ROHIT NAIR, P.E.

Director of Engineering Standards& Grid Modernization Rohit.Nair@PacifiCorp.com Contact No: (b) (6)

SUMMARY

- Results-oriented professional with 14+ year experience in electric and power system engineering, utility system and equipment design, equipment specification development and supporting datacenter interconnection activities
- 5+ years of leading engineering teams and currently managing a 14 member team overseeing 2200+ equipment and construction standards and specifications for transmission, distribution, substation and civil
- Leadership role in Berkshire Hathaway Energy Global Supplier Development team to work with global suppliers to create and harmonize equipment specifications for increasing supplier diversity and supply chain logistics
- Experience working with various industry standards organizations in the power and energy sector. Currently the chair of IEEE renewable technologies sub-committee
- Directly managed several engineering design/implementation projects requiring significant cross-discipline knowledge of energy systems and operational needs
- Coordinated several equipment, power outage and power quality root-cause analysis
- Winner of several national and international awards for work on clean energy and power systems
- Superior communication, presentation and interpersonal skills

CORE COMPETENCIES

- Engineering Design & Power System Operations
- Engineering Standards
- Supply Chain Optimization
- Stakeholder Engagement
- Equipment Specifications
- Interconnection of datacenters
- Root-cause Analysis
- Leadership
- Critical Thinking
- People Management
- Project Management

EDUCATION

- Master in Business Administration – Sullivan University, Kentucky – GPA 3.9 June 2016
- Master of Science in Electrical Engineering – Oklahoma State University (Stillwater) - GPA 3.7 August 2011
  Thesis: 'Power System Design for a Smart Grid initiative at Oklahoma State University'
- Bachelor of Electrical Engineering from University of Poona, INDIA - GPA 4.0 August 2009

TRAINING AND CERTIFICATION

- Professional Engineer, Board of Technical Registration, Arizona, 2014 - Present

PROFESSIONAL WORK EXPERIENCE

- Responsible for managing a 14 member team to develop PacifiCorp's construction standards for civil, substation, transmission and distribution as well as strategic roadmap on technology innovation
- Authored several PacifiCorp and Berkshire Hathaway Energy construction standards, technical whitepaper, engineering policies and guidelines for transmission and distribution, renewables and smart grid
- Overseeing a multi-year project to develop SCADA and communication infrastructure design and roadmap to connect all PacifiCorp distribution and transmission substations to the company's energy management system
- Leading multiple cross-business teams for Berkshire Hathaway Energy to harmonize and optimize engineering standards for various transmission, distribution and substation equipment.
- Support overhead standards design and specifications along with joint-use for allowing communication infrastructure to be added to existing distribution poles
- Experience with developing and delivering detailed business plans and technical proposals/presentations to regulatory staff and external stakeholders
- Managed and led multiple teams, contracts and oversee project planning, execution and delivery of multiple innovative technology projects with an overall budget of $17 million
- Coordinating with multiple internal teams and external consultants to develop utility guidelines to study impact of high-power electric vehicle charging facilities on utility infrastructure and deploy appropriate mitigation plans
- Overseeing a multi-year project to develop SCADA and communication infrastructure roadmap to connect all PacifiCorp distribution and transmission substations to the company's energy management system.
- Support innovative technology activities such as commercial microgrid, utility-scale energy storage, net-zero communities and all-electric homes in Utah
- Participate in stakeholder activities and deliver tasks on multiple projects that have received multi-million dollar

federal grants from the U.S. Department of Energy
- Experience in providing testimonies for regulatory and legislative hearings on grid modernization activities
- Lead engineering activities to deliver the annual Smart Grid business plan to state regulatory commissions
- Represent PacifiCorp in regulatory and stakeholder discussions on grid modernization, electric vehicles and distributed energy resources
- Previously performed several engineering studies on power quality, reliability and renewable energy projects to assist in delivering high customer satisfaction

PROFESSIONAL WORK HISTORY

- **PacifiCorp, Berkshire Hathaway Energy**
  Director, Engineering Standards & Grid Modernization — *April 2022 – Present*
  Director, Engineering Standards — *November 2019 – March 2022*
  Grid Solutions Manager — *March 2019 – October 2019*
  Senior Engineer — *April 2015 – February 2019*
  Engineer — *June 2012 – March 2015*
  Associate Engineer — *June 2011 – May 2012*
- **Oklahoma State University** — *August 2009 – May 2011*
  Researcher

INDUSTRY PRESENTATIONS

- United Nations Civil Society Conference, Energy Innovation through Collaboration, August 2019
- Intermountain Sustainability Summit: Grid Modernization at PacifiCorp, March 2018
- Utah State University SELECT Annual Meeting: Electric Vehicle Program at PacifiCorp, November 2017
- National Association of Corrosion Engineers: Behind the Light Switch, June 2017
- Utah PSC Technical Conference: Utah STEP Smart Inverter Project, December 2016
- Green Week at L-3 Communications: Renewable Energy at PacifiCorp, October 2016
- RMEL Distribution Engineers Workshop: Distributed Energy Resources, October 2016
- IEEE PES General Meeting: Utility-Scale Solar in Utah, July 2014

PROFESSIONAL MEMBERSHIPS (these positions are part-time, voluntary, and without remuneration)

- Board of Directors, Utah Net-Zero Consortium — 2019 - Present
- Vice Chair, IEEE Renewable Technologies Sub-Committee — 2019 - Present
- IEEE PES and SA Member — 2012 - Present

ACHIEVEMENTS

- Multiple STAR Tier 2 and Tier 3 Awards – PacifiCorp, Berkshire Hathaway Energy — 2014 - Present
- IEEE New Face of Engineering – Region 6 (Western USA) — 2013 - 2014
- IEEE Outstanding Engineer – Northeast Region 6 — 2013 - 2014
- IEEE Outstanding Leadership – Utah Section — 2013 - 2014
- IEEE New Face of Engineering – Utah section — 2013 - 2014
- IEEE Outstanding Engineer – Utah section — 2013 - 2014
- Student Excellence Award by Institute of Engineering & Technology (IET, UK) — 2008 - 2009
- Service-Learning Volunteer Center Ambassador, Oklahoma State University — 2010 - 2011

Blake M. Wayment

Cell: (b) (6) [redacted] • www.linkedin.com/in/blakewayment • bmwayment@gmail.com

Education

Weber State University, AACSB accredited

- Master of Business Administration, 2020-2023
  - Pursuing certificate in Contract Management with course electives

University of Utah, AACSB accredited

- Bachelor of Science, Electrical Engineering, 2012-2016

Work Experience

Engineering/Operations Project Manager, PacifiCorp April 2020 – Present

- Manage 20+ transmission, distribution, substation, net metering and special projects
- Orchestrate project success with PacifiCorp engineering, operations and procurement, material vendors, solar interconnect customers, public and private landowners and construction contractors
- Report project successes, failures, and deliverables
- Develop project plans, perform risk analysis and utilize industry best practices

Senior Substation Engineer, PacifiCorp May 2016 – April 2020

- Training manager for RMP Substation Electrician Apprenticeship program
  - Program consisted of 30 students varying from 1-4 years into Apprenticeship
  - Planned and taught approximately 65% of apprenticeship in-class curriculum
  - Developed and administered apprenticeship exams
- Provided technical support to Operations Management and Field Crews
  - Reviewed, approved, and published 200+ documents, including creation of over 50 new commissioning and maintenance forms and procedures
  - Participated in substation commissioning, inspection, and maintenance
  - Innovated new processes that improved substation apparatus condition analysis

Student Engineer, PacifiCorp March 2013 – May 2016

- Drafted and designed EMS one-line displays
- Assisted Regional Dispatch by updating EMS policy and standards
- Managed and reported team progress for converting EMS displays to new system

Curt Mansfield

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Email: mansfield1979@comcast.net

CURRENT PROFESSIONAL OVERVIEW

Senior Vice President, Transmission and Distribution Operations at Rocky Mountain Power and Pacific Power, both operating divisions within PacifiCorp. Oversee approximately 3,000 employees and contractors delivering engineering, operations, maintenance, construction, and support organizations for the six-state electrical network in California, Oregon, Washington, Utah, Wyoming, and southeastern Idaho. PacifiCorp is a vertical integrated utility with approximately two million customers spanning a 143,000 square mile service territory and is a holding company within the Berkshire Hathaway Energy Corporation.

QUALIFICATIONS SUMMARY

Forty years in the electric utility sector has contributed to gaining valuable business knowledge and experience through increasing job roles and responsibilities. Proven record of leading, motivating and training while driving key business objectives and initiatives. Ability to set realistic priorities and complete multiple projects simultaneously, while maintaining high levels of competent decision making, problem solving and organizational effectiveness. Multi-cultural experience has added to existing ability to maintain an open mind and communicate effectively with a widely diverse group of individuals, on all levels of an organization.

EDUCATION

- Graduate of University of Idaho, Utility Executive Course - 2007
- Graduate Marsh Valley High School, Arimo, Idaho - 1979

PROFESSIONAL EXPERIENCE

PacifiCorp

2022–present **Senior Vice President, Power Delivery** Portland, Oregon
Salt Lake City, Utah

Responsible for overseeing operations, maintenance, construction, engineering, asset management and support organizations for Rocky Mountain Power and Pacific Power operating divisions within PacifiCorp. In this capacity, he is overseeing an organization that serves approximately two million customers in Utah, Wyoming, southeastern Idaho, Oregon, northern California and Washington.

2015–2021 **Vice President, Transmission & Distribution Operations Service** Portland, Oregon
Salt Lake City, Utah

Responsible for establishing the vision and strategy to lead the execution of operational initiatives and day-to-day management that entails safe and reliable operation of the electrical network, appropriate asset management philosophy and prudent engineering application while maintaining financial strength and applying appropriate business efficiencies and controls. Responsible for coordinating, monitoring and managing concurrent distribution and transmission project teams and resources in the successful development and execution of projects.

2006–2015 **Managing Director, Transmission & Distribution Support Service** Portland, Oregon
Salt Lake City, Utah

Responsible for PacifiCorp's support departments: vegetation management, transportation (vehicles and equipment), logistics, joint use and rubber goods testing facilities, field inspections and compliance scheduling. Provide necessary functions to support the day-to-day network operation and maintain tracking and compliance of federal and state regulation.

2003–2005 **Quantum Leap Director** Salt Lake City, Utah

Delivered multi-year $203 million dollar Wasatch Front Infrastructure Improvement Program (Quantum Leap) which included construction of new facilities, renovation of existing assets along Utah's Wasatch Front. Co-author Upgrading System Capacity-Transmission & Distribution World magazine.

2002 **2002 Winter Olympics** Salt Lake City, Utah

Responsible for PacifiCorp's (Utah Power) 2002 day to day Winter Olympic operations.

2000-2002 **Control Center Director Operations** Portland, Oregon
Salt Lake City, Utah

Overseen 7x24 control center operations responsible for distribution outage management application, load flows, system electrical network operations, dispatch coordination and distribution application system support.

1998-2000 **Director Customer Service** Salt Lake City, Utah

Key strategic and operational leader responsible for developing process and performance improvements that delivered key service outcomes to customers through multiple channels.

1996–1998 **Operation Manager** Salt Lake City, Utah

Direct operational functions in a geographical defined area. Set policies and ensure adherence to company standards and procedures. Create functional strategies and specific objectives to develop and manage budgets, safety and deliver customer requests.

1984 – 1995 **Apprentice/Journeyman Lineman** Shelley, Idaho

Install, maintain and repair high-voltage electrical lines and systems.

1981 – 1984 **Meter Reader/Collector** Lava Hot Springs, Idaho

Gather electric consumption usage data and monitor utility meter asset health. Locate businesses and customers with back-due accounts and notify of past due billings.

OTHER CURRENT SUPPORTING CORPORATION ACTIVITIES

- Trustee of the IBEW Western Utilities Health & Welfare Trust Fund (institutional appointment, no remuneration, part-time)
- Board of Directors of NeighborWorks-Salt Lake City (institutional appointment, no remuneration, voluntary)
- Member of the Utah Governor's Cybersecurity Task Force (institutional appointment, no remuneration, part-time)

ALLEN **BERRETH**

(b) (6) | allen.berreth@pacificorp.com

I have over 24 years of work experience gained at PacifiCorp in engineering, asset management, and operations related roles. It is my goal to utilize this experience to deliver efficient targeted results and maintain my reputation for creating an environment that motivates others to achieve the highest results as well.

EDUCATION

B.S., ELECTRICAL ENGINEERING, UNIVERSITY OF IDAHO, MAY 1998

MASTERS, BUSINESS ADMINISTRATION, UTAH STATE UNIVERSITY, DECEMBER 2004

PACIFICORP PROFESSIONAL EXPERIENCE

VICE PRESIDENT, OPERATIONS — Oct 2020 - Present

Provide strategic coordination and leadership of the following groups (in addition to the groups listed in the role below):

- **Wildfire Mitigation:** Development of Wildfire Mitigation Plans and coordination with state utility commissions in California, Oregon, Washington, and Utah.
- **Wildfire Mitigation Project Management Office:** Project management of construction projects as part of the Wildfire Mitigation efforts; requiring coordination across multiple disciplines and external agencies.
- **Vegetation Management:** Delivery of enhanced vegetation management practices for high fire threat locations in addition to six-state vegetation management program for transmission and distribution lines.

MANAGING DIRECTOR, DELIVERY ASSURANCE — Sep 2014 – Oct 2020

Provided strategic coordination and leadership of the following groups (in addition to the groups listed in the role below):

- **Asset Strategy and Policy:** Long-term capital investment plans and maintenance policies for inspection and correction of assets across Pacific Power's service territory.
- **Asset Performance (Reliability):** Responsible for reliability performance reporting to state commissions and development of targeted reliability program to increase system performance.
- **Project Management Office:** Project management of major projects (distribution, substation, and transmission) requiring coordination across multiple disciplines and external agencies; including permitting and property acquisitions.
- **Emergency Management:** Preparation and documentation of operational response to system emergencies; including coordinating emergency action center during major events.

DIRECTOR, DELIVERY ASSURANCE — Jun 2012 – Sep 2014

Provided strategic coordination and leadership of the following groups:

- **GIS Production / Solutions:** Maintain the GIS mapping system based on updates from field construction activity. Also provides GIS analysis in support of company initiatives.
- **Estimating Support:** Design tool support and subject matter expertise on estimating processes related to modifications to the distribution system.
- **T&D Operations Finance:** Operations and Maintenance financial support for all departments within T&D Operations. This includes 10 year planning and delivery of current year financial targets.
- **Investment Delivery:** Support and approval for all capital work delivered within the current year; including capital replacement programs; such as underground cable, pole replacements, breakers, relays, etc.

DIRECTOR, WORK PLANNING DEPARTMENT — Apr 2008 – Jun 2012

- Created a new work planning department with defined roles and responsibilities within T&D Operations
- Developed a crew scheduling system to track all field resources and corresponding work activity
- Trained and transitioned all field locations within T&D Operations to the new scheduling software
- Developed performance metrics that reinforced proactive confident delivery of schedules

MANAGER, ASSET MANAGEMENT — Sep 2006 – Apr 2008

- Supported the 10 year plan budgeting process for both Capital and Maintenance activities for T&D Operations
- Reviewed, tracked, and trained managers on maintenance inspection and correction policies
- Established a delivery assurance process for measuring unit costs and output based budgeting

MANAGER, BUSINESS IMPROVEMENT — Dec 2003 – Sep 2006

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- Coordinated and reviewed regulatory data requests for T&D Operations
- Published monthly performance reports (Key Performance Indicators)
- Created long term strategies for Resource Management of field craft resources correlated to forecasted work activity
- Created measurement methodologies for efficiency initiatives delivered within T&D Operations

FIELD ENGINEER / REGIONAL SUPPORT ENGINEER May 1998 - Dec 2003

- Supported Field Engineers on all engineering software; including load-flow, fault data, and secondary design analysis
- Performed load flows for Distribution Planning Studies
- Supported Capital Budget by developing construction projects based on planning studies and local knowledge

APPOINTED ELECTRIC UTILITY REPRESENTATIVE

OREGON WILDFIRE PROGRAMS ADVISORY COUNCIL (part-time, voluntary, without remuneration)
WASHINGTON UTILITY WILDLAND FIRE ADVISORY COMMITTEE (part-time, voluntary, without remuneration)

RELEVANT COLLABORATIONS

INTERNATIONAL WILDFIRE RISK MITIGATION CONSORTIUM (part-time, voluntary, without remuneration)
PACIFIC NORTHWEST UTILITY WILDFIRE WORKING GROUP (part-time, voluntary, without remuneration)

(b) (6)
Joelle.Steward@pacificorp.com

JOELLE STEWARD

EDUCATION

1993

B.A. DEGREE IN POLITICAL SCIENCE

UNIVERSITY OF OREGON

1999

M.A. IN PUBLIC AFFAIRS

UNIVERSITY OF MINNESOTA, HUBERT HUMPHREY INSTITUTE OF PUBLIC POLICY

PROFESSIONAL EXPERIENCE

SENIOR VICE PRESIDENT, REGULATION AND CUSTOMER/COMMUNITY SOLUTIONS
PACIFICORP
2021-Current

Responsibility for regulatory compliance and outcomes in PacifiCorp's six-state retail jurisdictions and strategic business objectives, plans, and program delivery in support of company strategic goals related to Pacific Power's Customer Solutions' programs and Community Solutions engagement.

VICE PRESIDENT, REGULATION
PACIFICORP – ROCKY MOUNTAIN POWER
2017-2021

Responsibility for regulatory compliance and regulatory affairs in Utah, Wyoming and Idaho, and regulatory accounting and pricing for PacifiCorp's six-state retail jurisdictions.

DIRECTOR OF REGULATORY AFFAIRS
PACIFICORP – ROCKY MOUNTAIN POWER
2015-2017

Responsibility for regulatory compliance and regulatory affairs in Utah, Wyoming and Idaho, and regulatory accounting and pricing for PacifiCorp's six-state retail jurisdictions.

DIRECTOR OF PRICING, COST OF SERVICE AND REGULATORY OPERATIONS
PACIFICORP
2012-2015

Responsibility for cost of service and pricing for regulatory filings in PacifiCorp's six-state retail jurisdictions and regulatory administrative operations.

(b) (6) [redacted]
Joelle.Steward@pacificorp.com

JOELLE STEWARD

REGULATORY MANAGER

PACIFICORP – PACIFIC POWER

2007-2012

Responsible for all regulatory compliance, filings and proceedings in Oregon.

REGULATORY ANALYST

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

1999-2007

Kevin Schiedler, PE — (b) (6) [redacted] — Kevin.Schiedler@PacifiCorp.com

Education

George Fox University, Newberg, OR USA
Bachelor of Science Mechanical Engineering, with a minor in Chemistry – Magna Cum Laude, May 2006

Kansas State University, Manhattan, KS USA
Master of Engineering Management (MEM), May 2015

Professional Membership and Licensure

Professional Engineer, Oregon License number 77694PE
Professional Engineer, Utah License number 7888021-2202

Professional Experience

PacifiCorp – Lloyd Center Tower, March 2021-Present
Wildfire Mitigation Delivery Director

- Responsible for Wildfire Mitigation-based grid hardening projects in California, Oregon, and Washington
- Projects include overhead/underground line rebuild, expulsion equipment replacement, system automation, communications (radio, cell, communication towers, and private fiber), and weather stations
- Managed increase in Line Rebuild projects from 1 mile in 2020 to 63 miles in 2022

PacifiCorp – Lloyd Center Tower, June 2020-March 2021
Regional Asset Manager

- Responsible for project review and investment recommendations for: new connect, deteriorated asset, storm and casualty, joint use, and accommodation requests
- Revamped Large load request process for customer connected loads greater than 1MW
- Updated process for actual cost project close out

PacifiCorp – Albany Willamette Operations Center, September 2017-June 2020
Transmission and Distribution Manager and Area Manager – New Connects and Metering

- Responsible for Pacific Power's largest operating area serving 135,000 customers
- Managed 25 IBEW Local 659 employees: metermen, collectors, estimators, service coordinators, and apprentices; responsible for hiring, training, coaching, and discipline
- Review and approve all APRs for transmission and distribution within the Willamette Operations and Lincoln City operating areas totaling over 1000 APRs annually
- Review/ authorize work scope and cost changes, including project completion changes notices
- Responsible for timely correction of conditions; outage and storm management
- Awarded Stars 3 for managing project replacing distribution equipment at Oregon Freeze Dry and improving customer satisfaction score from 2 to 10 from 2018-2019

PacifiCorp – Lake Side Plant, January 2015-September 2017
Operations Manager

- Managed 16 IBEW Local 57 Senior Operations Technicians (control room operators):responsible for hiring, training, coaching, and discipline
- First point of contact for all plant health, safety, environmental, maintenance, and operational problems outside of business hours
- Lead RCA on all plant failures including hot corrosion damage on block 1 GT blades, 2 environmental permit exceedances, several equipment failures, and several operational upsets
- Budgeted and cost tracked $3.8M annual operations budget
- Managed overhaul projects:2015 Block 1 50K hour overhaul: inlet filter and evaporative cooler replacement, pressure vessel inspections and repairs, all start-up and shutdown activities, tagout system, and post-outage tuning; 2016 Block 2 12.5K hour CI: Inspections of HRSGs, inlet houses, water boxes, hot well, SCR repairs, all start-up and shutdown activities, tagout system, and post-outage tuning
- Redesigned Commissioned 120 gpm high purity water treatment plant

PacifiCorp – Gadsby Plant, October 2013-January 2015
Operations Manager

- Managed 12 IBEW Local 57 Control Room Operators and 2 Laboratory Technicians; responsible for hiring, training, coaching, and discipline
- First point of contact for all plant Operational problems outside of business hours
- Lead RCA on all plant failures including Unit 5 generator fan failure, Unit 2 generator hydrogen seal failure, several chemical spills, several equipment failures, and several operational upsets
- Responsible for black start generator operation/testing; budgeted/ tracked $2.0M/year operations budget
- Managed Overhaul projects: 2014 Unit 3: Steam turbine open/clean/close, replacement of row 1 blades, valve work, all startup and shut down activities, tagout system; 2014 Unit 2: Hydrogen seal replacement; 2014 Unit 5: Generator rewind, and fan blade failure RCA

PacifiCorp – Gadsby Plant , July 2011 – October 2013
Engineer Lead/Senior

- Managed Little Mountain rental boiler project: Designed, managed construction and commissioning of 70KPPH rental boiler on 11-day emergency project—project completed 3 hours early to prevent $1M/day liquidated damages; designed, managed construction, and commissioning of 120 KPPH rental boiler
- Managed Overhaul projects: Unit 2 2012: high energy piping inspections and repairs, cooling tower inspections with rebuild and fill replacement, boiler tube replacement, circulating water line coating; Unit 4 2013: Emergency 40 MW generator rewind—designed new support structure and hydraulic cart system for removal of Unit 4-6 generators
- Managed 2 IBEW Local 57 Laboratory Technicians
- Diagnosed and repaired various plant failures including re-engineering Unit 1 Mechanical-Hydraulic governor, two 2500 HP natural gas compressor failures, boiler tube leaks, Unit 3 boiler feed water pump failure due to water hammer

PacifiCorp – Generation Engineering, August 2008-July 2011
Engineer Lead/Senior

- Subject matter expert (SME) for combustion, pulverizers, and soot blowers
- Advised and trained plant engineers and management as SME; reported to senior management as (SME) for rate cases, budgeting, and best practices
- Test and tune combustion systems for reduced slagging, emissions, and fuel usage
- Project manager on purchase of nine soot blower control system upgrades at five plants
- Start-up and optimization of two automated soot blowing control systems; conducted RCAs of pulverizer fires and explosions at multiple plants
- Conducted Naughton plant coal supply study leading to contract changes in quality specs on 20-year $1.6B contract

PacifiCorp – Jim Bridger Plant, May 2006-August 2008

- Budgeted, scoped, bid, and managed construction for $30M capital and $4M O&M on 2008 overhaul of Unit 4 boiler: supervised 4 company staff and 13 contract companies with a peak labor force of 350; utilized SAP for cost control and Primavera for schedule tracking; identified and corrected critical structural deficiency in scaffold drawings submitted by scaffolding contractor's professional engineer; negotiated contract close out to cover liquidated damages (schedule) and work not included in the original scope; awarded Stars 4 level achievement and $1000 bonus for project performance
- Participated in budget, scope, bid, and mgt. of $20M capital/$4M O&M for 2007 rebuild of Unit 3 boiler
- Budgeted, scoped, and bid $20M capital and $2M O&M for 2009 rebuild of Unit 2 boiler
- Plant engineer for produce steam (boiler) process: Trouble shoot and inspect failed equipment, recommissioned glycol air preheater last used in 1980; inspect and determine best repair for boiler tube failures; supervise journeymen completing plant maintenance; manage 10-year capital plan including forecasting project needs and costs averaging $30M/year

Emily Weaver J.D., M.P.A.

Emily.Weaver@PacifiCorp.com
(b) (6)

SKILLS

Program development and management	Leadership and collaborative partnerships
Training development and facilitation	Policy and procedure development, implementation, and evaluation
Data collection, analysis, and presentation	Relationship management
Survey design and trend analysis	Mediation, negotiation, and conflict resolution
Mentoring and coaching	Researching, writing, and advising
Organizational behavior and culture	Public speaking
Compliance	Strategic planning and evaluation

EDUCATION

Juris Doctor and Masters of Public Administration, University of Wyoming College of Law, May 2015
Thurman Arnold Award Recipient; Member of Pi Alpha Alpha, Public Administration Honor Society

Bachelor of Arts, Biology, Lawrence University, May 2010
McNair Scholar

LICENSES & CERTIFICATIONS

- Wyoming State Bar – licensed attorney
- Society of Human Resources Management (SHRM)- Senior Certified Professional (SCP)

PROFESSIONAL EXPERIENCE

PacifiCorp, Portland, OR
Diversity, Equity & Inclusion Director, 2021-Present

Reporting to the presidents/CEOs of the company, I lead the development and implementation of a comprehensive organization-wide DEI strategy with a vision of continuing to build an inclusive culture that celebrates and welcomes diversity, ensuring everyone feels valued and respected and enhances the connections the organization has with our communities. Specific duties include developing and evaluating various DEI strategies: communications, strategic partnerships, community engagement, employee resource groups, and diversity recruiting and retention.

PacifiCorp, Casper, WY
Labor Relations Specialist, 2020-2021

I served as the labor relations representative for generation, transmission and distribution in Wyoming and was responsible for three collective bargaining agreements. In this role, I worked to promote positive labor relations while managing the grievance process, collective bargaining agreement extension and all other matters related to labor relations.

Legal Aid of Wyoming, Casper, WY
Staff Attorney, 2019

As staff attorney, I managed the Casper office and was responsible for program, budget, and staff oversight. This role required providing diligent and competent legal representation on a variety of civil legal issues to diverse clients, including those who identified as disabled, veterans, elderly, or experiencing poverty. Specific duties included negotiating settlements for clients, strategizing with non-profit organizations to address public policy issues regarding wrongful eviction practices which disproportionately affected women and those experiencing poverty. In addition, I secured various accommodations and benefits for clients with disabilities, including job-related accommodations, student loan forgiveness, and social security disability benefits.

University of Notre Dame, Office of Institutional Equity, South Bend, IN
Sr. Deputy Title IX Coordinator/Lead Investigator, December 2017- June 2019
EEO Consultant/Investigator, March 2017-December 2017

Served as lead investigator for all university investigations related to sexual and discriminatory harassment, retaliation, and other employment-related issues. I had oversight responsibility for university Title IX, affirmative action, and EEO compliance.

Wyoming Survey and Analysis Center (WYSAC), Laramie, WY
Assistant Research Scientist & HIPAA Privacy Officer, February 2015-February 2017

Guided coalitions, programs, and organizations through program development and implementation, evaluation and logic models, needs assessments, strategic planning, survey development, data collection, data analysis, and data presentation. Audited programs to ensure compliance with grant requirements, identified gaps, and designed solutions to remedy any areas identified as non-compliant.

VOLUNTEER SERVICES (All of these positions are part-time, voluntary, and without remuneration)

Diversity, Equity, and Inclusion Section, Wyoming State Bar. (2020-Present).

Serving as in various roles (including chair, past-chair, and at-large member) of the section, my responsibilities include leading DEI section initiatives , including navigating the first year of this newly launched section. Using a results-oriented framework, I led the development of various initiatives to cultivate DEI in the Wyoming legal communities.

Volunteer Attorney, Wyoming Free Legal Answers. (2020-Present).

Provide free legal counsel on matters related to disability accommodations, discrimination/harassment/retaliation, landlord/tenant, and other employment law issues.

Board of Trustees, Youth Crisis Center. Casper, Wyoming (2019-2021).

As part of the executive board, I provided leadership for the Youth Crisis Center, a non-profit that provides crisis shelter and group home services for children in need. During 2021, I also served as the volunteer, interim executive director where I managed personnel, budgeting, fundraising, compliance, and ensured efficient and effective business operations.

ELEONORE (NORA) DIMITROV YOTSOV

Portland, OR | (b) (6) [redacted] | nora.dimitrov@gmail.com

PROFESSIONAL SUMMARY

Experienced leader with over 30 years of expertise in managing and motivating large and diverse teams. Recognized consistently for exceptional performance and contributions to success for the organization. Strengths in collaboration and motivation backed by training and experience in Emergency Management, Public Safety and Security and extensive critical response operations.

SKILLS

- NIMS compliance expertise including delivery of ICS training, use of HSEEP for AAR/IP and CAP
- Regulatory expertise including PUC reporting, FAA Part 139, TSR 1542 and 1544
- Business continuity, asset deconfliction and long-range resilience planning expertise
- Change management and vision for reorganization to best meet operational needs
- Collaborative, organized and effective stakeholder engagement daily and during crisis response
- Ability to prioritize complex and competing issues
- Advocate for balancing diversity, equity, inclusion focusing on cultural issues
- Preparedness, crisis response and recovery expertise via real world response, planning, training, and exercise conduct
- Managing sensitive security issues with respect and focus on safe resolution
- Grant/ fiscal management including most DHS grants
- Strategic planning and policy development
- Labor management and negotiations

EDUCATION

Bachelor of Arts: Anthropology/Political Science, University of Las Vegas (UNLV), Las Vegas, NV 06/2004

Master of Science: Crisis and Emergency Management, University of Las Vegas (UNLV), Las Vegas, NV 06/2016

CERTIFICATIONS

American Association of Airport Executives - ACE Security 2021 Clackamas
County Leadership Academy 2018
Certified Emergency Manager (CEM) 2015, recertified 2020
Oregon Certified Emergency Management Specialist (ORCEMS) 2012, recertified 2017 Oregon
Medicolegal Death Investigator (OCMDI) 2008

WORK HISTORY

Director, Emergency Management and Meteorology. 05/2022 to current
PacifiCorp – Portland, OR and Salt Lake City, UT

- Oversee Emergency Managers and Meteorologists to manage day to day risks including, wildfire, severe weather, earthquake, security and other natural and man-made disasters for a six state region.
- Change management including developing a new team, implementing a new emergency response structure process improvements and a training and exercise program.
- Oversee the Public Safety Power Shutoff (PSPS) program and implementation.
- Managing technology project such as Technosylva, Veoci, AlertWildfire, Pano360, and others.
- Regulatory compliance and plan development related to a variety of threats and hazards.

Senior Manager, Emergency and Security Operations, 02/2019 to 05/2022
Port of Portland – Portland, OR

- Oversee staff of 45, in Aviation Security, Emergency Management, Emergency Operations Center (EOC), Security Badging, 9-1-1 Communication Center, Maintenance Operations Center, Paging and Information.
- Redesigned and implemented the Emergency Management and EOC program recruiting 80 staff in 2019.
- Led EOC response for a variety of disasters including; active shooter, winter snow/ice storm, wildfire smoke, planned events, emergency repatriation, COVID-19 and Build Back Better (B3) recovery planning.
- Developed the concept of operations and led COVID-19 mass vaccination operation at the Red Economy parking lot January – June, 2021providing over 250,000 vaccines to the public.
- Extensive change management including implementing ProQA, build out of a new facility, the co-location and consolidation of 3 disparate call centers and integration of Response Operations Coordination Center.

- Reorganized the 9-1-1 center management structure for better span of control and technical efficiencies.
- Develop, update, test and implement emergency plans, after action reports and improvement plans.
- Maintain and analyze budgets, capital projects, labor management and negotiations, technologies, and contracts.
- Extensive coordination and program development with Risk and Safety Director creating strategy to address safety standards focused on emergency evacuation, construction, fatigue among other risks.

DHS Certified Instructor, 08/2018 to 01/2020
National Disaster Preparedness Training Center, NDPTC – Honolulu, HI

- Instructed AWR: 356 Community Planning for Disaster Recovery and AWR: 347 Climate Adaptation Planning for Emergency Management at various locations throughout the United States.

Strategic Program Coordinator, 12/2006 to 02/2019
Clackamas County Disaster Management – Oregon City, OR

- Developed overall program and curriculum for Clackamas County EOC.
- Developed, planned and executed programs such as the EOC Academy, Evacuation/Re-Entry Planning, Incident Command System (ICS), Continuity of Operations (COOP), and National Incident Management System (NIMS).
- Recruited, trained and managed a leadership team with staff of up to 115 paid and volunteer emergency responders.
- Developed and implemented plans such as Dam Failure, Evacuation, Seismic Bridge Priorities, Emergency Transportation Routes, Emergency Operations Plans (EOP), Mass Fatality, Employee Disaster Reporting (EDR) and Readily Deployable Content (RDC) innovating disaster response and recovery.

9-1-1 Dispatcher, 06/2002 to 07/2006
Clackamas County 9-1-1 (CCOM) – Oregon City, OR

- Worked as 9-1-1 fire and medical dispatcher.
- Researched cases for the District Attorney's office, other investigators, law/fire agencies, media, and citizens.
- Trained staff and produced evidence requests for ongoing investigations and media events.

Manager, Ground Operations and Control Center HUB, 07/1993 to 04/2001
Northwest Airlines Inc – Minneapolis, MN

- Oversaw all areas of ground operations, FAA regulations, contract negotiations, security, FIS (Immigration, Customs and Agriculture), control center at LAS, ORD and MSP.
- Managed a staff of 70-130, daily operations with various vendors and governmental agencies.
- Operational control of KLM-Dutch Airlines, KAC-Kuwait Airways and FI-Iceland Air.
- Developed new reporting and auditing procedures to understand and improve performance and delay factors.
- Audited airline passenger, cargo, and security screening procedures to ensure compliance.
- Worked at Las Vegas McCarran International Airport (LAS), Chicago O'Hare International Airport (ORD) and Minneapolis/St. Paul International Airport (MSP)

Archaeological Technician, 06/1990 to 06/1993
Desert Research Institute – Quaternary Sciences Center, QSC – Mercury, NV

- Project coordination including survey, mapping, excavation, plotting, recording, charting, analysis and inventory management; contracted under the DOE at the Nevada Test Site in Mercury, NV.

Current Contributions and Affiliations

These positions and affiliations are part-time, voluntary, and unremunerated.

RDPO Steering Committee Chair 2022 RDPO
Steering Committee Vice Chair 2021
IAEM USA Critical Infrastructure Caucus 2019 – current IAEM
Featured CEM Mentor 2018 - current
IAEM International Conference Planning Committee 2017 – current
IAEM USA Climate, Water and Weather Caucus 2015 – current
NW Oregon Mass Fatality Regional Response Team (RRT) 2013 – current
International Association of Emergency Managers (IAEM)
American Association of Airport Executives (AAAE)

David L. Heffernan, PE

Engineering Manager, Protection and Control Engineering—David.Heffernan@pacificorp.com—[redacted]

I am an experienced P&C engineer and Manager with over a decade experience in substation design and protection system settings development. My experience includes design, settings and detailed system analysis work on systems ranging in voltage from 4.16kV to 525kV. As manager I provide leadership and strategic direction for the P&C department including oversight of project delivery, resource management and quality assurance.

EDUCATION

MEng, Electrical & Computer Engineering, Portland State University – 2009

BA, Criminal Justice, University of Alaska, Fairbanks – 1998

CERTIFICATION and TECHNICAL TRAINING

Professional Engineer, Oregon: 82268PE

Prot 401, Protecting Power Systems for Engineers, Provided by: Schweitzer Engineering Laboratories – 2008

Prot 407, Transmission Line Protection, Schweitzer Engineering Laboratories – 2009

Advanced ASPEN Oneliner Training, Advanced Systems for Power Engineering Inc. – 2010

Communications for Power System Protection, University of Wisconsin at Madison – 2011

RELEVANT WORK EXPERIENCE

Manager Protection and Control Engineering – PacifiCorp:
October 2016 – Current

- Apply engineering management principles to support the Company's protection and control systems through capital project delivery and engineering support.
- Ensure protection and control design processes are supported with engineering resources while managing issues associated with field construction and system operating conditions.
- Responsible for daily communication of expectations, coaching employees, providing ongoing feedback, and working collaboratively with other departments.
- Facilitate change, develop others, foster continuous improvement and drive for compliance to a developed standard.
- Assess industry practices as well as local factors that have a direct impact on performance both physical and financial.
- Ensure that the best technical processes and engineering practices are applied across the company
- Oversee process centered transition activities and special projects.
- Ensure compliance with federal, state, or local regulations.
- Recommend and implement action plans for achieving objectives.
- Select, coach, and develop employees.
- Review and evaluate employee performance and prepare annual reviews.

Senior Protection and Control Engineer – PacifiCorp
June 2015 to October 2016

- Design, develop, modify, and evaluate systems, process, or facilities to support Company objectives, utilizing engineering methods.
- Develop highly complex engineering studies, plans, specifications, calculations, evaluations, design documents, and performance assessments.

- Determine methods and techniques for obtaining results.
- Act as a lead expert in the work group; train and mentor associate and career level engineers, technicians and drafters.
- Recommend alternative engineering solutions to management to meet business needs.
- Deliver on commitments and manage outside engineering services to accomplish the assigned work.
- Maintain project timeliness and budgets.
- Analyze and design engineering methods.
- Design, develop, modify, and evaluate systems, processes, or facilities to support company objectives

Electrical Engineer SPC Technical Services, TECS-AMPS – Bonneville Power Administration
September 2012 to June 2015

- Provide technical leadership and training for engineers and Craft personnel on all aspects of Protection and Control Equipment and Application.
- Determines operational requirements for protective systems and initiate project proposals to replace obsolete equipment.
- Maintain familiarity with advanced technology and coordinate maintenance requirements with design and field organizations as well as manufacturers.
- Work with NERC standards and stakeholders to create work standards and direct process development for implementation.
- Interpret overall BPA policy and standards for BPA's NERC CIP covered equipment such as relays and communication processors, to determine maintenance and operating requirements.
- Serve BPA as a technical resource on the NERC standards and requirements.
- Work with Engineering Design to create new Protection and Control design standards.
- Supervise and direct the work of craftsmen and one engineers in the completion of their daily duties.

Protection and Control Engineer – PacifiCorp
May 2007 to August 2012

- Design, develop, modify, and evaluate systems, process, or facilities to support Company objectives.
- Develop electrical engineering studies, plans, specifications, calculations, evaluations, design documents, and performance assessments.
- Determine methods and techniques for obtaining results.
- Guide and direct associate level engineers, technicians and drafters.
- Recommend alternative solutions to management in area of specialty on engineering solutions to meet business needs.
- Deliver on commitments and manage outside engineering services to accomplish the assigned work.
- Analyze and design engineering methods.
- Design, develop, modify, and evaluate systems, processes, or facilities to support company objectives

NANETTE QUITT, SPHR, SHRM-SCP

Contact Information: Nanette.Quitt@pacificorp.com • (b) (6)

EDUCATION & TRAINING/CERTIFICATIONS

- Bachelor of Science in Health Sciences – Oregon Institute of Technology
- Master of Science in Management & Leadership – Western Governors University [*1 Semester still to be completed*]
- Certified Senior Professional in Human Resources (SPHR)
- SHRM Senior Certified Professional (SHRM-SCP)
- Strengths Development Inventory (SDI) Facilitator Certification (Training tool – www.personalstrengths.com)
- Emergenetics International Associate (Training tool – www.emergenetics.com

PROFESSIONAL EXPERIENCE

Director of Labor Relations, PacifiCorp	October 2021 to Present
Labor Relations Specialist (Principal), Pacific Power	October 2019 to October 2021
Northern Nevada Labor Relations Manager, NV Energy	August 2011 to October 2019
Human Resources Manager, Truckee Meadows Water Authority	June 2007 to August 2011
HR Manager/Business Partner, Renown Health	June 2003 to June 2007
HR Generalist & Regional Trainer, HealthSouth Rehabilitation Hospital	November 2001 to June 2003
HR Generalist, ShareGate Inc.	March 2000 to October 2001

PROFESSIONAL AFFILIATIONS & PUBLICATIONS
(ALL OF THESE POSITIONS ARE PART-TIME, VOLUNTARY, AND UNREMUNERATED)

- Member, Rogue Valley Human Resources Association
- Member, Society of Human Resources Management
- Former Chairperson, Nevada State Apprenticeship Council
- Former Board of Directors, Education Alliance of Washoe County
- Former Member, Northern Nevada Human Resources Association
- Former Member, Northern Nevada Apprenticeship Coordinators Association
- Former Member, Career & Technical Education (CTE) Advisory Panel
- Former Board of Directors, Nevada State SHRM Council

Christina M. Medina

Personal Mobile: (b) (6) | Work Mobile: (b) (6) | Christina.Medina@pacificorp.com / Christina.Kruger@icloud.com

Education & Training

Innovation in Leadership B.S., Minor Psychology, Southern Oregon University, Ashland, OR

Oregon American Leadership Fellowship Program Graduate 2018
Medford Chamber of Commerce Community and Business Leadership Graduate 2017
Berkshire Hathaway Energy Leadership Development Graduate 2019

Professional History & Accomplishments

Pacific Power, Mgr., Stakeholder Policy & Engagement OR/WA 08/2022-Present

Design, deliver and successfully implement stakeholder processes and outcomes in response to goals and regulatory requirements in California, Oregon and Washington. Identify and develop opportunities for broad, diverse stakeholder engagement and incorporation of feedback from stakeholders into business decision-making outcomes.

- Ensure success of equity-based processes through tracking goals and objectives, statutory and regulatory requirements, and expectations.
- Implement and support programs that directly impact customers and company goals.
- Facilitate successful outreach and collaboration on programs impacting BIPOC, tribal, rural, coastal, and other groups to facilitate outreach and collaboration on community programs.
- Identify and manage the customer-company relationship development with a wide range of decision-makers in the customer organizations, i.e., account management, legal, production, engineering, finance, and other function areas as identified.
- Provide input on contracts, procedures, support materials, marketing and communication plans, and training materials for assigned programs.

Pacific Power, Regional Business Manager, Medford, OR 08/2015 – 08/2022

Customer and Community liaison representing a regional hub of over 300 employees for Pacific Power in Jackson, Josephine Counties, Oregon, and Del Norte County, California. Area representation for local government affairs, economic development, account management, program engagement and implementation, and stakeholder relations.

- Developed a positive influence on customer decisions to support PacifiCorp as their energy service provider and to improve customer loyalty and satisfaction.
- Oversaw the successful implementation of equity-focused stakeholder groups. Coordinated with internal and external stakeholders to design meaningful interactions.
- Maintained, established, and supported relationships with large business, governmental organizations and social justice and environmental justice groups.
- Coordinated company sponsored events to increase community presence. Served as primary liaison between customers and internal operations teams.
- Prepared/delivered Master Electric Services Contracts, Engineering Study Agreements and collect appropriate funding's associated.
- Identified/managed customer and PacifiCorp relationship development with a wide range of decision-makers in the customer organizations, i.e., account management, legal, production, engineering, finance, and other function areas as identified.

Pacific Power, Corporate Account Manager, Medford, OR 07/2011 - 08/2015

Develop a positive influence on customers' future decision to support PacifiCorp as their energy service provider and improve customer loyalty and satisfaction. Provide excellent customer service, coordinate company sponsored events and increase our community presence. Serve as a primary customer contact and liaison between our customer's and internal operations teams. Prepare and deliver Master Electric Services Contracts, Engineering Study Agreements and collect appropriate funding's associated. Report and track customer load forecasting.

Pacific Power, Metering Operations Manager, Medford, OR 06/2010 – 07/2011

Managed Medford metering, 25 employees, office accounting functions, customer office operations, meter reading, budgeting, strategic planning, human resources, goal reporting and tariff management. Region was comprised of four goal reporting and tariff management.

Pacific Power, T&D Operations Work Planner, Portland, OR 05/2009 – 06/2010

Identified, prioritized, and ensured that scheduled work for district resource capacities aligned with actual for the T&D Operations budget within the Work Planning Department. Developed plans, designs, resource requirements, and cost estimates for construction and maintenance projects involving T&D facilities, telecommunications, generation, and properties and facilities projects. Wrote/assembled work packages including drawings, descriptions, procedures, and necessary parts to direct crews. Planned/coordinated resource availability to accommodate the PacifiCorp load obligations. Monitored systems operations, adjusted operational plans accordingly. Independently developed cost estimates and resource requirements for construction and maintenance projects involving T&D and telecommunication facilities. Reviewed design drawings to perform material take-offs and determine resource requirements.

Pacific Power, Outage Management Analyst, Portland, OR 09/2007 – 05/2009

Real-time monitor outage systems, outage desk and call center performance. Audited data, business processes and coordinated special projects. Protect the overall health of the workplace including safety, health, wellness, and morale. Coordinated and conduct meetings, training and co-facilitated as a subject matter expert as well as support help desk calls as available.

Pacific Power, Business Analyst, Portland, OR 04/2002 – 09/2001

Lead Landlord Link Program, AHT Lab Mentor, Safety Committee Board Elect; Web Billing Expert, NSC, Bilingual Spanish - Acquired Knowledge and Expertise in Platforms Handled high-volume calls in two languages. Coached new hire agents; mentored customer service agents steering them towards company vision and goals in "Average Handle Time" Labs. Trained agents on Landlord Link. Exceeded internal and external customer expectations by taking action to correct quality or service deficiencies; provided solutions for logistical problems and presented work, project flow and efficiency recommendations to management. Created, tracked, and provided enrollment reports to program manager for LAP (Landlord Link Program) Awarded as a Top Ten Performer.

Current Community Affiliations

(The following affiliations are part-time, voluntary, and unremunerated)

- Governor Appointed Trustee, Board of Trustees, Southern Oregon University
- Executive Board President Remake Talent
- Executive Board Member ASANTE Health System
- Chair City of Medford Vision 2040 Task Force
- Rogue Retreat, Community Advisory Council Member
- Coalicion Fortaleza Advisory Council Member
- American Leadership of Oregon Fellow

JAKE K. KATHOL

[redacted] (b) (6)
Joseph.Kathol@PacifiCorp.com

EDUCATION

Southern Oregon University, Master of Business Administration, 2011
Member of Phi Kappa Phi national honor society.

Oregon State University, Bachelor of Science in Nuclear Engineering, 2004
Nuclear Engineering Upper-Division Student of the Year for 2004. Graduated Magna Cum Laude.

WORK EXPERIENCE

Principal Project Manager
Pacific Power, Medford, OR, January 2023 - Present

- Manage multiple complex, multi-million-dollar, multi-year capital projects from conception to close ensuring projects are completed within the required scope, safely, on-schedule, and on-budget.
- Manage aggregate project budget of approximately $150m.
- Routinely work with internal work groups, external consultants, contractors, and government agencies to deliver projects successfully.
- Administer project management accession and continuous training programs. Includes syllabus development and instruction, both in-person and remote.
- Provide mentorship and guidance to other project managers in the department, and assist in problem solving and issue resolution on project-managed projects.

Senior Project Manager
Pacific Power, Medford, OR, June 2022 - December 2022

- Manage multiple complex, multi-million-dollar, multi-year capital projects from conception to close ensuring projects are completed within the required scope, safely, on-schedule, and on-budget.
- Manage aggregate project budget of approximately $125m.
- Routinely work with internal work groups, external consultants, contractors, and government agencies to deliver projects successfully.

Substitute Teacher
EDU Staff, Medford, OR, April 2022 - May 2022

- Teach on a substitute basis to high-school and middle-school aged students at South Medford High school, White Mountain Middle School, and McLoughlin Middle School.

Senior Project Manager
Pacific Power, Medford, OR, March 2016 - March 2022

- Manage multiple complex, multi-million-dollar, multi-year capital projects from conception to close ensuring projects are completed within the required scope, safely, on-schedule, and on-budget.

- Manage aggregate project budget of approximately $125m.
- Routinely work with internal work groups, external consultants, contractors, and government agencies to deliver projects successfully.

Lead Substation Operations Manager
Pacific Power, Medford, OR, June 2010 - March 2016

- Managed multi-million-dollar annual operations and maintenance budget.
- Managed day-to-day operations of substation operations team, including hiring, training, and developing a team of 24 employees.
- Provide operations support on large capital projects.
- Provide leadership during customer outage situations to ensure timely restoration of electrical service to impacted customers.

Distribution Center Assistant Manager
Fire Mountain Gems and Beads, Grants Pass, OR, August 2009 - June 2010

- Managed day-to-day operations of distribution center including hiring, scheduling, and training for approximately 70 employees.

Lieutenant, Submarine Warfare Officer
United States Navy, USS Maine (SSBN) 741, Silverdale, WA, June 2004 - June 2009

- Directly accountable to the ship's commanding officer for the ship's operations both underway and in-port. Led a watch-team of approximately 50 skilled operators and technicians to accomplish the ship's missions.
- Supervise the operation of a nuclear reactor plant requiring direct supervision of ten skilled nuclear reactor plant operators.
- Ranked first of 22 junior officers by ship's commanding officer and was the only first-tour officer recommended for executive officer by the ship's commanding officer.

Second Class Petty Officer, Nuclear Machinist Mate
United States Navy, Various Training Commands, June 1999-June 2001

- Certified mechanical operator in a nuclear reactor plant.
- Graduated first in class and recognized as class honor-man at Nuclear Prototype Training Unit in Balston Spa, New York in January of 2001.

CERTIFICATIONS AND AWARDS

- Certified Project Management Professional (PMP) by the Project Management Institute, 2018.
- Graduate of the Western Energy Institute’s Business Acumen Course for Emerging Leaders, 2012.
- Awarded Navy Commendation Medal for superior leadership, professionalism, and dedication, 2009.
- Certified Naval Nuclear Engineer Officer, 2007.
- Certified Submarine Warfare Officer, 2006.
- Licensed as Engineer-In-Training (EIT) in the state of Oregon, 2004.

LANCE CORLEY

(b) (6) | lance@clejatc.org

Education

- **National Labor College (NLC)** – Silver Spring, MD — **2013 – 2014**
  Coursework, Bachelor of Arts (see certification below)
- **Crater Lake Training Center** – Central Point, OR — **2000**
  Test Administrator & Craft Certification Performance Evaluator
- **Kelly Walsh High School** – Casper, WY — **1997**

Professional Certifications

- **National Labor College (NLC)** – Silver Spring, MD — **2013 – 2014**
  Estimating, Project Planning & Scheduling
- **NJATC (National Joint Apprentice & Training Committee)** – Bowie, MD — **2014**
  Test Administrator & Craft Certification Performance Evaluator
- **NJATC National Training Institute (NTI)** – Ann Arbor, MI — **2012**
  Course 10 - Principles of Learning,
  Course 11 - Elements of Trade Teaching Blended Learning introduction
- **Generac University** – Waukesha, WI — **2010**
  Warranty and Service Technician for Natural Gas
  and Propane Generators Up To 150 K.W
- **Oregon General Journey Electrician License # 22783J** — **2006 – Present**

Professional Experience

- **Training Director,** Crater Lake Electrical Training Center — **2014 – Present**
  Central Point, OR
- **Instructor,** Crater Lake Electrical Training Center — **2012 – 2014**
  Central Point, OR
- **Journey Inside Electrician,** Swanson Electric & J.P. Electric — **2006 – 2007**
  Grants Pass, OR
- **Apprentice Inside Electrician,** Crater Lake Electrical Training Center — **2001 – 2006**
  Central Point, OR

Appointments *(part-time, voluntary, and unremunerated)*

- **Board Member,** Rogue Workforce Partnership — **2016 – Present**
  Medford, OR
- **Board Member,** Crater Lake Electrical Joint Apprenticeship & Training Trust — **2013 – 2014**
  Central Point, OR

Jennifer Leeds Groth

jgroth@rdiinc.org (b) (6)

EDUCATION

Master of Public Administration
Maxwell School of Citizenship and Public Affairs
Syracuse University; Syracuse, New York

Bachelor of Arts in Political Science and Economics
Kansas State University; Manhattan, Kansas

EXPERIENCE

Director of Policy & Partnerships, Rural Development Initiatives **2018 - current**
Hired in 2018 as a Grants and Program Coordinator; promoted to Policy & Partnerships Manager in 2019 and Director of Policy & Partnerships in 2021.
Manage resource development activities and public policy services, including grant proposals, funder relations, legislation monitoring, voter education, and other community civic engagement activities.
Responsible for planning & implementation of biennial Regards to Rural Conference.
Deliver training programs in grant writing and local civic engagement.

Public Information Officer/Business Manager, Coos County Airport District **2016 – 2018**
Coordinated advertising and marketing for Southwest Oregon Regional Airport, spoke to community groups and monitored federal and state legislation related to airports.
Represented the District as a board member of the Bay Area Chamber of Commerce, the South Coast Development Council, and the President of Travel Southern Oregon Coast Board of Directors.
Supervised the District's CPA and Finance Assistant in managing financial tasks, including the negotiation and management of 55 lease agreements.

President, Coos Bay Schools Community Foundation **2011 - 2018**
Established 501(c)3 status, by-laws, board policies and a financial management system.
Awarded 50 grants for over $46K in 2017, established three endowment funds through the Oregon Community Foundation.
Elected Treasurer of the Board in 2007 and President in 2011.

Councilor, City of Coos Bay **2010 – 2018**
Elected in 2010 as the top vote-getter out of seven candidates, re-elected in 2014.
Served as the Council President, the City's liaison to the Coos County Urban Renewal Agency, the Boys & Girls Club of Southwestern Oregon, the Community Health Plan Steering Committee and the Coos Bay Public Library.
Selected as the Budget Committee Chair, the Community Enhancement Plan Task Force Chair, the Urban Renewal Agency Chair, and the Streets Task Force Chair.

Coordinator, Coos Waterfront Walkway Partnership **2007 - 2015**
Implemented a memorandum of understanding among seven local governments and public agencies to work together on a concept plan for a walkway to connect points along the waterfront in Coos Bay and North Bend.
Organized landowner meetings and general public meetings to gather input, developing a Concept Plan for approval by the project partners.

President, Coos Historical & Maritime Center Board of Trustees **2006-2009**
Developed structure for capital campaign as part of Campaign Steering Committee, subsequently implemented campaign including local large gift requests, federal and state appropriations, and fundraising events.
Implemented fundraising plan for current operating budget, developed special events, completed successful federal and private foundation grant applications.

Business Manager, Boys & Girls Club of Southwestern Oregon **2002 – 2005**
Developed financial management procedures, implemented annual budget process, wrote successful private foundation grant applications, organized large-scale special events.

Corporate Actions Supervisor, American Funds Service Company **1993 – 1997**
Supervised team of fourteen in implementing application upgrades for large mutual fund company operation, ensuring new applications were in compliance with tax laws and producing annual tax statements for shareholders.

ACH Supervisor, Federal Reserve Bank of Kansas City **1991 – 1993**
Supervised staff of ten in managing the Automated Clearing House operation, including 24-hour data processing and application maintenance.
Coordinated consolidation of ACH operations from branch offices to main office, resulting in an annual cost savings of $250K.

In addition to the positions described above, I completed internships with the National Association of Development Organizations in Washington, D.C., the Onondaga County Budget Office in Syracuse, New York, and the North Central Regional Planning Commission in Beloit, Kansas.

COMMUNITY SERVICE *(voluntary, part-time, unremunerated)*

Bay Area Chamber of Commerce Leadership Coos Program
Boys & Girls Club of Southwestern Oregon
Coos Bay Downtown Association
Ford Institute Leadership Program
Kiwanis Community Scholarship Committee
Marshfield High School Scholarship Committee
Nonprofit Association of Oregon Public Policy Committee
Oregon Battle of the Books
Oregon Community Foundation South Coast Leadership Council
Southwestern Oregon Community College Foundation Scholarship Reader
Zonta Service Club

Dr. Regan A. Zane

Director ASPIRE NSF Engineering Research Center

David G. and Diann L. Sant Endowed Professor
Department of Electrical and Computer Engineering

Utah State University, 4120 Old Main Hill, Logan, UT, 84322-4120
(b) (6) | regan.zane@usu.edu

SHORT BIO

Dr. Regan Zane is the Director of the Center for Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE), an NSF sponsored engineering research center involving 9 universities, more than 65 faculty, 200 students and a dozen full-time staff, 4 national lab partners, and more than 50 industry and innovation partners. He holds the David G. and Diann L. Sant Endowed Professor position at Utah State University in the Department of Electrical and Computer Engineering, where he founded the USU Power Electronics Lab (UPEL), the Electric Vehicle and Roadway (EVR) research facility and test track, and the Battery Limits and Survivability Test (BLAST) lab.

Dr. Zane has published more than 200 peer-reviewed articles, served as co-inventor on more than 30 issued patents, has received international and institutional recognition in research, teaching and innovation, and has raised more than $65 million in research funding to date. His research programs cover key aspects of electrified transportation charging systems and infrastructure, from battery, vehicle, and charging systems to grid integration, smart charge management, demand response and distributed energy resources. His programs maintain a strong emphasis on collaboration with academic, government and industry partners to develop and transition innovative technologies into the marketplace.

Additional research topics include wireless power transfer, control of series/parallel input/output converters, high efficiency, high frequency, high power density, and high performance dc-dc, ac-dc, dc-ac power converters, ac and dc microgrids, battery management systems, drivers for LEDs and discharge lamps in energy efficient lighting systems, active stability control and adaptive tuning in multi-input, multi-output converter systems, active converter and system health monitoring, power integrated circuit design, and low-power energy harvesting.

EMPLOYMENT

2020 – present **Director**, NSF Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE) Engineering Research Center, College of Engineering, Utah State University.

2012 – present **Full Professor**, *Department of Electrical and Computer Engineering*, Utah State University. ***David G. and Diann L. Sant Endowed Professor*** (since 2018) and ***USTAR Professor*** (2012 – 2018). Founding Director of the Center for Sustainable Electrified Transportation (SELECT), Electric Vehicle & Roadway (EVR) Research Facility and Test Track and USU Power Electronics Lab (UPEL).

2008 – 2016 **Associate Professor**, *Department of Electrical, Computer, and Energy Engineering*, University of Colorado at Boulder.

2001 – 2008 **Assistant Professor**, *Department of Electrical and Computer Engineering*, University of Colorado at Boulder.

1999 – 2001 **Senior Research Scientist**, *Electronic Power Conversion*, Corporate Research & Development Center, General Electric, Niskayuna, NY. Principle researcher in area of custom integrated circuits for power management applications within GE businesses with an emphasis on miniature controllers for energy efficient lighting systems.

EDUCATION

Institution	Degree	Year	Field of Study
University of Colorado at Boulder	Ph.D. (GPA: 4.0)	1999	Electrical Engineering
Dissertation title, "*Development, analysis, and implementation of an ASIC controller for single-phase power factor correction*."			
University of Colorado Boulder	M.S. (GPA: 4.0)	1998	Electrical Engineering
University of Colorado Boulder	B.S. (GPA: 4.0)	1996	Electrical Engineering

Recent Related Honors and Awards

2021 Campus Researcher of the Year Award, Utah State University

2020 Utah Clean Cities Sustainability Partner of the Year (for SELECT & ASPIRE Centers)

2019 Utah Innovation Award in Clean Technology and Energy for "Robust and Efficient Battery Management System," sponsored by Utah Governor's Office of Economic Development

2011 Holland Teaching Award, University of Colorado

2008 IEEE Power Electronics Society Richard M. Bass Outstanding Young Power Electronics Engineer Award

2008 John and Mercedes Peebles Innovation in Teaching Award, University of Colorado

Recent Related Peer-Reviewed Publications (out of over 200)

[1] D. Trinkoa, N. Horesh, R. Zane, Z. Song, A. Kamineni, T. Konstantinou, K. Gkritza, C. Quinn, T. H. Bradley, J. C. Quinn, "Economic feasibility of in-motion wireless power transfer in a high-density traffic corridor," eTransportation, Volume 11, Feb. 2022, doi: 10.1016/j.etran.2021.100154.

[2] C. Teeneti, U. Pratik, G. Philips, A. Azad, M. Greig, R. Zane, C. Bodine, C. Coopmans, Z. Pantic, "System-level approach to designing a smart wireless charging system for power wheelchairs," *IEEE Transactions on Industry Applications*, vol. 57, no. 5, pp. 5128 – 5144, Sep. 2021, doi: 10.1109/TIA.2021.3093843.

[3] N. Horesh, C. Quinn, H. Wang, R. Zane, M. Ferry, S. Tong, J. C. Quinn, "Driving to the future of energy storage: Techno-economic analysis of a novel method to recondition second life electric vehicle batteries," Applied Energy, Volume 295, Aug. 2021, doi: 10.1016/j.apenergy.2021.117007.

[4] B. Limb, Z. Asher, T. Bradley, E. Sproul, D. Trinko, B. Crabb, R. Zane, J. Quinn, "Economic viability and environmental impact of in-motion wireless power transfer," *IEEE Transactions on Transportation Electrification*, vol. 5, no. 1, pp. 135 – 146, Mar. 2019.

Patents, Issued or allowed (out of over 30)

[1] M. Hansen, R. Zane, A. Kamineni, "Zero-crossing current detection for modular and robust dynamic wireless power transfer," US patent #11,218,026, Jan 2022.

[2] H. Wang, R. Zane, "Dynamic inductive wireless power transmitter system with a power transmitter module," US patent #11,059,380, Jul 2021.

[3] B. Jacobson, D. Altman, C. Scheffler, R. Zane, "Energy-based adaptive stability control system," US patent #11,063,435, Jul. 2021.

Educational Certificate Program Development Grants

Department of Energy (DOE), "GATE Center of Excellence, in Innovative Drivetrains in Electric Automotive Technology Education (IDEATE)," joint program with University of Colorado Colorado Springs, University of Colorado, and Utah State University. Total: $954K. Oct. 2011 – Sep. 2016.
Investigators: G. Plett (Program PI, UCCS), **R. Zane** (sub-contract PI, UCB/USU), D. Maksimovic (UCB).
Developed multi-university cross-disciplinary 12-credit certificate program for re-training automotive engineers in new advanced topics for electrified transportation drivetrains.

Julie Strzempko
(b) (6) jstrzempko@gmail.com

Highly experienced workforce and business development professional with proven strategic business, partnership development and consultative sales experience. Areas of expertise include building partnerships between industry, education, and workforce; collaborating with government agencies, including the Department of Labor; developing quality standards for industry-recognized credentialing; and promoting career pathways. Excels at interpersonal communications, as well as organizing, planning, and prioritizing work and developing objectives and strategies.

EDUCATION

Bachelor of Arts, Economics – Peter T. Paul College of Business and Economics, University of New Hampshire

PROFESSIONAL EXPERIENCE

Center for Energy Workforce Development *January 2014-Present*
Director of Strategic Engagements
Washington D.C, Works Remotely

- Director of Strategic Engagements for the Berkshire Hathaway Energy-International Brotherhood of Electrical Workers Stronger Together Program.
- Attract, engage, retain, and inspire a diverse and inclusive workforce where all individuals are respected, recognized, valued and empowered to fully participate in the skilled trades.
- Engage management and labor in the energy sector to ascertain current and future workforce educational and training needs and requirements to succeed in entry level positions.
- Align pre-apprentice and apprenticeship programs with energy industry requirements for qualified pipeline of candidates.
- Create awareness among community-based organizations, workforce development systems, educational and training programs of the critical need for a diverse energy workforce in the skilled trades.
- Launched a career navigation pilot with rising seniors at Minority Serving Educational Institutions to increase awareness of energy careers and applications for energy jobs.
- Designed, developed, and delivered workshops and webinars, especially in the areas of workforce development, capacity building and employer engagement.

Next Step Living, Boston, MA *July 2013-December 2015*
Cleantech Company
Director of Strategic Partnerships

Developed and negotiated customer acquisition opportunities through strategic co-branded partnerships, channels and programs for fastest growing private company in MA 2010-2013. Resulted in revenues that placed company in the top 100 of the Inc. 500 in 2013 & 2014.

Strategic Partnership Development

- Delivered new revenue opportunities by negotiating deals and executing contracts with partners, measuring financial impact, and analyzing fit with company priorities. Strategic partnerships drove 70% of lead generation through focused pipeline development.
- Identified, prospected, and engaged organizations in the retail, manufacturing, health care, financial, educational, and other key sectors to promote state and federally sponsored residential energy efficiency programs to their customers and employees.
- Provided innovative marketing, branding, and promotional opportunities to strategic partners.

Job Corps, U. S. Department of Labor *July 2008-April 2013*
Region One: New England, New York, New Jersey
Regional New Business & Job Developer

Developed strategic corporate partnerships with large scale regional and national employers, industry partners, and educational institutions to generate long-term employment opportunities for program graduates, while simultaneously improving regional job placement statistics. Employer partnerships provided graduates with targeted career advancement opportunities.

Workforce Development

- Developed objectives and established long-range goals necessary to ensure job placement initiatives proposed by Regional Director were met and then exceeded. Year two 40% increase, year three 70% increase and year four 97% increase in placement with employers of critical mass.
- Created career opportunities by targeting employer prospects from the following industries: health care, education, construction, automotive, hospitality, culinary, business and security management.
- Aligned employer recruitment efforts with Regional Career Clusters and orchestrated business round table meetings with employers by industry and regional partners.
- Established contact and follow up with employers from various career pathways, schools, college admissions offices, other training programs, and military recruiters to maintain positive relationships and guarantee future referrals.
- Developed and executed Consortium goals by collaborating with internal groups, including 21 Job Corps Centers, corporate representatives, and regional program managers. Gained consensus across multiple stakeholders.
- Collaboratively worked with industry stakeholders to determine certifications and training necessary to prepare graduates to meet industry/employer needs.
- Developed and facilitated "train-the-trainer" workshops enabling staff to coach students on career goals, including researching various industries, interview preparation, common employability skills, personal budgeting, professional etiquette and the role of social media in the interview process.
- Spearheaded Career Preparation Workgroup. Outcome: All Centers worked to establish phases of career readiness that progressively built upon one another establishing criterion which encompasses all components of Career Development Success Standards.

WICN, Worcester, MA, Public Radio, Non-Profit *June 2007 - July 2008*
New England Affiliate of National Public Radio
Director of Corporate Development and Marketing

Responsible for planning, implementing, and managing all corporate development and marketing initiatives necessary to achieve WICN's revenue goals.

Business Development

- **Generated 75% of WICN's operating revenue.**
- Developed integrated sales and marketing programs to meet revenue objectives by increasing donor base.
- Cultivated community "centers of influence" and strategic partnerships to develop sustainable revenue streams.

Marketing/Communications

- Implemented and managed integrated marketing and development strategies. Coordinated and managed special events.
- Wrote press releases, media alerts, and creative print/radio ad copy. Cultivated relationship with media.
- Public speaking engagements at industry, educational and hospitality events to raise awareness for station.

Take it Outside, Worcester, MA a Full Service Integrated Marketing Agency *2000 - June 2007*
Senior Integrated Sales Marketing Director

Responsible for developing and maintaining key account client relationships.

Program Management.

- Spearheaded and directed three- year integrated marketing campaign for Maryknoll Fathers and Brothers, an international non-profit organization which generated brand recognition amongst a very targeted demographic. Brand recognition increased from 0% to over 32% within a three-year time frame.
- Managed national marketing initiative for Shuttle America, a division of US Airways. Penetrated new demographic markets increasing sales 120% in the first year.

Non-Profit Sponsorship

- Identified sponsors seeking to engage culturally diverse target markets providing a cost-effective vehicle to build awareness amongst this target audience.
- Negotiated three-year Naming sponsorship for the largest African American Festival in the Northeast. Overall sales for event exceeded $100k. Secured three-year sponsorship of Hispanic Festival for Dunkin Donuts and Comcast.

Jon Flegel

Business Manager/Financial Secretary IBEW LU 659

(b) (6)
[redacted]
jon@ibew659.org

Education

Crater Lake Inside JATC Graduate

LERC U-Lead Graduate

IFEBA Master's Program Graduate

Professional Experience

2021-Current
Business Manager/Financial Secretary IBEW Local Union 659

Responsible for organizing the jurisdiction, promoting friendly relationship with employers, keeping accurate statistics, Permanent member of all negotiating and Trust committees. Responsible for funds of the local union.

2008-2021

Assistant Business Manager IBEW Local Union 659

Responsible for representing and negotiating individual Collective Bargaining Agreements. Reports directly to the Business Manager.

1995-2008

Inside Journeyman Electrician

Responsible for the installation of electrical systems

Isaac Müller P.Eng

CONTACT **C:** (b) (6) **E:** imullerteksavvy@gmail.com

EDUCATION

September 1999 — May 2003
Ryerson University
B.Eng, Electrical Engineering

January— April 2004
Canadian Forces Base St-Jean
Basic Officer Training Program — Commissioned as a Second-Lieutenant

PROFESSIONAL WORK EXPERIENCE

? 2020 –
American Wire Group. (Aventura, FL) Applications Engineer, P.Eng

- Responsible for technical wire and cable product support

January 2010 - 2020
Nexans Canada Inc. (Markham ON) Applications Engineer, P.Eng

- Voting member of the Canadian Electrical Code
- Chair of the Canadian Electrical Code Section 4 "Conductors"
- Vice-Chair of the Canadian Electrical Code Section 12 "Wiring Methods"
- Active member of CSA, ICEA and NEMA product standards and technical committees
- Managed ISO-9001:2015 Quality Management System (certifications, manuals, procedures and audits)
  - *Wire and cable applications engineering, Canada and United States*
  - *Utility and building wire calculations (i.e. sag and tension, impedance, short-circuit)*
  - *Ampacity calculations using Cymcap, IEEE 835, Canadian Electrical Code, and NEC employing the Neher-McGrath methodology*
  - *Detailed customer specification review and analysis*
  - *Drafting and revising technical wire and cable standards as a part of CSA and ICEA technical committees*
  - *CSA and UL project management for wire and cable certification and listing*
  - *Technical sales support and training*
  - *Customer technical support and training including presentations, webinars, technical documents and tools*
  - *Full technical field support including failure analysis and diagnostics*

August 2006 — October 2009
Compower Systems Inc. (Toronto ON) Electrical Engineer, E.I.T.

- Relay rack integration of telecom DC and inverter power equipment (up to 52.8 kVA in size)
- Design of DC & AC breaker and fuse panels
- Design of DC fuse and breaker distribution bay monitoring system (schematic, printed circuit boards and software for embedded controllers) for up to 168 individual fuses or breakers
  and capable of monitoring both currents and voltages
- Application of hardware and software in various embedded communications protocols (such as SPI, Modbus RS-485)
- Coordination of production and test of a wide range of telecom power equipment, from basic breaker panels to complex intelligent inverter power modules
- Coordinate and assist CSA special inspection of telecom power equipment and installations

February — August 2006
Pylon Electronics (Mississauga ON)
Test/Repair Technician & Electrical Engineering

- Test and repair of various telecom power equipment, including inverter modules and systems up to 52.8 kVA
- Coordination of production and preparation of test reports for mass production of modular inverters

January 2004 — February 2006
Canadian Forces (various locations) Signals Officer, Second-Lieutenant

- Adhered to strict military and government rules and regulations
- Administration and coordination of troops awaiting training while acting as a platoon commander
- Preparation and coordination of training for troops entering the Common Army Phase at the Infantry School

SKILLS & PROFICIENCIES

- Member of Professional Engineers Ontario and Ontario Society of Professional Engineers
- Proficient in wire and cable applications engineering
- Experience with technical problem solving
- Experience applying the Canadian Electrical Code and the NEC in residential, commercial and industrial applications
- Member of the International Association of Electrical Inspectors
- ISO-9001:2015 internal auditor
- Advanced knowledge of computer hardware and software

DISCLAIMER

This resume for myself, Isaac Müller, is for reference only. I am currently employed with American Wire Group as an Applications Engineer responsible for technical wire and cable product support only. I am not employed as a design engineer, nor will I be held liable for any designs using the product support that I provide

CREATIVE COMPOSITES GROUP

214 Industrial Lane
Alum Bank, PA 15521

(b) (6)

CreativeCompositesGroup.com

DUSTIN TROUTMAN

CORPORATE DIRECTOR OF MARKETING, PRODUCT DEVELOPMENT AND SALES
CREATIVE COMPOSITES GROUP

(b) (6)
dtroutman@pultrude.com

EDUCATION

Dustin Troutman received his B.S. in Civil Engineering from the University of Pittsburgh at Johnstown in 1993. Currently, he serves as Corporate Director of Marketing, Product Development and Sales for the Creative Composites Group (CPI) located in Alum Bank, PA.

PROFESSIONAL EXPERIENCE

During his 27 years with CCG, Mr. Troutman has been instrumental in the market investigation and development of major pultrusion products and product lines associated with infrastructure applications. Examples include: SUPERPILE™ pipe piles, SuperLoc® sheet piles, and StormStrong® FRP transmission and distribution poles and cross arms. He continues to be a key player in the development of codes and standards in support of the fiberglass reinforced polymer pultrusion industry. Mr. Troutman is a co-inventor, holding four patents related to pultruded systems.

AFFILIATIONS *(part-time, voluntary, and unremunerated)*

Mr. Troutman is a member of professional associations, including ASCE, ANSI and ASTM. He is a past president of the Pultrusion Industry Council and is currently the chair of the Utility and Communication Structures Committee. He is a member of the Project Advisory Committee (PAC), charged with developing the ASCE/LRFD standard for pultruded structural profiles.

March 29, 2023

James Wenzel

Jim received his education from Marquette University where he earned a BSEE degree. Following graduation, he began his career at RTE which was acquired by Cooper Industries and then by Eaton Corporation. Throughout his career, James has held several engineering positions, including design engineer and design team manager. Currently, he holds the position of Engineering Manager responsible for development of High Voltage fuses, switches, and assembled products.

James Wenzel is a highly accomplished engineer with Eaton and has nearly 35 years of experience in the Electrical Distribution field. Known for knowledge of current limiting and expulsion devices, he has made a significant impact in high voltage fuses.

Jim's extensive knowledge and expertise have earned him the positions of both chair and vice-chair of the IEEE High Voltage Fuse subcommittee. He is currently a member of the IEC Fuse Committee. In addition to fusing, he has also been responsible for the design and testing of underoil breakers for the primary of a distribution transformer, faulted circuit indicators, high voltage arresters, and underoil high voltage switches.

In addition to his professional work, Jim is the fourth generation to live on the Wenzel family farm and keeps busy maintaining the buildings and property. He is also the manager of the Rome Raiders, an amateur baseball team. In 2021, Jim co-authored a book capturing the history of amateur baseball in Rome and Sullivan Wisconsin.

Jim can be reached via email at jamesawenzel@eaton.com and phone/text at [redacted].

JAMES KADDAS

(b) (6) ▲ JAY@KADDAS.COM

EDUCATION

UTAH TECHNIAL COLLEGE

- INDUSTRIAL ELETRONICS
- INDUSTRIAL ARCHITECTURE

EXPERIENCE

MAY 1987 – PRESENT

CO-FOUNDER, KADDAS ENTERPRISES, INC.

- Oversees Engineering and Tooling development.
- Primary responsibilities include: New product innovation, design review, and development manufacturing process technology.
- Leads research and development opportunities, globally.
- Innovator of four BirdguarD™ international design patents.
- Manages implementation of capital assets
- Develops manufacturing work cells and operation workflow
- Responsibility for all aviation and custom products

JUNE 1984 – MAY 1987

LEAD INDUSTRIAL DRAFTMAN & TOOLING LEAD, INTERMOUNTAIN DESIGN INC.

- Key individual contributor to redesign of presidential lavatories on Air Force One
- Led technical team to design and develop tooling for AMTRAK SURFLINER Locomotive
- Lead Industrial Draftsman for Ivory Homes development models

SKILLS

- Certified SolidWorks
- Certified MasterCam
- Certified FASTCAD
- Certified MAAC Machines

Brian J. Trager – Director,
Technology & International
Mobile: [redacted]
email: btrager@marmonutility.com

EDUCATION

1986 : MBA, Finance, Cum Laude – University Of Pittsburgh, Pittsburgh, Pennsylvania
1980 : MEng, Electric Power Engineering, Cum Laude – Rensselaer Polytechnic Institute, Troy, New York
1979 : BEng, Electric Power Engineering, Cum Laude - Rensselaer Polytechnic Institute, Troy, New York
1977 : AS, Engineering Science, Summa Cum Laude, Valedictorian – Nassau College, New York

BUSINESS EXPERIENCE

1/2010 – 2023 Hendrix Wire & Cable, Milford, NH – Director, Technology & International

Principal responsibilities of position included the following:

- Provide technical support to sales force and customers, including seminars, training sessions, and one on one discussions.
- Provide input and actively assist engineering, manufacturing, QA, and Sales to resolve problems related to product design or quality. Define new product opportunities.
- Support marketing with research, marketing strategy, identification of joint ventures and licensing agreement opportunities.
- Provide input to Engineering function for aerial products and systems
- Conduct and direct R&D for new products and technologies
- Assist VP in developing annual budgets, business, and strategic plans.
- Manage International business
- Manage Renewable Energy strategic sector for large scale wind, solar, and hydro collection systems
- Provide input on all technical publications
- Assist other Marmon and Berkshire Hathaway Energy Group companies when requested
- Identify, start up and manage Hendrix joint ventures outside USA

6/1999 – 1/2010 Hendrix Wire & Cable, Milford, NH – Director, Technology & International

Principal responsibilities of position included the following:

- Market and promote use of spacer cable, insulated cable, and accessories to customers.
- Evaluate existing customer base for appropriate product usage and promote engineering solutions.
- Direct and Manage Engineering function for aerial products and systems
- Assist VP in developing annual budgets, business, and strategic plans.
- Provide Field Sales Force training.
- Provide technical assistance to Field Sales Force.
- Assist in initiation, evaluation, and/or integration of acquisitions by participating in marketing studies, product feasibility studies, product integration or other areas pertinent to potential acquisitions.
- Evaluate international sales opportunities.

10/1994 – 6/1999 Hendrix Wire & Cable, Milford, NH - Customer Service Engineer

Principal responsibilities of position included the following:

- Market and promote use of spacer cable, insulated cable, and accessories to customers.
- Evaluate existing customer base for appropriate product usage and promote engineering

solutions.

- Coordinate between Sales and Production.
- Assist VP in developing annual budgets, business, and strategic plans.
- Provide Field Sales Force training.
- Provide technical assistance to Field Sales Force.
- Assist in initiation, evaluation, and/or integration of acquisitions by participating in marketing studies, product feasibility studies, product integration or other areas pertinent to potential acquisitions.
- Evaluate international sales opportunities.

1/1985 – 10/1994 Fisher Pierce – Engineering Manager

- Responsible for coordination of all phases of new product introduction, from concept inception, through engineering, manufacturing, and field release, with product review and initiation of subsequent generations. Products and systems included but were not limited to FCI's, cap bank controls, insulators, sensors, Demand Management, and Distribution Automation/SCADE interface components.

9/1982 – 1/1985 Cooper Industries, Pittsburgh, PA – Senior Engineer, Advanced Control Technologies

- Design Engineer for SCADA and energy conservation control equipment. Continued to work on part-time basis for Consulting Division, traveling in the U.S. and worldwide on teaching and consulting assignments.

6/1980 – 9/1982 Cooper Industries, Pittsburgh, PA – Power Systems Engineer

- All aspects of power system analysis, simulation, product support and internal consulting, as well as contract consulting for the U. S. Dept. of Energy, Electric Power Research Institute, electric utilities and private corporations.

Summer 1982 & 1983 Ohio State University – Visiting Professor, Graduate School Of Electrical Engineering

6/1979 – 6/1980 American Electric Power Service Corp. New York, NY – Electrical Engineering, Distribution Engineering Department.

9/1977 – 6/1979 Rensselaer Polytechnic Institute, Troy, NY
Lab Technician, Plasma Fusion Laboratory Technician, Electric Power Engineering Laboratory
Research Assistant – General Electric Rotating Machinery Teaching Assistant – Junior Engineering Laboratory

Scott T. Holmes

(b) (6) ▪ *hce327@gmail.com*

EDUCATION

- Master of Mechanical Engineering, University of Delaware, 1994 (Graduate Concentration - Composites)
- Bachelor of Mechanical Engineering, University of Delaware, 1990 (Undergraduate Research – Composites)

RECENT PROFESSIONAL EXPERIENCE

RS Technologies Inc. – Tilbury, Ontario

Chief Technology Officer - Jan 2021 to present

Executive management role overseeing engineering, sales, and marketing groups across the corporation. Developed plan for sales diversification and strategic growth, including methodology for identifying strategic growth accounts to accelerate revenue scaling. After one year, the company hired a Chief Commercial Officer to support our growth strategy, and transferred responsibility of sales and marketing groups to new CCO leadership. Supported the market launch of new composite products through first commercial unveiling and initial customer engagements at key trade shows. Led the corporate ESG initiatives, developing several independent life cycle analyses, understanding of critical areas to address in our sustainability planning. Conducted assessment of corporate wide intellectual property portfolio, including patents, trade secrets and nascent development efforts. Led independent assessment of IP portfolio with external firms, including risk exposure and IP valuation. Led reorganization of the engineering team to support company strategic growth plan, including dedicated resources for process engineering to support continuous improvement, project engineering to manage synthesis/design, build and install of new plant equipment for volume expansion of existing products and new products, and technology development & research. This change enables new focused teams to support areas critical to our scaling of the business and strategic growth plans. Created corporate R&D plan, identified strategic tech developments to enhance existing product offerings; identified technology partners, development plans with budgets and secured board approval to launch new R&D programs; led development programs with potential new IP to enhance product offerings and strengthen market positions.

Director, Crossarm Business Unit - Jul 2019 to Dec 2020 (1 year, 7 months)

Led the development of composite crossarm product for the electric distribution market, leveraging corporate technology in polyurethane materials and processes. Established design requirements, developed analysis and conceptual sizing plan for initial launch product family. Oversaw the development of complementary attachment hardware and accessories (molded endcaps) to complete the assemblies. Led the screening, selection and supported contract negotiation of contract manufacturer; managed the prototype development and testing to prepare for market launch. Worked with marketing and sales teams to develop collateral, developed technical literature, and developed training program for sales team. Led the development of new patent filings and intellectual property portfolio for new composite products. Prepared the technical specification and supporting technical data package for utility and government approvals.

Highland Composites, Division of Highland Industries – *Statesville, NC*

Director of Business Development - Nov 2015 to Jun 2019 (3 years, 8 months)

Directed the complete marketing and sales efforts for new composites division; developed strategy and leads execution. Drove sales from less than $200K to almost $10M in under 4 years. Broad base customers acquisition included the aerospace, automotive, utility, sporting goods and industrial markets. Established military market awareness and booked $1.5M contracts inside 12 months and established a multi-million-dollar aerospace pipeline (>$20M) with key accounts in first two years to achieve long range business plan target growth. Led external marketing team to build out a new brand image accompanied by a high impact video production and launch of a market centric stand-alone website for the division. Developed tactical plans for engaging aerospace and automotive markets and establishing key accounts; led initial business development campaign with aerospace OEMs and supported automotive campaigns. Worked with product development group to engage customers and offer comprehensive support for first time users. Led the national sales team for the acquired Intelli-Pole® product line to grow utility market share, developed and launched a rigging system to enable more rapid installation in difficult access and remote areas, and supported continuously improvement and corrective action efforts at the factory to ensure complete customer satisfaction. Led all engineering and technical support for Intelli-Pole® to sustain market growth; conducted structural analysis verification using industry design software for key accounts; developed new engineering technical manual, product installation guide and training video, and created analysis libraries for utility code software. Due to parent company bankruptcy and inability to sell off our division, needed to exit the business as shut down was imminent.

Utility Composite Solutions International, Inc., Holding of CTI – Dayton, OH

Senior Vice President & General Manager - Jan 2011 to Sep 2015 (4 years, 9 months)

Directed transition of the Intelli-Pole product line to new production site, relocating from the East Coast pilot plant to Midwest expansion location. Led development of technical sales strategy and product field support offering, developed campaign to engage utility engineering groups around North America, growing sales pipeline to greater than $3.0M. Led international campaign with national utility in Mexico to secure first truckload shipments in 2012. Led expansion into the telecom market with a strategic customer by modifying the baseline utility product to meet requirements of small cell platform. Implementing a novel high impact resistant green coating solution to provide high quality, long lasting finish without costly surface preparation. Implemented strategic partnership with regional filament winding technology firm to support product and process improvements to increase margins and throughput and enable capability for licensing global turn-key plants to serve international markets based on partner capabilities. Led the qualification of toll manufacturing sources to rapidly expand production output with limited capital. Helped secure toll manufacturing relationship with Highland Composites.

Vector Composites, Inc., Holding of CTI – Dayton, OH

Vice President & General Manager - Mar 2011 to Sep 2015 (4 years, 7 months)

As part of CTI business acquisition, held simultaneously this position during UCSI tenure above for "sister" aerospace composites business co-located in same facility. Implemented engineering process for meeting customer requirements for prototype and production parts. Supported product development of next-generation composite electronics enclosures for space & defense applications. Acquired contracts in military aerospace within the first 12 months valued at $500K, expanded customer base. Arranged joint venture with service-disabled veteran owned (SDVO) small business to pursue composite armor market and key accounts; led development of competitive lightweight armor product line; created marketing strategy and sales tools to drive initial sales campaigns with large prime contractors and strategic DoD offices; enraged Senior Management at key accounts.

Utility Composite Solutions, Inc. – Wayne, PA

President & Chief Executive Officer - Feb 2009 to Dec 2010 (1 year, 11 months)

Company Founder and inventor of a field repairable modular composite utility pole design known as Intelli-Pole® (led to 1 U.S. Patent and 1 International Patent in 2015), creating a sectional composite utility pole that can be assembled by hand without any special tools and is also easily interchangeable and replaceable by section. Led a team of engineering and manufacturing experts working closely with supply chain and machine builders to rapidly develop a field-ready product with an operational pilot plant in under 12 months. Raised the required seed capital for an aggressive Intelli-Pole® product development ($600K) completed in 12 months beginning in February 2009, and pilot production plant ($1.75M) completed in February 2010. Developed the material, process and equipment solutions to deliver a high-quality precision green composite product with field interchangeability, low cost of finished goods (~$3/lb.) that was both modular and scalable to very high-rate production (>5M lbs. per annum per line) without the creation of any environmental permits or approvals required (No HAPs or VOCs).

PATENTS

Brackets for Crossarms (Application filed Feb. 2022)
Utility Pole Assembly and Laminate Structure for a Utility Pole Assembly (Application filed Sep. 2021)
Composite Structure for a Crossarms (Application filed Mar. 2021)
Modular Composite Pole (U.S. Patent, granted 2017)
Modular Composite Utility Pole (U.S. Patent, granted 2015)
Modular Composite Utility Pole (International Patent, granted 2015)
Systems and method for identifying foreign objects and debris (FOD) and defects during fabrication of a composite structure (U.S. Patent, granted 2007)
System and method for identifying defects in a composite structure (U.S. Patent, granted 2007)
Composite Material Collation Machine and Associated Method for High Rate Collation of Composite Materials (U.S. Patent, granted 2004)
Method for High Rate Placement of Composite Materials (International Patent, granted 2003)
Method for Heating and Controlling Temperature of Composite Material during Automated Placement (U.S. Patent, granted 2002)
Method of Controlling Hot Gas Flow for Fiber Placement (U.S. Patent, granted 1997)
Automated Resistance Welding of Thermoplastic Composites (U.S. Patent, granted 1993)

Charles Carroll
Engineering Manager I –SEL Cyber Services

Charles Carroll is a network and security engineer with more than 20 years of experience in diverse technological disciplines. Charles has acquired extensive knowledge in cybersecurity, network security, and network design.

Experience

SEL Engineering Services, Inc. (SEL ES), subsidiary of Schweitzer Engineering Laboratories, Inc.
Charlotte, North Carolina, 2018–Present

Charles is an engineering manager within the Secure Solutions department. He has a detailed knowledge of cybersecurity policies, procedures, and standards. He is experienced in implementing technical security controls and IT services. He also is experienced in both wide- and local-area networking.

Schweitzer Engineering Laboratories, Inc. (SEL)
Charlotte, North Carolina, 2016–2018

Charles joined SEL as an intern in the information services division where he provided both end-user and network infrastructure support. His responsibilities included:

- Troubleshooting and resolving end user computer and network issues.
- Maintaining accurate systems documentation.
- Configuring and deploying network infrastructure devices.
- Maintaining and updating information systems infrastructure.

Carroll Engineering Company
Harlan, Kentucky, 2004–2016

As lead electronics engineer, Charles provided electronic expertise to the mining industry and supported the equipment of numerous manufactures. In addition, Charles obtained multiple vendor certifications while in this role. His responsibilities included:

- Analyzing and repairing electronic safety, communication, and process control equipment to printed circuit component levels.
- Supervising repair technicians in quality and safety practices.
- Maintaining the highest level of efficiency and quality.
- Corresponding with customers to develop solutions to ensure compliance with state and federal governmental standards.

Elite Auto and Truck Center
Knoxville, Tennessee, 1996–2004

As the shop foreman and lead technician, Charles managed the day-to-day operations of the repair shop and provided technologically advanced diagnostic and repair services. In addition, Charles obtained ASE Master Auto Technician and Advance Engine Performance certifications. His responsibilities included:

- Managing the day-to-day operations of the repair facility.
- Performing electronic troubleshooting and engine analytical services.

Education

BS Information Technology and Cybersecurity, King University, 2017

BS Electronic Engineering Technology, ITT Technical Institute, 2000

Certifications

ISC2

CISSP

Member ID: 717410

GIAC

GDSA
GSEC

GCIH

GRID

SSAP

Member ID: 21090405

Cisco

CCNA, Routing and Switching

CCENT

Member ID: CSCO13259347

CompTIA

Certified IT Operations Specialist

Certified Secure Infrastructure Specialist

Security+

Network+

A+

Member ID: COMP001021235825

Alejandro Carbajal, PE
Project Engineer III – Automation – SEL Engineering Services

Overview

Education	BS Electronics Engineering, Universidad Autónoma de San Luis Potosí, 2008
Experience	12 years

Engineering Expertise

Alejandro Carbajal is an electronic engineer with over 12 years of experience in designing and testing automation systems. Alejandro has experience designing, simulating, testing, and commissioning SCADA systems for monitoring and control processes. He has extensive knowledge in communication protocols such as DNP3, SEL Protocol, and Modbus along with expertise in IEC 61850 and standard protocols such as MMS and GOOSE. In addition, he has experience in communication networks, CODESYS, and programming with the IEC 61131-3 standard. Alejandro has experience developing and configurating several HMI softwares such as zenon, Survalent, ACSELERATOR Diagram Builder™ SEL-5035 Software, and Clearview.

Relevant Experience

Remedial Action Scheme for Mine

Alejandro participated in the development of a remedial action scheme (RAS) for a mine in Peru. The RAS system was acting over the loads in the mine depending on the behavior of the electrical system. This was an angle difference-based project that was monitoring several points of the electrical system around the country and acting based on the gathered information. The system was implemented using C37.118 synchrophasors protocol with an SEL-3378 Synchrophasor Vector Processor (SVP) acting as main controller hardware. An SEL-451 Protection, Automation, and Bay Control System acted as a phasor measurement unit (PMU) and an SEL-2240 Axion® acted as a load-shedding device.

Remedial Action Scheme for Utility

Alejandro participated in the design, testing, and validation of an upgrade to an existing RAS. The upgrade involved integrating a new wind generation to the RAS scheme along with the existing thermal generation. The project also involved updating the existing unit selection logic for tripping generators, crosspoint changes, and HMI updates.

Fault Recorder and Synchrophasor System for Monitoring

Alejandro was the technical lead for this project, which involved a system of 14 substations that were collecting C37.118 synchrophasor data from several PMU devices that were connected to strategic lines around the electrical system. The project also involved dynamic disturbance recorder (DDR) and event collection from the same devices. The main equipment for this project were the SEL-3555 Real-time Automation Controllers (RTAC), which act as phasor data collectors, and around 50 relays/meters acting as PMUs.

Best Selection Automatic Generation Trip Algorithm

Alejandro developed an algorithm based on IEC 61313-3 that uses RTACs as a platform. The algorithm was designed for wind farms where there are several circuits of generation, each circuit with a significant number of wind turbines. Undercontingency circumstances are required by the national regulator of energy in Mexico to shed certain amounts of generation. The algorithm selects the right amount of generation to trip based on a set point provided by the national regulator of energy and selects the right circuits for achieving this generation release. The algorithm has been helping many private energy providers to comply with the national regulations, and it is active in around 14 wind farms in Mexico.

Employment

2019–present	SEL Engineering Services, Inc. (SEL ES), Boise, Idaho
2011–2018	Schweitzer Engineering Laboratories, Inc. San Luis Potosí, México
2009–2011	Schweitzer Engineering Laboratories, Inc., Development Engineer in Rotation Program

Ryan Beeston

tel: (b) (6) [redacted] email: ryan.beeston@siemens.com

EDUCATION

Electrical Engineering Technology, Ontario College Advanced Diploma **2004**
Welland, Ontario, Canada
Program courses included: Variable frequency drives, programmable logic controllers, control systems, industrial electronics, 3Phase generators, motors and transformers, AC/DC motors and generators, power systems, network communications, technical communications and digital systems.

Technical Training

- Siemens Fusesaver factory training.
- Siemens Compact Modular Recloser factory training.
- Siemens Remote Communications factory training.
- Use of Fusesaver in Wildfire Mitigation Applications
- Siemens Variable Frequency Drives factory training
-

EMPLOYMENT HISTORY

Siemens USA
National Business Development Manager **2015 - present**

- Responsible for the growth and health of Siemens Medium Voltage overhead distribution portfolio.
- Responsible for technical training of internal and external partners.
- Advise Siemens R&D, global manufacturing plants and finance team on customer requirements and market trends.
- Build and maintain strong working relationships with regional trade associations and external business partners.

Siemens Canada Limited **2012 - 2014**
Alberta Sales Supervisor

- Managed $30M+ sales per year for the construction and industrial / OEM markets.
- Coordinated and directed the day-to-day sales efforts of assigned account representatives to meet their sales, revenue, profit and expense objectives.
- Planned and managed the overall provincial operation to ensure achievement of corporate goals and objectives.
- Recruited, trained and directed the sales efforts of the sales support engineers, account representatives and administrative personnel

Siemens Canada Limited **2009 - 2012**
Sales Account Manager (Northern Alberta)

- Pursued long-term account strategy that maximized profits.
- Managed multi-million-dollar projects from order process to delivery.
- Daily involvement with quotations, bid / no bid decision making, site visits, review of electrical and architectural drawings

Siemens Canada Limited **2004 - 2009**
Field Service Representative

- Performed on-site product investigations and resolved operational issues. (L/V, M/V, VFD's, controllers)
- Identified, recommended, and helped sell products and service programs.

Yuhsin Hawig, Ph.D.

Director of Energy & OEM Engineering

Contact: (b) (6) [redacted] **(Southwire)**

Southwire

Power Systems & Solutions ™

Education

Ph.D.
Polymer Science & Engineering
Case Western Reserve University
Cleveland, Ohio (2002)
M.S.
Polymer Science & Engineering
Case Western Reserve University
Cleveland, Ohio (1999)
B.S.
Chemical Engineering
National Taiwan University
Taipei, Taiwan (1997)

Certifications

Failure Mode & Effect Analysis
(Certified FMEA in 2007)
Production Part Approval Process
(Certified PPAP in 2007)

Awards

Southwire's Power Systems & Solutions Engineering Award 2018
Outstanding Achievement Award 2009 Neptco Inc
(Headquarter in Pawtucket, RI)

Selected Publications

Journal of Applied Polymer Science, 2006, 100 (3), p2443-2454
Macromolecules,
2005, 38 (9), p3828-3837

Professional Affiliations

Insulated Conductors Committee (IEEE/ICC)

DG Vice Chair
Member of IEEE Power Engineering Society & CIGRE

NEETRAC Management Board

**These affiliations are part-time, voluntary, and unremunerated.*

Background

Dr. Hawig joined Southwire on the technical team of the Energy Division in 2010 and was promoted to the director of cable and systems engineering position in early 2014. Yuhsin has managed up to twelve staffs including senior product engineers, application, and specification specialists. Yuhsin's responsibilities include identifying customer needs and new service opportunities and develop solutions for both Energy and OEM markets. She prioritizes customer specification reviews, quoting, orders, testing, and qualification activities utilizing R&D Cofer Center, Neetrac, manufacturing, and outside resources.

Yuhsin is a co-inventor of US patents entitled "Electrical Transmission Cables with Composite Cores", which issued in 2015-2017 (US 9012781, 9,443,635 and 9,685,257) and is the sole inventor of US patent application "UV-Resistant Superhydrophobic Coating Compositions" (US20150368496).

Prior to joining Southwire, Dr. Hawig spent six years with Neptco Incorporated (Chase Corporation) in North Carolina. There she developed and marketed innovative polymer materials for the automotive, electronic, fiber optic communication, construction, and wire & cable industries. She has hands-on manufacturing experience with laminating, pultrusion, and extrusion machines.

Yuhsin also worked in the field of polymer nanocomposites at the National Institute of Standards & Technology (NIST) in Maryland. She co-authored sixteen technical articles in twelve peer-reviewed journals and has presented seminars at five international conferences on dielectric spectrometer, nanotechnology, polymer composite materials and curing kinetics.

JAIRO HERRERA

DIRECTOR OF ENGINEERING, TAPP

CONTACT

TAPP: (b) (6)

EDUCATION

NATIONAL UNIVERSITY

Post-graduate program: Structures

LA SALLE UNIVERSITY

Bachelor's Degree: Civil Engineering

WORK EXPERIENCE

More than 35 years of experience in structural analysis, design and fabrication for industrial, commercial and residential projects.

- Esthal Engineering LTDA. ➔ Structural Engineer, Part Owner
- Metallic Structures ➔ Structural Engineer, Part Owner
- Sabre Tubular Structures ➔ Structural Engineer

OVERVIEW

- Proficient in SAP2000 Non-Linear Analysis and Design Program
- Proficient in PLS-Pole
- Proficient in AutoCAD