

PROJECT PLANNING AND SITING ISSUES FOR WIND FARMS IN INDIANA



KAREN TYRELL, PhD
Senior Vice President

Dr. Tyrell has designed and implemented projects addressing environmental siting and compliance needs of both commercial developers and government organizations for the past 20 years. Dr. Tyrell's work centers on integrating land-use planning and predictive impact analysis to evaluate, manage, and resolve environmental conflicts in ways compatible with project goals. Much of this work is driven by the need to address a variety of environmental regulations, while keeping the project outcome firmly in sight. Dr. Tyrell has extensive experience with agency scoping that occurs early in project development, and project coordination throughout all phases of environmental assessment and monitoring. As national interest in wind power has grown, Dr. Tyrell has completed critical issues analyses, provided a range of environmental support studies, and served as an expert witness for the development of wind energy facilities in the Midwest and northeast US, where she specializes in wildlife impact analyses and regulatory permit compliance.

Dr. Tyrell received her doctorate degree from the University of Illinois, and is BHE's Senior Vice President for Business Development. Dr. Tyrell serves on a US Fish and Wildlife Endangered Species Service Recovery Team, and a number of industry advisory committees addressing environmental effects of utility-grade wind power facilities. Previously Dr. Tyrell was on the faculty of two major universities, and has developed training courses for a number of federal programs.

JOHN BRUCK, PE
President

Mr. Bruck is the founder and President of BHE Environmental, Inc. He is an engineer and manager who received his engineering degree from Purdue University and has received additional training from Vanderbilt and Xavier Universities and Harvard Business School. Most recently, he has been trained in the use of WindPro, the wind energy computer modeling application used around the world in planning and designing wind farms. He has over 30 years of work experience in defining environmental features and conditions of projects and creating effective environmental solutions. He has worked in a variety of program areas and media, with an emphasis on addressing the environmental impacts of fossil fuel, electric, and steam utility systems. Since forming BHE in 1988, Mr. Bruck has managed or provided direct technical support to over 2000 projects. Recently, Mr. Bruck has provided technical and management support to BHE's wind energy clients by completing visual impact assessments using project-specific digital information in the WindPRO2 platform to conduct viewshed analyses, shadow-flicker calculations and mapping, and photo-simulations.

MATT BRUCK, EIT
Project Engineer

While earning his engineering degree with honors from Purdue University, Mr. Bruck was awarded the Joseph P. Chu Fellowship for outstanding environmental engineering student and (along with 3 fellow students) the People's Choice Award for his work entitled *Sustainable Energy - United States 2050*, which addressed wind power. While in school, Matt worked as an intern at BHE, and in his senior year, worked on a water contamination project as a research assistant for a major manufacturing company. Since joining BHE, Mr. Bruck has worked on a number of commercial wind energy projects in the eastern US, where he specializes in geospatial data analysis for land-use planning and project siting. Mr. Bruck is proficient in CADD and ESRI's applications ArcGIS/3D Spatial Analyst to coordinate, analyze, interpret and present work performed in conjunction with BHE's Wind Program group.