



# TSDOS

TRANSMISSION &  
SUBSTATION  
DESIGN &  
OPERATION  
SYMPOSIUM



THE UNIVERSITY OF TEXAS AT ARLINGTON

SEPTEMBER 4 - 6, 2019

**POST CONFERENCE REPORT**



TSDOS.ORG | 866.906.9190 | EMBASSY SUITES DALLAS - FRISCO



# CONFERENCE OVERVIEW

# TSD S

TRANSMISSION & SUBSTATION DESIGN & OPERATION SYMPOSIUM

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THE UNIVERSITY OF TEXAS AT ARLINGTON





## CHARLES DICKERSON

DEPUTY GENERAL MANAGER AND CHIEF OPERATING OFFICER, AUSTIN ENERGY

Charles Dickerson came to Austin Energy in August 2018 as Deputy General Manager and Chief Operating Officer. He is responsible for Power Production, Electric Service Delivery and Strategy, Technology and Market Operations.

Dickerson has more than 29 years of experience in the utility industry in areas, including power production, transmission, distribution, customer care, human resources, strategic planning, and energy market and risk operations. He most recently served as President of Business Services with National Grid USA, one of the largest investor-owned energy companies in the world. Prior to his role at National Grid, Charles worked for Exelon-



Pepco Holding Inc., an investor-owned company delivering electricity and gas to more than 2 million customers in Delaware, Maryland, New Jersey, and Washington, D.C. His roles at Exelon-Pepco Holdings included Senior Vice President of Technical Services, Vice President of Customer Care, Vice President of Performance Management and Support Services, Vice President of Gas Delivery, Chief Risk Officer, and Vice President of Strategic Planning.

Charles previously served on boards of directors and trustees for The Treatment Learning Center and City Year in Washington, D.C. - both non-profit organizations dedicated to improving education and learning for children.

Dickerson is a graduate of the University of Maryland, with a BS in Mechanical Engineering and a Masters in Applied Management.

## WHAT IF TESLA WAS WRONG?

For over a century this industry has excelled at building safe and reliable infrastructure to provide the power that customers need. For example, inventions by engineer and physicist, Nikola Tesla, continue to serve as the basis for much of our electric infrastructure today, particularly the alternating current (AC) electrical systems he invented in the late 1800s. However, over the years, as customers have grown savvier with more channels to express wants and values, their satisfaction levels have become increasingly intertwined with business offerings and outcomes. The timeless question of "who is the customer?" has never been more relevant. We must know our customers well, including when and how their motivations and subsequent behaviors change over the course of time. This knowledge essential and timely in light of projected generational demographics for 2020 and beyond, especially during periods of uncertainty. The rationale for a service-minded business model, in light of rising customer expectations during an era of rapid digitalization, will be presented. Applying the proper means to satisfy an increasingly demanding consumer-driven business is the end game.

## TRANSMISSION

- A Study of How Enhanced Conductor Heat Dissipation from High Emissivity ACSS Allowed a Texas Utility to Make the Most of a Narrow Right of Way
- AACSR: The Forgotten High Strength, Low Sag Conductor
- Artificial Intelligence & Machine Learning for Inspection of Transmission Lines
- Third Party Antenna Mounting on Lattice Steel and Monopole Towers
- Permitted Permanent Access Roads & Crane Pads as a Cost-Effective Alternative to Matting
- Overhead Lines Under Extreme Heat and Wildfire Conditions
- Teaming Up on Steel Pole Quality and Why It Matters to You
- Transmission Workshop

## SUBSTATION

- Mitigation of Wind Induced Vibration in Substation Structures: A Field Monitoring Study on a Full-Scale A-Frame with Curved Spoilers
- Asset Management Analytics for a Sustainable Grid
- Oil Containment Pros and Cons of Different Methodologies
- Applying Sweep Frequency Response Analysis and Leakage Reactance to Determine Mechanical Faults in a Power Transformer
- Proper Protective Relaying for Power Transformers
- Understanding Online Partial Discharge Testing
- IEC 61850-9 Process Bus Line Protection Performance Tests and Comparative
- Substation Workshop & Substation 3D Design Panel Discussion Methodology

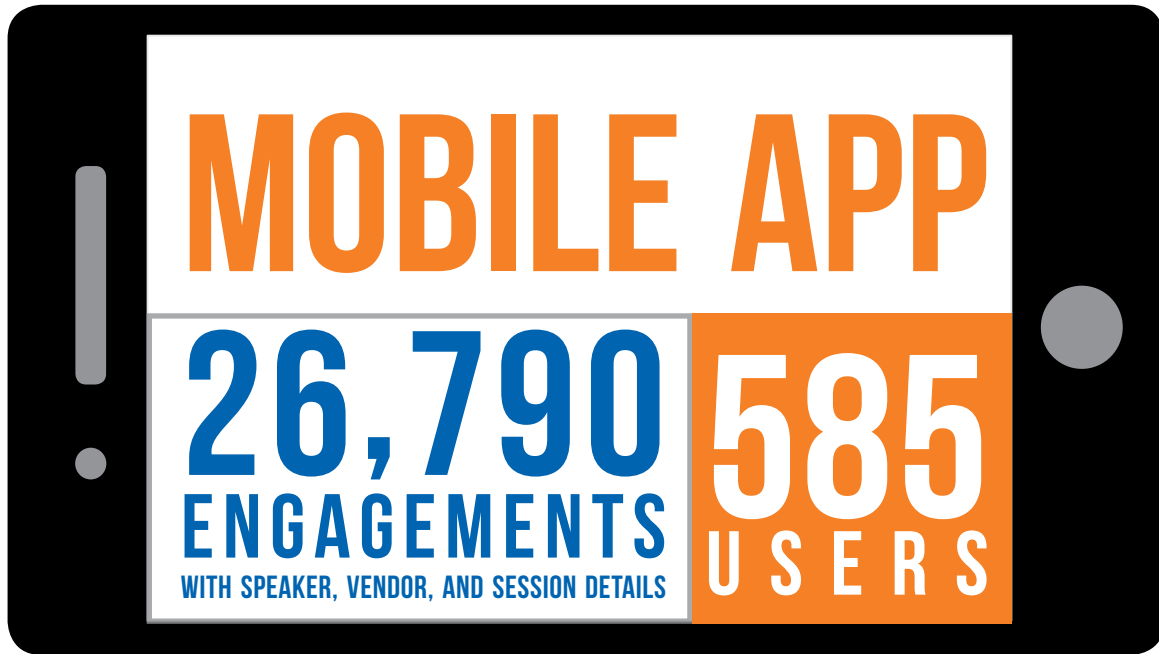
## OPERATION/OTHER

- Advances In Perimeter Security
- Frequency Response and Dynamic Power Balancing in Wind and Solar Generation
- Solving Power Quality Issues from Large Motor Starts Using Fast-Acting Capacitor Bank Assistance
- Case Study on an Alternative Approach to Distributed Energy Demand
- Cable Testing Anomalies for Windpark Testing Applications: Cable Fault Location & Test and Diagnostics
- IEEE-1656: Flame Retardancy and Electrical Tracking
- Operations Workshop





**CONFERENCE DEMOGRAPHICS**



**PRESENTATION SUMMARY**

**64**

Conference Speakers

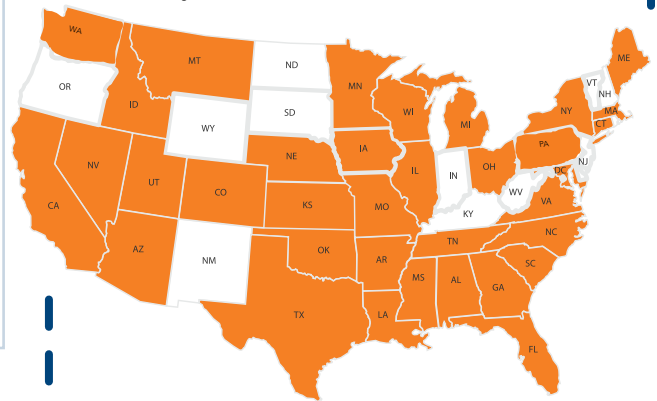


**38** Sessions and Workshops

**ATTENDEE DETAILS**

Participants from:

**35** States, Canada, Mexico, France, and Turkey



**1,274**

Attendees

**92**

Vendors



ABB Inc. (NEW)	Irby Utilities	Sabre-FWT
All-Pro Fasteners, Inc.	J.H. Davidson & Associates, LLC	SAE Towers
ASEC, Inc. (NEW)	Jordan Transformer	Schneider Engineering, Ltd.
Black & Veatch	K D Johnson Inc.	Sediver USA
Brandt (NEW)	Keasler Associates	Sempco Surveying, Inc.
Butler and Land, Inc.	Kinectrics (NEW)	Shermco Industries
CEC	KV Power	SMC
Chain Electric Company	Laminated Wood Systems, Inc.	Southeast Power Corporation
City Transformer Service Co.	Leidos Engineering, LLC	Southwire Company, LLC
Creative Pultrusions, Inc.	Len T. Deloney Co., LLC	Spartan Infrastructure, Inc. (NEW)
Crown Technical Systems	McCord Engineering, Inc.	SPX Transformer Solutions, Inc.
Custom-Crete/Mobile-Crete (NEW)	Megger	Stanley Consultants
Cyntech & McKinney Drilling Company	Mesa Associates, Inc. (NEW)	Sterling Solutions
DIS-TRAN Steel, LLC	Mesa Line Services, LLC (NEW)	Superior Concrete Products (NEW)
Doble Engineering	Meyer Utility Structures	Surveying And Mapping, LLC
DynaGrid Construction Group, LLC	MICA Steelworks, Inc.	SynchroGrid, LLC
EBR, Inc.	Michels Corporation	TAPP, Inc.
EHV Solutions, LLC	NESCO Specialty Rentals UEO	TCORR
Electrical Technologies, Inc. (NEW)	Division (NEW)	Teague Nall and Perkins, Inc.
Energy Reps	Normandy Machine Co.	Techline, Inc.
Eustis Engineering, LLC (NEW)	North American Substation Services	Terracon Consultants, Inc.
Exo Group LLC	OTC Services, Inc.	Texas Electric Cooperatives
FDH Infrastructure	Pieresearch (NEW)	Think Power Solutions
Fred Oberlender & Assoc.	Pike Electric, LLC (NEW)	TRC Companies, Inc.
GE Grid Solutions (NEW)	PLH Group	Utility Sales Agents of North Texas
Great Southwestern Construction, Inc.	Power Cable-Hendrix & Kerite	Valmont Utility & Preferred Sales
Hawrylak & Associates LLC	PPC Insulators USA (NEW)	WESCO
Hayden Consultants, Inc.	Preferred Sales Agency	YAK ACCESS (NEW)
Higher Power Electrical LLC	Primoris T&D Services	Zuken USA
Hubbell Power System	RES	



# CONFERENCE PRICING

## SPONSORSHIPS

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Water Bottle Sponsor .....	\$2,000
Wireless Sponsor .....	\$2,000
Mobile App Banner Ad .....	\$1,000
Contributing Sponsor .....	\$500
Door Prize Sponsor .....	\$250

## REGISTRATIONS

Vendor Fee with Conference Included .....	\$995
Vendor Fee with Conference Included Early Bird .....	\$890
On-site Attendee Registration Fee .....	\$545
Vendor Fee .....	\$545
Attendee Registration Fee .....	\$495
Early Bird Attendee Registration Fee .....	\$395
Additional vendor staff .....	\$50





# CONFERENCE SPONSORS

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## LANYARD



**3M**

## CHARGING STATION



**CHAIN ELECTRIC  
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Line Services**

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Years**

## KEYCARD




**DASHIELL CORP.**

## MOBILE APP BANNER



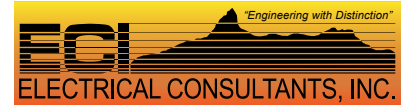
**SCHNEIDER  
ENGINEERING**  
ENERGY. FOCUS. COMMITMENT.



**TRC**

# CONFERENCE SPONSORS

## ELEVATOR GRAPHIC WRAPS



## WIRELESS



## DOOR PRIZE



## MOBILE APP SPLASH SCREEN



## WATER BOTTLES



## CONTRIBUTING



### TECHNICAL PAPERS | [tsdos.org](http://tsdos.org)

The 52<sup>nd</sup> Annual TSDOS Technical Papers are available online.

### POWERPOINT PRESENTATIONS | [tsdos.org](http://tsdos.org)

You can view any of the presentations shared by the authors. To access the presentations, please visit the web address provided above.

### QUESTIONS OR COMMENTS?

Please contact us at any of the following: [tsdos.org](http://tsdos.org) | [events@uta.edu](mailto:events@uta.edu) | 866.906.9190



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Exhibition Coordinator

**TERRE COLEMAN\***

Coordinator

**CARRINGTON FRANKLIN\***

University Affiliate

\*Not pictured

**SAVE THE DATE**

# CEM CONFERENCE & EVENT MANAGEMENT



THE UNIVERSITY OF TEXAS AT ARLINGTON



SAVE THE DATE

**TSD**  **S** TRANSMISSION & SUBSTATION DESIGN & OPERATION SYMPOSIUM



THE UNIVERSITY OF TEXAS AT ARLINGTON

**SEPTEMBER**

**9 - 11, 2020**

Preconference on September 8

[tsdos.org](http://tsdos.org) | [events@uta.edu](mailto:events@uta.edu)