Nik Wallenda is the seventh generation of Great Wallendas, who trace their roots back to the Austro-Hungarian empire of 1780. For Nik, every walk is an expression of honor to his great grandfather, the legendary Karl Wallenda, who brought the Wallendas to America for The Greatest Show on Earth.

Nik was performing on a high wire before he was born: his mother, Delilah Wallenda, was still walking the high wire while six months pregnant with him. Nik’s first official performance was in 1981, at age two, as a tiny clown carried around in a pillow case. He also began walking the wire that same year, but was not permitted to perform professionally on a high wire until age 13. In 2001, he set his first world record in Kurashiki, Japan, for the four-layer eight-person pyramid on a high wire.

On June 15, 2012, Nik became the first person ever to walk across the soaring Niagara Falls on a two-inch steel wire (engineered by POWER’s Peter Catchpole). The Niagara Falls walk, which took two years of strategic planning, marks Nik’s seventh world record.

Up next, Nik is in the advanced planning stages of a death-defying wire walk across the Grand Canyon. In the meantime, he continues performing daredevil stunts around the world.
Diana Leiker  
Senior Transmission Siting and Environmental Planner  
Tri-State Generation and Transmission

Dana Small  
Manager  
Environmental Planning  
Pepco Holdings

Scott P. Moore  
Vice President  
Transmission Engineering and Project Services  
AEP Transmission

Ross Pritchard  
Director of Program Management  
Power Delivery Division  
Management Group

John Conidi  
Senior Program Manager  
Power Delivery Program  
Management Group

Diana Leiker is a senior transmission siting and environmental planner with Tri-State Generation and Transmission, Inc., based in Westminster, Colorado. Diana has over 13 years of experience in environmental compliance and permitting. She currently acts as an environmental task lead for siting, federal, state and land use permitting and environmental compliance for numerous transmission and substation projects. As a cooperative, Tri-State obtains loan assistance from the U.S. Department of Agriculture, Rural Utilities Service and is required to go through the National Environmental Policy Act process for the majority of its capital construction projects. Diana is responsible for Section 106 of the Historic Preservation Act, Section 7 of the Endangered Species Act, Sections 401 and 404 of the Clean Water Act, and other federal and state regulations. She also oversees the avian protection plan and supports vegetation management programs at Tri-State. Diana holds a B.S. in Natural Resource Management from Colorado State University.

Dana Small is the manager of Environmental Planning at Pepco Holdings, Inc. (PHI), one of the largest energy delivery companies in the mid-Atlantic region, serving about 1.9 million customers in Delaware, the District of Columbia, Maryland and New Jersey. Dana manages the challenges of permitting and licensing PHI’s transmission, substation and distribution infrastructure projects. Her department focuses on a variety of natural and cultural resources management matters, including permitting and licensing, vegetation management, avian protection and infrastructure siting. A graduate of the University of Delaware, Dana holds a B.S. in Environmental Science.

Scott Moore serves as vice president of Transmission Engineering and Project Services at AEP Transmission. He is responsible for directing the capital service function in Transmission, with responsibility for transmission projects engineering, transmission project controls, and the Project and Construction Management groups. Scott is responsible for development of transmission engineering standards, transmission system planning, engineering and design of new or refurbished transmission line and substation facilities, project and construction management, capital cost management, right of way/property acquisition and transmission system maintenance program management. Scott received a B.S. in Electrical Engineering from Texas Tech University in Lubbock, and is a registered professional engineer in the state of Texas. Scott completed the Wharton School of Business Executive Development Program in 2002.

Ross Pritchard serves as POWER’s director of Program Management for the company’s Power Delivery division. He has proven abilities in leadership, management, contract negotiating, estimating, scheduling, procurement and construction management activities. He has specialized experience successfully managing multiple concurrent projects for multi-year design-build, EPC and program management service contracts. Ross previously served as Burns & McDonnell’s Design-Build Construction Operations Manager. Ross has a B.A. in Architectural Studies from the University of Arkansas.

John Conidi is an experienced operations and project management professional for engineering and technical organizations serving the electric power industry. He has deep project management and engineering expertise in transmission and distribution system projects in addition to traditional and renewable energy projects. John has extensive due diligence and independent engineer experience in electrical system infrastructure. Project experience includes air-insulated and gas-insulated substations, overhead and underground transmission lines, wind farms and biomass-fueled generating stations. Consulting assignments have included EPRI-funded projects, transmission and distribution system technical due diligence projects, and owner’s representative on EPC projects. John has an MBA in Operations Management from DePaul University and a B.S. in Electrical Engineering from Southern Illinois University.
UNDERGROUND session speakers

David Collins
Senior Engineer
Transmission Line Engineering Unit
Progress Energy

David Collins started working for Progress Energy Florida in 2003 as part of its intern program. He rotated through transmission line engineering, transmission maintenance engineering, and protection and control, ultimately landing back in transmission line engineering. In 2010, David transferred to Progress Energy Carolinas, and is a senior engineer in the Transmission Line Engineering unit. He is currently responsible for transmission maintenance and switch experience and has been responsible for transmission maintenance with Progress Energy, now Duke Energy. Dan has extensive overhead line and switch experience and has been responsible for transmission underground maintenance since 2009. He is a registered professional engineer in North Carolina and resides outside of Wilmington, North Carolina.

Dan Chapoton
Field Technical Support Engineer, Transmission Maintenance
Progress Energy

Dan Chapoton started his career at then Carolina Power & Light as a transmission line design engineer in 1986. In 2000, Dan moved to transmission maintenance and worked in both hands-on and engineering support roles before assuming his current position of field technical support for transmission maintenance with Progress Energy, now Duke Energy. Dan has extensive overhead line and switch experience and has been responsible for transmission underground maintenance since 2009. He is a registered professional engineer in North Carolina and resides outside of Wilmington, North Carolina.

Rick Bush
Editorial Director
Transmission & Distribution
World Magazine

Rick Bush has over 30 years of experience in designing, installing, maintaining and repairing both overhead and underground transmission systems. He is currently the principal engineer in Electric Transmission Reliability at Dominion Virginia Power, where he has been employed since 1981. He has held various supervisory and engineering positions in transmission line design and standards, and has supported transmission system operations and maintenance engineering. All work has been associated with both overhead and underground transmission lines operating at 69 kV through 500 kV. Past responsibilities include managing routine operations and maintenance activities for over 6,100 miles of transmission lines. He is currently responsible for reliability analysis of Dominion’s transmission system and making recommendations for reliability enhancements.

Wouleye Kamara
Power System Engineer and Power Cables Specialist
CYME International T&D

Wouleye Kamara has been working as a power system engineer and power cables specialist at CYME International T&D since 2007. She is the lead of the engineering team responsible for the development and enhancement of the modeling capabilities of CYME’s cable ampacity software, CYMAMP. As such, her responsibilities include development, quality assurance, consulting, high-level engineering support and training for major worldwide utilities.

Larry Henriksen
Senior Project Manager
Power Delivery SAS Group

Larry Henriksen has been responsible for a broad range of electric power system engineering activities at the detailed design, supervisory and management levels while at POWER. Previously, he served as chief engineer for an electric utility, and director of Systems and Services for a major manufacturer of electrical relays. His experience includes transmission and substation planning, design and construction; transmission line routing, siting and permitting; distribution system protection, and installation and operation of computer-based SCADA systems; distribution engineering; testing and commissioning; project management and budgeting; right of way; construction management and inspection; and establishing maintenance and operations procedures. Larry has a M.E. in Electrical Engineering from the University of Idaho, a B.S. in Electrical Engineering from Washington State University and a B.S. in General Engineering from Idaho State University.
Frank Frentzas  
Transmission Underground Technical Lead Engineer  
Commonwealth Edison  
Thurs | March 7 | 10:15am – 11:15am  
“Temperature Monitoring”  
Frank Frentzas received a B.S. and M.S. in Electrical Engineering from the Illinois Institute of Technology in Chicago, and has been with Commonwealth Edison (ComEd) for 19 years. He has held various positions within the transmission and substation area, from engineering to managing project design teams. He has 17 years of experience in the engineering, design, and modification of transmission underground systems. Currently, he is the transmission underground technical lead engineer, responsible for technical standards and specifications pertaining to transmission underground systems for ComEd. Frank is a member of IEEE and is currently the chair for the IEEE/ICC working groups High Pressure Fluid Filled and High Pressure Gas Filled Systems, and IEEE 1300, as well as the vice-chair for Subcommittee C, Cable Systems. Frank was recently appointed the IEEE/ICC vice-chair/treasurer elect. Frank has authored and co-authored several technical papers.

Mike Mueller  
Senior Project Engineer  
Power Delivery Underground Line Group  
POWER Engineers  
Thurs | March 7 | 11:15am – 12:15pm  
“Nashville Tunnel Project: 69 kV”  
Mike Mueller specializes in design and installation of underground transmission lines, with experience on projects ranging from 46 kV to 345 kV. His experience includes high-pressure fluid filled pipe, high-pressure gas filled pipe, and XLPE-type cables. Mike has worked on transitions from overhead to underground systems and is well versed in power systems analysis, as well as power system operation and control. He has significant experience in horizontal directional drilling, jack and bore installations, and in relocating and upgrading existing lines. Prior to coming to POWER Engineers, Mike worked for an underground contracting company and was responsible for the successful completion of a number of underground construction projects. Mike has a M.S. in Electrical Engineering from Northeastern University and a B.S. in Electrical Engineering from Marquette University.

Caitlin Schuermann  
Electrical Engineer  
Power Delivery Underground Line Group  
POWER Engineers  
Thurs | March 7 | 11:15am – 12:15pm  
“Nashville Tunnel Project: 69 kV”  
Caitlin Schuermann is an electrical engineer specializing in underground transmission systems. She has experience in voltages ranging from 46 kV to 345 kV. Her experience also includes high-pressure fluid-filled pipe and extruded cross-linked polyethylene-type cable. Caitlin has participated in projects involving horizontal directional drilling, and jack and bore installations. She has also worked on upgrading and/or relocating existing transmission lines. Caitlin has a M.S. in Engineering Management, a Graduate Certificate in Project Management and a B.S. in Electrical Engineering from Missouri University of Science and Technology.

Jonathan J. Woodworth  
Principal Engineer  
ArresterWorks  
Thurs | March 7 | 1:30pm – 2:30pm  
“Application of Arresters to Underground Cable: Part 2”  
In 2008, Jonathan J. Woodworth founded ArresterWorks, an engineering consultancy focused on surge protection of power systems. He has since created and maintained a technical resource website at ArresterWorks.com for professionals involved in surge protection of power systems. Jonathan previously served as Arrester Engineering Manager at Cooper Power Systems in Olean, New York. He has been involved in arrester design, production, and marketing for over 34 years and holds numerous arrester patents worldwide. Jonathan is a past chair of the IEEE Surge Protective Devices Committee, as well as a past chair of the High Voltage Arrester Section of NEMA’s Power Equipment division. He is an active member in SPD working groups and is currently chair of WG3.3.11-Continuous Revision of C62.11, as well as vice-chair of the IEC TC37 Maintenance Team 4, responsible for metal-oxide arresters for AC systems. Jonathan has a B.S. in Electrical Engineering from Ohio Institute of Technology and an MBA from St. Bonaventure University.

Benjamin Lanz  
Manager  
Application Engineering  
IMCORP  
Thurs | March 7 | 2:30pm – 3:30pm  
“Transmission Cable System: Testing Remote PD Sensing & Alternatives”  
Benjamin Lanz received a B.S. in Electrical Engineering from the University of Connecticut in 1999. Since 1997, his technical career focus has been power cable system reliability, and his experience includes field testing, test technology R&D, reliability consulting, and the development of industry guides and standards. He currently holds the position of manager of Application Engineering at IMCORP (www.imcorp.com). He is a voting member of the IEEE Power & Energy and Standards Societies and he has served as chairman of the Insulated Conductor’s Committee (ICC) workgroups responsible for cable testing and cable reliability. He has published over a dozen papers on power system reliability, asset management and diagnostics, and regularly presents on the topics.

Dennis Johnson  
Senior Project Engineer, Power Delivery Underground Line Group  
POWER Engineers  
Thurs | March 7 | 3:45pm – 4:45pm  
“Maintenance & Operation of HPFF Cable”  
Dennis Johnson has served as a design and project engineer on numerous substation, overhead and underground transmission projects at voltages through 345 kV, and has been involved in various engineer-procure-construct (EPC) projects. His experience includes design and inspection of overhead and underground distribution systems, transmission line relocation projects, and the development of a distribution mapping/facilities management (AM/FM) and analysis software package. Dennis is an active voting member of the IEEE Insulated Conductors Committee (ICC) and participates on various ICC subcommittees that are developing guides and standards for high voltage underground cable systems. He has taught multiple seminars around the nation, focusing on underground power systems. Dennis has a B.S. in Electrical Engineering from Brigham Young University.
Myron Hoitomt was first introduced to steel in 1953, while welding on farm equipment. In 1962, Myron became an AWS Certified Welder and started welding full-time on industrial equipment. He worked on every type of steel, from castings to quench and tempered steel. In 1969, he became the quality control manager and welding technician for Meyer Industries. Three years later, that job expanded to cover the Meyer three-plant operation, including all field work operations. Myron retired from Meyer in 2000 and started a part-time consulting business in 2002. Seventy-five percent of his consultancy work has been as an associate to EDM.

Otto Lynch received his B.S. in Civil Engineering from the University of Missouri at Rolla in 1988 and is currently vice president of Power Line Systems, Inc. (PLSi). Having spent his entire career in the industry, he has designed transmission lines from 69 kV to 500 kV around the world and pioneered the use of LiDAR in the transmission line industry. Otto is currently a member of the National Electrical Safety Code and is active on many ASCE and IEEE committees. He previously served as chairman of the ASCE/SEI Committee of Electrical Transmission Structures, and is currently serving on the ASCE Committee on America’s Infrastructure, developing the 2013 Report Card for America’s Infrastructure. Otto is the 2012 recipient of the ASCE Gene Wilhoite Innovations in Transmission Line Engineering Award.

Dave Bryant, director of technology at CTC Global Corporation of Irvine, California, is a co-inventor of the patented ACCC® conductor and ancillary hardware components. His 30-year background as a design engineer focused on the use of advanced composite materials in numerous industrial applications where high performance, efficiency and reliability were key design parameters. Dave is an active member of a number of industry associations and is co-author of “Engineering Transmission Lines with High Capacity Low Sag ACCC Conductors.”

Joe Drouin began his career with National Grid in 2007 as a transmission line engineer, and was promoted to lead engineer in 2012. He presently serves as the transmission engineering liaison to the NEEWS project. He has worked on various high voltage transmission line projects including conductor and shieldwire replacements, tower refurbishments and site stabilizations. Prior to working at National Grid, Amit worked for Weidlinger Associates from 2002 – 2007 as a structural engineer. He graduated first class with distinction with a Bachelor of Engineering degree from the University of Mysore, and received a M.S. in Civil Engineering from Worcester Polytechnic Institute. He is a licensed professional engineer in California and Massachusetts.

Joe Drouin is a project engineer with experience in overhead transmission line design and configuration. Joe has focused on the coordination and execution of overhead transmission line conductor upgrades, line ampacity rerating analysis, detailed line and structure design, and analysis of existing and new HV and EHV transmission line and substation structures, including wood pole, tubular steel pole, steel lattice towers and their associated foundations. He is experienced in the siting, routing, permitting, cost estimating, development of design criteria, and installation of fiber optic communication cables on HV and EHV overhead transmission lines. Multiple project design efforts have included coordination for acquisition, data management and utilization of LiDAR-based survey data. Joe has a B.S. in Civil Engineering from the University of New Hampshire.

Chris Byrne is an electrical system studies engineer with experience on utility system projects through 500 kV. He has performed various transmission studies to evaluate the electrical design of HV and EHV lines. He has training in power system modeling, protection and relaying, fault analysis, arc flash hazard analysis and grounding. Chris has a B.S. in Electrical Engineering from the University of Idaho.
Erik Ruggeri
Transmission Line Design Engineer
Power Delivery Overhead Line Group
POWER Engineers
Thurs | March 7 | 3:45pm – 4:45pm
“Reconductoring 345 kV Hot: A Project Experience”

Erik Ruggeri is a transmission line design engineer and has spent the last 17 years with POWER Engineers. In that time, Erik has gained extensive experience in civil and structural design for transmission lines in the 69 kV to 500 kV voltage range. His experience is wide ranging and encompasses all aspects of transmission line design, including lattice steel, steel pole, concrete and wood structure design; foundations; conductor selection; sag and tension; transmission line surveys; structure siting and environmental compliance. He has also served in the United States Navy as an instructor of electrical engineering. Erik has extensive knowledge of PLS-CADD, and is also experienced in dynamic analysis and finite element modeling, specializing in analysis of EHV steel transmission towers. He holds a M.S. in Aeronautics and Astronautics from the University of Washington, and a B.S. in Mathematics and B.S. in Physics from the University of Puget Sound.

Jon Leman
Electrical System Studies Engineer
Power Delivery SAS Group
POWER Engineers
Thurs | March 7 | 2:30pm – 3:30pm
“Understanding the NESC 5 mA Rule with Help from 3D Finite Element Analysis”

Jon Leman is an electrical engineer with experience in analysis and design of AC and DC power delivery systems. He has performed various transmission studies to specify and evaluate the electrical design of HV and EHV lines. As project engineer, he has successfully provided leadership and technical guidance for large study projects. He has training in power system modeling, protection and relaying, power system planning, fault analysis, transient analysis, arc hazard analysis and grounding. He has also served in the United States Navy as an instructor of electrical engineering. Jon has a M.S. and B.S. in Electrical Engineering from the University of Idaho. His master’s thesis focused on real-time digital simulation.

Andy Stewart
President
EDM International
Thurs | March 7 | 1:30pm – 2:30pm
“Guidelines for Determining Conductor Temperatures During Sag Measurements”

Andy Stewart joined EDM International, Inc. in 1983 and is currently EDM’s president. He holds a B.S. in Civil Engineering from the University of Rhode Island and a M.S. in Civil Structural Engineering from Colorado State University, where he helped develop reliability-based design procedures for transmission lines. Andy’s career encompasses engineering and R&D related to power delivery infrastructure, and he holds several related patents. He chairs the IEEE working group on Management of Existing Overhead Lines and the NERC Alert Task Force. Andy is a director of Intec Services, Inc., a leading provider of T&D maintenance services, and was recently appointed to the Board of the Biomass Research Institute for Global Health and Technology.

Daniel Robinson
Transmission Line Engineer
AEP Transmission
Thurs | March 7 | 3:45pm – 4:45pm
“Reconductoring 345 kV Hot: A Project Experience”

Daniel Robinson graduated from the University of Arkansas in 2003 with a Bachelor’s of Science in Electrical Engineering. He began his career working in the defense industry for Northrop Grumman designing radar systems. He went on to work for the City of Tulsa as an engineer for the Public Works department. Daniel then designed switchgear and motor control systems for Electrical Power Systems. Daniel joined American Electric Power in 2007, where he works in the utility industry as a transmission line engineer.
**SUBSTATIONS**

**Session Speakers**

**John H. Brunke**
Consulting Engineer
Progress Energy Florida

**Mary Jo Tietig**
Project Manager
Progress Energy Florida

**Eric Schultz**
Project Manager
Power Delivery Substation of the Future Group

**Rick Liposchak**
Senior Project Engineer
Power Delivery SAS Group

**Jared Mraz**
Electrical System Studies Engineer
Power Delivery SAS Group

**Grant Stevenson**
Senior Project Manager
Transmission Business Unit
Xcel Energy

**John H. Brunke** has B.S. in Engineering and Applied Science and M.S. in Applied Science from Portland State University, and a Doctor of Science degree in Electrical Engineering from the Swiss Federal Institute of Technology (ETHZ) in Zurich, Switzerland. John was with the Bonneville Power Administration for over 30 years, with Siemens Energy for five years, and is now a consulting engineer. He is the past chairman of the IEEE Switchgear Committee and the CIGRE Study Committee 13 (switchgear). He is a retired Naval Reserve Engineering Duty Officer and a registered professional engineer in Oregon and Washington.

After graduating from Auburn University, Mary Jo Tietig (MJ) began her career at Progress Energy Florida as a transmission line engineer. After seven years in line engineering, MJ was selected as the lead engineer for the Levis Baseload Program, and was responsible for all of the transmission line design elements associated with the proposed construction/integration of the Levis Nuclear Power Plant. Due to the schedule shift of the Levis Nuclear Plant, MJ transitioned into project management as part of the EnergyWise DSCADA Substation Readiness Project. She managed the EPC contract with POWER Engineers, establishing the infrastructure needed to implement a new DSCADA system at 200 substations throughout Progress Energy Florida's territory. MJ's experience in engineering and project management has made her a key contributor to Progress Energy's success in energy delivery and transmission construction in Florida.

Eric Schultz is a project manager specializing in execution of MV, HV and EHV substation projects and implementation of utility SCADA and automation technologies. His broad-based experience in the electric utility industry includes project engineering, design and design-build projects, business development, product management and marketing. In a 13-year career with NovaTech, Eric was responsible for detailed design and implementation of over 60 PC-based, PLC-based and embedded automation, data acquisition and SCADA installations for electric utilities. Most recently, as NovaTech's technical sales manager, he gained recognition as an industry expert in SCADA and automation technologies, presenting at numerous regional and national conferences and seminars, including DistribuTECH and the Western Power Delivery Automation Conference. Eric has a B.S. in Electrical Engineering from the University of Oklahoma.

Rick Liposchak is an experienced project manager and lead engineer, managing million-dollar-plus control and automation projects. He has extensive experience in design, implementation and maintenance of electrical utility control systems. He has served as the lead designer for overall automation systems, including data management, communication, network, security, master station, data gateways, protocols and other auxiliary functions. He also has experience writing specifications for control and automation systems for industrial and electric utility clients. Additionally, his experience includes installation and maintenance of distribution SCADA master stations, energy management systems, IEC 61850 systems, and transmission and distribution SCADA systems; substation automation; hydro plant automation; and automatic generator control and area interchange control. Rick is a member of several IEEE and CIGRE working groups. Rick has a B.S. in Electrical Engineering from the University of Idaho.

Jared Mraz performs a variety of electrical system studies for power transmission and distribution projects. With a background in power system analysis, protective relaying and power electronics, he has been responsible for protective relay settings, SCADA and substations design. Specific experience includes simulating fault conditions using AMS, developing and testing relay settings, and importing COMTRADE files into relay MathCAD models for performance analysis. Jared has a B.S. in Electrical Engineering from the University of Idaho.

Grant Stevenson is a senior project manager with Xcel Energy's transmission business unit, where he leads large, complex substation and transmission line projects through planning, development, state and federal permitting, design and construction. Grant's notable projects include the $500 million CapX2020 Twin Cities to La Crosse Project, a 150-mile 34 kV project located in southeastern Minnesota and western Wisconsin; development, permitting and early construction activities on the Southwest Minnesota Wind Transmission Upgrade, which included 500 miles of transmission lines and 27 substations; and the Fifth Street underground transformer replacement.

Grant is a mechanical engineer and a Project Management Institute Project Management Professional (PMP). He has been employed by Xcel Energy and its predecessor, Northern States Power Company, since 1984.
Joseph Orth  
Technical Lead  
Denny Substation Program  
Seattle City Light  
Thurs | March 7 | 10:15am – 11:15am  
“Urban Design Considerations for the Denny Substation”

Joe received a B.S. in Electrical Engineering from Tulane University in 1986 and has since received a M.S. in Electrical Engineering with Power Option from the Georgia Institute of Technology. He previously worked for a transformer manufacturer and several utilities in T&D, generation and on operations teams. His experience ranges from SCADA/energy management system and remote terminal unit system replacement to hydro generator overhauls and substation projects. Presently, he is the technical lead for the Denny Substation Program at Seattle City Light.

Janet Lonneker  
Project Manager  
Asset Management and Smart Grid Projects Implementation Group  
San Diego Gas & Electric  
Thurs | March 7 | 11:15am – 12:15pm  
“Condition-Based Maintenance Program: SDG&E”

Janet Lonneker is a project manager for the San Diego Gas and Electric (SDG&E) Asset Management and Smart Grid Projects Implementation group. She manages a variety of Smart Grid projects, including the price-driven load management component of the Borrego Springs Microgrid Demonstration project, the condition-based maintenance project for monitoring the health and status of substation transformers, and the integrated test facility to be built within the utility’s service territory. Prior to joining SDG&E, she was the general manager for a municipal electric utility in Portland, Oregon, where she managed all divisions of the utility and served on the city’s economic development board. She was an active member of the American Public Power Association, and in 2009, she served as vice president of the Oregon Municipal Electric Utility Association. Janet earned a B.S. in Electrical Engineering from the University of the Pacific and a M.S. in Electrical Engineering from the University of Southern California.

Nathan Mathews  
Civil Engineer  
Power Delivery Substation Group  
POWER Engineers  
Thurs | March 7 | 1:30pm – 2:30pm  
“Substation Site Grading: Coordinating Physical Design with Civil Requirements”

Nathan Mathews is a civil engineer with experience in structural analysis and foundation design for substations and transmission lines from 138 kV to 362 kV. His responsibilities include analysis and design of foundations, including spread footings, drilled piers, slabs and continuous footings; analysis and design of steel support structures for substation equipment; substation grading plans and layouts; and review of vendor drawings. He also has experience in estimating construction costs, scheduling and tracking materials required to complete projects. Nathan has a B.S. in Civil Engineering and a B.S. in Industrial Technology from Southern Illinois University – Carbondale.

Alex Kladiva  
Substation Design Engineer  
Power Delivery Substation Group  
POWER Engineers  
Thurs | March 7 | 1:30pm – 2:30pm  
“Substation Site Grading: Coordinating Physical Design with Civil Requirements”

Alex Kladiva is a civil/structural design engineer with POWER Engineers. He has experience in designing site grading, foundations, tubular steel and lattice steel structures, masonry firewalls and retaining walls. Alex also has experience in bus arrangement modeling/analysis and lightning protection design for 12.5 kV to 345 kV stations. Alex holds a M.S. and B.S. in Civil Engineering from Missouri University of Science and Technology (formerly University of Missouri – Rolla), and is a registered professional engineer.

Robert Schaerer  
Electrical System Studies Engineer  
Power Delivery SAS Group  
POWER Engineers  
Thurs | March 7 | 3:45pm – 4:45pm  
“Substation Grounding: High-Fault Current Challenges & Mitigation Approaches”

Robert Schaerer joined POWER in 2006 and is a SCADA and analytical services engineer focusing on electrical studies for power transmission and distribution systems. He is one of POWER’s leading grounding engineers, and takes part in grounding testing and grounding analyses for over a hundred substations in industrial and utility environments in systems from 480 V to 500 kV. His experience also includes developing and reviewing transmission and distribution protective relay settings and coordination, as well as developing special protection and control algorithms. Rob’s work includes upgrades, expansions and greenfield projects. He has a B.S. in Electrical Engineering from the University of Idaho.
This year’s photo contest was our best yet with over 100 entries! Thank you to all who participated. Congratulations to Keith Meehan, our first place winner. Second and third places were awarded to Kirby Davis and Seth Kenney, respectively. Enjoy some of our other top picks on the following pages.

Next year’s contest will open soon and we hope the contest continues to grow. You are invited to throw your hat in the ring and share your experiences in photos. With a grand prize of $500 on the line, why not?

HOW TO ENTER:
Visit our photo contest website at www.powereng.com/photocontest to get contest details, rules and upload form.

FIRST PLACE: Keith Meehan
PHOTO CONTEST

TOP PICKS

THIRD PLACE: Seth Kenney

SECOND PLACE: Kirby Davis