risk, Secondary Trapping, and Pressure Relief through Geothermal Energy Production for Advancing Geologic CO<sub>2</sub> Storage.” <i>KAUST VIRTUAL RESEARCH CONFERENCE 2021: Enabling CO<sub>2</sub> Geological Storage within a Low-Carbon Economy, King Abdullah University of Science and Technology (KAUST)</i>. Saudi Arabia (Virtual). February 23, 2021. Oral.</li> </ol>
2020	<ol style="list-style-type: none"> <li>12. <b>Bielicki, J.</b>, <u>Ogland-Hand, J.*</u>, Buscheck, T., Adams, B., Saar, M. “Sedimentary Basin Geothermal Resources for Energy Production and Storage and Positive Effects in Regional Electricity Systems.” <i>KAUST Research Conference on Geothermal Energy Maturation</i>. Saudi Arabia, January 23-27, 2020. Oral.</li> </ol>
2019	<ol style="list-style-type: none"> <li>13. <b>Bielicki, J.</b>, 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.” <i>American Geophysical Union Fall Meeting</i>. GC42A-05. San Francisco, CA. December, 12, 2019. Oral. A.</li> <li>14. <b>Bielicki, J.</b> “Mapping Socioeconomic Scenarios for Subnational FEW Research.” <i>13<sup>th</sup> Annual US-China Eco-Environmental Symposium</i>. Seattle, WA. October 27, 2019. Oral.</li> <li>15. <b>Bielicki, J.</b>, <u>Ogland-Hand, J.*</u>, <u>Miranda, M.*</u> (Presenter), <u>Maldonado, S.*</u>, <u>Howard, C.***</u>, Adams, B., Saar, M., Middleton, R. “Geospatial Optimization of Infrastructure for CO<sub>2</sub>-based Geothermal Electricity Generation”. <i>INFORMS Annual Meeting</i>. Seattle, WA. October, 21, 2019. Oral.</li> <li>16. <u>Ogland-Hand, J.*</u> (Presenter), <b>Bielicki, J.</b>, <u>Nelson, E.***</u>, Adams, B., Buscheck, T. Saar, M., Sioshansi, R. “Using Geologically Stored CO<sub>2</sub> and Geothermal Energy to Decarbonize the Electricity System.” <i>INFORMS Annual Meeting</i>. Seattle, WA. October, 20, 2019. Oral.</li> <li>17. <b>Bielicki, J.</b> “Isolating CO<sub>2</sub> (Underground) Away from the Atmosphere.” <i>Research to Action: The Science of Drawdown. Penn State University</i>. September, 17, 2019. Oral.</li> </ol>

2018

18. **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.
19. **Bielicki, J.** "Energy Impacts: Mitigation and Decarbonization of Energy Systems." *Climate Symposium*. Byrd Polar Center. Ohio State University. Columbus, OH. March 22, 2019. Oral.
20. 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.
21. **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.
22. 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 CO<sub>2</sub> Emissions from Regional Electricity Systems." Presented at *INFORMS Annual Meeting*. Phoenix, AZ. November 4-7, 2018. Oral.
23. Ogland-Hand, J.\* (Presenter), **Bielicki, J.**, Nelson, E.\*\*\*, Adams, B., Buscheck, T., Saar, M., Sioshansi, R. "Optimizing the Use of CO<sub>2</sub> Bulk Energy Storage for Transmission Deferral." Presented at *INFORMS Annual Meeting*. Phoenix, AZ. November 4-7, 2018. Oral.
24. **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.
25. **Bielicki, J.** "Techno-Economic Modeling of Geothermal Energy: A Case Study of CO<sub>2</sub> Plume Geothermal Energy Production." *Great Lakes SedHEAT Incubator Workshop*. Case Western University. Cleveland, OH. February 19, 2018. Oral.

2017

26. 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 CO<sub>2</sub>." *American Geophysical Union Fall Meeting*. H42D-01. New Orleans, LA. December 14, 2017. Oral. A.

2016

27. **Bielicki, J.** "Using CO<sub>2</sub> to Produce and Store Renewable Energy." *16<sup>th</sup> Polish-American Science & Technology Conference*. Warsaw, Poland. May 16-17, 2016. Oral.
28. 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.
29. **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 2<sup>nd</sup> Combined Meeting of the Modeling and Monitoring Networks*. July 6-8, 2016. Edinburgh, Scotland.
30. **Bielicki, J.** (Presenter), Buscheck, T., Randolph, J. "Carbon Dioxide Plume Geothermal: Using CO<sub>2</sub> 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.
31. 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	32. <b>Bielicki, J.</b> (Presenter), Buscheck, T., Saar. M. "Using CO <sub>2</sub> to Produce and Store Geothermal Energy." <i>15<sup>th</sup> Polish-American Science &amp; Technology Conference</i> . Columbus OH. May 28-29, 2015. Oral.
2014	33. <b>Bielicki, J.</b> (Presenter), Buscheck, T., Saar M., Ogland-Hand, J.* "Using Carbon Dioxide for Renewable Energy Production from Geothermal, Wind, and Solar Resources." <i>Ohio Conference on the Sustainable Use of Greenhouse Gases</i> . August 18, 2014. Columbus, OH. Oral.
2010	34. <b>Bielicki, J.</b> "Issues and Lessons for Carbon Dioxide Capture and Storage." <i>Political Economy of Science and Technology</i> , University of Tennessee. March 23, 2010. Oral. 35. <b>Bielicki, J.</b> "Data Generated and Needs for Carbon Dioxide Capture and Storage." (2010). <i>Earth System Information Partners Summer Meeting, Energy Cluster</i> . Knoxville, TN. July 22, 2010. Oral.
2009	36. <b>Bielicki, J.</b> "Issues for Carbon Dioxide Capture and Storage," <i>Environmental Policy's New Horizon: From the Clean Air Act to Greenhouse Gas Regulations</i> , Baker Center for Public Policy, University of Tennessee, Knoxville, TN. October 29, 2009. Oral. 37. <b>Bielicki, J.</b> "Organizing Large Scale Deployment of Carbon Dioxide Capture and Storage," <i>Research Experience in Carbon Sequestration 2009</i> , University of New Mexico, Albuquerque, NM. July 27, 2009. Oral.
2008	38. <b>Bielicki, J.</b> "Infrastructure Modeling and Organizing Carbon Capture and Storage," <i>Research Experience in Carbon Sequestration 2008</i> , University of New Mexico, Albuquerque, NM. July 29, 2008. Oral. 39. <b>Bielicki, J.</b> "Geospatial Modeling and Organizing Carbon Capture and Storage Deployment," <i>North American Carbon Capture and Storage Association Annual Meeting</i> . Washington DC. December 3, 2008. Oral. 40. <b>Bielicki, J.</b> "Infrastructure Modeling for Carbon Capture and Storage: Issues for Scale and Viability" <i>Workshop on Subseabed Storage of CO<sub>2</sub></i> , Lenfest Center for Sustainable Energy, Columbia University. April 29, 2008. Oral.
2007	41. <b>Bielicki, J.</b> "The Influence of Carbon Capture and Storage on the Location of Industrial Facilities," <i>Research Experience in Carbon Sequestration 2007</i> , Montana State University, Bozeman, MT. August 2007. Oral. 42. <b>Bielicki, J.</b> "Worldwide Prospectivity for Permanent CO <sub>2</sub> Storage in Deep Sea Sediment," <i>Research Experience in Carbon Sequestration 2007</i> , Montana State University. Bozeman, MT. August 2007. Poster.

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

2023	1. <b>Bielicki, J.</b> , Gingerich, D., Hood, D., Jcqueet, J., Le, H., Leveni, M., May, A., Abrahmson, L., McAdams, J., Beck, E., Filiatraut, B., Stephens-Rich, M., "FLEETS for All: Facilitating Localized Electrified Energy Services for All." <i>Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference</i> . Boston, MA. June 20-23, 2023. Oral. 2. Leveni, M., <b>Bielicki, J.</b> , Ellis, B. "Impact of Geological and Operational Conditions on Heterogeneous Subsurface Systems: a Case Study on CO <sub>2</sub> -driven Geothermal Utilization Systems." <i>Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference</i> . Boston, MA. June 20-23, 2023. Poster. 3. Yang, Q.*, <b>Bielicki, J.</b> , "Pathways of Methane Control to Address Climate Change." <i>Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference</i> . Boston, MA. June 20-23, 2023. Poster.
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2022

4. Sioshansi, R., Mayhew, M., Irwin, E., Ramnath, R., **Bielicki, J.** “NRT-HDR: Convergent Graduate training and EmpOWERment for a Sustainable Energy Future.” *Annual NSF National Research Traineeship Meeting*. Virginia Technological University. Blacksburg, VA. October 17-19, 2022. Poster.
5. Yang, Q.\* (presenter), **Bielicki, J.** “Pathways of Methane Control to Address Climate Change.” *2<sup>nd</sup> International Conference on Negative CO<sub>2</sub> Emissions*. Chalmers University. Göthenburg, Sweden. June 14-17, 2022. Pre-recorded Oral.
6. Leveni, M.\* (presenter), **Bielicki, J.** “Yang, Q.\* (presenter), Bielicki, J. “Pathways of Methane Control to Address Climate Change.” *2<sup>nd</sup> International Conference on Negative CO<sub>2</sub> Emissions*. Chalmers University. Göthenburg, Sweden. June 14-17, 2022. Pre-recorded Oral.
7. Leveni, M.\*, **Bielicki, J.** “The Potential of Coupled Geothermal Energy Production, and Direct Air CO<sub>2</sub> Capture with Long-term CO<sub>2</sub> Storage.” *2022 AEESP Conference, June 26-30, 2022*. St. Louis, MO. Oral.
8. West, P., Thompson, E., Regnier, G., Bahlali, M., Salinas, P., Leveni, M.\*, **Bielicki, J.**, Ellis, B. “Surface-Based Reactive Transport Modeling of CO<sub>2</sub>-Geothermal Energy Production with Dynamic Mesh Optimization.” *2022 AEESP Conference, June 26-30, 2022*. St. Louis, MO. Poster.
9. Liu, X., **Bielicki, J.**, Miranda, M.\*, Johnson, J. “Assessing the Life Cycle Greenhouse Gas Emissions of Sedimentary Basin CO<sub>2</sub>-Enabled Geothermal Power.” *2022 AEESP Conference, June 26-30, 2022*. St. Louis, MO. Oral.
10. Ellis, B., Johnson, J., Leveni, M.\*, **Bielicki, J.** “CO<sub>2</sub> Utilization for Geothermal Energy Production and Renewable Energy Storage.” *2022 AEESP Conference, June 26-30, 2022*. St. Louis, MO. Oral.
11. **Bielicki, J.** “Team Science in Highly Interdisciplinary Participatory Projects: Insights from Participatory Stakeholder Engagement in Studies of Food-Energy-Water Systems.” *2022 AEESP Conference, June 26-30, 2022*. St. Louis, MO. Oral.
12. **Bielicki, J.**, Irwin, E., Bakshi, B., Cai, Y., Doidge, M., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I., Wilson, R. “Systems Analysis and Participatory Engagement for Food, Energy, and Water Systems in the U.S. Great Lakes Region where Trade and Sustainability Intersect.” *NSF INFEWS PI Meeting (Virtual)*, February 8-10, 2022. Princeton University, Princeton, NJ. Oral.

2021

13. Leveni, M.\*, **Bielicki, J.**, West, P., Ellis, B. “Sedimentary Basin CO<sub>2</sub>-Driven Geothermal Utilization Systems: the Impact of the Geological Heterogeneity.” *American Geophysical Union Fall Meeting*. MR55B-0019. New Orleans, LA. Hybrid. December 13-17, 2021. Poster. A.
14. Johnson, J., **Bielicki, J.**, Liu, X., Ellis, B., Miranda, M.\* “Life Cycle Greenhouse Gas Emissions of CO<sub>2</sub>-enabled Sedimentary Basin Geothermal.” *American Geophysical Union Fall Meeting*. GC11C-04. New Orleans, LA. Hybrid. December 13-17, 2021. Oral. A.
15. Chun, S.\*, Kast, J., **Bielicki, J.**, Martin, J., Muenich, R., Wang, Y.-C., Bakshi, B. “Developing a Machine learning Regional Watershed Model from Individual Soil and Water Assessment Tool models for Western Lake Erie.” *American Geophysical Union Fall Meeting*. H25T-1248. New Orleans, LA. Hybrid. December 13-17, 2021. Poster. A.
16. Leveni, M.\*, **Bielicki, J.**, “Direct Air CO<sub>2</sub> Capture with Geothermal Energy Production from the Extracted and Geologically Stored CO<sub>2</sub>” *American Geophysical Union Fall Meeting*. GC12C-03. New Orleans, LA. Hybrid. December 13-17, 2021. Oral. A.
17. **Bielicki, J.**, Vesi, H., Jackson-Smith, D. “Opportunities and Challenges in Integrating Scientists and Stakeholders in FEWs Studies.” *American Geophysical Union Fall Meeting*. GC31B-08. New Orleans, LA. Hybrid. December 13-17, 2021. Oral. A.
18. **Bielicki, J.**, “Scenarios for the U.S. Great Lakes Region Using SSPs, Government Agency Modeling, Stakeholder Elicitation, and Iterative Participatory Processes: A Focus on Energy in an Interconnected Region.” *Fourteenth Annual Integrated Assessment Modeling Forum Meeting*. Online. December 1, 2021. Oral.

2020

19. **Bielicki, J.**, “Introduction and Energy Sustainability.” *Energy Transition and Decarbonization. Inaugural Symposium for the OSU Sustainability Institute*. Columbus, OH. (Virtual). February 10, 2021.
20. Yaw, S., Middleton, R., Hoover, B., Ellet, K., **Bielicki, J.** “Modelling Temporally Phased CO<sub>2</sub> Capture and Storage Infrastructure.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 14-18, 2021. Poster. P.
21. Yaw, S., Whitman, C., Middleton, R., Hoover, B., Ellet, K., **Bielicki, J.** “Beyond Regional CCS: Scalable Algorithms for Designing Massive CO<sub>2</sub> Capture and Storage Infrastructure.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 14-18, 2021. Oral. P.
22. **Bielicki, J.**, Miranda, M.\* “Probabilistic Estimation of Levelized Cost of Electricity from Using Geologically Stored CO<sub>2</sub> for Geothermal Energy Production.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 14-18, 2021. Poster. P.
23. Middleton, R., Ellet, K., Kammer, R., **Bielicki, J.**, Hoover, B., Yaw, S. “Gigatonne One.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 18, 2021. Oral. P.
24. Middleton, R., Chen, B., **Bielicki, J.**, Ellet, K., Kammer, R., “Great SCO<sub>2</sub>T! Rapid Tool for Geologic Carbon Sequestration Science, Engineering, and Economics.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 16, 2021. Oral. P.
25. **Bielicki, J.**, De Luca, M.\*, Middleton, R., Langenfeld, J., “CCS Infrastructure Deployment Considering Reservoir Leakage Risk.” *15<sup>th</sup> International Greenhouse Gas Technologies Conference*, Abu Dhabi, UAE. (Virtual) March 14-18, 2021. Poster. P.
26. **Bielicki, J.**, Irwin, E., Bakshi, B., Cai, Y., Doidge, M., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I. Wilson, R. “Evolutions in Food, Energy, and Water Systems at the Intersection of Sustainability and Trade.” *American Geophysical Union, Fall Meeting*, San Francisco, CA (Virtual), December 9, 2020. A.
27. **Bielicki, J.**, Irwin, E., Bakshi, B., Cai, Y., Doidge, M., Jackson-Smith, D., Martin, J., Randall, A., Sheldon, I. Wilson, R. “Scenarios for the U.S. Great Lakes Region Using SSPs, Spatially Explicit Data, and Iterative Participatory Processes.” *13<sup>th</sup> Integrated Assessment Modeling Consortium Meeting* (Virtual), December 4, 2020.
28. Gingerich, D. (Presenter), Qin, Y., **Bielicki, J.**, “Evaluating Economic Recovery Investments in Electricity to Create Jobs and Low-Carbon Electricity.” *13<sup>th</sup> Integrated Assessment Modeling Consortium Meeting* (Virtual), December 4, 2020.
29. Miranda, M.\* (Presenter), Chun, S.\*, **Bielicki, J.**, Cheng, C-M. “Assessing the Environmental and Economic Impacts of Producing Rare Earth Elements and Treating Coal Mine Drainage: A Techno-Economic and Life Cycle Assessment” *American Institute of Chemical Engineers Annual Meeting*. (Virtual). November 16, 2020. <https://www.youtube.com/watch?v=LVn9FaDKXMk>
30. Cheng, C-M. (Presenter), Butalia, T., Lenhart, J., **Bielicki, J.**, “Distributions of Rare Elements in Coal Mine Drainages.” *14<sup>th</sup> International Minewater Association Congress*, Christchurch, New Zealand (Virtual), November 9-13, 2020.
31. Cheng, C-M., Butalia, T., Lenhart, J., **Bielicki, J.**, “Recovering Rare Earth Elements from Acid Mine Drainage with Mine Land Reclamation.” *14<sup>th</sup> International Minewater Association Congress*, Christchurch, New Zealand (Virtual), November 9-13, 2020.
32. Chun, S.\* (Presenter), Miranda, M.\*, **Bielicki, J.**, Cheng, C-M. “Environmental Benefits of Producing Rare Earth Elements and Treating Acid Mine Drainage.” *Environmental Science Graduate Program Research Seminar*. Columbus, OH. February 28, 2020. Poster.

2019

33. Ogland-Hand, J.\* (Presenter), **Bielicki, J.**, Miranda, M.\*, Patel, I.\*, Adams, B., Buscheck, T. Mansoor, K., Saar, M. “Optimal Heat Mining for Geothermal Energy Production.” *INFORMS Annual Meeting*. Seattle, WA. October, 20, 2019. Oral.



34. Cheng, C-M. (Presenter), Butalia, T., **Bielicki, J.**, Lenhart, J. "Recovering Rare Earth Elements from Acid Mine Drainage through Abandoned Mine Land Reclamation." *World of Coal Ash Conference*. St. Louis, MO. May 13-16, 2019. Oral.
35. **Bielicki, J.**, Irwin, E. Bakshi, B., Cai, Y., Jackson-Smith, D., Martin, J., Randall, A. Sheldon, I. Wilson, R. Doidge, M., Beetstra, M., Chun, S.\*, Cultice, B., Gong, Z., Guo, Z., Kast, J., Tang, S., Wang, Y.\*, Pottschmidt, A.\*, Dora de Melo, D.\* "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." *Scenarios Forum*. University of Denver. Denver, CO. March 11-13, 2019. Oral.
36. **Bielicki, J.**, Irwin, E. Bakshi, B., Cai, Y., Jackson-Smith, D., Martin, J., Randall, A. Sheldon, I. Wilson, R. Doidge, M., Beetstra, M., Chun, S., Cultice, B., Gong, Z., Guo, Z., Kast, J., Tang, S., Wang, Y.\* "The Dynamic Regional Food, Energy, Water Systems Framework for Investigating Effects of Deglobalization." GC52B-06. *American Geophysical Union. Fall Meeting* Washington DC. December 14, 2018. Oral. A.
37. 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." *INFORMS Annual Meeting*. Phoenix, AZ. November 4, 2018. Oral.
38. Ogland-Hand, J.\*, Miranda, M.\*, **Bielicki, J.**, Adams, B., Buscheck, T., Saar, M. "Potential Mechanisms for Using Geologically Stored CO<sub>2</sub> for Seasonal Energy Storage." *14<sup>th</sup> International Greenhouse Gas Technologies Conference*. Melbourne, Australia. October 23, 2018. Oral.
39. Ogland-Hand, J.\*, Miranda, M.\*, **Bielicki, J.**, Adams, B., Buscheck, T., Saar, M. "Operational Characteristics of Geologic CO<sub>2</sub> Storage Bulk Energy Storage Technology." *14<sup>th</sup> International Greenhouse Gas Technologies Conference*. Melbourne, Australia. October 23, 2018. Poster.
40. Cheng, C., Butalia, T., **Bielicki, J.**, Lenhart, J. Ziemkiewicz, P. "Recovering Rare Earth Elements from Acid Mine Drainage." *Ohio Mineland Partnership 2018 Fall Conference*. New Philadelphia, OH. October 16, 2018. Oral.
41. Ogland-Hand, J.\*, Miranda, M.\*, **Bielicki, J.**, Adams, B., Nelson, E.\*, Buscheck, T., Saar, M. Sioshansi, R. "Using Geothermal Resources to Increase Utilization of Wind Energy Technologies and Transmission Infrastructure." *Geothermal Resources Council Annual Meeting*. Las Vegas, NV. October 8, 2018. Oral.
42. Wang, Y.\* (Presenter), **Bielicki, J.** "Input-Output Modeling of Food-Energy-Water Nexus-Economy Interactions for the United States." *International Conference on Resource Sustainability (icRS)*. Beijing, China. June 27, 2018. Oral.
43. **Bielicki, J.** (Presenter), Ogland-Hand, J.\* "Optimally Extracting Geothermal Heat from Sedimentary Basins using Carbon Dioxide." *Resources for Future Generations 2018*. Vancouver, BC. Canada. June 20, 2018. Oral.
44. 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.
45. 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 CO<sub>2</sub>." *43<sup>rd</sup> Workshop on Geothermal Reservoir Engineering*. Stanford, CA. February 14, 2018. Oral. P.
46. 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." *43<sup>rd</sup> Workshop on Geothermal Reservoir Engineering*. Stanford, CA. February 14, 2018. Oral. P.

2017

47. **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.
48. 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.
49. Hunter, K.\* (Presenter), **Bielicki, J.**, Ogland-Hand, J.\*, Harp, J., Middleton, R., Stauffer, P., Pawar, R. (2017). "Integrating CO<sub>2</sub> Capture and Storage with Enhanced Water Recovery." *Women in Clean Energy C3E Symposium*. Massachusetts Institute of Technology, Cambridge, MA. November 17, 2017. Poster.
50. 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.
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131. Saar, M., Adams, B.\*\*, Kuehn, T., Mevissen, A.\*\*, Paine, N.\*\*, Pollak, M. (Presenter), Randolph, J.\*\*, Smale, A.\*\*, Taff, S., **Bielicki, J.**, Wilson, E., "CO<sub>2</sub> Plume Geothermal (CPG) Energy Production at Geologic Sequestration Sites." *DOE-NETL 10<sup>th</sup> Annual Conference on Carbon Capture, Utilization, and Sequestration*. Pittsburgh, PA. April 30-May 3, 2012. Poster.
- 2011
132. **Bielicki, J.** (Presenter), Pollak, M., Wilson, E., Elliot, T., Guo, B.\*\*\*, Nogues, J.\*\*\*, Peters, C., Fitts, J. "Your View or Mine: Spatially Quantifying CO<sub>2</sub> Storage Risk from Multiple Stakeholder Perspectives." *American Geophysical Union Fall Meeting*. H42C-08. San Francisco, CA. December 5-9, 2011. Oral. A.
133. Guo, B.\*\*\* (Presenter), Matteo, E.\*\*\*, Elliot, T., Nogues, J.\*\*\*, Deng, H.\*\*\*, Fitts, J., Pollak, M., **Bielicki, J.**, Wilson, E., Celia, M., Peters, C. "Semi-analytical estimation of wellbore leakage risk during CO<sub>2</sub> sequestration in Ottawa County, Michigan." *American Geophysical Union Fall Meeting*. GC51A-0948. San Francisco, CA. December 5-9, 2011. Poster. A.
134. **Bielicki, J.** (Presenter), Bael, D.\*\*, Pollak, M., Rahimi, M.\*\*, Wilson, E. "RISCS: Risk Interference of Subsurface CO<sub>2</sub> Storage." *Sixth Trondheim CCS Conference on CO<sub>2</sub> Capture, Transport, and Storage*. Trondheim, Norway. June 14-16, 2011. Oral.
135. Calas, G.\*\*\*, Ha-Dong, M., **Bielicki, J.** (Presenter), Middleton, R. "Simulated CO<sub>2</sub> Pipeline Networks for CCS in France." *Sixth Trondheim CCS Conference on CO<sub>2</sub> Capture, Transport, and Storage*. Trondheim, Norway. June 14-16, 2011. Poster.
136. 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.
137. Pollak, M. (Presenter), **Bielicki, J.**, Dammel, J.\*\*, Rahimi, M.\*\*, Wilson, E. "Integrating Geologic Carbon Dioxide Storage with Other Subsurface Activities." (2011). *DOE-NETL 9<sup>th</sup> Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Oral.
138. Pollak, M. (Presenter), Bael, D.\*\*, **Bielicki, J.**, Rahimi, M.\*\*, Wilson, E. "Interference and CO<sub>2</sub> Storage." *DOE-NETL 9<sup>th</sup> Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Oral.
139. 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 9<sup>th</sup> Annual Conference on Carbon Capture and Sequestration*. Pittsburgh PA. May 2-5, 2011. Poster.
- 2010
140. Kuby, M., Middleton, R., Keating, G., **Bielicki, J.** (Presenter) "Analysis of Cost Savings from Networking Pipelines in CCS Infrastructure Systems." *10<sup>th</sup> International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. Poster. P.
141. Middleton, R. (Presenter), Keating, G., Pawar, R., Stauffer, P., **Bielicki, J.** "Jumpstarting CCS using Oil Refinery CO<sub>2</sub> for Enhanced Oil Recovery." (2010). *10<sup>th</sup> International Greenhouse Gas Technologies Conference*. Amsterdam, The Netherlands. September 19-23, 2010. Oral. P.
142. **Bielicki, J.** "Evolving Carbon Dioxide Capture and Storage Deployment: Lessons from CO<sub>2</sub> Enhanced Oil Recovery." (2010). *DOE-NETL 8<sup>th</sup> Annual Conference on Carbon Capture and Sequestration*, Pittsburgh, PA May 5-8, 2010. Oral.
- 2009
143. Middleton, R., Phillips, B. (Presenter), **Bielicki, J.** "The Optimal Spatial Deployment of Wind-Energy and Electricity Transmission Infrastructure." *American Geophysical Union Fall Meeting*. A31F-0192. December 14-18, 2009. Poster. A.



	<p>144. <b>Bielicki, J.</b> “The State of Carbon Dioxide Capture and Storage,” <i>Carbon Capture and Storage Workshop, Oak Ridge National Laboratory</i>, Oak Ridge, TN. September 9, 2009. Oral.</p> <p>145. Kuby, M., Middleton, R. (Presenter), <b>Bielicki, J.</b> “The Spatial Deployment of Carbon Capture and Storage with a Price on Carbon Dioxide.” <i>Geological Science of America Annual Meeting</i>, Portland OR, October 18-21, 2009. Oral.</p> <p>146. <b>Bielicki, J.</b> “An Empirical Learning Curve for Geologic CO<sub>2</sub> Injection.” <i>DOE-NETL 7<sup>th</sup> Annual Conference on Carbon Capture and Sequestration</i>, Pittsburgh, PA. May 4-7, 2009. Oral.</p> <p>147. Kuby, M., <b>Bielicki, J.</b> (Presenter), Middleton, R. “The Spatial Deployment of Carbon Capture and Storage with a Price on Carbon Dioxide.” <i>DOE-NETL 7<sup>th</sup> Annual Conference on Carbon Capture and Sequestration</i>, Pittsburgh, PA. May 4-7, 2009. Oral.</p>
2008	<p>148. <b>Bielicki, J.</b> “Spatial Clustering and Carbon Capture and Storage Deployment.” (2008) <i>9<sup>th</sup> International Greenhouse Gas Technologies Conference</i>, Washington DC. November 17-20, 2008. Oral. P.</p> <p>149. Middleton, R. (Presenter), <b>Bielicki, J.</b> “A Comprehensive Carbon Capture and Storage Model.” (2008) <i>9<sup>th</sup> International Greenhouse Gas Technologies Conference</i>, Washington DC. November 17-20, 2008. Poster. P.</p> <p>150. Stephens, J. (Presenter), <b>Bielicki, J.</b>, Rand, G.*** “Learning about Carbon Capture and Storage: Changing Stakeholder Perception with Expert Information.” <i>9<sup>th</sup> International Greenhouse Gas Technologies Conference</i>, Washington DC. November 17-20. Oral. P.</p> <p>151. Middleton, R., <b>Bielicki, J.</b>, Kuby, M. (Presenter) “A Pipeline Network Design Model for Geologic Carbon Sequestration and Carbon Credit Pricing.” (2008) <i>ISOLDE: International Symposium on Locational Decisions</i>, Santa Barbara, CA, July, 2008. Oral.</p> <p>152. <b>Bielicki, J.</b> “Returns to Scale for Carbon Capture and Storage Infrastructure and Deployment,” <i>DOE- NETL 6<sup>th</sup> Annual Conference on Carbon Capture and Sequestration</i>, Pittsburgh, PA. May 5-8. Oral. P.</p>
2007	<p>153. <b>Bielicki, J.</b> “The Viability of Permanent Carbon Capture and Storage in Deep Sea Sediment,” (2007) <i>American Geophysical Union Fall Meeting</i>. U42A-04. San Francisco, CA. Oral. A.</p> <p>154. Middleton, R. (Presenter), <b>Bielicki, J.</b> “The Carbon Capture and Storage Optimization Problem.” <i>North American Regional Science Conference</i>. Savannah, GA. November 2007. Oral.</p>
2006	<p>155. <b>Bielicki, J.</b> (Presenter), Schrag, D. “The Influence of Carbon Capture and Storage on the Location of Electric Power Generation.” <i>8<sup>th</sup> International Conference on Greenhouse Gas Technologies</i>. Trondheim, Norway. June 19-22, 2006. Poster. P.</p>
1999	<p>156. Bieniosek, F. (Presenter), Kurnaev, O. Cherepakhin, A., <b>Bielicki, J.</b>, Dinkel, J. “Beam Sweeping System” (1999) <i>IEEE Particle Accelerator Conference</i>, New York, NY. May 1999, Oral. P.</p>
1992	<p>157. Peterson, M., Bora, B. and others. “An Expert System for Design for Manufacturability using the Gold Works III Expert System Shell” <i>Argonne Symposium for Undergraduates in Science, Engineering, and Mathematics</i>, Argonne National Laboratory, Argonne, IL. November 1992. Poster.</p>

#### **OTHER PRESENTATIONS**

2022	<p>1. <b>Bielicki, J.</b>, “Eco-Sustainability and Energy Innovation: Ohio State and Cisco.” <i>Visit by Cisco</i>. The Ohio State University. Columbus, OH. August 5, 2022.</p>
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	<p>2. <b>Bielicki, J.</b>, “Energy and Climate at Ohio State.” <i>Visit by Pontifica Universidad Catholica de Chile to Environmental Science Graduate Program</i>. The Ohio State University. Columbus, OH. August 2, 2022.</p>
2020	<p>3. <b>Bielicki, J.</b>, “Mitigating Climate Change by Using Carbon Dioxide to Produce and Store Energy.” <i>Princeton University ZERO Lab – Jenkins Group</i>. Princeton University. Princeton, NJ. October 16, 2020.</p> <p>4. <b>Bielicki, J.</b>, “How I Teach (Educate?, Endow?, Motivate?, Inspire?)” <i>Department of Civil, Environmental, and Geodetic Engineering</i>. The Ohio State University. Columbus, OH. April 3, 2020. Oral.</p> <p>5. <b>Bielicki, J.</b>, “(Quantifying and) Mapping Socioeconomic Scenarios for Subnational FEWS Research.” <i>INFEWS Team Meeting</i>. Ohio State University. Columbus, OH. February 17, 2020. Oral.</p>
2019	<p>6. <u>Miranda, M.*</u> (Presenter), <u>Chun, S.*</u>, <b>Bielicki, J.</b>, Cheng, C-M. “Techno Economic Assessment for Recovery of Rare Earth Elements from AMD Waters.” <i>Visit from U.S. Department of Energy, National Energy Technology Laboratory, Program Officer</i>. October 9, 2019. Oral.</p> <p>7. <b>Bielicki, J.</b>, “Scenarios and their Construction.” <i>Research Advisory Council Meeting of INFEWS Deglobalization Project</i>. May 1, 2019. Columbus OH. Oral.</p> <p>8. <b>Bielicki, J.</b>, “Bielicki Research Chart.” <i>Ford Automotive Visit</i>. Ohio State University. Columbus, OH. April 4, 2019. Oral.</p>
2017	<p>9. <u>Wang, Y.*</u> (Presenter), Simon, E., Parkinson, S., Wada, Y., Riahi, K., <b>Bielicki, J.</b>, “The Vulnerability of Electricity Generation under Changes in Water Temperature and Availability.” <i>Young Scientists Summer Program Symposium, International Institute of Applied Systems Analysis</i>. Laxenburg, Austria. August 22, 2017. Oral.</p> <p>10. <u>Nelson, E.***</u> (Presenter), <b>Bielicki, J.</b>, Sioshansi, R., <u>Ogland-Hand, J.*</u> “The Value of Using Carbon Dioxide and Geothermal Resources in Transmission Constrained Electricity Systems.” <i>2017 Summer Research Opportunities Program</i>. Columbus, OH. July 27, 2017. Oral.</p> <p>11. <u>Nelson, E.***</u> (Presenter), <b>Bielicki, J.</b>, Sioshansi, R., <u>Ogland-Hand, J.*</u> “The Value of Using Carbon Dioxide and Geothermal Resources in Transmission Constrained Electricity Systems.” <i>2017 Summer Research Opportunities Program</i>. Columbus, OH. July 27, 2017. Poster.</p> <p>12. <u>Wang, Y.*</u> (Presenter), Simon, E., Parkinson, S., Wada, Y., Riahi, K., <b>Bielicki, J.</b>, “The Vulnerability of Coal-Fired Power Plants to Water Shortage in Asia under Climate Change and Capacity Expansion.” <i>Hayes Graduate Forum. The Ohio State University</i>. Columbus, OH. March 2, 2018. Oral.</p> <p>13. <b>Bielicki, J.</b> (Presenter), <u>Rath, A.*</u>, Gopalakrishnan, S., Carlarne, C. “Earth Services: Fuller Accounting of Human Benefit from the Planet.” <i>OSU Discovery Theme Showcase</i>. Columbus, OH., November 15, 2017. Oral.</p>
2016	<p>14. <b>Bielicki, J.</b>, “Energy Storage in Sedimentary Basin Geothermal Resources.” <i>NSF SedHeat Research Coordination Network Incubator Workshop</i>. August 15-16, 2016. Columbus, Ohio. Oral.</p> <p>15. <u>DeLuca, M.*</u> (Presenter), <b>Bielicki, J.</b>, “Infrastructure Deployment for CO<sub>2</sub> Capture and Storage that is Robust to Reservoir Leakage Risk.” <i>The Richard D. and Martha J. Denman Undergraduate Research Forum</i>. Columbus, OH. March 30, 2016. Oral.</p> <p>16. <u>Shaheen, N.*</u> (Presenter), <b>Bielicki, J.</b>, “Spatial Association Analysis of Geothermal Tracer Pathways.” <i>Spring Undergraduate Research Expo</i>. The Ohio State University. Columbus, OH. March 30, 2016. Poster.</p>

2015	<p>17. <b>Bielicki, J.</b> "Pillars of Energy Sustainability." <i>Integrated Assessment Modeling Group, Sustainable and Resilient Economy Discovery Theme Program</i>. The Ohio State University. Columbus, OH. October 14, 2015. Oral.</p> <p>18. <u>Langenfeld, J.*</u> (Presenter), <b>Bielicki, J.</b>, "Geospatial and Economic Viability of CO<sub>2</sub> Storage in Fractured Shale and Saline Aquifers." <i>Graduate Engineering Research Colloquium</i>. The Ohio State University. Columbus, OH. October 2, 2015. Poster.</p> <p>19. <u>Patel, I.*</u> (Presenter), <b>Bielicki, J.</b>, "Optimal Operation of Geothermal Heat Extraction." <i>Graduate Engineering Research Colloquium</i>. The Ohio State University. Columbus, OH. October 2, 2015. Poster.</p> <p>20. <b>Bielicki, J.</b> (Presenter), Deng, H.***, Pollak, M., Wilson, E., Fitts, J., Peters, C., "Monetizing Geologic CO<sub>2</sub> Storage Leakage Risk." Presented at <i>U.S. Department of Energy Carbon Storage R&amp;D Project Review Meeting</i>. August 18-20, 2015. Pittsburgh, PA. Poster.</p> <p>21. <b>Bielicki, J.</b> "Personal, Climatic, and Research Juxtapositions: Using CO<sub>2</sub> for Renewable Energy Generation." <i>STEAM Exchange</i>, Ohio State University. Columbus, OH. January 22, 2015. Oral.</p>
2014	<p>22. <b>Bielicki, J.</b> "Moneyball and the Glenn School." <i>M.P.A. Orientation</i>. John Glenn School of Public Affairs. The Ohio State University. August 20, 2014. Columbus, OH. Oral.</p>
2013	<p>23. <b>Bielicki, J.</b> (Presenter). "Summary of Multi-Fluid Geothermal". (2013). <i>Penrose Conference: Predicting and Detecting Natural and Induced Flow Paths for Geothermal Fluids in Deep Sedimentary Basins</i>. October 19-23, 2013. Park City, UT. Oral.</p> <p>24. <b>Bielicki, J.</b> (Presenter), Gilley, S., "Geothermal Energy: Enhancing our Future". (2013). <i>Penrose Conference: Predicting and Detecting Natural and Induced Flow Paths for Geothermal Fluids in Deep Sedimentary Basins</i>. October 19-23, 2013. Park City, UT. Oral.</p> <p>25. Saar, M., <b>Bielicki, J.</b> (Presenter), Kuehn, T., Randolph, J., Taff, S. "A Novel Method Using Carbon Dioxide and Geothermal Resources for Sustainable Energy Production and Storage." <i>NSF Sustainable Energy Pathways Grantees Meeting</i>. June, 2013. Washington DC. Oral.</p>
2012	<p>26. <b>Bielicki, J.</b> (Presenter), Pollak, M., Fitts, J., Wilson, E., Peters, C. "Your View or Mine: Spatial CO<sub>2</sub> Storage Risk from Various Stakeholder Perspectives." <i>Carbon Sequestration Workshop</i>, Carnegie Mellon University. January 17, 2012. Oral.</p> <p>27. <b>Bielicki, J.</b> (Presenter), Pollak, M., Fitts, J., Wilson, E., Peters, C. "Your View or Mine: Spatial CO<sub>2</sub> Storage Risk from Various Stakeholder Perspectives." <i>United States Department of Energy, National Energy Technology Laboratory, Project Update Meeting</i>, January 16, 2012. Oral.</p>
2009	<p>28. <b>Bielicki, J.</b> "Climate Change Impacts Science at Oak Ridge National Laboratory." <i>Halcrow Visit to Oak Ridge National Laboratory</i>, Oak Ridge, TN. October 27, 2009.</p> <p>29. <b>Bielicki, J.</b> "Infrastructure Deployment for Carbon Capture and Storage," <i>CO<sub>2</sub> Pipeline Modeling Meeting</i>. <i>CO<sub>2</sub> Pipeline Modeling Meeting</i>. National Energy Technology Laboratory, U.S. Department of Energy. Pittsburgh PA. January 21, 2009.</p>
2008	<p>30. <b>Bielicki, J.</b> "Princeton's Wedge Game," <i>Research Experience in Carbon Sequestration 2008</i>, University of New Mexico, Albuquerque, NM. July 20, 2008.</p>
2007	<p>31. <b>Bielicki, J.</b> "Princeton's Wedge Game," <i>Research Experience in Carbon Sequestration 2007</i>, Montana State University, Bozeman, MT. July 2007.</p>

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| 2004 | <p>32. <b>Bielicki, J.</b> (Presenter), Landguth, E.(Presenter) “Embedding Ameriflux Data.” Presented at <i>Santa Fe Institute Complex Systems Summer School</i>, Santa Fe, NM. June, 2004.</p> <p>33. Bendor, T. (Presenter), <b>Bielicki, J.</b> (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.</p> |
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## **OUTREACH, CONTINUING EDUCATION, AND BROADER IMPACTS OF RESEARCH**

### **DECISION-MAKERS AND FORUMS**

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| 2019 | Invited Speaker and Panelist. “CO <sub>2</sub> 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 | <p>Invited Panelist. “Energy Storage: Capturing Opportunity.” <i>Grid Modernization: Understanding Technology Advancements</i>, Midwest Governor’s Association Annual Meeting, The Ohio State University. Columbus, OH. October 5, 2016. Panel.</p> <p>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.</p> |
| 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 <sub>2</sub> 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, CO<sub>2</sub> Infrastructure Subcommittee Meeting</i> , Washington DC. June 19-20, 2008.   |

### **PRESS CONFERENCES**

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

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| OCTOBER 2023   | “Bringing New Resilient Infrastructure to All Communities.” <i>Ohio State University</i> , Columbus, OH. <a href="https://news.osu.edu/bringing-new-resilient-infrastructure-to-all-communities/">https://news.osu.edu/bringing-new-resilient-infrastructure-to-all-communities/</a>                         |
| JANUARY 2023   | “Turning Coal Mine Drainage into a Source of Rare Minerals.” <i>Ohio State University</i> , Columbus, OH. <a href="https://news.osu.edu/turning-coal-mine-drainage-into-a-source-of-rare-minerals/">https://news.osu.edu/turning-coal-mine-drainage-into-a-source-of-rare-minerals/</a>                      |
| SEPTEMBER 2019 | “Water May Be Scarce for New Power Plants in Asia.” <i>Ohio State University</i> , Columbus, OH. <a href="https://news.osu.edu/water-may-be-scarce-for-new-power-plants-in-asia/">https://news.osu.edu/water-may-be-scarce-for-new-power-plants-in-asia/</a>   |
| SEPTEMBER 2019 | “Ohio State Awarded \$3M NSF Grant for STEM Traineeship in Ohio.” <i>Ohio State University</i> , Columbus, OH. <a href="https://si.osu.edu/news/ohio-state-awarded-3-million-nsf-grant-stem-traineeship-program">https://si.osu.edu/news/ohio-state-awarded-3-million-nsf-grant-stem-traineeship-program</a> |

MARCH 2019	“From Art to Zooplankton, the Effects of Climate Change are Far-Reaching.” <i>Ohio State University</i> , Columbus, OH. <a href="https://news.osu.edu/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/</a>
DECEMBER 2018	“New study will track how trade wars affect the Midwest. <i>Ohio State University</i> , Columbus, OH. <a href="https://news.osu.edu/new-study-will-track-how-trade-wars-affect-the-midwest/">https://news.osu.edu/new-study-will-track-how-trade-wars-affect-the-midwest/</a>
SEPTEMBER 2017	“Leaks will not sink carbon capture and storage.” <i>Princeton University</i> , Princeton, New Jersey, United States. <a href="https://www.princeton.edu/news/2017/09/01/leaks-will-not-sink-carbon-capture-and-storage">https://www.princeton.edu/news/2017/09/01/leaks-will-not-sink-carbon-capture-and-storage</a>
DECEMBER 2013	“Can we turn unwanted CO <sub>2</sub> into electricity?” <i>American Geophysical Union Fall Meeting</i> , San Francisco, California, United States. <a href="https://news.osu.edu/news/2013/12/12/geothermal/">https://news.osu.edu/news/2013/12/12/geothermal/</a>

### QUOTES AND FEATURES

SEPTEMBER 2023	Channel 10 Columbus. Gabriela Garcia. 09/14/23 Interview about our FLEETS for All grant from the U.S. Environmental Protection Agency and the need to electrify home appliances and transportation, especially in underserved and marginalized communities. <a href="https://www.10tv.com/article/news/local/ohio-state-awarded-money-from-epa-for-sustainable-future-in-central-ohio/530-8f6a6738-db76-4372-9583-f3bd6fa3a170">https://www.10tv.com/article/news/local/ohio-state-awarded-money-from-epa-for-sustainable-future-in-central-ohio/530-8f6a6738-db76-4372-9583-f3bd6fa3a170</a>
AUGUST 2023	Channel 4 Columbus. Jamie Ostroff. 07/26/23 Interview about energy demand and emissions related to data centers. “Environmental impact of data centers in central Ohio”. <a href="https://www.nbc4i.com/news/local-news/columbus/environmental-impact-of-data-centers-in-central-ohio/">https://www.nbc4i.com/news/local-news/columbus/environmental-impact-of-data-centers-in-central-ohio/</a>
DECEMBER 2022	Cleveland.com. Jake Zuckerman. 12/5/22 Interview about Ohio House Bill 507. “Senate passes bill expanding drilling on state land; dubbing gas ‘green energy’.” <a href="https://www.cleveland.com/open/2022/12/senate-passes-bill-expanding-drilling-on-state-land-dubbing-gas-green-energy.html">https://www.cleveland.com/open/2022/12/senate-passes-bill-expanding-drilling-on-state-land-dubbing-gas-green-energy.html</a>
NOVEMBER 2022	Columbus Dispatch. Patrick Cooley. 11/2/22 Interview. “Honda to Purchase Power Agreements to Achieve ‘Carbon Neutrality’” <a href="https://www.dispatch.com/story/business/2022/11/22/honda-ohio-battery-plant-power-agreements-carbon-neutrality-lg-energy/69614412007/">https://www.dispatch.com/story/business/2022/11/22/honda-ohio-battery-plant-power-agreements-carbon-neutrality-lg-energy/69614412007/</a>
JUNE 2022	Channel 10 Columbus. Destiney Davis. 6/3/22 Interview about gas tax holiday. <a href="https://www.10tv.com/video/news/politics/face-the-state/face-the-state-july-26-2022/530-fb8daeb9-a0ba-47d9-ba4b-b217967dcceb">https://www.10tv.com/video/news/politics/face-the-state/face-the-state-july-26-2022/530-fb8daeb9-a0ba-47d9-ba4b-b217967dcceb</a>
APRIL 2022	Channel 10 Columbus. Destiney Davis. 4/29/22 Interview. E15 waiver for blending with gasoline during the summer.  Columbus Dispatch. Patrick Cooley. “Hydrogen energy could bring jobs to Ohio. Environmentalists skeptical it's really green.” <a href="https://www.dispatch.com/story/business/2022/04/11/hydrogen-hub-alliance-promises-jobs-and-clean-power/9456126002/">https://www.dispatch.com/story/business/2022/04/11/hydrogen-hub-alliance-promises-jobs-and-clean-power/9456126002/</a>  4/6/22 Interview with Clay Gordon, Channel 10 Columbus about Biden Administration releasing 1Mb/d oil from SPR. <a href="https://www.10tv.com/video/news/local/when-to-expect-relief-at-the-pump/530-5bb649cf-4cef-47ed-beb6-e0f057ce4177">https://www.10tv.com/video/news/local/when-to-expect-relief-at-the-pump/530-5bb649cf-4cef-47ed-beb6-e0f057ce4177</a>
MARCH 2022	Channel 10 Columbus. Kevin Landers. 3/8/22 Interview “What goes into the price of gas?” <a href="https://www.10tv.com/article/news/local/what-goes-into-the-price-gas/530-69d7d179-1448-4889-a50f-d6cb795ca8e6">https://www.10tv.com/article/news/local/what-goes-into-the-price-gas/530-69d7d179-1448-4889-a50f-d6cb795ca8e6</a>

	Channel 4 Columbus. Jamie Ostroff. 3/7/22. "Central Ohioans respond to near record high gas prices" <a href="https://www.nbc4i.com/news/local-news/columbus/central-ohioans-respond-to-near-record-high-gas-prices/">https://www.nbc4i.com/news/local-news/columbus/central-ohioans-respond-to-near-record-high-gas-prices/</a>
FEBRUARY 2022	Columbus Dispatch. Patrick Cooley. 2/14/21 Interview, Article on 2/23/21: "Intel to use renewable energy credits to achieve sustainability pledge for Ohio fabs", <a href="https://www.dispatch.com/story/business/2022/02/23/intel-use-renewable-energy-credits-achieve-ohio-pledge/6725508001/">https://www.dispatch.com/story/business/2022/02/23/intel-use-renewable-energy-credits-achieve-ohio-pledge/6725508001/</a>
NOVEMBER 2021	Channel 10 Columbus. Clay Gordon. "Experts weigh in on when gas prices could come down." <a href="https://www.10tv.com/article/news/local/experts-weigh-when-gas-prices-could-come-down/530-75050bc6-3b42-43d6-981c-2dc1c879088d">https://www.10tv.com/article/news/local/experts-weigh-when-gas-prices-could-come-down/530-75050bc6-3b42-43d6-981c-2dc1c879088d</a>
	Voice of America. Roman Momanov. Biden Administration Releasing Oil from Strategic Petroleum Reserve.
OCTOBER 2020	WOSU. Adora Namigadde. "Issue 1: Columbus Leaders Ask Voters To Pass Clean Energy Ballot Measure." <a href="https://radio.wosu.org/post/issue-1-columbus-leaders-ask-voters-pass-clean-energy-ballot-measure">https://radio.wosu.org/post/issue-1-columbus-leaders-ask-voters-pass-clean-energy-ballot-measure</a>
FEBRUARY 2020	Wired Magazine. Daniel Oberhaus. "Want Unlimited Clean Energy? Just Drill the World's Hottest Well." <a href="https://www.wired.com/story/want-unlimited-clean-energy-just-drill-the-worlds-hottest-well/">https://www.wired.com/story/want-unlimited-clean-energy-just-drill-the-worlds-hottest-well/</a>
SEPTEMBER 2019	Ohio State University Alumni Magazine. "Our Roots are Showing" Kristen Schmidt. <a href="https://www.osu.edu/alumni/news/ohio-state-alumni-magazine/issues/fall-2019/ohio-state-trade-tariffs-study.html">https://www.osu.edu/alumni/news/ohio-state-alumni-magazine/issues/fall-2019/ohio-state-trade-tariffs-study.html</a>
MARCH 2019	Ohio State University. Laura Arenscheidung. "From Art to Zooplankton, the Effects of Climate Change are Far-Reaching." <a href="https://news.osu.edu/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/</a>
OCTOBER 2017	XPrize Foundation. "How to power the grid with renewables 24/7? Use stored CO2, says Team TerraCOH". <a href="https://twitter.com/xprize/status/921438475315851264">https://twitter.com/xprize/status/921438475315851264</a>
MAY 2017	Climate Central. "Budget Guts U.S. Carbon Capture, Storage Research." by Bobby Magill of Climate Central." <a href="http://www.climatecentral.org/news/budget-guts-us-carbon-capture-storage-research-21478">http://www.climatecentral.org/news/budget-guts-us-carbon-capture-storage-research-21478</a>
MARCH 2017	Columbus Dispatch. "Trump doing what he said he'd do on environment." Marion Renault. <a href="http://www.dispatch.com/news/20170330/trump-doing-what-he-said-hed-do-on-environment">http://www.dispatch.com/news/20170330/trump-doing-what-he-said-hed-do-on-environment</a>
NOVEMBER 2016	Columbus Dispatch. "Trump's pledges to reverse climate-change policies worry some." Marion Renault. <a href="http://www.dispatch.com/content/stories/local/2016/11/19/trumps-pledges-to-reverse-climate-change-policies-worry-some.html">http://www.dispatch.com/content/stories/local/2016/11/19/trumps-pledges-to-reverse-climate-change-policies-worry-some.html</a>
JUNE 2016	Scientific American. <i>Scientists turn carbon dioxide emissions into stone.</i> Bobby Magill <a href="https://www.scientificamerican.com/article/scientists-turn-carbon-dioxide-emissions-into-stone-video/">https://www.scientificamerican.com/article/scientists-turn-carbon-dioxide-emissions-into-stone-video/</a>
AUGUST 2015	Earth Magazine. "Down to Earth With: Engineer Jeffrey Bielicki" Terry Cook. <a href="http://www.earthmagazine.org/article/down-earth-engineer-jeffrey-bielicki">http://www.earthmagazine.org/article/down-earth-engineer-jeffrey-bielicki</a>
JULY/AUGUST 2015	Discover Magazine. "Geothermal's Carbon Dioxide Boost." Xiaoshi Lim. <a href="http://discovermagazine.com/2015/july-aug/20-geothermal-co2-boost">http://discovermagazine.com/2015/july-aug/20-geothermal-co2-boost</a>

APRIL 2015	Deutschlandfunk. “ <i>Strom aus Kohlendioxid.</i> ” Dagmar Rölich. <a href="http://www.deutschlandfunk.de/geothermisches-kraftwerk-strom-aus-kohlendioxid.676.de.html?dram:article_id=317049">http://www.deutschlandfunk.de/geothermisches-kraftwerk-strom-aus-kohlendioxid.676.de.html?dram:article_id=317049</a>
DECEMBER 2014	Huffington Post. “ <i>An Open Letter to Warren Buffett.</i> ” Clay Faris Naff. <a href="http://www.huffingtonpost.com/clay-naff/an-open-letter-to-warren_b_6387076.html">http://www.huffingtonpost.com/clay-naff/an-open-letter-to-warren_b_6387076.html</a>

#### **MEDIA AND PUBLIC**

2023	Invited Panelist. “Film Screening: This Stolen Country of Mine (2022, Germany).” <i>Center for Latin American Studies</i> . October 18, 2023. Columbus, OH. <a href="https://clas.osu.edu/events/film-screening-stolen-country-mine-2022-germany">https://clas.osu.edu/events/film-screening-stolen-country-mine-2022-germany</a>
2022	Invited Panelist. <i>Achieving Net-Zero: Examining Near and Long-Term Greenhouse Gas Commitments</i> . <i>Environmental Professionals Network</i> . October 7, 2022. Columbus, OH. <a href="https://go.osu.edu/epnoct22">go.osu.edu/epnoct22</a>
2020	Invited Panelist. <i>Conversations on the Politics and Science of Climate Change in the Buckeye State</i> . <i>Environmental Professionals Network</i> . October 13, 2020. <a href="https://epn.osu.edu/events/epn-webinar-october-13-2020-conversations-politics-and-science-climate-change-buckeye-state">https://epn.osu.edu/events/epn-webinar-october-13-2020-conversations-politics-and-science-climate-change-buckeye-state</a>
2019	Invited Speaker. “Geoengineering: Treat the Fever or the Virus?” <i>Franklinton Friday</i> . <i>STEAM Factory</i> . Columbus, OH. May 10, 2019.  Invited Speaker. “Don’t Emit It. Use It. Climate Mitigation and Energy Decarbonization.” <i>Franklinton Friday</i> . <i>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 <b>Bielicki, J.</b> “Geothermal Energy: Enhancing Our Future.” Computer Animated Video, available at <a href="http://www.energypathways.org">www.energypathways.org</a> and <a href="https://www.youtube.com/watch?v=GR-AA3dINRs">https://www.youtube.com/watch?v=GR-AA3dINRs</a>
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 <sub>2</sub> to Produce and Store Energy.” <i>Engineers Foundation of Ohio</i> , Columbus, OH. November 3, 2017.
2014	Invited Speaker. “Benefits and Concerns of Emerging Subsurface Development Activities.” <i>Ohio Energy: Emerging Issues in Law, Finance, and Regulation</i> . Moritz College of Law, The Ohio State University. April 9, 2014.

#### **SERVICE**

##### **PROFESSION, PROFESSIONAL COMMITTEES, AND ORGANIZATIONS**

2023	<i>External Promotion and Tenure Case Review</i> , Arizona State University
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2022 – PRESENT	<i>Greenhouse Gases: Science &amp; Technology</i> . Guest Editor, with Hang Deng (Peking University) on Special Issue “Negative Emissions Technologies.”
2022 – PRESENT	<i>Frontiers in Environmental Science</i> . Guest Editor, with Douglas Jackson-Smith (Ohio State University), Sibel Eker (Radboud University), and Sarah Cornell (Stockholm Resilience Institute) of Special Research Topics Issue “Stakeholder-Engaged Integrated Assessment Modelling for Global Scenarios in a Changing World.”
2022 - PRESENT	<i>University Energy Institute Leadership Collaborative (UEILC)</i> Executive Transition Committee
2020 - 2021	<i>University Energy Institute Collaborative</i> Member: Vision and Steering Committee, 2020 Summit Planning Committee, Research, Governance, Fundraising, and Government Affairs Subcommittees.

#### EXPERT PARTICIPATION AND CONSULTATION

2022	<i>U.S. Government Accountability Office Carbon Management Technology Assessment Expert Meeting</i> . February 4, 8, 11, 2022. Virtual. Report. “Decarbonization: Status, Challenges, and Policy Options for Carbon Capture, Utilization, and Storage.” (GAO-22-105274)
2017	<i>Mission Innovation – Accelerating the Clean Energy Revolution: Carbon Capture, Utilization, and Storage Experts Workshop</i> . September 25-29, 2017 Houston, TX. Report.
2012	Social Aspects of Bioenergy Sustainability Workshop, <i>U.S. Department of Energy - Office of Biological and Environmental Research</i> , Washington, DC.
2011	Quadrennial Technology Review, <i>Technical Workshop on Clean Electricity</i> . <i>U.S. Department of Energy</i> , June 7, 2011. Boulder, CO. Report.
2010	Grand Challenges Workshop, <i>U.S. Department of Energy - Office of Biological and Environmental Research</i> , March 2-5, 2010. Bethesda, MD.
2009	“U.S.-China Cooperation on Low-Emission Coal Technologies: Realities and Opportunities.” <i>Atlantic Council and the U.S./China Energy and Environment Technology Center at Tsinghua and Tulane Universities</i> , Beijing China. June 24-26, 2009.
2008	CCS Guidelines: Guidelines for Carbon Dioxide Capture, Transport, and Storage Workshop, <i>World Resources Institute</i> , June 2008. Washington, DC.
2008	Carbon Capture and Storage Working Group. <i>National Commission on Energy Policy</i> , Washington, DC. Fall 2008.

#### ADVISORY BOARDS

2020 - 2020	Bharco and Pacific Eco Innovations Inc. For-Profit Company. Hawaii, United States and Paris, France. Executive Advisory Board
2016 - 2020	TerraCOH LLC. Start-up Company. Minneapolis, MN.
2016 - 2018	“Premisser för bioenergi med koldioxidavskiljning och lagring – det ramtida globala kilmatarbetet” (Premises for bioenergy with carbon capture and storage in the global response to climate change). Research Project. Linköping University and Chalmers University, Sweden.

#### UNIVERSITY SERVICE

2023 – PRESENT	<b>Ohio State University</b> Research Lead. Sustainable Energy Program. Sustainability Institute.
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2019 – 2023	Research Co-Lead. Sustainable Energy Program. Sustainability Institute.
2023 – PRESENT	Chair. Science and Engineering in the Public Interest Minor. John Glenn College of Public Affairs
2023 – PRESENT	Member. Sustainable Engineering Minor. Department of Civil, Environmental, and Geodetic Engineering
2023 – PRESENT	Member. Graduate Studies Committee. Department of Civil, Environmental, and Geodetic Engineering
2023 - PRESENT	Member. Sustainability Research Visioning Committee. Provost's Office.
2023 - PRESENT	Faculty Mentor. Department of Civil, Environmental, and Geodetic Engineering. Kelsea Best.
2021 - PRESENT	Member. Energy Funding Strategy Advisory Team. Research Development Office. Enterprise for Research, Innovation and Knowledge.
2021 - PRESENT	Member. Climate Change Funding Strategy Advisory Team. Research Development Office. Enterprise for Research, Innovation and Knowledge.
2021 - PRESENT	Chair. Robert Backhoff Award Committee. John Glenn College of Public Affairs.
2020 - PRESENT	Faculty Mentor. Department of Civil, Environmental, and Geodetic Engineering. Daniel B. Gingerich
2019 - PRESENT	Faculty Mentor. Department of Civil, Environmental, and Geodetic Engineering. Natassia Brenkus
2023 - 2023	Member. Sustainability Education Visioning Committee. Provost's Office.
2022 - 2023	Member. Awards Committee. Department of Civil, Environmental, and Geodetic Engineering
2021 - 2022	Member. Research Advisory Committee. Department of Civil, Environmental, and Geodetic Engineering.
2020 - 2021	Member. Energy Advancement Innovation Center. Faculty Advisory Board.
2019 – 2021	Member. Budget and Strategic Planning Committee. John Glenn College of Public Affairs.
2019 - 2021	Member. Vision Bridge Team. Department of Civil, Environmental, and Geodetic Engineering.
2018 – 2021	Coordinator. Junior Faculty Peer Mentoring Group. Department of Civil, Environmental, and Geodetic Engineering
2018 – 2021	Member. Graduate Studies Committee. Department of Civil, Environmental, and Geodetic Engineering
2018 – 2021	Member. Mentoring Committee. Department of Civil, Environmental, and Geodetic Engineering
2017 – 2020	Member. Science, Engineering, and Public Policy Program Development. College of Engineering
2019 – 2020	Member. Faculty Advisory Committee, Center for Energy Research, Training, and Innovation (CERTAIN)

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.
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.
	<b>University of Minnesota</b>
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	
2023	<i>Proceedings of the National Academy of Science (1), International Journal of Greenhouse Gas Control (1)</i>
2022	<i>Energy &amp; Environmental Science (1), Data Science in Science (1)</i>
2021	<i>Energy &amp; Fuels (2), Energy &amp; Environmental Science (4), Frontiers in Earth Science (1), Gondwana Research (1), American Society of Agricultural and Biological Engineers (1),</i>
2020	<i>Energy &amp; Environmental Science (6), Environmental Science &amp; Technology</i>
2019	<i>Energy &amp; Environmental Science (3), Energy, International Journal of Greenhouse Gas Control</i>
2018	<i>Nature Energy (2), Energy &amp; Environmental Science (2), International Journal of Greenhouse Gas Control (2), Energy Economics, Geothermal Energy, Complexity, Energy (2), Earth</i>
2017	<i>Energy &amp; Environmental Science (3), Applied Energy, SPE Economics &amp; Management</i>
2016	<i>Advances in Water Resources, Environmental Science &amp; Technology, Energy &amp; 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 &amp; 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 &amp; Management, Energy Policy (4)</i>

2012	<i>Energy Policy</i>
2011	<i>Energy Economics, SPE Economics &amp; Management, Greenhouse Gases: Science &amp; Technology, Energy Policy (2)</i>
2010	<i>Energy Policy, International Journal of Greenhouse Gas Control</i>
GRANT PANELS AND PROPOSALS	
2021	Proposal Reviewer. Sloan Foundation. Unsolicited 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
<b>CONFERENCE SESSION AND WORKSHOP CONVENER / ORGANIZER</b>	
OCTOBER 2022	Conference Session Co-Convener “Assessing Technologies and Strategies for Transitioning to Climate-Benign Energy Systems.” INFORMS Fall Meeting. Indianapolis, IN.
JUNE 2022	Conference Session Co-Convener. “Learnings from Stakeholder Participation for the Development of and Implementation of Scenarios and Long-Term Pathways Towards Sustainable Systems.” Scenarios Forum 2022. (Hybrid) Laxenburg, Austria.

OCTOBER 2021	Conference Session Convener. “ <i>Climate Benign Energy and Infrastructure Systems Considerations.</i> ” <i>INFORMS Fall Meeting.</i> (Virtual) Anaheim, CA.
APRIL 2021	Panel Discussion Convener. “ <i>Can Texas Happen in Ohio?</i> ” Sustainability Institute at Ohio State. The Ohio State University. (Virtual) Columbus, OH.
FEBRUARY 2021	Symposium Convener. “ <i>Energy Decarbonization and Transition.</i> ” Sustainability Institute at Ohio State. The Ohio State University. (Virtual) Columbus, OH.
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 <sup>th</sup> 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 – 2017	Member. American Economic Society
1992 – 2017	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)

##### **POST-DOCTORAL FELLOWS** (COMPLETED: **0**; PRESENT: **1**; INCOMING: **0**)

2022 - 2023	1. <b>Leveni, Martina:</b> LEGACY Post-Doctoral Scholar, Department of Civil, Environmental, and Geodetic Engineering
2021- 2022	1. <b>Leveni, Martina:</b> Post-Doctoral Fellow, Department of Civil, Environmental, and Geodetic Engineering

##### **PH.D. STUDENTS** (COMPLETED: **4**; PRESENT: **2**; INCOMING: **1**)

2023 – PRESENT	1. <b>Muradi, Salman:</b> Ph.D. Student, Environmental Science Graduate Program. Selected to participate in the OSU EmPOWERment National Research Traineeship program (2023)
2022 – PRESENT	2. <b>Rawal, Shannay:</b> Ph.D. Student, Department of Civil, Environmental, and Geodetic Engineering Selected to participate in the OSU EMPOWERment National Research Traineeship program (2022)

2020 - PRESENT	<p>3. <b>Yang, Qingrun:</b> Ph.D. Student, Department of Civil, Environmental, and Geodetic Engineering. Advanced to Candidacy: 2022  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>
2018 - 2023	<p>4. <b>Miranda, Marcos:</b> “Using Analysis Tools to Evaluate Key Components of the Energy Transition.” Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2023. Present Position: Carbon Solutions LLC.  Received AEESP/ Mary Libert Award for Publication Excellence (2023)  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- 2023	<p>5. <b>Chun, Soomin:</b> “Environmental Impacts of Crop Production in the United States Midwest.” Environmental Science Graduate Program. Co-advised with Prof. Bhavik Bakshi. Graduated: 2023.</p>
2014- 2019	<p>6. <b>Ogland-Hand, Jonathan:</b> “Integrated Systems Analyses of Using Geologically Stored CO2 and Sedimentary Basin Geothermal Resources to Produce and Store Energy.” Environmental Science Graduate Program Graduated: 2019. Present Position: Research Scientist, Carbon Solutions LLC.  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 ARP Ae 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>1. <b>Wang, Yaoping:</b> “Climate Change and Its Effects on Energy and Water.” Environmental Science Graduate Program. Graduated: 2018.  Present Position: Postdoctoral Research Associate, Oak Ridge National Laboratory.  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).  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).</p>

#### M.S. STUDENTS (CURRENT: 1; COMPLETED: 8)

2022 - PRESENT	<p>1. <b>Jenney, Cassidy:</b> Department of Civil, Environmental, and Geodetic Engineering  Received the U.S. Department of Energy Better Buildings Project Award at the 2023 Better Buildings, Better Plants Summit, held April 11-13, in Washington, D.C.</p>
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2017 - 2020	2. <b>Starkey, Dan:</b> M.S. Student, Department of Civil, Environmental, and Geodetic Engineering. Non-thesis.
2018 - 2019	3. <b>Maldonado, Stephen:</b> M.S. Student, Department of Civil, Environmental, and Geodetic Engineering. Non-thesis. Received OSU Diversity Fellowship
2016 – 2018	4. <b>Rath, Amlan:</b> “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	5. <b>Hunter, Kelsey:</b> “CO <sub>2</sub> -Enhanced Water Recovery through Integrated CO <sub>2</sub> 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 ARP Ae 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 <sub>2</sub> Summit II: Technologies and Opportunities" conference (2016). U.S. DOE Mickey Leland Energy Fellowship (2016)
2015 – 2017	6. <b>Hagley, Paige:</b> “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	7. <b>Langenfeld, Julie:</b> “Geospatial and Economic Viability of CO <sub>2</sub> 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	8. <b>Patel, Iti:</b> “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	9. <b>Sutula, Glenn:</b> “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: 1; COMPLETED/FORMER: 21)

2023 – PRESENT	1. <b>Wagner, Lauren:</b> B.C. (Honors Research Distinction.) Department of Civil, Environmental, and Geodetic Engineering
2021 - 2022	2. <b>Scacia, Maria:</b> B.S. School of Earth Sciences.

2018 – 2021	3. <b>de Melo, Dora:</b> B.S., (Honors Research Distinction.) Department of Civil, Environmental, and Geodetic Engineering. Received NSF Graduate Research Fellowship
2018 – 2021	4. <b>Oyler, William:</b> B.S. Department of Chemical and Biomolecular Engineering.
2019 – 2019	5. <b>Goetz, Joshua:</b> B.S. Department of Civil, Environmental, and Geodetic Engineering. B.A. Department of Political Science
2019 - 2019	6. <b>Pottschmidt, Audrey:</b> B.S., Integrated Business and Engineering.
2019 - 2019	7. <b>Olszewski, Sarah:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering.
2015 – 2017	8. <b>DeLucca, Maria:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2017. Selected to participate in the Denman Undergraduate Research Forum
2016 – 2017	9. <b>Pfister, Cody:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2017.
2016 – 2017	10. <b>Elderbrock, Andrew:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2017.
2015 – 2016	11. <b>Shaheen, Nora:</b> B.S., Department of Chemical and Biomolecular Engineering. Graduated: 2017.
2016	12. <b>Peters, Travis:</b> B.S., Department of Materials Science and Engineering. Graduated: 2018.
2015	13. <b>Rossini Lupinnaci, Julia:</b> B.S., Universidade Federal de Vicosa. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	14. <b>Oliveira de Azevedo, Bianca:</b> B.S., Universidade Tecnológica Federal do Parana. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	15. <b>Cardoso Cascais, Valniele:</b> B.S., Universidade do Estado do Para. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	16. <b>Ferreira Alves, Rafael:</b> B.S., Centro Universitario UNA. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	17. <b>Alves Pereira, Erica:</b> B.S., Universidade Federal de Vicosa. Brazilian Scientific Mobility Program. Graduated: 2016.
2015	18. <b>Sforsin Pereira da Cunha, Gabriel:</b> B.S., Universidade Federal do Tocantins. Brazilian Scientific Mobility Program. Graduated: 2016.
2014	19. <b>Barbosa de Carvalho, Mariana:</b> B.S., UNESP – Universidade Estadual Paulista. Brazilian Scientific Mobility Program. Graduated: 2015. Received fellowship from FAPESP (Sao Paulo Research Foundation, Brazil)
2014	20. <b>Giovannini Junior, Nelson:</b> B.S., UNESP – Universidade Estadual Paulista. Brazilian Scientific Mobility Program. Graduated: 2015.
2014	21. <b>Beasley, Emma:</b> B.S. student, Department of Chemistry

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| 2014 | 22. <b>Miner, Jonathan:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2014.  |
| 2014 | 23. <b>Kesavan, Supreya:</b> B.S., Department of Civil, Environmental, and Geodetic Engineering. Graduated: 2015. |

#### GRADUATE COMMITTEE MEMBERSHIP

##### PH.D. COMMITTEES (Current: 5; Completed: 8)

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|----------------|--|
| 2023 - PRESENT | 1. <b>Mohammadshirazi, Ahmad:</b> Department of Computer Science. The Ohio State University  |
| 2023 - PRESENT | 2. <b>Dahir, Abdirashid:</b> Department of Geography. The Ohio State University.   |
| 2022 - PRESENT | 3. <b>Sen, Amrita:</b> Department of Chemical and Biomolecular Engineering. The Ohio State University  |
| 2021 - PRESENT | 4. <b>Zakeri Shahvari, Saba:</b> Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University   |
| 2020 - PRESENT | 5. <b>Hincappie-Ossa, Diego:</b> Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University.  |
| 2019 - PRESENT | 6. <b>Malloy, Samuel:</b> Ph.D. Student, Environmental Science Graduate Program. The Ohio State University. Former advisee now advised by Tanya Berger-Wolfe   |
| 2015 – PRESENT | 7. <b>Vines, Chante’:</b> Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University.   |
| 2019 - 2022    | 8. <b>Cochran, Sam:</b> “Influences of Indoor Environmental Conditions in Shaping Indoor Fungal Exposures and Subsequent Asthma Morbidity.” Environmental Science Graduate Program. The Ohio State University. Present Position: Unknown.  |
| 2017 – 2021    | 9. <b>Haines, Sarah:</b> “Modeling Microbial Growth and Release of Microbial Volatile Organic Compounds (mVOCs) in Carpet and Dust.” Environmental Science Graduate Program. The Ohio State University. Present Position: Assistant Professor, University of Toronto.  |
| 2019 - 2020    | 10. <b>Lee, Kyuha:</b> “Sustainable Process and Supply Chain Design with Consideration of Economic Constraints, Climate Change, and Food-Energy-Water Nexus.” Department of Chemical and Biomolecular Engineering. The Ohio State University. Present Position: Research Staff. Argonne National Laboratory. |
| 2018 – 2020    | 11. <b>Junod, Anne:</b> “Risks, Attitudes, and Discourses in Hydrocarbon Transportation Communities: Oil by Rail and the United States’ Shale Energy Revolution.” School of Environment and Natural Resources. The Ohio State University. Present Position: The Urban Institute.                             |
| 2014 – 2018    | 12. <b>Rey-Sanchez, Andres-Camillo:</b> “Methane Emissions from Wetlands with Heterogeneous Land Cover Types and Different Levels of Disturbance: Biological and Physical Drivers in a Marsh and a Peat Bog in Ohio.” Environmental Science Graduate Program. The Ohio State University.                     |
| 2015 – 2018    | 13. <b>Salto, Theodore:</b> “Assessment of Agricultural Nutrient Pollution to Lake Erie from the Maumee and Sandusky Watersheds: Analyzing Trends in Hydrology, Nutrient   |



	Loading, and Policy Using a Statistical Approach.” Agricultural, Environmental, and Developmental Economics. The Ohio State University.
2016 – 2017	14. <b>Morin, Tim:</b> “The Nexus of Observing and Modeling Methane Emissions from Inland Water Bodies.” Environmental Science Graduate Program. The Ohio State University. Graduated: 2017. Present Position: Assistant Professor, Syracuse University.
2014 – 2016	15. <b>Matheny, Ashley:</b> “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. Present Position: Assistant Professor, University of Texas, Austin.

**MASTER’S COMMITTEES (CURRENT: 2; COMPLETED: 17)**

2022 - PRESENT	1. <b>Gardner, Jacob:</b> Environmental Science Graduate Program. The Ohio State University
2022 - PRESENT	2. <b>Kaustubh, Kumar:</b> School of Environment and Natural Resources. The Ohio State University.
2020 – 2022	3. <b>Frey, Noah:</b> “Evaluating Renewable Energy Employment Impacts from Renewable Energy Policies.” Department of Civil, Environmental, and Geodetic Engineering (M.S.) and John Glenn College of Public Affairs (M.P.A.). Graduated 2022.
2021 - 2022	4. <b>Hull, Mackenzie:</b> “Drivers and Barriers to Circular Water Economy Implementation in Ohio.” Environmental Science Graduate Program. The Ohio State University. Graduated 2022.
2019 - 2019	5. <b>Cochran, Sam:</b> “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. Graduated 2019.
2017 – 2019	6. <b>Haines, Sarah:</b> “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	7. <b>Luma, Johnson:</b> “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	8. <b>Rey-Sanchez, Andres-Camillo:</b> “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	9. <b>Bittinger, Adam:</b> “Sludge Stabilization and Biosolids Production Processes.” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2017.
2016	10. <b>Wright, Mathew:</b> Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016.
2016	11. <b>Compton, Rosemary:</b> “An Analysis of CO <sub>2</sub> -Switchable Poly Allylamine Gels as Alternative Fracking Fluids.” Chemical and Biomolecular Engineering. The Ohio State University. Graduated: 2016.
2014 - 2016	12. <b>Herak, Patrick:</b> “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	13. <b>Thomas, Nathaniel:</b> “ <i>Qanat: Ancient Water Delivery.</i> ” Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2015.
2015	14. <b>McClain, Krystaal:</b> “Environmental Drivers of Migration in Two Israeli Raptor Species.” Environmental Science Graduate Program. The Ohio State University. Graduated: 2015.
2014	15. <b>Ohanian, Nicholas:</b> “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	16. <b>Gilley, Shannon:</b> “Sci-Candy: Principles of Animation-Based Learning and the Next Wave of Science Education.” Minneapolis College of Art and Design. Graduated: 2013.
2012 – 2013	17. <b>Suchomel, Ashley:</b> “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	18. <b>Haase, Rachel:</b> “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	19. <b>Kemp, Mary:</b> “Palm Oil Sustainability.” Humphrey School of Public Affairs. University of Minnesota, Graduated: 2012.

#### UNDERGRADUATE HONORS (CURRENT: 0; COMPLETED: 5)

2019 - 2021	1. <b>De Melo, Dora:</b> Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated 2021. Received NSF Graduate Research Fellowship
2019 - 2020	2. <b>Goetz, Joshua:</b> Department of Chemical and Biomolecular Engineering, and Department of Political Science. The Ohio State University. Graduated 2021.
2017	3. <b>Haines, Sarah:</b> “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. <b>Berkeley, Randall:</b> “Measuring Soil Moisture with Radio-Waves.” Department of Civil, Environmental, and Geodetic Engineering. The Ohio State University. Graduated: 2016.
2015	5. <b>Merriam, Charles:</b> “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. <b>Deng, Hang:</b> “Policy Implications of Monetized Leakage Risk from Geologic CO <sub>2</sub> 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. <b>Jiang, Zhongnan:</b> “Learning by Doing, Technological Changes, Expansion and Productivity in CO <sub>2</sub> Enhanced Oil Recovery and Policy Implications.” John Glenn College of Public Affairs. The Ohio State University. First-Year Paper Advisee.

2015	3. <b>Benham, Claudia:</b> Fenner School of Environment and Society. Australia National University. Visiting Scholar – Ph.D. student.
2014	4. <b>Ray, Andy:</b> “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. <b>Calas, Guillaume:</b> “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 <sub>2</sub> .” M.S. AgroENGREF Paris Tech, Paris. Graduated: 2010.

### CURRICULUM DEVELOPMENT

GRADUATE	<b>The Ohio State University</b>
2019	<i>Analytic Frameworks for Policy Analysis Where Science and Engineering Matter</i> (ENVENG 6610)
2014	<i>Science, Engineering, and Public Policy</i> (ENVENG/PUBAFRS 5600)
	<b>University of Minnesota</b>
2013	<i>Systems Thinking and Modeling</i> (PA 5022-011)
2011	<i>Game Theory and Interdependent Actions</i> (PA 5022-007)
UNDERGRAD.	<b>The Ohio State University</b>
2020 - PRESENT	<i>Undergraduate Minor in Sustainable Engineering</i> . Co-PI.
2020 - 2022	<i>Undergraduate Minor in Sustainable and Resilient Socio-Ecological Systems (SARSES)</i> . Collaborator.
2020	<i>Undergraduate Minor in Science and Engineering in the Public Interest</i> . Revision of Undergraduate Minor in Science, Engineering, and Public Policy. With E. Newton, J. Horack, and C. Wagner. 2020.
2016	<i>Undergraduate Minor in Science, Engineering, and Public Policy</i> . Co-developer with Prof. Caroline Wagner. 2016.

### TEACHING

GRADUATE	<b>The Ohio State University</b>
	<i>Fundamentals of Data-Driven Sustainable Energy Systems</i> (ENVENG 6020/ ISE 6020/AEDECON 6500/FABENG 6020/PUBAFRS 6020/GEOG 6020): Au23
	<i>Analytic Frameworks for Science, Engineering, and Policy</i> (ENVENG 6610): Sp20, Au21
	<i>Science, Engineering, and Public Policy</i> (PUBAFRS/ENVENG 5600): Sp15, Sp16, Sp17, Sp18, Sp19, Sp20, Sp22, Sp23
	<i>Special Topics - Science, Engineering, and Public Policy</i> (PUBAFRS 5800), co-taught with Caroline Wagner: Sp14
	<b>University of Minnesota</b>
	<i>Empirical Analysis I</i> (PA 5031-008): Au12
	<i>Systems Thinking and Modeling</i> (PA 5022-011): Sp13
	<i>Environmental and Natural Resource Economics</i> (APEC 5076): Sp13
	<i>Game Theory and Interdependent Actions</i> (PA 5022-007): Sp11, Sp12, Sp13
UNDERGRAD.	<b>The Ohio State University</b>
	<i>Engineering Economic Evaluation and Optimization in Civil and Environmental Engineering</i> (CIVILEN 3080): Sp15, Sp16 (two sections), Sp17 (two sections), Sp18 (two sections), Sp19, Au19, Au22, Au23
	<i>Science, Engineering, and Public Policy</i> (PUBAFRS/ENVENG 5600): Sp15, Sp16, Sp17, Sp18, Sp19, Sp20, Sp22, Sp23
	<i>Special Topics - Science, Engineering, and Public Policy</i> (PUBAFRS 5800), co-taught with Caroline Wagner: Sp14
PROFESSIONAL	<b>The Ohio State University</b>

	<i>Science, Engineering, and Public Policy</i> , Masters of Global Engineering Leadership (MGEL) and Masters of Engineering Management (MEM) ENVENG 5600): Sp17, Sp18, Sp19, Sp20, Sp22, Sp23
SHORT COURSES	<b>University of Minnesota</b> <i>Systems Thinking and Tools</i> , Boreas Leadership Program: Au11, Sp12, Sp13, Au14, Au15,
GUEST LECTURES	<b>The Ohio State University</b> <i>Introduction to Infrastructure (CIVILEN 2194)</i> : Sp23 <i>Measuring Modeling Climate Change (ENVENG 4218)</i> : Sp21 <i>Hydraulic Fracturing: Environmental and Socioeconomic Considerations (EEOB 8896)</i> : Sp16 <i>Sustainability Metrics (ENR 3900)</i> : Au15 <i>Energy MBA Program (OSU Fisher College of Business)</i> : Sp15 <i>Ecological Engineering (ENVENG 5310)</i> : Au14 <i>Issues in Environmental Science (ENVSCI 7899)</i> : Au13 <i>Applied Hydrology (ENVENG 5130)</i> : Au13 <b>University of Minnesota</b> <i>Science and Policy of Global Environmental Change (EEB/FR 4126)</i> : Sp11 <i>Environment and Natural Resource Economics Seminar</i> : Sp11