

CASEY SHULL, PMP, MBA

Fountaintown, IN | caseyshull@att.net | LinkedIn: caseyshull-phd974a742

PROFILE

Project Manager, Systems Engineer and engineering leader with 30+ years integrating projects, MBSE models, engineering designs, in FERC/NERC, various C.F.R., MIL-STD, IEEE, DOE, and DoD-compliant environments. Proven record managing multi-million-dollar capital projects, restoring service after major outages, and improving reliability metrics (SAIDI/CAIDI/MAIFI) through disciplined PMO practices, stakeholder coordination, and engineering rigor. PMP-certified System Engineer with deep experience integrating projects and Systems across various engineering and SME disciplines.

SELECTED ACHIEVEMENTS

- Delivered multiple emergency restoration projects ahead of schedule under budget in compliance with Gov regs
- Managed \$80M+ in capital programs improving KPI & EVM, system reliability, and restoration performance.
- Improved SAIDI/CAIDI/MAIFI reliability indices through distribution automation, OMS, and dSCADA initiatives
- Created the Electric Utility Common Recovery System adopted to support NERC CIP restoration requirements
- Inventor of Dimensional Metering (patent pending) and Casey's Modulus (SPI/CPI anomaly detection framework)
- Advised U.S. DOE on Grid-Forming Initiative and HV Transformer Replacement programs

CORE COMPETENCIES

- Project & Program Management (PMP) | PMO Development | Systems Engineer | EVM / KPI | Schedule & Cost Control
- Recognized expert integrating Engineering, Supply Chain, various SME teams
- NERC / NESC / RUS Compliance | NERC CIP | FCC Joint-Use | MISO Coordination
- Distribution Automation | dSCADA | OMS | SmartGrid | SAIDI / CAIDI / MAIFI Improvement
- IEEE standards | EPA: NEPA, SHPO, THPO | MIL-STD 3078, 3265, 3238, 810
- Storm Restoration & Blackout Recovery | Emergency Management | FEMA NIMS Certified
- Budget & Capital Forecasting | Contract Negotiation | Vendor & Stakeholder Management

PROFESSIONAL EXPERIENCE

Adjunct Professor — Purdue University & Purdue Global

2018 – Present

- Purdue University – Teach Fluids, Machine Elements, Calculus to undergrad students.
- Purdue Global – Teach graduate Project Management and integrate Systems Engineering into MBA concentration

FOCS LLC — President, Project Management and Systems Engineering Consulting

2018 – Present

- Advise U.S. DOE and electric utilities on grid-forming inverters, HV transformer replacement, and funding-opportunity technical evaluations. Develop MBSE diagrams and Integrate into Project identifying SME, engineering task, MIL-STD, IEEE requirements required by DOE and DoD for various funding opportunities
- Design automated distribution systems using networked reclosers and switching schemes for multiple electric utilities

Baldwin EMC — District Engineering Manager

2024 – 2025

- Managed \$2M annual engineering program and led team of engineers, supply chain, production staff, various 'exterior' stake holders, for large projects integration into Baldwin EMC electrical system
- Ensured NESC and RUS compliance across distribution design, construction, and pole-loading analysis
- Developed emergency communications system (Amateur Radio, GMRS, LoRa) 47 C.F.R. Part 95 for hurricane-response operational readiness
- Improved member satisfaction and project delivery timelines through revised PM and engineering design methods

SAFT / Go Electric — Development & Solutions Engineer

2022 – 2023

- Developed grid-scale BESS and microgrid solutions interfacing with utility distribution and sub-transmission systems
- Authored and presented IEEE EESAT 2022 paper on energy-storage interconnection and uninterruptible power
- Provided technical guidance on IEEE 1547, 1547.1, 15288, 2030.5, Mil-STD-3078, 3265, 3238, 810, UL 1973 & 9540

Indiana Office of Utility Consumer Counselor (OUCC) — Senior Utility Analyst

2021 – 2022

- Evaluated investor-owned utility distribution programs, rate cases, and capital plans against Indiana administrative code
- Established PMO framework, processes, and methodology for tracking capital projects relative to IURC regulations
- Developed distribution Resiliency Index framework recommending restoration improvements after catastrophic events

Indianapolis Power & Light Company — Engineering & Operations Leadership

1991 – 2018

- Team Leader / Engineering & Operations Manager (2007–2018): Managed \$10M annual budget and engineering team designing new distribution circuits, NESC/FCC joint-use projects, and 34.5kV systems
- Planned and ensured NERC compliance for 138kV and 345kV transmission, dSCADA installations, renewables interconnection, and SmartGrid programs
- Improved SAIDI, CAIDI, and MAIFI reliability metrics through distribution automation, OMS deployment, and operational initiatives
- Led storm restoration and blackout-recovery programs; coordinated with MISO and stakeholders to maintain system stability
- Created Electric Utility Common Recovery System aligned to NERC CIP requirements; integrated 5G site programs across various engineering and project disciplines
- Senior Transmission Engineer (2004–2007); Standards / General Engineer / Team Leader, prior roles (1987–2000)

ADDITIONAL CONSULTING EXPERIENCE - FOCS LLC

- Cuyahoga County (Cleveland OH) Green energy initiative. Develop MBSE models and diagrams for the establishment of microgrid systems for the county green energy plan. In addition, consult Glenn NASA and Amazon Data centers for development of large micro-grid systems. **2019-2026**
- Sr. Manager, Analytics & Strategy — Sigma Technologies Ltd.: Established PMO framework and KPI metrics for matrix engineering enterprise **2020-2021**
- OCM Engineering – V.P. Operations - Established PMO and Transmission Engineering divisions **2018-2019**
- C&P Manager — Diversant / Verizon Wireless (**2018**)

ADDITIONAL EXPERIENCE

- Project Manager – Crown Castle 2000-2001, Director of Business Development – Perfect Wireless 2001-2002, National Project Manager – Oldcastle Precast 2002-2003, Engineer & Production Supervisor – Visteon 2003-2004

EDUCATION & CERTIFICATIONS

- Ph.D., Technology, Leadership & Innovation (Cognate: Systems Engineering) Purdue University
- MBA, Business / Finance — Anderson University
- M.S., Industrial Technology — Purdue University
- B.S., Mechanical Engineering Technology — IUPUI
- Project Management Professional (PMP) | Google Project Management Certificate | 6 FEMA NIMS Certifications

INDUSTRY LEADERSHIP, AFFILIATIONS & PUBLICATIONS

- Senior Member, IEEE (1991–Present); Member, PMI; Member, InfraGard; former INCOSE
- IEEE EESAT 2022 — Resiliency Through Interconnection of Energy Storage DERs Providing Uninterruptible Power (Austin, TX)
- EnergyTech 17/18 & GLRC — Common Recovery System and Micro-Grid Protection (Cleveland / Indianapolis)
- INCOSE Insight Journal — Critical Infrastructure and Recovery: A Common Recovery Model for Grid Systems in Blackout Scenarios
- IEEE 1547 Conference Paper
- Developed IEEE Resiliency Index
- Published Casey-Modulus and C-Modulus Project management SPI/CPI, CPI/SPI project anomaly identification