Professional Qualifications
Justin M. K. Bowers

HANKARD ENVIRONMENTAL
ACOUSTICS AND VIBRATION CONSULTING

Education:

B.S. Engineering Physics
University of Illinois at
Urbana-Champaign, 2017

M.Eng. Acoustics
The Pennsylvania State
University, 2025

Professional Affiliations:

Acoustical Society of America
Institute of Noise Control Engineering

Agency Experience:

Public Service/Utility Commissions
(NY, WI, MN, SD)
Numerous Cities and Counties

Skills:

MS Office (Word, Excel, PowerPoint)
MATLAB, GIS, SoundPLAN, Python

Summary:

I received my B.S. in Engineering Physics with a concentration in acoustics from the University of Illinois at Urbana-Champaign, and my M.Eng. in Acoustics from Penn State University. My academic path was driven by a passion for music and sound. Since 2018, I have worked in the field of acoustical consulting, with a primary focus on renewable energy facilities and gas-fired power plants. I have also contributed to projects involving live concerts, agricultural operations, and land development. My responsibilities include data analysis, field measurements, and the preparation of technical reports. In parallel, I am currently completing the Noise Control Engineering course series offered by the Institute of Noise Control Engineering.

Field Measurements

Ambient and compliance noise measurement surveys are a common component in the permitting process for industrial, commercial, and environmental facilities. I have successfully conducted both ambient and compliance noise measurement surveys for a wide range of industrial projects including wind turbine energy facilities, gas-fired power plants, and solar energy facilities. I am well-versed with various measurement standards and their applications to projects (ANSI S12.9, ANSI S12.18, ISO 3744, and ISO 1996-2).

Modeling

I have modeled noise emissions from wind turbine energy facilities, gas-fired power plants, battery energy storage systems, high-voltage direct current power stations, and solar energy facilities. I am familiar with the standardized outdoor sound modeling methodologies used in the U.S., including ISO 9613-2. I have also been involved in assessing and mitigating noise impacts from these facilities, using computer models to evaluate and compare alternative noise reduction strategies.

Data Analysis and Technical Reporting

I'm responsible for data processing, analysis, and drafting technical reports for industrial projects and facilities. In support of these projects, I have worked closely with engineers, facility managers, equipment operators, and attorneys to ensure accuracy in every step of the reporting process.

Representative Projects

Lake Winds Energy Park, Michigan: Compliance measurements (2018)
Freeborn Wind Energy Project, Minnesota: Noise emission modeling (2018)
South Fond du Lac CT Facility, Wisconsin, Compliance measurements (2018)
Bull Run Wind Energy Project, New York: Noise emission modeling (2018-2025)
Alle-Catt Wind Energy Project, New York: Noise emission modeling (2018-2025)
Canisteo Wind Energy Project, New York: Noise emission modeling (2018-2025)
Phish Labor Day Weekend, Colorado: Sound level monitoring (2019).
Allegheny Energy Center, Ambient noise measurements and modeling (2019)
Lackawanna Energy Center, Pennsylvania, Compliance measurements (2019)
Paris Solar Farm, Wisconsin, Ambient measurements and modeling (2019-2024)
Darien Solar Farm, Wisconsin, Ambient measurements and modeling (2020)
Badger Hollow Solar Farm, Wisconsin, Noise emission modeling (2020).
Nelson Energy Center, Illinois, Noise measurements and modeling (2020).
TMEIC Solar Ware Ninja Inverter, Ohio, Operational emission measurements (2020)
Pleasant Prairie Solar Farm, Ohio, Ambient measurements and modeling (2020-2021)
Yellow Wood Solar Farm, Ohio, Ambient measurements and modeling (2020-2021)
Cadence Solar Farm, Ohio, Ambient measurements and modeling (2020-2021)
Hardin III Solar Farm, Ohio, Ambient measurements and modeling (2020-2021).
Grand Ridge Energy Storage Facility, Illinois, Operation emission measurements (2021).
Custer Street Energy Station, Wisconsin, Noise measurements and modeling (2021).
Blackrock Wind Farm, West Virginia, Measurements and modeling (2022)
High Noon Solar, Wisconsin, Solar and Battery Storage, Modeling (2022)
Juno Power Express, New York, HVDC Station, Measurements and Modeling (2022)
Clean Path New York, HVDC Stations, Measurements and Modeling (2022-2023)
Rock Creek Wind Farm, Wyoming, Noise Modeling (2021-2023)
Red Rock Wind Farm, Iowa, Noise Modeling and Public Meetings (2024-2025)
Calcasieu Pass LNG Facility, Louisiana, Noise Measurements (2023-2025)
Sycamore Riverside Energy Center, Indiana, Operational Noise Modeling (2023-2024)
Mount Storm Wind Farm, West Virginia, Noise Measurements and Modeling (2022-2024)