#### **Curriculum Vitae**

Kipp Coddington, Esq. 400 S. 6<sup>th</sup> Street Laramie, Wyoming 82070 kippcoddington@gmail.com (703) 628-3950

With degrees in chemical engineering and law, Mr. Coddington is an attorney with broad corporate, litigation and regulatory experience in private practice and Academia. He currently is a Professor of Practice at the College of Law at the University of Wyoming (UW) and serves as the faculty advisor for the Energy, Environmental and Natural Resources Law Clinic. He previously served in various roles at UW's School of Energy Resources.

Before moving to Wyoming in 2015 he practiced law in Washington, D.C. with international Big Law firms (Covington & Burling LLP; Ropes & Gray LLP; Alston & Bird LLP), with a focus on environmental and energy law. For Alston & Bird he relocated to London to launch a Kyoto Protocol carbon markets practice. Thereafter, he co-founded a boutique energy and environmental law firm, then led its Washington, D.C. office.

He is an internationally recognized expert in carbon capture, utilization and storage. He also is an expert in voluntary and regulated carbon markets. He co-founded and led the North American Carbon Capture & Storage Association. He was the Convenor of the International Organization for Standardization's committee that published the first technical standard for the geologic storage of carbon dioxide during enhanced hydrocarbon recovery operations.

He has testified before Congress and state legislative bodies; advised governments, companies and non-profits; and served as an expert witness.

During his legal career he was listed in Martindale (AV – Preeminent); Chambers Global/Climate Change; Chambers USA/Nationwide-Climate Change; Chambers USA/District of Columbia-Environment; International Who's Who of Environmental Lawyers; and International Who's Who of Business Lawyers.

He has a B.S. in Chemical Engineering from Purdue University (1986; With Highest Distinction; Outstanding Senior Engineer; Tau Beta Pi; Mortar Board; President, Engineering Student Council) and a Juris Doctor from Georgetown University (1993; Magna Cum Laude; Order of the Coif).

He maintains bar licenses in Washington, D.C. and Virginia. He is not licensed in Wyoming.

#### **Funded Academic Research**

Co-Principal Investigator (co-PI). "Wyoming CarbonSAFE: Accelerating CCUS Commercialization and Deployment at Dry Fork Station and the Wyoming Integrated Test Center" (U.S. Department of Energy (DOE)/National Energy Technology Laboratory (NETL), DE-FE0031891, 2020-2023)

Co-PI. "Wyoming CCUS Site Characterization and CO2 Capture Assessment at Dry Fork Station, Wyoming" (DOE/NETL), DE-FE0031624, 2020-2022)

Co-PI). "Carbon Dioxide Transportation and Enhanced Oil Recovery Policy Review" (private foundation(s), 2018-2019)

- Co-PI. "Dynamic Earth Energy Storage: Terrawatt-Year, Grid-Scale Energy Storage Using Planet Earth as a Thermal Battery" (Idaho National Laboratory; DOE, Geothermal Technologies Office, 2018-2019)
- Co-PI. "Commercial-Scale Carbon Storage Complex Feasibility Study at Dry Fork Station, Wyoming" (DOE/National Energy Technology Laboratory (NETL), DE-FE0031624, 2018-2020)
- Co-PI. "Integrated Commercial Carbon Capture and Storage Prefeasibility Study at Dry Fork Station, Wyoming" (DOE/NETL, DE-FE0029375, 2017-2019)
- Co-PI. "Integrated Pre-Feasibility Study of a Commercial-Scale CCS Project in Formations of the Rock Springs Uplift, Wyoming" (DOE/NETL, DE-FE0029302, 2017-2019)

Lead Author. "CCS Policy Assessment" (private foundation(s), 2017-2019)

### **U.S. Federal Congressional Testimony**

November 15, 2017: "Promoting American Leadership in Reducing Air Emissions Through Innovation," Testimony before the U.S. Senate Committee on Environment & Public Works (Washington, D.C.) (available at <a href="https://www.epw.senate.gov/public/index.cfm/2017/11/wyoming-s-kipp-coddington-wyoming-plays-leading-role-in-reducing-air-emissions-through-innovation">https://www.epw.senate.gov/public/index.cfm/2017/11/wyoming-s-kipp-coddington-wyoming-plays-leading-role-in-reducing-air-emissions-through-innovation</a>)

April 16, 2007: "S. 731, National Carbon Dioxide Storage Capacity Assessment Act of 2007, and S. 962, Department of Energy Carbon Capture and Storage Research, Development and Demonstration Act," Testimony before the U.S. Senate Committee on Energy & Natural Resources (Washington, D.C.) (available at <a href="https://www.gpo.gov/fdsys/pkg/CHRG-110shrg36492/html/CHRG-110shrg36492.htm">https://www.gpo.gov/fdsys/pkg/CHRG-110shrg36492/html/CHRG-110shrg36492.htm</a>)

## **State of Wyoming Testimony**

August 12, 2021: "Carbon Credits/Market," Testimony before the Minerals, Business & Economic Development Committee (Laramie, Wyoming)

June 25, 2021: "Carbon Credits/Offsets," Testimony before the Minerals, Business & Economic Development Committee (Casper, Wyoming)

March 30, 2021: "CCUS Policy & Research Update," Garofalo and Coddington Testimony before the Wyoming Public Service Commission (Cheyenne, Wyoming)

#### **Expert Witness Testimony/Other**

Peer Reviewer: CCS Project Methodology for a Voluntary Carbon Market (2023)

Expert Reviewer: "Decarbonization: Status, Challenges, and Policy Options for Carbon Capture, Utilization, and Storage" (GAO-22-105274; Sept. 2022) (available at <a href="https://www.gao.gov/assets/gao-22-105274.pdf">https://www.gao.gov/assets/gao-22-105274.pdf</a>)

Member, Expert Meeting on Carbon Management Technologies, convened by U.S.GAO with the assistance of the National Academies of Sciences, Engineering, and Medicine (Feb 4, 8, & 11, 2022; virtual)

On Behalf of Peabody Energy: Colorado Clean Air/Clean Jobs Proceeding, Colorado Public Utility Commission, Expert on Lifecycle Emissions and Application of CCS to Coal and Natural Gas Power Plants (Fall, 2010)

#### Radio & Other Media Interviews

April 2022: eGEOS Podcast (S2 E6) on CCUS policy (available here: <a href="https://soundcloud.com/energy-geos">https://soundcloud.com/energy-geos</a>)

December 11, 2015: "Carbon Management More Pressing Than Ever But As Challenging As Always" (Wyoming Public Media) (available here: <a href="http://www.wyomingpublicmedia.org/post/carbon-management-more-pressing-ever-challenging-always#stream/0">http://www.wyomingpublicmedia.org/post/carbon-management-more-pressing-ever-challenging-always#stream/0</a>)

Numerous print interviews available via Internet searches

#### **Teaching Engagements**

February 28, 2023: "Clean Air Act: How the U.S. Regulates Air Quality" (ERS 3010); Guest Lecturer; University of Wyoming; Laramie, Wyoming

October 26, 2022: "CCS Policy Update" (Dr Zhai's course); Guest Lecturer; University of Wyoming; Laramie, Wyoming

September 27, 2022: "Energy Security" (INST 4455); Guest Lecturer; University of Wyoming; Laramie, Wyoming

Fall 2022: "Geological Carbon Sequestration: Policy, Models, and Engineering" (ERS 4990/ChE 5150, College of Engineering & Applied Sciences, University of Wyoming) (co-teaching)

March 22, 2022: "Overview of the Clean Air Act and Current Climate Policy" (Dr. Field's course, College of Engineering & Applied Sciences, University of Wyoming; webinar)

March 1, 2022: "Update on Low-Carbon Energy" (Business Ethics, Gillette College, Gillette, Wyoming)

November 15, 2021: "Climate Policy Overview" (Dr. Haibo's course, College of Engineering & Applied Sciences, University of Wyoming)

November 17, 2020: "Energy and Climate Policy" (ENR 5000 Guest Lecture, Haub School, University of Wyoming; webinar)

November 9, 2020: "Energy Law, Climate Policy & CCUS Regulations" (Dr. Haibo's course, College of Engineering & Applied Sciences, University of Wyoming; webinar)

April 2, 2020: "Energy Policy & Climate" Guest Lecturer, John Hopkins University (online)

January 30, 2020: Environment & Natural Resources in Practice for ENR 4900; Panelist; University of Wyoming; Laramie, Wyoming

December 5, 2019: "Energy & Climate Problem Solving" for ENR 5000 ("Approaches to Environmental Problem Solving"); Guest Lecturer; University of Wyoming; Laramie, Wyoming

April 18, 2019: "Overview of the Federal Clean Air Act" for ERS 3010 ("Air Quality Management"); Guest Lecturer; University of Wyoming; Laramie, Wyoming

April 12, 2019: "Authentic Leadership"; ½ day training program, Collaboration Program in Natural Resources, Ruckelshaus Institute, Haub School of Environment & Natural Resources, University of Wyoming, Laramie, Wyoming

March 14, 2019: "Carbon Capture and Sequestration in the Cowboy State: A Primer for the Wyoming Lawyer," Wyoming State Bar Webinar (online)

Fall 2018, "Energy Security"; Guest Lecturer; University of Wyoming, Global Energy Sustainability & Development

Lecturer, 2016-2017, "Ethics & Leadership"; University of Wyoming

August 26, 2013: California's Safer Consumer Products Program & Sustainability, In-House Continuing Legal Education Course for The Procter & Gamble Company, Cincinnati, Ohio

July 30, 2013: Global CCS Institute, Junior Professional Legal and Regulatory Tutorial Group, Program: "Good Models for CCS Legislation: Advancing CCS Projects within Frameworks"; Course: "Negotiating CO<sub>2</sub>-EOR Contracts"

December 3, 2012: Short Course on Drafting CO<sub>2</sub> Offtake Contracts, Midland, TX

October 25, 2012: Negotiating Emissions Reduction Purchase Agreements, John Hopkins University, Washington, D.C. (with Craig Hart)

2011: University of Wyoming, "CCS Legal and Regulatory Frameworks," co-development of asynchronous course

July 19, 2011: "CCS Federal Legal and Policy Update," IEAGHG International Summer School 2011, University of Illinois

2006: American Association of Petroleum Geologists, "Seminar on CO<sub>2</sub>-EOR" (co-taught with Steve Melzer)

1991-2002 (circa): John Hopkins University, "Legal Aspects of Biotechnology" (co-taught seminar with Herb Estreicher)

# **Publications**

Orujov, A.; Coddington, K.; Aryana, S.A. "A Review of CCUS in the Context of Foams, Regulatory Frameworks and Monitoring." Energies 2023, 16, 3284. https://doi.org/10.3390/en16073284 (available at https://www.mdpi.com/1996-1073/16/7/3284)

Coddington, K., et al. "Prefeasibility Study on the Use of Carbon Dioxide in Concrete Public Works Projects in Wyoming" (SER paper for the Wyoming Legislature; unpublished)

Mersch, M. et al. "CCS Value Chain Optimisation to Maximize US Tax Credit Revenues in Wyoming," Proceedings of the 16<sup>th</sup> Greenhouse Gas Control Technologies Conference, October 23-27 (2022)

Dindi, A. et al. "Policy-Driven Potential for Deploying Carbon Capture and Sequestration in a Fossil-Rich Power Sector" Environ. Sci. Technol. 2022 July 19;56(14): 9872-9881 (available at <a href="https://pubmed.ncbi.nlm.nih.gov/35785993/">https://pubmed.ncbi.nlm.nih.gov/35785993/</a>)

Bagdonas, D., et al. "Rare Earth Element Resource Evaluation of Coal Byproducts: A Case Study from the Power River Basin, Wyoming," Renewable and Sustainable Energy Reviews 158 (2022) 112148 (available at <a href="https://www.sciencedirect.com/science/article/pii/S1364032122000764">https://www.sciencedirect.com/science/article/pii/S1364032122000764</a>)

Quillinan, S., McLaughlin, J., Coddington, K. "Commercial-Scale Carbon Storage Complex Feasibility Study at Dry Fork Station, Wyoming." United States: N. p., 2021. Web. doi: 10.2172/1780712 (available at <a href="https://www.osti.gov/biblio/1780712">https://www.osti.gov/biblio/1780712</a>)

McLaughlin, F., Quillinan, S., Coddington, K. "Wyoming CarbonSAFE: Advancing Commercialization of Low-Carbon Energy Technologies in Fossil-Rich Wyoming", Proceedings of the 15<sup>th</sup> Greenhouse Gas

Control Technologies Conference, March 15-18 (2021) (available at https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3821220)

Righetti, T., Stoellinger, T., Godby, R., Coddington, K. "Adapting to Coal-Plant Closures: A Framework for Understanding State Resistance to the Energy Transition" (CERPA working paper, 2021; available at <a href="https://www.uwyo.edu/ser/research/centers-of-excellence/energy-regulation-policy/files/working-paper-02-coal-plant-closures.pdf">https://www.uwyo.edu/ser/research/centers-of-excellence/energy-regulation-policy/files/working-paper-02-coal-plant-closures.pdf</a>)

Coddington, K., Harju, J. (report co-chairs). "Coal Power: Smart Policies in Support of Cleaner, Stronger Coal" (National Coal Council, 2020) (available at <a href="https://www.nationalcoalcouncil.org/studies/2020/COAL-POWER-Cleaner-Stronger-Energy.pdf">https://www.nationalcoalcouncil.org/studies/2020/COAL-POWER-Cleaner-Stronger-Energy.pdf</a>)

Bazilian, M., Coddington, K. "CCUS Under the Paris Agreement," The Hill (May 4, 2020) (available at <a href="https://thehill.com/opinion/energy-environment/492990-carbon-capture-utilization-and-storage-under-the-paris-agreement">https://thehill.com/opinion/energy-environment/492990-carbon-capture-utilization-and-storage-under-the-paris-agreement</a>)

Pettit, A., Koski, K., Coddington, K. "Secure Geologic Storage: 45Q, The ISO, and State Regulation," Energy Law Advisor, The Center for American and International Law, Vol. 14, No. 1 (2019) (available at <a href="https://www.cailaw.org/media/files/IEL/Publications/2020/apettit-vol14-no1.pdf">https://www.cailaw.org/media/files/IEL/Publications/2020/apettit-vol14-no1.pdf</a>)

Coddington, K., Terrell, C. "Low-Carbon Energy Law & Policy: What Wyoming Lawyers Need to Know." White Paper for Presentation at the Wyoming State Bar 2019 Annual Meeting & Judicial Conference (Oct. 2, 2019; Moran, Wyoming)

Guo, F., Aryana, S., Wang, Y., McLaughlin, F., Coddington, K. "Enhancement of Storage Capacity of CO<sub>2</sub> in Saline Aquifers Using Nanoparticle Stabilized CO<sub>2</sub> Foam," Int'l J. of Greenhouse Gas Control, vol. 87, pp. 134-141 (Aug. 2019) (available at <a href="https://www.sciencedirect.com/science/article/abs/pii/S1750583619301859">https://www.sciencedirect.com/science/article/abs/pii/S1750583619301859</a>)

Coddington, K., Righetti, T. "Why Current Regulation of Commercial CO<sub>2</sub>-EOR Operations, Coupled With Documenting Storage under the International Organization for Standardization's New CO<sub>2</sub>-EOR Standard, Can Be Used to Demonstrate 'Secure Geologic Storage' Under Amended 45Q of the Internal Revenue Code" (June 2019) (available at

https://www.researchgate.net/publication/333825695 Current Regulation of Commercial CO2-EOR Operations Coupled with Documenting Storage under the International Organization for Stan dardization's New CO2-EOR Standard Can Be Used to Demonstrate Secure G)

Quillinan, S., McLaughlin, J., Coddington, K., Moore, T., Bosshart, N., Jiao, Z., Oster, B., Ganshin, Y., Bagdonas, D., Phillips, E., Nye, C., Carpenter, S. "Integrated Geologic Storage Prefeasibility Study Proximal to Dry Fork Power Station, Powder River Basin, Wyoming." 14<sup>th</sup> Greenhouse Gas Control Technologies Conference (GHGT-14, Melbourne, Australia; April 15, 2019) (available at https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3366404##)

Coddington, K. "Climate Policies in Flux for Coal-Fired Power Plants: EU Agrees on A CO<sub>2</sub> Emission Rate That Differs from U.S. Policy; Implications for CCS, Renewables." LinkedIn Article (December 20, 2018) (available at <a href="https://www.linkedin.com/pulse/climate-policies-flux-coal-fired-power-plants-eu-co2-rate-coddington/">https://www.linkedin.com/pulse/climate-policies-flux-coal-fired-power-plants-eu-co2-rate-coddington/</a>)

Coddington, K. "International Carbon Markets: Initial Observations from Yesterday's Conclusion of the Paris Agreement COP24 Meetings." LinkedIn Article (December 16, 2018) (available at <a href="https://www.linkedin.com/pulse/international-carbon-markets-initial-observations-from-coddington/">https://www.linkedin.com/pulse/international-carbon-markets-initial-observations-from-coddington/</a>)

Contributing Author. "Power Reset: Optimizing the Existing Coal Fleet to Ensure a Reliable and Resilient Grid." National Coal Council (October 2018) (available at <a href="https://www.nationalcoalcouncil.org/studies/2018/NCC-Power-Reset-2018.pdf">https://www.nationalcoalcouncil.org/studies/2018/NCC-Power-Reset-2018.pdf</a>)

Godec, M., Carpenter, S., Coddington, K. "Evaluation of Technology and Policy Issues Associated with the Storage of Carbon Dioxide via Enhanced Oil Recovery in Determining the Potential for Carbon Negative Oil." Vol. 114, Energy Procedia pp. 6563-6578 (2017) (available at <a href="http://www.sciencedirect.com/science/article/pii/S1876610217319975">http://www.sciencedirect.com/science/article/pii/S1876610217319975</a>)

Righetti, T., Godby, R., Echeverri, D., Stoellinger, T., Coddington, K. "The Role of Energy Models: Characterizing the Uncertainty of the Future Electricity System to Design More Efficient and Effective Laws and Regulations," 8 Geo. Wash. J. of Energy & Envtl. Law 56 (2017) (available at <a href="https://www.researchgate.net/publication/311847415">https://www.researchgate.net/publication/311847415</a> The Role of Energy Models Characterizing the Uncertainty of the Future Electricity System to Design More Efficient and Effective Laws and Regulations)

Coddington, K. (report chair & chapter lead), et al. "CO<sub>2</sub> Building Blocks: Assessing CO<sub>2</sub> Utilization Options." National Coal Council (August 2016) (available at <a href="http://www.nationalcoalcouncil.org/studies/2016/NCC-CO2-Building-Block-FINAL-Report.pdf">http://www.nationalcoalcouncil.org/studies/2016/NCC-CO2-Building-Block-FINAL-Report.pdf</a>)

Jiao, Zunsheng, Coddington, K., McLaughlin, J. Fred, Quillinan, Scott, Bentley, Ramsey. "CCUS Provides an Integrated Strategy for the Sustainable Energy Future of Energy Prolific Basins in Wyoming and China." Paper No. 25-5, 2015 GSA Annual Meeting (2015) (available at <a href="https://gsa.confex.com/gsa/2015AM/webprogram/Paper269215.html">https://gsa.confex.com/gsa/2015AM/webprogram/Paper269215.html</a>)

Northam, M., Coddington, K., et al. "Wyoming Coal: Influences on Current and Future Markets – Competition, Regulation, and Technology." Report to The Legislature of the State of Wyoming (Nov. 1, 2016)

Stoellinger, T., Righetti, T., Coddington, K. "Impact of Social Cost of Carbon Analyses in the Development of Energy Projects on Federal Land." The Electricity Journal, Vol. 29, Issue 1, January-February 2016, Pages 63-70) (available at <a href="http://www.sciencedirect.com/science/article/pii/S1040619015300087">http://www.sciencedirect.com/science/article/pii/S1040619015300087</a>)

VanBelleghem, S., Coddington, K. "Implications of the Evolving NEPA Framework for Assessing Greenhouse Gas Emissions and the Social Cost of Carbon." 62 Rocky Mt. Min. L. Inst. 6-1 (2016)

Interstate Oil & Gas Compact Commission, Task Force on CO<sub>2</sub> Stewardship (2013)

Permitting Issues Related to Carbon Capture and Storage for Coal-Based Power Plant Projects in Developing APEC Economies, APEC Energy Working Group (Sept. 2012) (coauthor with Craig Hart and Pamela Tomski)

IEA Carbon Capture and Storage Legal and Regulatory Review, 2d Edition (May 2011) (author of submission on behalf of the North American Carbon Capture & Storage Association)

Expedited CCS Development: Challenges & Opportunities (National Coal Council, March 2011) (co-author of chapter 5, Legal and Regulatory Policies)

Supplement to the Recommendations of the California CCS Review Panel (January 2011)

A Policy, Legal, and Regulatory Evaluation of the Feasibility of a National Pipeline Infrastructure for the Transport and Storage of Carbon Dioxide (IOGCC, January 2011) (principal co-author)

Getting the Deal Through®, Climate Regulation 2009, 2010

Low-Carbon Coal: Meeting U.S. Energy, Employment and CO<sub>2</sub> Emission Goals With 21<sup>st</sup> Century Technologies (National Coal Council, December 2009) (co-author of section 6, CCS legal/regulatory issues)

The Commercial Deployment of Carbon Capture and Storage Technology (BNA Environment Reporter, September 2007) (co-author with David Meezan and Kristen Jones)

Interstate Oil & Gas Compact Commission Model CCS Rules (contributor; various dates)

Carbon Dioxide Poised for a Comeback (American Coal Council 2006)

Is Climate Change a Legally Cognizable Public Nuisance?, Mealey's Pollution Liability Report (Nov. 2004)

The New Kid on the Block: DHS and DOT Jointly Request Comments on Enhancing Rail Transportation for Toxic Inhalation Hazard Materials (Hazmat Packager and Shipper (2004)

Crossborder Cooperation: FDA Champions New Drug Regs (World Trade, Aug. 1, 2003) (co-authorship with F. Amerasinghe)

## **Speaking Engagements**

May 26, 2022: Panelist, "Dealing with Carbon," Alaska Sustainable Energy Conference (Anchorage, AK)

April 4, 2022: Panelist, "Social and Environmental Justice: An Examination of Carbon Ore, Rare Earth and Critical Mineral (CORE-CM) Communities" (speaking on "Law and Policy"), UW School of Energy Resources (webinar)

March 7, 2022: Speaker, "Update on Energy Policy," Campbell County Chamber of Commerce (Gillette, Wyoming)

February 24, 2022: Panelist, "CORE-CM PRB Technology Roundtable," UW School of Energy Resources (webinar)

January 5, 2022: Speaker, "Wyoming CarbonSAFE Media Day" (Gillette, Wyoming)

December 16, 2021: Panelist, "CCUS Development in Wyoming" (speaking on "CCUS Project Finance"), UW School of Energy Resources (webinar)

November 17, 2021: Panelist, "Wyoming's Energy Economy," 2021 Governor's Business Forum: The Road to Recovery, Wyoming Business Alliance/Wyoming Heritage Foundation (Cheyenne, Wyoming)

October 15, 2021: Moderator, "Renewables in the Energy Transition," Energy Policy Institute 2021 Conference (Boise State University; webinar)

September 30, 2021: Panelist, "CCUS in the Infrastructure Investment and Jobs Act – Opportunities for States," National Association of State Energy Officials Virtual Workshop: The Future of Carbon Capture, Utilization, and Storage (CCUS) – Technology and Policy Considerations (webinar)

August 26, 2021: Speaker, "What Oil & Gas Companies Need to Know About CCUS Regulations: An Overview & Update for Wyoming Producers," Petroleum Association of Wyoming 2021 Annual Meeting (Cheyenne, Wyoming)

August 10, 2021; Co-Moderator, "Sequestration as a Service," Wyoming Energy Authority (Cheyenne, Wyoming)

August 3, 2021: Speaker, Wyoming CarbonSAFE Public Outreach Meeting (Gillette, Wyoming)

August 2, 2021: Speaker, "Wyoming Regional Perspectives" (U.S. Department of Energy Carbon Management Program; webinar)

June 16, 2021: Moderator, "Overview of a Possible New Federal Clean Electricity Standard: The View from Wyoming" (UW/SER/CERPA; webinar)

June 8, 2021: Panelist, "From Classic to Contemporary: How the Cyclical Nature of Carbon Markets Promotes Innovation" (Bluesource, webinar)

May 12, 2021: Panelist, "CCUS & Earth's Imagining"; specific talk: "Corporate and Governmental Support for CCUS, 2022 and Beyond" (American Association of Petroleum Geologists Pivoting 2021 Series; webinar)

May 4, 2021: Panelist, "CO<sub>2</sub> Mitigation: Carbon Sequestration/Reuse/Storage, Soils, Waste Mitigation of Plastics"; specific talk: "The Energy Transition – A View from Wyoming, From CO<sub>2</sub> Mitigation to REE's" (21st Century Energy Transition 2021 Symposium, Colorado Energy Research Collaboratory; webinar)

March 23, 2021: Panelist, "Class VI Permitting in Wyoming" (Enhanced Oil Recovery Institute; webinar)

March 22, 2021: Panelist, "Class VI Permitting in Wyoming" (Wyoming Energy Authority; webinar)

March 18, 2021: Panelist, "Pore Space and Legal Liability" (Great Plains Institute; webinar)

February 2, 2021: Moderator, "Exploring the Bounds of Possibility: A Roundtable Discussing the Legal Extent and Economic Impacts of Stalling New Energy Production on Federal Lands" (University of Wyoming; webinar)

October 2, 2020: "What You May Have Missed in Carbon Capture & Sequestration Policy if You've Been a Little Bit Distracted" (Center for Advanced Energy Studies/Energy Policy Institute Power Talk Series; webinar)

September 15, 2020: "CCUS Roundtable" (American Bar Association/Section of Environment, Energy & Resources; webinar)

September 11, 2020: "CCUS Overview" (Western Interstate Energy Board & NARUC; webinar) August 18, 2020: Presentation of the National Coal Council's Report to DOE Leadership (private webinar)

August 18, 2020: "Wyoming Regional Perspective" (DOE-NETL's 2020 Integrated Project Review Meeting; webinar)

May 28, 2020: Cohost, "Energy Policy Workshop" (Center for Advanced Energy Studies; webinar)

April 7, 2020: Panelist, "Solve Climate by 2030" (Center for Advanced Energy Studies; webinar)

April 1, 2020: "Update on Wyoming's New CCUS Policies" (United States Energy Association; webinar)

March 16, 2020 (postponed): "Climate Law & Policy Update" (The Jackson Hole Center for Global Affairs; Jackson, WY)

March 3, 2020: "CCUS Roundtable Discussion" (Colorado School of Mines; Golden, CO)

February 25, 2020: "Low-Carbon Fossil Update: The View from Wyoming" (IEA Coal Industry Advisory Board; Washington, D.C.)

February 14, 2020: "Wyoming's Energy Outlook" (Wyoming County Commissioners Association 2020 Legislative Conference; Cheyenne, WY)

January 25, 2020: "Overview of UW's Center for Energy Regulation & Policy" (University of Wyoming's "Saturday University" Program; Rock Springs, WY)

January 23, 2020: "Overview of UW's Center for Energy Regulation & Policy" (University of Wyoming's "Saturday University" Program; Pinedale, WY)

December 18, 2019: Panelist, "Energizing Our Future" (Albany County Public Library; Laramie, WY)

November 13, 2019: "Wyoming Energy Outlook" (Governor's Business Forum; Cheyenne, WY)

November 11, 2019: "Low-Carbon Policy Considerations" (Testimony before the Revenue Committee of the Wyoming Legislature; Cheyenne, WY)

November 8, 2019: "Is the Green New Deal Poised to Become Federal Law?: A Federal Climate Policy Update" (University of Wyoming's School of Energy Resources Lecture Series; Laramie, WY)

October 25, 2019: Moderator, panel discussion on "The Energy Transition: The Disparate Roles, Impacts and Influences of Federal & State Law and Regulation" (2019 Landscape Discussion on Energy Law & Policy in the Rockies; University of Wyoming; Laramie, WY)

October 2, 2019: "Low-Carbon Energy Law & Policy: What Wyoming Lawyers Need to Know" (Wyoming State Bar, 2019 Annual Meeting & Judicial Conference; Moran, WY)

September 20, 2019: Panelist, panel discussion on "Amazon Rainforest Fires" (Center for Advanced Energy Studies; Idaho Falls, ID)

September 6, 2019: Moderator, panel discussion on the "The Future of Coal and Other Fossil Fuels" (The U.S. Future Leaders Topical Seminar on Energy and Natural Resources, University of Wyoming, Laramie, WY) (http://www.uwyo.edu/globalcenter/upcoming-conferences.html)

August 30, 2019: Testimony regarding the section 45Q tax credit before the Wyoming Legislature's Committee on Minerals, Business & Economic Development (<a href="https://www.wyoleg.gov/Committees/2019/J09">https://www.wyoleg.gov/Committees/2019/J09</a>)

August 29, 2019: "Energy Policy Update" (The Jackson Hole Center for Global Affairs; Jackson, WY)

August 26-27, 2019: "Powering the Future: Energy in the West Conference"; speaker and emcee (Boise, Idaho) (https://westernenergyconference.com/)

August 14, 2019: "Update on University of Wyoming Research Projects" (Gillette College; Gillette, WY)

July 22, 2019: "The Evolution of CCUS Policy and CCUS in Wyoming" (Research Experience in Carbon Sequestration; Laramie, WY)

June 28, 2019: "So You've Captured CO<sub>2</sub>. Now What?; Thoughts Regarding Utilization" (Carbon Dioxide Removal Panel, AAAS "Beyond Electricity" Symposium, Washington, D.C.)

June 5, 2019: "Can the Paris Agreement Facilitate CCS/CCUS Projects?: Lessons Learned from the Kyoto Protocol and COP24" (IEA Clean Coal Center's Clean Coal Technologies Conference 2019; Houston, Texas)

May 8, 2019: "Aligning Stakeholders: Carbon Capture & Social License" (Wyoming Energy Summit; Gillette, WY) (joint presentation with Dr. Jessica Western, University of Wyoming)

May 2, 2019: "The Low-Carbon Energy Transition: Some Observations Regarding Possible Impacts for the Rocky Mountain Region" (Center for Advanced Energy Studies; Idaho Falls, Idaho)

April 19, 2019: "What Wyoming Engineers Need to Know about Climate Policy" (Laramie Engineer's Club; Laramie, WY)

April 2, 2019: "Wyoming's Leadership Role in Low-Carbon Energy Systems" (University of Wyoming Senior Leadership Delegation Program; Washington, D.C.; Arlington, VA)

March 29, 2019: "Low-Carbon Policy & Recommendations for Wyoming Policymakers" (Wyoming Infrastructure Authority, Spring Energy Conference; Jackson, WY)

February 23, 2019: "Why Carbon Capture is Important for Wyoming's Economic Future: A Climate Policy Overview" (University of Wyoming's "Saturday University" Program; Sheridan, WY)

February 21, 2019: "Why Carbon Capture is Important for Wyoming's Economic Future: A Climate Policy Overview" (University of Wyoming's "Saturday University" Program; Gillette, WY)

October 25, 2018: American Association for the Advancement of Science peer-review panel which was convening for a review of an unrelated project on campus (Laramie, WY)

October 25, 2018: "Update on Low-Emission Coal Research at the University of Wyoming" (Rotary Club of Laramie; Laramie, WY)

October 4, 2018: CCS Panel Discussions (DOE/NETL & Coal Utilization Research Council Technology Showcase; Washington, D.C.)

September 13, 2018: "Update on the Amended Section 45Q CCS Tax Incentive" (Wyoming Oil & Gas Fair; Casper, WY)

May 30, 2018: "In Search of Research Impact in Energy R&D: The Role of Policy, Law & Economics" (Presentation to Idaho National Laboratory; Idaho Falls, ID)

March 28, 2018: "Update on SER Low-Carbon Research" (School of Energy Resources, University of Wyoming; Laramie, WY)

October 30, 2017: Energy Panel, Colorado State University (Fort Collins, CO)

October 21, 2017: Presentation to the Joint Wyoming/Japan Coal Energy Center Working Group (Gillette, WY)

October 20, 2017: Presentation on CCS Research at the "State/Tribal/EPA Region 8 UIC Directors" meeting (Casper, WY)

October 17, 2017: Energy Panel, UW Center on Global Studies (Laramie, WY)

October 16, 2017: Energy Panel, UW Center on Global Studies (Sheridan College; Sheridan, WY)

April 2017: "The Future of Coal" (PRB Users' Council; Chicago, IL)

April 2017: "Coal Policy" (MIT Center for Energy and Environmental Policy Research's Energy & Environmental Policy Workshop; Cambridge, MA)

July 21, 2016: "Implications of the Evolving NEPA Framework for Assessing Greenhouse Gas Emissions and the Social Cost of Carbon" (62<sup>nd</sup> Annual Rocky Mountain Mineral Law Institute; Lake Tahoe, CA)

April 21, 2016: Talk on Carbon Engineering (National Coal Council; Washington, D.C.)

April 7, 2016: UW Energy Overview (Idaho National Laboratory; Idaho Falls, ID)

April 4, 2016: Panel Discussion -- "A Conversation on Regulating Coal in Coal Country" (UW; Laramie, WY)

March 10, 2016: Energy Policy Presentation (George Washington University; Washington, D.C.)

November 13, 2015: "Carbon Management update: From Rio (1992) to Paris (2015)" (UW Student Workshop; Laramie, WY)

July 16, 2015: "CO2 Update: The Carbon Market" (2015 Wyoming CO2-EOR Conference, Casper, WY)

April 30, 2015: "Update on International CCS Standards" (Fourteenth Annual CCUS Conference, Pittsburgh, PA)

December 9, 2014: "Federal and State CCS/CCUS/CO<sub>2</sub>-EOR Overview" (2014 Annual EOR Carbon Management Workshop, Midland, TX)

February 27, 2014: "Policy, Regulatory and Legal Roundtable: Actions and Frameworks to Advance CCUS in the Americas" (Global CCS Institute, Third Annual North American Forum: Moving CCS Forward – Actions and Opportunities, Canadian Embassy, Washington, D.C.)

October 8, 2013: Webinar on GHG Regulations and Policies that Apply to the Production and Use of Conventional and Unconventional Natural Gas, Society of Petroleum Engineers

October 1, 2013: Keynote Address, GreenFleet Conference & Expo (Phoenix, AZ)

September 10-13, 2013: Keynote Address, 2013 Annual Meeting of the Automotive Fleet & Leasing Association (Scottsdale, AZ)

August 15, 2013: Coal-Gen 2013, Panel discussion on existing and pending regulations and the impact on a fossil fuel plant's need for CCS (Charlotte, NC)

July 9-11, 2013: Global CCS Institute CCS/CCUS Thought Leadership Forum (Wye River, MD)

March 28, 2013: "What to Expect from President Obama's Second Term" (Automotive Fleet & Leasing Association, webinar)

February 4, 2013: "Using Legal and Regulatory Frameworks to Advance CCUS Technology Development and Deployment in North America" (Global CCS Institute, Second Annual North American Forum: Global Opportunities & Strategic Directions, Canadian Embassy, Washington, D.C.)

January 11, 2013: "Carbon Capture and Sequestration" (Georgia Chapter, Air & Waste Management Association; Atlanta, GA)

December 4, 2012: "Climate Change and GHG Regulatory Update" (CO<sub>2</sub> Conference Week and 10<sup>th</sup> Annual EOR Carbon Management Workshop; Midland, TX)

December 3, 2012: "Negotiating CO<sub>2</sub>-EOR Offtake Contracts in a Changing Policy Environment" (Contracting Seminar, 10<sup>th</sup> Annual EOR Carbon Management Workshop; Midland, TX)

July 19, 2012: "Update on Latest Developments in Coal & Utility Regulations" (Women in Government, Fourth Annual Energy Summit; Des Moines, IA)

July 12, 2012: "Energy Policy Update" (Republican Legislative Campaign Committee, National Meeting; Minneapolis, MN)

June 6, 2012: "The Current and Future State of Coal-Fueled Electricity in the Southeast" (Southeastern Association of Regulatory Utility Commissioners; New Orleans, LA)

May 20, 2012: "Look to Energy to Power Job Creation" (2012 Emerging Leaders' Summit, GOPAC; NAPA, CA)

April 5, 2012: "Federal Environmental Perspective" (Missouri Chamber of Commerce – 5<sup>th</sup> Annual Conference on "Missouri's Energy Future"; Jefferson City, MO)

December 2, 2011: "Restoring America's Job & Economy: The Role of Environmental Policies" (ALEC States & Nation Policy Summit; Phoenix, AZ)

November 4, 2011: "Coal's Vital Role in Economic Development & Quality of Life" (Lexington Coal Exchange; Lexington, KY)

October 24, 2011: "Clean Air Act Implications of Shale Gas Usage in Baseload Power Generation" (Energy & Environmental Research Center; Arlington, VA)

October 14, 2011: "Environmental Regulations & the Future of American Energy" (6<sup>th</sup> Annual Conference, Board of Hispanic Caucus Chairs; Las Vegas, NV)

September 20, 2011: "Current and Upcoming CCS Regulations" (IPIECA Workshop on CCS, Washington, D.C.)

August 28, 2011: "A Reality Check on Energy & Environmental Policies" (Women in Government Annual Meeting; Pittsburgh, PA)

August 19, 2011: "A Reality Check on Energy & Environmental Policies" (Southern States Energy Board; Asheville, NC)

May 19, 2011: CCS Update (Gasification Technologies Council; Williamsburg, VA)

May 17, 2011: "What Train Wreck? The Bright Future for Coal" (Edison Electric Institute/American Bar Association; Washington, D.C.)

May 5, 2011: "An Appraisal of EOR as a First Step Towards CCS Deployment" (10<sup>th</sup> Annual CCS Conference; Pittsburgh, PA)

April 28, 2011: "Reducing Your Carbon Footprint – Can It Be Done?" (American Association of Blacks in Energy; Jersey City, NJ)

March 16, 2011: "Coal Technologies Forum," Panel Discussion for the Congressional Coal Caucus (Washington, D.C.)

December 2010: "CCS and Impacts of the EPA Regulations" (8<sup>th</sup> Annual EOR CO<sub>2</sub> Management Workshop; Houston, TX)

Fall 2010: Various testimonies before the Colorado Public Utilities Commission in its implementation of the Clean Air/Clean Jobs Act

June 2010: Participation in "Expert Workshop Addressing CCS Liability, Oversight, and Trust Fund Issues; representing the Southern States Energy Board/U.S. Department of Energy (Harvard Law School, Harvard Kennedy School)

May 2010: "Carbon Capture and Sequestration in Practice" (Environmental Law Reporter Roundtable, Washington, D.C.)

February 2010: "Energy and Environmental Update" (Automotive Fleet & Leasing Association, webinar)

January 2010: "Energy and Environmental Update" (Automotive Fleet & Leasing Association, webinar)

September 2009: "CCS: Bridging the Commercial Gap – Views on Government Measures to Reduce Commercial Risk for CCS Deployment" (International Energy Agency, Carbon Sequestration Leadership Forum, Global CCS Institute; New York, NY)

June 2009: "The Good, The Bad & The Ugly: Impact of Coming Carbon Regulations on Independent Oil & Gas Producers" (Oklahoma Independent Petroleum Association; Tulsa, OK)

April 2009: "Commercializing Carbon Capture and Storage Technology" (TradeEx America; Washington, D.C.)

March 2009: "Washington Update" (Southeast Regional Carbon Sequestration Partnership, 5<sup>th</sup> Annual Stakeholders' Briefing; Atlanta, GA)

March 2009: "CCS Financing Schemes: An Update on EU and U.S. Activities" (International Energy Agency, webinar)

February 2009: "Carbon Projects & Policy under the Stimulus Package: An Update for Project Developers & Investors" (with Craig Hart) (Alston & Bird seminar, Washington, D.C.)

October 2008: "Panel Discussion on CCS Liability" (E&ETV)

May 2008: "Legal Regulatory Framework for CO<sub>2</sub> Capture and Storage," Testimony before Montana Legislature Energy & Telecommunications Interim Committee

April 2008: "Capturing the Carbon: Latest Developments in Sequestration" (Wall Street Green Trading Summit; New York, NY)

April 2008: "Update on Carbon Trading in the United States" (18th Annual Derivatives World; London, UK)

November 2007: "Understanding and Planning for the Liabilities Associated with CCS to Mitigate Risk" (American Conference Institute; Austin, TX)

October 2007: "Risks, Liabilities & Carbon Trading: Finding the Balance – Energy & Climate Change" (Teton Village, WY)

June 2007: "Using Coal Responsibly" – Panel Discussion at the Center for American Progress with John Deutch, MIT and David Hawkins, NRDC (Washington, D.C.)

June 2007: "Addressing Long-Term Liability of Carbon Dioxide Capture and Geological Sequestration" (World Resources Institute, Washington, D.C.)

December 2006: "Legal and Policy Impediments to Unleashing the Commercial Potential of Carbon Capture and Storage" (4<sup>th</sup> Annual EOR CO<sub>2</sub> Management Workshop; Houston, TX) – cosponsored by the Society of Petroleum Engineers – Permian Basin

December 2005: "The Legal & Policy Climate for CO<sub>2</sub> in the U.S." (3<sup>rd</sup> Annual EOR CO<sub>2</sub> Management Workshop; Houston, TX) – cosponsored by the Society of Petroleum Engineers – Permian Basin

November 2006: "Designing National and State Frameworks for Carbon Management Standards," panel moderator (Gasification Technologies Council; Denver, CO)

May 2006: "A Model CCS Code: Establishing the Regulatory Framework and Incentives to Enable Technology Development" (5<sup>th</sup> Annual Conference on CCS; Alexandria, VA)

December 2004: Legal, Regulatory and Policy Issues Impacting CO<sub>2</sub>-EOR (2<sup>nd</sup> Annual EOR CO<sub>2</sub> Management Workshop; Houston, TX) – cosponsored by the Society of Petroleum Engineers – Permian Basin