

**COMMONWEALTH OF KENTUCKY
BEFORE THE KENTUCKY STATE BOARD
ON ELECTRIC GENERATION AND TRANSMISSION SITING**

In the Matter of the Application of Barrelhead Solar,)
LLC for a Certificate of Construction for an)
approximately 54-Megawatt Merchant Electric)
Generating Facility in Wayne County, Kentucky) **Case No. 2025-00177**
pursuant to KRS 278.700, et seq., and 807 KAR 4:110)

WITNESS LIST

Barrelhead Solar, LLC (“Barrelhead Solar”), by counsel, pursuant to 807 KAR 5:110, Section 6 and other applicable law, does hereby give notice of its intent to make the following individuals available to provide fact and expert testimony at the hearing for this matter which is scheduled to begin at 9:00 a.m. on Tuesday, February 17, 2026. Summary biographical information and curriculum vitae are attached.

Richard Kirkland will be available to provide testimony regarding the Property Value Impact Study he performed for the Project. Mr. Kirkland will be able to provide testimony about the project’s impact on neighboring property values. A copy of Mr. Kirkland’s report was filed with the Application in this matter. Mr. Kirkland has nearly 30 years of experience in appraisals and is a State Certified General Appraiser in North Carolina. He founded Kirkland Appraisals in 2003. Mr. Kirkland has submitted numerous property-value reports associated with solar-energy generating facilities that support projects approved by the Siting Board. Mr. Kirkland graduated from the University of North Carolina at Chapel Hill in 1993 with a bachelor’s degree in English. Mr. Kirkland’s curriculum vitae is attached.

Dr. Joshua Pinkston will be available to provide testimony regarding the economic impact that the Project will have on Wayne County and the surrounding region. Furthermore, Dr. Pinkston

will also be able to provide testimony about the project investment and associated costs, the tax impact of the project, and the economic impacts over the project's lifetime. He will also testify about any spin-off jobs and employment related to lease payments the project may bring. He has sponsored responses to requests for information and his revised report, which have been filed in this matter. Dr. Pinkston is an Associate Professor in the University of Louisville Economics Department, where he first started teaching in 2009. He also worked as a Research Economist with the Bureau of Labor Statistics from October 2001 to July 2009. Dr. Pinkston has a Ph.D. in Economics and master's degree in economics from Northwestern University along with a bachelor's degree from Auburn University. Dr. Pinkston's curriculum vitae is attached.

Trudie Grattan will be available to provide testimony regarding a broad range of issues, including general matters relating to the project; site selection; planning; design; permitting; project schedule; operation; management; mitigation measures; corporate structure of Barrelhead Solar; interconnection with the Eastern Kentucky Power Cooperative transmission line; and communications with local officials and members of the public. She has sponsored several responses to requests for information which have been filed in this matter. Ms. Grattan is a Project Manager with Birch Creek Development, LLC and first started working on the Barrelhead Solar project in 2025. She has a Bachelor of Science in Human Biology and a Master of Arts in Earth Systems from Stanford University. Ms. Grattan's curriculum vitae is attached.

Marty Marchaterre will be available to provide testimony on a broad range of topics, including the following: site layout; impact on roads and traffic; vegetation; environmental permitting; the site assessment report; design and planning; decommissioning; glare analysis; construction activities, including noise mitigation relating to construction; decommissioning of the Project. He has sponsored several responses to requests for information and reports, which have

been filed in this matter. Mr. Marchaterre is a Senior Environmental Planner and Project Manager at Copperhead Environmental Consulting. He has extensive experience with NEPA documentation and studies, and his expertise includes solar surveys, ecological surveys, biological assessments, noise analyses, watershed planning, trail and park development studies, and community impact assessments. Mr. Marchaterre graduated from Williams College with a bachelor's degree in History and Political Science and obtained his J.D. from the College of William and Mary. Mr. Marchaterre's curriculum vitae is attached.

RESPECTFULLY SUBMITTED,

STURGILL, TURNER, BARKER & MOLONEY, PLLC

/s/ Rebecca Price

James W. Gardner

M. Todd Osterloh

Rebecca C. Price

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E-mail: rprice@sturgillturner.com

Counsel for Barrelhead Solar, LLC



Kirkland Appraisals, LLC

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Mobile (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

PROFESSIONAL EXPERIENCE

Kirkland Appraisals, LLC , Raleigh, N.C. Commercial appraiser	2003 – Present
Hester & Company , Raleigh, N.C. Commercial appraiser	1996 – 2003

PROFESSIONAL AFFILIATIONS

MAI (Member, Appraisal Institute) designation #11796	2001
NC State Certified General Appraiser # A4359	1999
VA State Certified General Appraiser # 4001017291	
SC State Certified General Appraiser # 6209	
KY State Certified General Appraiser # 5522	
TN State Certified General Appraiser # 6240	
FL State Certified General Appraiser # RZ3950	
GA State Certified General Appraiser # 321885	
MI State Certified General Appraiser # 1201076620	
PA State Certified General Appraiser # GA004598	
OH State Certified General Appraiser # 2021008689	
IN State Certified General Appraiser # CG42100052	
IL State Certified General Appraiser # 553.002633	
LA State Certified General Appraiser # APR.05049-CGA	
TX State Certified General Appraiser # 1380528 G	

EDUCATION

Bachelor of Arts in English , University of North Carolina, Chapel Hill	1993
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CONTINUING EDUCATION

Uniform Standards of Professional Appraisal Practice Update	2024
ASFMRA Integrated Approaches to Value (A360)	2024
ASFMRA Best in Business Ethics	2023
Appraising Natural Resources Series – Oil, Gas & Minerals	2023
Appraisal of Industrial and Flex Buildings	2023
Commercial Land Valuation	2023
Fair Housing, Bias and Discrimination	2023
Pennsylvania State Mandated Law for Appraisers	2023
What NOT to Do (NCDOT Course)	2023
The Income Approach – A Scope of Work Decision	2023
Valuation of Residential Solar	2022
Residential Property Measurement and ANSI	2022
Business Practices and Ethics	2022
Uniform Standards of Professional Appraisal Practice Update	2022

Sexual Harassment Prevention Training	2021
Appraisal of Land Subject to Ground Leases	2021
Michigan Appraisal Law	2020
Uniform Standards of Professional Appraisal Practice Update	2020
Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book)	2019
The Cost Approach	2019
Income Approach Case Studies for Commercial Appraisers	2018
Introduction to Expert Witness Testimony for Appraisers	2018
Appraising Small Apartment Properties	2018
Florida Appraisal Laws and Regulations	2018
Uniform Standards of Professional Appraisal Practice Update	2018
Appraisal of REO and Foreclosure Properties	2017
Appraisal of Self Storage Facilities	2017
Land and Site Valuation	2017
NCDOT Appraisal Principles and Procedures	2017
Uniform Standards of Professional Appraisal Practice Update	2016
Forecasting Revenue	2015
Wind Turbine Effect on Value	2015
Supervisor/Trainee Class	2015
Business Practices and Ethics	2014
Subdivision Valuation	2014
Uniform Standards of Professional Appraisal Practice Update	2014
Introduction to Vineyard and Winery Valuation	2013
Appraising Rural Residential Properties	2012
Uniform Standards of Professional Appraisal Practice Update	2012
Supervisors/Trainees	2011
Rates and Ratios: Making sense of GIMs, OARs, and DCFs	2011
Advanced Internet Search Strategies	2011
Analyzing Distressed Real Estate	2011
Uniform Standards of Professional Appraisal Practice Update	2011
Business Practices and Ethics	2011
Appraisal Curriculum Overview (2 Days – General)	2009
Appraisal Review - General	2009
Uniform Standards of Professional Appraisal Practice Update	2008
Subdivision Valuation: A Comprehensive Guide	2008
Office Building Valuation: A Contemporary Perspective	2008
Valuation of Detrimental Conditions in Real Estate	2007
The Appraisal of Small Subdivisions	2007
Uniform Standards of Professional Appraisal Practice Update	2006
Evaluating Commercial Construction	2005
Conservation Easements	2005
Uniform Standards of Professional Appraisal Practice Update	2004
Condemnation Appraising	2004
Land Valuation Adjustment Procedures	2004
Supporting Capitalization Rates	2004
Uniform Standards of Professional Appraisal Practice, C	2002
Wells and Septic Systems and Wastewater Irrigation Systems	2002
Appraisals 2002	2002
Analyzing Commercial Lease Clauses	2002
Conservation Easements	2000
Preparation for Litigation	2000
Appraisal of Nonconforming Uses	2000
Advanced Applications	2000
Highest and Best Use and Market Analysis	1999
Advanced Sales Comparison and Cost Approaches	1999
Advanced Income Capitalization	1998

Valuation of Detrimental Conditions in Real Estate	1999
Report Writing and Valuation Analysis	1999
Property Tax Values and Appeals	1997
Uniform Standards of Professional Appraisal Practice, A & B	1997
Basic Income Capitalization	1996

JOSHUA C. PINKSTON

Economics Department
College of Business
University of Louisville
Louisville, KY 40292

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Mobile: (502) 409-3765
josh.pinkston@louisville.edu
www.JoshPinkston.com

Education

Ph.D.: Economics, Northwestern University, 2001.
M.A.: Economics, Northwestern University, 1996.
B.A.: Economics (minor in mathematics), Auburn University, 1995.

Employment

Associate Professor, Economics Department, University of Louisville, August 2016-present.

Assistant Professor, Economics Department, University of Louisville, August 2009-July 2016.

Research Economist, Bureau of Labor Statistics, Employment Research and Program Development Staff, October 2001-July 2009.

Adjunct Professor, Johns Hopkins University MA Program in Applied Economics, January 2007- June 2009.

Current Research Interests

Labor economics, health economics, personnel economics, and discrimination.

Refereed Publications

"Time Spent Exercising and Obesity: An Application of Lewbel's Instrumental Variables Method" (with Charles Courtemanche and Jay Stewart). *Economics & Human Biology*, May 2021.

"Strong Social Distancing Measures in the United States Reduced the COVID-19 Growth Rate" (with Charles Courtemanche, Joseph Garuccio, Anh Le and Aaron Yelowitz). *Health Affairs*, May 2020

"Breaking Bad in Bourbon Country: Does Alcohol Prohibition Encourage Methamphetamine Production?" (with Jose Fernandez and Steve Gohmann). *Southern Economic Journal*, April 2018.

"The Dynamic Effects of Obesity on the Wages of Young Workers". *Economics & Human Biology*, November 2017.

- “Can Changing Economic Factors Explain the Rise in Obesity?” (with Chuck Courtemanche, Chris Ruhm and George Wehby). *Southern Economic Journal*, February 2016.
- “Adjusting Body Mass for Measurement Error with Invalid Validation Data” (with Jay Stewart and Chuck Courtemanche). *Economics & Human Biology*, December 2015.
- “How Much Do Employers Learn from Referrals?” *Industrial Relations*, April 2012.
- “A Model of Asymmetric Employer Learning with Testable Implications.” *Review of Economic Studies*, January 2009.
- Reprinted in *Learning in Labor Markets*, edited by Michael Waldman. London, Edward Elgar Publishing, 2017.
- “A Test of Screening Discrimination with Employer Learning.” *Industrial and Labor Relations Review*, January 2006.
- “Housing Vouchers and Economic Self-Sufficiency: Evidence from a Randomized Experiment” (with Jens Ludwig and Greg Duncan). *Journal of Public Economics*, January 2005.
- “Screening Discrimination and the Determinants of Wages.” *Labour Economics*, December 2003.

Working Papers

- “Chance Elections, Social Distancing Restrictions, and Kentucky’s Early COVID-19 Experience” (with Charles Courtemanche, Joseph Garuccio, Anh Le and Aaron Yelowitz), February 2021. Revision requested

Work in Progress

- Changes Over Time in the Job Search Methods of Young Adults.
- Gender Differences in the Choice of Job Search Methods.
- Further examination of COVID-19 social distancing policies with Courtemanche, Garuccio, Le and Yelowitz
- Minimum Wages and the Size of Establishments with Dina Chaika and Steve Gohmann

Other Publications

- "Changing Economic Factors and the Rise in Obesity." (with Chuck Courtemanche, Chris Ruhm and George Wehby) VoxEU.org, July 2015
- “Annual Measures of Gross Job Gains and Gross Job Losses.” (with James Spletzer) *Monthly Labor Review*, vol. 127(11), November 2004.

“Annual Measures of Job Creation and Job Destruction Created From Quarterly ES-202 Microdata.” (with James Spletzer) *Proceedings: American Stat. Assoc.*, 2002.

Presentations and Seminars

Southern Economic Association Meetings, November 2020.

Society of Labor Economists Annual Meetings, Raleigh, NC, May 2017.

American Society of Health Economists, Philadelphia, PA, June 2016.

Society of Labor Economists Annual Meetings, Seattle, WA, May 2016.

Midwest Economics Association Meetings, SoLE sessions, Evanston, IL, March 2016.

Federal Reserve Bank of Cleveland Policy Summit on Housing, Human Capital, and Inequality, Pittsburgh, PA, June 2015.

OEIO Workshop at the University of Tokyo, March 2015.

Southeast Health Economics Study Group, Tallahassee, FL, October 2014.

American Society of Health Economists, Los Angeles, CA, June 2014.

Midwest Economics Association Meetings, SoLE sessions, Evanston, IL, March 2014.

Southern Economic Association Meetings, Tampa, FL, November 2013.

Society of Labor Economists Annual Meetings, Boston, MA, May 2013.

Southern Economic Association Meetings, Washington, DC, November 2011.

International Health Economics Association World Congress, Toronto, ON, July 2011.

Southern Economic Association Meetings, Atlanta, GA, November 2010.

APEE Meetings, Las Vegas, NV, May 2010.

Southern Economic Association Meetings, Washington, DC, November 2008.

Society of Labor Economists Annual Meetings, Chicago, IL, May 2007.

Society of Labor Economists Annual Meetings, Cambridge, MA, May 2006.

Invited Seminars: University of South Florida, University of Kentucky (Ag Econ), University of Wisconsin, Milwaukee; Western Kentucky University; University of Cincinnati; University of Kentucky (Econ); University of Louisville; University of Texas, Arlington; Clemson University; University of North Carolina, Chapel Hill; Washington Statistical Society; Florida State University; Federal Reserve Board; Census Bureau, CES; University of Minnesota, Industrial Relations; CNA Corporation; Mathematica.

Research Discussed in the Media

“Strong Social Distancing Measures in the United States Reduced the COVID-19 Growth Rate” and related papers

The New York Times, The Washington Post, Vox.com, CNN, U.S. News & World Reports, The Chicago Tribune, The Hill, Fox News, NPR, Slate, and many others

“Can Changing Economic Factors Explain the Rise in Obesity?”

“Varney & Company,” Fox Business; Washington Post.com; *Bloomberg Business*; National Public Radio; *International Business Times*; HuffPost Live; *The Atlantic*; *Fast Company*; KRCC; News Talk 770 (Calgary); Newstalk 1010 (Toronto); *Toronto Star*; Marginal Revolution; The Salt Blog, NPR.org; CBS Money Watch; *Atlanta Magazine*; Matt Townsend Show; “60-Second Science”, *Scientific American*

“Breaking Bad in Bourbon Country: Does Alcohol Prohibition Encourage Methamphetamine Production?”

Society Magazine; *The Economist*, Oct 3rd 2015 edition; *The Washington Post*, Wonkblog; Quartz; Marginal Revolution; WSJ.com, Real Time Economics; Business Insider; The Daily Caller; Pacific Standard; The Lane Report; Insider Louisville; Radio Live, New Zealand

Professional Service

President of the Kentucky Economic Association, 2019-2020.

Program Chair: Kentucky Economic Association 2019 Conference.

Board Member: Kentucky Economic Association, 2017-present.

Discussant and Session Chair, SEA Meetings, November 2020

Discussant: ASHE Meetings, Philadelphia, PA, June 2016.

Discussant: MEA Meetings, SoLE sessions, Evanston, IL, March 2016.

Discussant: ASHE Meetings, Los Angeles, CA, June 2014.

Discussant: MEA Meetings, SoLE sessions, Evanston, IL, March 2014.

Discussant: Southern Economic Association Meetings, Tampa, FL, November 2013.

Discussant: 3rd Annual Midwest Health Economics Conference, May 2012.

Discussant: Multiple sessions, SEA Meetings, November 2011.

Discussant: International Health Economics Association World Congress, July 2011.

Discussant: Multiple sessions, SEA Meetings, November 2010.

Discussant: SoLE Meetings, May 2007.

Organizer and Discussant: "The Effects of Activation on the Earnings and Employment of Reservists and their Spouses", ASSA Meetings (SGE session), January 2007.

Discussant: WEA Meetings, Defense Economics, July 2006.

Discussant: ASSA Meetings, January 2004.

Referee: *American Economic Review*, *Review of Economic Studies*, *Journal of Labor Economics*, *Journal of Human Resources*, *Industrial and Labor Relations Review*, *International Economic Review*, *Economic Journal*, *AEJ: Applied Economics*, *AEJ: Microeconomics*, *AEJ: Macroeconomics*, *Economic Inquiry*, *Southern*

Economic Journal, Economic Letters, Health Economics, Labour Economics, Journal of Population Economics, Journal of Policy Analysis and Management, European Economic Review, Journal of the European Economic Association, Journal of Applied Econometrics, B.E. Journal of Economic Analysis & Policy, Review of Economics of the Household, Economics of Education Review, Economica, Journal of Law Economics and Organization, Journal of Labor Research, Journal of Applied Economics & Policy, Journal of Applied Economics, Empirical Economics, Contemporary Economic Policy, Advances in the Economic Analysis of Participatory and Labor-Managed Firms.

Departmental/College Service

MBA Program Committee, 2020-present.
Dept. Representative to the College of Business Personnel Committee, 2020-present.
College Representative to the Cardinal Core Curriculum Committee, 2019-present.
College of Business Diversity and Inclusion Committee, 2019-present
Organizer: Economics Department Seminar Series, Spring 2011-2020.
IMBA Program Committee, 2009-2019.
College of Business ad hoc Research Evaluation Committee, Fall 2016-2018.
Chair: Economics Department junior faculty recruiting committee, Spring 2012.
Economics Department junior faculty recruiting committee, 2009-2010.
Executive MBA Program Committee, spring 2013.

Other Service

Board of Directors, Second Street Neighborhood Association, 2014.

Courses Taught

University Of Louisville, MBA
Economics I & II, Full Time MBA Program. Fall, 2020
Economics of Strategy, Entrepreneurship MBA Program. Summer, 2010-2011;
Fall, 2012-2019.
Economics I & II, Weekend MBA Program. Spring, 2012-2015

University of Louisville, undergraduate
Intermediate Microeconomics, Fall 2017, Spring 2018
Principles of Microeconomics, Spring, 2016, 2017, 2019, 2020, 2021
Mathematical Economics, Fall semesters, 2009, 2010, 2012-2016, 2018, 2019
Labor Economics. Spring, 2010-2021

Johns Hopkins University, MA Program in Applied Economics
Economics of the Labor Market. Spring, 2007-2009

Fellowships and Awards

2020 Altmetric Top 100 most discussed articles across disciplines, for “Strong Social Distancing Measures in the United States Reduced the COVID-19 Growth Rate” with Courtemanche, Garuccio, Le and Yelowitz.

College of Business Summer Research Incentive Grant, summer 2020.

College of Business Summer Research Incentive Grant, summer 2019.

John H. Schnatter Center Summer Research Grant, summer 2018.

John H. Schnatter Center Summer Research Grant, summer 2017.

College of Business Summer Research Incentive Grant, summer 2017.

College of Business Summer Research Incentive Grant, summer 2016.

College of Business Summer Research Incentive Grant, summer 2015.

College of Business Summer Research Incentive Grant, summer 2014.

College of Business Summer Research Incentive Grant, summer 2013.

Lawrence R. Klein Award (with Jim Spletzer) for best article in the *Monthly Labor Review*, May 2005.

University Fellow, Northwestern University 1995/96.

Anson Scholarship, Auburn University Department of Economics, Spring 1995.

Trudie Grattan

Bozeman, Montana

EDUCATION

Stanford University **Stanford, CA**
Master of Arts: Earth Systems 2022

Bachelor of Science Human Biology: Human-Environment Interaction 2021
Notation in Science Communication
Haas Notation in Cardinal Service

WORK EXPERIENCE

Birch Creek Energy **Bozeman, MT**
Associate Project Manager 2025

- Manages the lifecycle of development including real estate, permitting, interconnection, and engineering for a portfolio of PJM Solar Projects

Mission Clean Energy **San Francisco**
Senior Project Developer 2024

- Managed the lifecycle of the site development and permitting process for a portfolio of MISO stand-alone energy storage projects and mid-stage Southern Company projects, including a project with an energy purchase agreement and abatement approval
- Directed a team of real estate, permitting, interconnection, and engineering experts to drive the progression of projects through the various stages of development
- Lead the development of greenfield strategy and origination in MISO and the southeast market

Project Developer 2023

- Lead development activities, including interconnection, permitting, and origination, for multiple utility-scale solar and battery energy storage projects across MISO and PNM

Renewable Energy Associate 2023

- Assisted with greenfield site identification, real estate negotiations and acquisition, and early-stage project due diligence for utility-scale solar and battery energy storage projects across the United States
- Gained experience working in ERCOT, MISO, SMUD, and various utilities in the southwest

Stanford Wrigley Field Program in Hawaii **Waimea, HI**
Field Assistant 2022

- Assisted undergraduate instruction in both a classroom and field setting including teaching in field techniques, species identification, scientific writing, and statistical analysis
- Provided administrative and logistical support in all aspects of the residential field program

LEADERSHIP AND ATHLETICS

Stanford Varsity Women's Lacrosse Team **Stanford, CA**
Captain and 5-year member 2017-2022

- Balanced the rigorous Division I athletic schedule of lacrosse with typical Stanford course load, all 15 quarters

Hasso Plattner Institute of Design at Stanford (d.school) **Stanford, CA**
Design Leadership Fellow 2021

- Developed leadership skills to drive disruptive design thinking



MARTY MARCHATERRE

SENIOR ENVIRONMENTAL PLANNER

Education

J.D. 1988, College of William and Mary, Williamsburg, Virginia

B.A. History and Political Science, 1985, Williams College, Williamstown, Massachusetts

Williams-Mystic American Maritime Program, 1985

Professional Associations

Virginia State Bar Association, Environmental Law Section

District of Columbia Bar Association, Environment, Energy and Natural Resources

Qualifications and Background

Mr. Marchaterre is an attorney with more than 35 years of environmental, regulatory, and permitting experience. Mr. Marchaterre has extensive experience with renewable energy projects. In Kentucky, he has supported more than 25 solar energy projects in 21 counties over the past five years. In 2020, he helped the first Kentucky solar project gain approval from the Kentucky Electric Generation and Transmission Siting Board. He has managed critical issues assessments, cumulative environmental assessments, habitat assessments, bat surveys, bald eagle nest surveys, mussel surveys, biological assessments, wetland and stream delineations, glare analyses, acoustical assessments, groundwater analyses, cemetery plans, environmental management plans, permitting requirements, public involvement, and environmental assessments. Two Kentucky solar projects he has supported have been constructed and are in operation, and construction on five more solar projects is expected to start in 2025-2026. He has experience with ecological and technical studies of transmission lines, coal-fired power plants, gas-fired power plants, and nuclear power plants, as well as a pumped storage project in Eastern Kentucky.

Broader Kentucky experience includes overseeing more than 200 sensitive species habitat assessments, threatened and endangered species surveys, stream and wetland delineations, permitting, biological assessments, and related tasks. He has a deep understanding of regulatory requirements at the local, state, and federal levels. He routinely works with the U.S. Fish and Wildlife Service (USFWS) Frankfort Field Office, U.S. Army Corps of Engineers (USACE), Federal Highway Administration, Natural Resources Conservation Service, Kentucky Army National Guard, Kentucky Transportation Cabinet, Kentucky Department of Fish and Wildlife Resources, Kentucky Division of Water, Kentucky Heritage Council, Kentucky Department of Local Government, Tennessee Valley Authority, Daniel Boone National Forest, Land Between the Lakes, and Mammoth Cave National Park on various natural resource, cultural resource, permitting, and National Environmental Policy Act (NEPA) projects.

Selected Project Experience

Turkey Creek Solar, Carolina Solar, Garrard County, KY (2020-00262). Project Manager for ecological studies of a 50-MW solar project on 540 acres near Lancaster, Kentucky. Managed site characterization studies, aquatic resources delineation, Phase I environmental site assessment (ESA), avian studies, cumulative environmental assessment, and cultural resource overviews. The studies included a desktop review of federal and state data pertaining to sensitive resources such as listed species, wetlands or other surface waters, prime farmland,



MARTY MARCHATERRE SENIOR ENVIRONMENTAL PLANNER

karst topography, and public and protected lands. A wetland delineation identified and demarcated aquatic features that might be jurisdictional waters of the U.S. or isolated waters of the state. Participated in public involvement activities and preparation of Siting Board application, responses to requests for information, and mitigation measure development. This project was the first merchant solar project to complete the Kentucky Siting Board process. Currently constructed and operational.

Glover Creek Solar, Metcalfe County, KY (2020-00043) Site Characterization Study, Wetland Delineations, Phase I ESA, Glare Assessment, Acoustical Analysis, Groundwater Protection Plan and Cultural Resources Overview for a Proposed Solar Project. Confidential Client.

Kentucky. Managed site characterization studies, aquatic resources delineation, Phase I ESA, property valuation study, and cultural resources overview for solar project on an approximately 800-acre parcel with a 55-MW solar facility in Metcalfe County, KY. The study included a desktop review of federal and state data pertaining to sensitive resources such as listed species, wetlands or other surface waters, prime farmland, karst topography, and public and protected lands. A wetland delineation identified and demarcated aquatic features that might be jurisdictional waters of the U.S. or isolated waters of the state. Supported Siting Board application, responses to information requests, consultant report response, and public involvement. Obtained Clean Water Act Section 404 Nationwide Permit for stream crossings. Project has been constructed and is operational.

Critical Issues Analyses and Site Characterization Studies for Proposed Solar Energy Projects, Ballard, Breckinridge, Christian, Clinton, Grant, Hickman, Logan, Mason, and Mercer counties, KY. Confidential Clients. Kentucky.

For multiple solar project sites, managed site characterization studies to identify potential environmental constraints associated with land cover/use, soils, wetlands and watercourses, farmland, threatened and endangered species, and other considerations. The studies included desktop assessments using publicly available databases and field reconnaissance surveys of the project areas to identify potential ecological and environmental site concerns.

Horseshoe Bend Solar (2020-00190). Project manager for ecological studies supporting development of a 60-MW solar facility in Green County, Kentucky. Oversaw stream and wetland delineations, critical issues analyses, threatened and endangered species habitat assessment, cultural historic and archaeological studies, Phase IESA, unanticipated discovery plan, cemetery plan, permitting matrices, and an environmental management plan. Identified historic cemeteries with graves of people who served in the Revolutionary War, War of 1812, and the Civil War and consulted with Kentucky Heritage Council on appropriate measures to project these sensitive sites. **Mt Olive Creek Solar (2020-00226).** Project manager for ecological studies supporting development of a 60-MW solar facility in Russell County, Kentucky. Oversaw stream and wetland delineations, critical issues analyses, threatened and endangered species habitat assessment, cultural historic and archaeological studies, Phase I ESA, unanticipated discovery plan, cemetery plan, permitting matrices, complaint resolution plan, fence maintenance plan, and an environmental management plan.

Flat Run Solar, Taylor County, KY (2020-00272). Project Manager for a proposed 55-MW solar facility in Taylor County. Managed stream and wetland delineations, critical issues analyses, threatened and endangered species habitat assessment, cultural historic and archaeological

studies, Phase I ESA, unanticipated discovery plan, permitting matrices, complaint resolution plan, fence maintenance plan, and an environmental management plan.

Meade County Solar, Meade County, KY (2020-00390). Project Manager for environmental and technical studies for a proposed 40-MW solar facility. Oversaw background environmental surveys for the project, including wetland delineations, noise assessment, traffic analyses, cultural surveys, Phase I ESA, and threatened and endangered species habitat assessments and surveys of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). Developed a soil management plan.

Henderson County Solar, Henderson County, KY (2020-00391). Project Manager for environmental and technical studies to support a proposed 50-MW solar facility. Prepared a cumulative environmental assessment and other studies to support the Siting Board application. Conducted stream and wetland delineation and prepared Clean Water Act Section 401 and 404 applications for stream crossing impacts.

60-Megawatt McCracken County Solar Project, McCracken County, KY (2020-00392). Project Manager for a proposed 60-MW solar facility. Prepared ecological, environmental, and technical studies to support siting board application. Conducted a bat mist-net survey; no Indiana bats, northern long-eared bats, or tricolored bats were captured.

Mantle Rock Solar, Livingston County, KY (2024-00050). Project Manager of ecological, environmental, and technical studies for a proposed 65-MW solar facility in Livingston County. Supported multiple public meetings and preparing the siting board application.

Barrelhead Solar, Wayne County KY. Project Manager for a proposed 54-MW solar facility in Wayne County. The Project Area covers approximately 402 acres. A critical issues analysis, Phase I ESA, economic analysis, property valuation study, habitat assessment, stream and wetland delineation, bat mist-net survey, eagle and raptor survey, traffic study, glare analysis, and acoustic assessment have been prepared to help revise design to avoid or minimize impacts to sensitive features on the site. Jurisdictional wetlands and streams as well as 100-year floodplains were identified and recommended setbacks for protection.

Hardin County Solar, Hardin County, KY (2023-00312). Project Manager for an 85-MW solar facility on approximately 650 acres. Local planning and zoning was a component of this project. Supported multiple environmental and technical studies. Threatened and endangered wildlife habitat has been assessed. A sandhill crane impact assessment has been completed. Cultural resources recommended for protection. Designed setbacks and avoidance will assure protection and minimal impact. Additional studies include the following: cumulative environmental assessment, traffic and rail study, economic impact study, property value study, glare analysis, visual impacts assessment and visual renderings, and an acoustical analysis.

Big Brush Solar, Green County, KY. Project Manager for a proposed 85-MW solar facility in Green County. Prepared a stream and wetland delineation, habitat assessment, Phase I ESA, and cultural resources and archaeological desktop analysis to help revise designs to avoid or minimize impacts to sensitive resources.

Permitting Support for Multiple Solar Projects. Confidential Clients. Kentucky. Managed development of federal, state, and local permitting for multiple solar projects in Kentucky.



MARTY MARCHATERRE

SENIOR ENVIRONMENTAL PLANNER

Obtained U.S. Army Corps of Engineers Nationwide Permits, Kentucky Division of Water Section 401 Water Quality Certifications, floodplain permits, and stream crossing permits.

Acoustic Analysis and Glare Studies for Multiple Solar Projects. Confidential Clients. Kentucky. Managed acoustical analyses for multiple projects. Described existing sound levels from the project site and surrounding areas as well as potential impacts from construction, operation, and maintenance activities. Provided a report of the findings of the acoustical analyses. The report will contain a summary of the project, describe existing sound conditions, identify potential sensitive receptors (e.g., residences), and evaluate potential construction and operation sound levels. Conducted glare analyses for potential glare to airports, nearby residents, and travelers on adjacent roadways from the solar project.

Site Characterization Study for Solar Energy Development. Confidential Client. Breckinridge County, Kentucky. Assistant Project Manager for a site characterization study analyzing a property in Breckinridge County, Kentucky, for possible development as a solar energy generating facility. The study included a desktop review of federal and state data pertaining to sensitive resources such as listed species, wetlands or other surface waters, prime farmland, karst topography, and public and protected lands. Copperhead staff then performed a one-day field verification to characterize vegetative communities, possible bat habitat, and the presence of jurisdictional waters. A summary report that outlined potential environmental concerns and presented a permitting matrix delineated by issuing agency, trigger, and timeline was provided to the client.

Biological Assessments of Indiana Bats, Northern Long-eared Bats, and Bog Turtle for Proposed Solar Projects. Confidential Clients, Pennsylvania and New York. Managed the development of a biological assessment focusing on adverse effects to bat habitat. Oversaw consultation with U.S. Fish and Wildlife to develop mitigation alternatives. Supported development of a conservation easement for bat mitigation.

Critical Issues Analyses (CIAs) for Multiple Solar Facilities. Confidential Client. Tennessee. Project manager for development of multiple CIAs across Tennessee. The CIA's goal is to gain a better understanding of the environmental issues that could potentially affect project development. Some of the resource areas from which Copperhead collected information include vegetation communities and general wildlife, threatened and endangered species, migratory bird nests, soil types, and historic and cultural resources. The goal of wetland/stream mapping is to estimate how much of the Project Area may be wetlands as opposed to uplands and to identify anticipated buffer setbacks. The information gathered helps inform Copperhead and the client about regulatory adherence and what permits will be necessary.

Ecological Studies and Critical Issues Analyses for Solar Projects in Indiana, Tennessee, Michigan, Missouri, Mississippi, New York, and Virginia. Managed ecological desktop reviews and botanical, eagle, bat, mussel, and wetland surveys for solar projects in multiple states.

Critical Issues Analysis for Multiple Battery Energy Storage System Projects in Eight States. Project Manager for critical issues analyses of potential battery energy storage systems (BESS) in Alabama, Illinois, Iowa, Michigan, Michigan, Tennessee, Texas, and Virginia. Conducted desktop analyses, identified potential issues of concern, outlined regulatory and permitting requirements, and developed permit matrices.