

2017 National Association of Regulatory Utility Commissioners (NARUC)  
Summer Policy Meeting – July 16-19, 2017, San Diego, CA  
“Technology Developments & Challenges for Building 5G Small Cell Networks”  
“Distributed Solar: Jurisdiction between NESC and NEC”

2018 National Association of Regulatory Utility Commissioners (NARUC)  
Winter Policy Summit – February 11-14, 2018, Washington, D.C.  
“Utility Distribution Poles and Lines – How Strong is Strong Enough?”

2018 National Electrical Safety Code (NESC) Change Proposal Development Workshop –  
April 10-11, 2018, Savannah, GA  
Host and Presenter

2019 National Electrical Safety Code (NESC) Change Proposal Comment Period-  
October 2-3, 2019, Kansas City, MO

2020 EUCI Webinar – The Impacts of 5G on Overhead Lines - presenter

2021 EUCI Webinar Series – presenter  
5G Deployments – What You Need to Know  
Fiber Optic Cables  
Wood Pole Loading

2022 EUCI Webinar – Pole Attachment Best Practices - presenter

## **Training**

2017 EUCI Seminar – Atlanta, GA  
*“Best Practices for Wood Utility Poles”*  
Presented: “ANSI O5.1 and National Electrical Safety Code Review and Updates”

2017 EUCI Symposium – Santa Clara, CA  
*“Best Practices for Wood Utility Pole Strength and Loading”*  
Created and Presented: The full day and a half symposium

- “Wood Pole Management”
- “Wood Pole Manufacturing and Strength”
- “Pole Loading Basics”
- “NESC Loading & Strength Requirements”
- “California GO 95 Loading & Strength Requirements”
- “Wood Pole Decay & Strength Loss”
- “NESC / GO 95 Strength & Loading Comparisons”
- “Clearance Basics”
- “Pole Loading Examples”
- “Third Party Attachment Processes”
- “Adding Attachments to Existing Poles”

2018 EUCI Symposium – Chicago, IL  
*“Best Practices for Wood Utility Pole Strength and Loading”*  
Updated Presentations: The full day and a half symposium

- "Wood Pole Management"
- "Wood Pole Manufacturing and Strength"
- "Pole Loading Basics"
- "NESC Loading & Strength Requirements"
- "California GO 95 Loading & Strength Requirements"
- "Wood Pole Decay & Strength Loss"
- "NESC / GO 95 Strength & Loading Comparisons"
- "Clearance Basics"
- "Pole Loading Examples"
- "Third Party Attachment Processes"
- "Adding Attachments to Existing Poles"

#### 2019 EUCI Conference – Newport Beach, CA

*"Wireless Pole Attachments Best Practices Conference"*

Presented: Pole Loading Aspects of Wireless Antenna Attachment

#### 2019 EUCI Symposium – Denver, CO

*"Best Practices for Wood Utility Pole Strength and Loading"*

Updated Presentations: The full day and a half symposium

- "Wood Pole Management"
- "Wood Pole Manufacturing and Strength"
- "Pole Loading Basics"
- "NESC Loading & Strength Requirements"
- "California GO 95 Loading & Strength Requirements"
- "Wood Pole Decay & Strength Loss"
- "NESC / GO 95 Strength & Loading Comparisons"
- "Clearance Basics"
- "Pole Loading Examples"
- "Third Party Attachment Processes"
- "Adding Attachments to Existing Poles"

#### 2020 EUCI Symposium VIRTUAL

*"Best Practices for Wood Utility Pole Strength and Loading"*

Updated Presentations: The full day and a half symposium

- "Wood Pole Management"
- "Wood Pole Manufacturing and Strength"
- "Pole Loading Basics"
- "NESC Loading & Strength Requirements"
- "Wood Pole Decay & Strength Loss"
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## StormImpact Bios



### Dr. Steven Quiring

Co-Founder & Chief Scientist



Steven is co-founder and principal scientist at StormImpact. He holds a B.A. in geography from The University of Winnipeg, M.A. in geography from University of Manitoba, and a Ph.D. in climatology from the University of Delaware. He is currently a professor of atmospheric sciences at Ohio State. He has 15+ years of experience in weather data analytics and storm impact modeling, which has resulted in 100+ publications and \$17M+ in funding from federal and state agencies. He serves as the primary overseer for StormImpact's R&D efforts and facilitates all client relationships.



### Jamie McKee

Chief Executive Officer



Jamie McKee is the CEO of StormImpact Inc. and serves on its board of directors. Before being named CEO in July 2022, Jamie held other c-level and directorship positions throughout his 20-year professional career in global corporations, launched nonprofits, and established startups. His experience is deep in business development, financial operations, logistics, and system integrations, both domestically and internationally. Jamie earned an MBA from Franklin University (Columbus, OH) and a Bachelor of Arts degree in Business Management from Cardiff Metropolitan University (Wales, UK).



## Dr. Brent McRoberts

Co-Founder & Chief Data Scientist



Brent is co-founder and lead data scientist at StormImpact. He holds B.S./M.S./Ph.D. degrees from Purdue University and Texas A&M in atmospheric sciences and meteorology. He was formerly a postdoctoral fellow and research assistant professor at Texas A&M, statistical modeler for Direct Energy, and recently a senior researcher at OSU where developed StormImpact's initial models. His 15+ years of experience in machine learning modeling have resulted in several publications and operational products. He is now leading StormImpact's statistical modeling and machine learning efforts in a full-time capacity and is responsible for writing and maintaining the backend code and databases.



## Scott Hull

Co-Founder & Chief Web Engineer



Scott is co-founder and lead platform engineer at StormImpact. He holds B.S./M.S. degrees in geology from Ohio State and is a Ph.D. candidate in planetary sciences at the University of Rochester, where he has experience in high-performance astrophysical supercomputing. He has 6 years of experience as a full-stack software engineer for StormImpact where he has led development and maintenance of the StormImpact platform.



## StormImpact Detailed Bios

**Dr. D. Brent McRoberts** is the Chief Data Scientist and he specializes in quantifying the risk and vulnerability to infrastructure from the impacts of weather, climate, and land-atmosphere interactions through machine-learning (ML) models and data analytics. He has built and maintained numerous operational ML models and data architectures for large investor-owned utility clients. His technical expertise includes the acquisition, modeling, analysis, and visualization of data in supercomputing environments using an array of programming languages and frameworks.

Dr. McRoberts has been involved in prior federally funded research projects, including those directly related to using meteorological and land surface information to improve electrical outage forecasting for utilities and government agencies. This includes projects to develop a “Web Tool for Improved Electric Outage Forecasting for Response to Tropical Cyclone Events” and “Increasing Grid Resilience Through Data-Driven Modeling for Storm Outage Prediction”. He was part of the NASA SMAP Early Adopter program and developed methods for using SMAP data in hurricane power outage models. He was the PI on NOAA project titled “Improving the Drought Monitoring Capabilities of Land Surface Models by Integrating Bias-Corrected, Gridded Precipitation Estimates” with Dr. Quiring and the NASA Short-term Prediction Research and Transition (SPoRT) team, using methods developed during his doctoral work at Texas A&M.

Dr. McRoberts has supported StormImpact’s research-to-operations ML modeling developments and the building and maintenance of its data architecture since its inception as an OSU sponsored research program in 2016, where he has worked closely with Co-Is Hull and Quiring. Prior to the formation of StormImpact, Dr. McRoberts helped to build the foundation of StormImpact by investigating methods for efficiently integrating weather and climate information into the decision-making process for utilities. He brings 8+ years of experience in developing machine learning models of weather-related power outages and has spent the last 4+ years deploying these models to operations for utility clients.

**Dr. Scott Hull** is a full-stack software engineer and planetary scientist with experience in full stack web platform engineering and deployment, and in high-performance astrophysical supercomputing and big data analytics. His scientific expertise is on the origin of the Moon, exoplanet habitability, and planetary magma ocean dynamics. His technical expertise includes performance computing and supercomputing in a wide array of languages and frameworks, and in the development, maintenance, and deployment of front-and-backend web architectures, including those belonging to StormImpact.

After engaging in computational research into exoplanet habitability and core formation in magma oceans during his tenure as a Master’s student at The Ohio State University, Scott joined the Nakajima Earth and Planetary Science Laboratory at the University of Rochester where he is currently a Ph.D. candidate (2024 graduation). Research here primarily focuses on the origin of the Earth’s Moon and the Martian moons, where Mr. Hull employs proprietary smoothed-particle hydrodynamics codes and



custom-built thermodynamic and hydrodynamic codes across dedicated supercomputing nodes and server infrastructure.

Dr. Hull has also supported StormImpact's web platform and much of its backend architecture since its inception as an OSU sponsored research program in 2016, where he has worked closely with McRoberts and Quiring. He has been responsible for the entirety of the front-end and back-end code development as well as its deployment onto cloud computing nodes. He brings 6 years of experience in web platform development to StormImpact Inc., where he now works as co-founder and lead software and platform engineer.

**Dr. Steven Quiring** is the Chief Scientist at StormImpact (0.5 FTE) and he is a Professor in the Atmospheric Sciences Program at The Ohio State University. Dr. Quiring will provide scientific leadership for this project. Dr. Quiring is a climatologist with extensive experience using machine learning and data analytics to model weather-related power outages and damage. He has 20 years of experience working with electrical utilities in North American and around the world to quantify the impacts of weather and climate on their operations. Dr. Quiring is a member of the Translational Data Analytics Institute at The Ohio State University. He is involved in numerous federally funded research projects and has received more than \$12M in funding from federal funding agencies (NASA, NOAA, and NSF). Quiring was the PI on a NASA SUSMAP project (with Trent Ford (SIU) and Adam Houston (UNL)) titled "Investigating Soil Moisture-Convective Precipitation Feedbacks with Soil Moisture-Active Passive". Dr. Quiring was also a NASA SMAP Early Adopter and developed methods for using SMAP data in hurricane power outage models.

Dr. Quiring is actively involved in numerous national committees. He is a member of the Executive Committee for the Coordinate National Soil Moisture Monitoring Network (2018-present). He is also part of the Organizing Committee for the National Soil Moisture Workshop. Dr. Quiring currently serves as an Editor for Journal of Applied Meteorology and Climatology (2023-present) and an Associate Editor for Physical Geography (2020-present). He is also a Review Editor for Climate Research and Frontiers in Earth Science (Hydrosphere).

**Jamie McKee** is the CEO of StormImpact. Jamie will provide project management and leadership at StormImpact. He will also oversee the budgeting and reporting. Before being named CEO in July 2022, Jamie was Crimson Cup Coffee's director of operations and was responsible for operation of the company's I.T. administration and infrastructure, customer service, production, and warehouse operations, including end-to-end management of the supply chain, maintenance services and support in all six retail operations. He also played a key role in the continued development of key performance indicators, strategic objectives, and supplier relationships, ensuring flexibility in response to an increasing industry demand.

Prior to joining Crimson Cup, Jamie was chief operating officer of a healthcare I.T. startup. EngageHealth is a SaaS software platform that predetermined heart health of a patient using a HIPAA-compliant electronic medical record (EMR) algorithm. He was responsible for corporate filings, operations management, governance matters, recruitment, business development, and leading negotiations. Before



his work at EngageHealth, Jamie was the chief operating officer of a pre-seed company focused on telemedicine: Apportis. Through this venture, success was achieved through growth initiatives, most notably through an Ohio State government grant award of \$250,000 to combat the opioid epidemic.

**Meghan Klee** is a contract meteorologist for StormImpact. She holds a B.S. in Atmospheric Sciences from Purdue University. Before joining StormImpact, Meghan was the Meteorology Manager at American Electric Power. Prior to moving into the energy industry, she worked as a Meteorologist for Southwest Airlines. Meghan brings more than a decade of expertise in operational forecasting and weather-driven power outages.