**UTC** Utilities Technology Council™
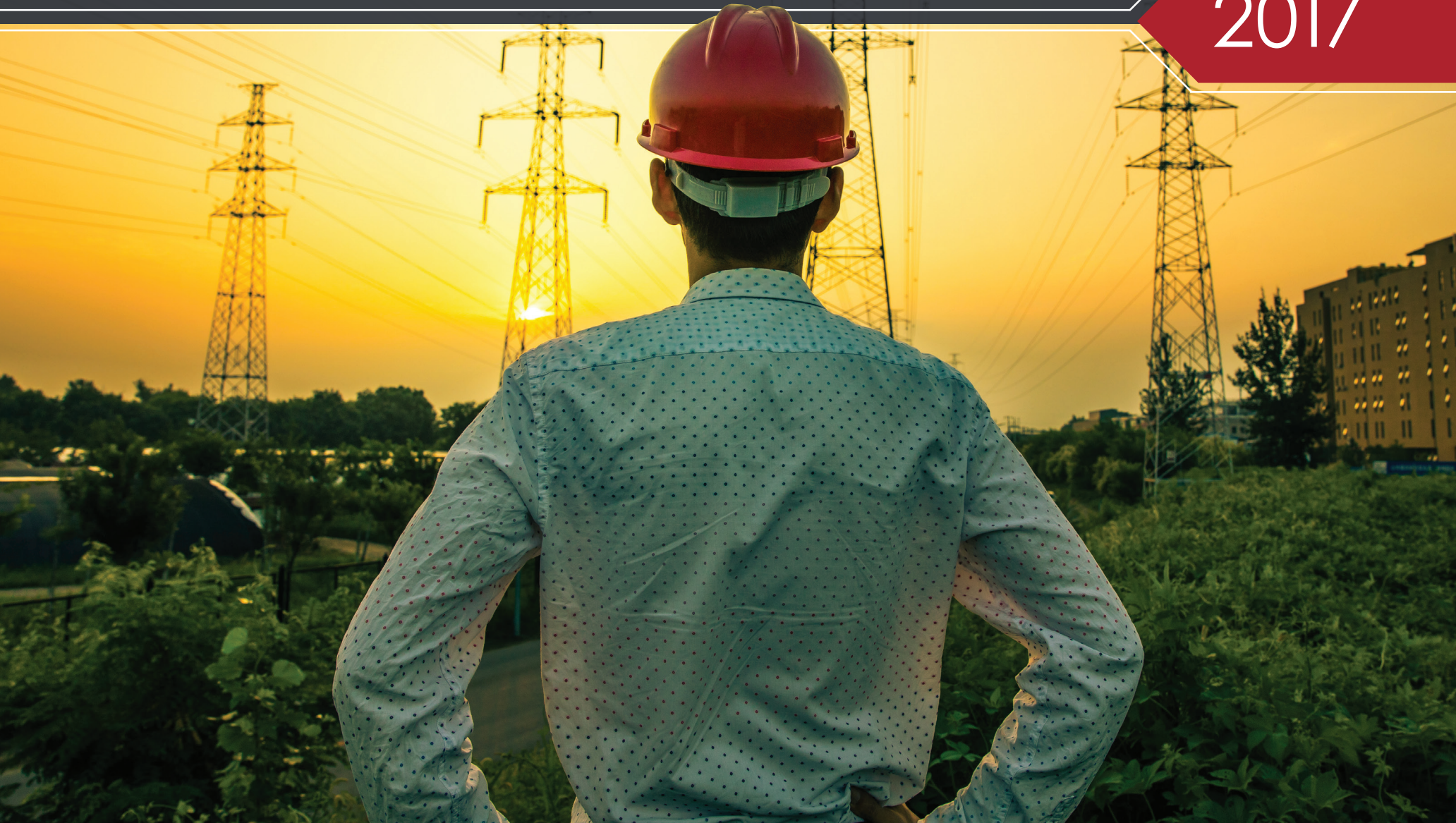
# ANNUAL REPORT
## The Year in Review

### 2017

**JOY DITTO**

President & CEO, UTC

2017 has been a year of continued progress here at UTC. As you will read in this report, we have been busy shoring up our processes to ensure better customer service to our members, putting on top-notch events and "upping the ante" in the advocacy space. All these activities flow from an increased focus on membership value and engagement, a focus captured in UTC's Strategic Membership Plan (SMP), approved by the Board of Directors in December 2016.

To better serve our members in the advocacy arena, we brought on two key professional staff in 2017, Sharla Artz, VP of Government Affairs and Cybersecurity, and Rob Thormeyer, Director of Communications and Advocacy, and continued the relationships with our outside lobbyists, Corry Marshall and Donn Salvosa. Brett Kilbourne also continues as our point person for regulatory and legal affairs. This team has been effective at educating Congress on the Federal Communications Commission's (FCC) activities/decisions that impact utilities while also educating other parts of the government like the Department of Energy, the Federal Energy Regulatory Commission, the National Telecommunications and Information Administration, the Federal Aviation Administration (tower lighting), and the White House. This strategy is key to getting the FCC to pay attention to the needs of critical infrastructure – needs that were highlighted in the devastating hurricanes that hit this summer and fall.

We have also refocused on working closely with our fellow trade associations where possible, and host quarterly meetings to coordinate. We have filed joint comments at the FCC with these other groups and have coordinated our Capitol Hill outreach where relevant. We are also engaging with the D.C.-based "Washington Reps" of our utility members on a regular basis and will continue to coordinate heavily with them in our mutual advocacy efforts. Finally, I have participated in meetings at National Association of Regulatory Utility Commissioners (NARUC), Electric Power Research Institute (EPRI), the Electricity Subsector Coordinating Council (ESCC) and several others where the need for UTC's expertise and deep technical knowledge has been highlighted. A report we dubbed the "Utility Network Baseline" was undertaken by Bob Lockhart at the behest of the ESCC, and has provided a "level-set" understanding of what electric utilities are doing currently to build and manage their own private telecom networks.

The addition of Rob Thormeyer to the staff also has enabled us to have greater reach into the inside-the-beltway media, which has resulted in UTC being mentioned or quoted in key media outlets in recent months. This will help our advocacy efforts tremendously. Atossa Shafaie, of our marketing department, also works with our government affairs team to leverage social media for our advocacy goals. Finally, under the SMP, we have developed a "policy resolutions process" whereby our members will consider and vote on UTC's broad policy positions. The members will vote on this first slate of resolutions at our May 2018 Telecom & Technology conference in Palm Springs. This process will enable additional engagement in our advocacy efforts as well as transparency about why we take the positions we do here in D.C. All these efforts will bear fruit in the longer-term if we continue to engage in a targeted and effective way (which we will!).

To help us with our overall membership efforts, we also hired Tiffany Bennett in early 2017. She works with Karnel Thomas in the Membership Division and many others on the staff to ensure that our database is updated and managed over time, our members have the appropriate collateral and information they need about membership, and we are identifying and interfacing with potential new members. Major items under the SMP that she has worked on with UTC Vice Chair, Roger Bryant (Southern Company), are the membership survey that was completed last May, and the work being done to restructure UTC's dues. The latter will help us attract new types of members as well as better manage mergers and acquisitions between investor-owned utilities, among other things. We will roll out the final restructured dues package in May to be applied for the 2019 dues year. McKinley Advisors, a well-respected consulting firm, has helped us manage both the membership survey and dues restructuring and has been a welcome addition to these processes.

I could go on and on—the *UTC Journal* has improved in content and look and feel, the website (utc.org), while an ongoing project, isn't even in the same galaxy as where it was a couple of years ago, our 2017 Telecom and Technology in Charlotte was a resounding success and is also where we launched the UTC Foundation with its focus on ensuring talented engineers and IT professionals find homes in the utility industry. Many UTC staff and members contributed to this progress in 2017, and will certainly do so as we move into 2018 and continue to focus on the members—and on making even more progress on their behalf.

My door and the doors of the UTC staff are open – please give us feedback and let us know how we can better serve you in 2018.

Best regards,

Joy Ditto - President & CEO, UTC

# Utility Telecommunications Systems Are Critical Infrastructure

"We are the only trade association that looks across the utility segments, electric, gas and water, with a focus on this niche of communications infrastructure issues."

- Joy Ditto, UTC President and CEO

- UTC serves critical infrastructure providers around the world. Through advocacy, education and collaboration, UTC delivers exceptional value for today's decisions and tomorrow's planning.

- UTC is the only trade association dedicated to the intersection of telecommunications and technology at the utility.

- Through advocacy and educational efforts UTC is the voice of our members to lawmakers, federal and state agencies and regulatory bodies.

- Spectrum allocation and protection of interference-free communications are crucial for utilities around the world to operate safe and reliable services.

- UTC is a trusted resource for rural and urban utility services including broadband, fiber and distributed energy resources.

- With the convergence of IT and OT, the challenges of cybersecurity and the growth of smart communities, UTC is leading the way forward for our members.

# 2017 at a Glance

# Foremost ACHIEVEMENTS

UTC **TELECOM & TECHNOLOGY 2017** brought high-level speakers and utility members together in Charlotte, NC.

UTC filed comments to the FCC on its Notice of Proposed Rulemaking, a Notice of Inquiry and a request for comments on **POLE ATTACHMENTS**.

UTC delivered **5** international conferences and **14** regional educational meetings, along with more than **16** industry-focused webinars.

UTC researched key industry topics such as **OPGW LIFECYCLE** and a **KPI STUDY** of communication networks.

As part of the Strategic Membership Plan UTC delivered the first **MEMBERSHIP SURVEY**.

UTC participated in the **DEPARTMENT OF ENERGY'S CLEAR PATH V EXERCISE**, which for the first time, included the communications sector.

UTC led meetings with utility members and **KEY CONGRESSIONAL** and agency leaders.

UTC Filed Comments Opposing the FCC's **HIGHER GROUND** Waiver Decision in the 6 GHz band.

UTC participated in the **NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION'S (NERC)** GridEx IV, where over 400 organizations and 5,000 participants played out an event designed to exercise utilities' response capabilities to combined cyber and physical attacks.

# The **VOICE** For Our Members

UTC fortified its foundation for stronger advocacy in Washington and elsewhere on behalf of its member utilities. Over the last year, we hired key staff and empowered others to enable UTC to speak louder and with a unified voice on numerous issues facing our members. A central focus for UTC advocacy in 2017 was raising awareness of the challenges utilities and other critical infrastructure industries face in proceedings at the Federal Communications Commission (FCC), the federal agency responsible for overseeing the efficient allocation of limited spectrum resources.

We expanded our presence on Capitol Hill and held meetings with the top House of Representatives lawmakers on energy and telecommunications topics. We met with members of Congress and their staff on the key committees of jurisdiction, along with officials at the Federal Energy Regulatory Commission, the Department of Energy, the Department of Homeland Security, and the White House. Because these meetings raised awareness of how certain policies at the FCC run counter to the acknowledgement from every level of government on the criticality of utility services, members of Congress and their staff seek our input as they consider legislation on particular policies.

We have also enhanced our collaboration with our utility members' government affairs representatives, particularly those based in the D.C.-area. In addition, we have been in close coordination with our fellow trade associations, hosting quarterly meetings with the Edison Electric Institute, American Public Power Association, National Rural Electric Cooperative Association, National Association of Water Companies, American Water Works Association, and others.

We have stepped up our presence in the D.C. media and broader energy and telecom policy debates. UTC President and CEO, Joy Ditto, was quoted numerous times in influential publications on spectrum, pole attachments and storm recovery. Ms. Ditto also participated in a general session at the National Association of Regulatory Utility Commissioners' November 2017 annual meeting, and remains active on a highly visible, key government-industry partnership on grid security and resilience.

> We expanded our presence on Capitol Hill and held meetings with the top House of Representatives lawmakers on energy and telecommunications topics.

# 2017 UTC **Filings**



2017 was a busy year for UTC at the Federal Communications Commission (FCC). There was much anticipation as the year began with a new Administration, but in the days leading up to the transition, the FCC's Wireless and International Bureaus and the Office of Engineering & Technology released an Order that granted Higher Ground, LLC the ability to operate 50,000 mobile earth terminals in the 6 GHz band – a clearly controversial decision due to its timing and because of the many comments on record opposed to this action due to its infringement into a band reserved for fixed microwave operations without a tested method of preventing interference. UTC filed an Application for Review in February that asked the full Commission to overturn the decision, and subsequently met with the FCC and other policymakers to continue to express concerns, but the issue remains pending.

UTC filed comments in response to the proposed realignment of the 900 MHz band to defend utility systems. UTC also opposed proposed rule changes that threatened to cause interference to incumbent systems in the 3.5 GHz band and would make it difficult for utilities to acquire additional spectrum in the band. Those two proceedings remain pending.

UTC was also active in advocating for policies affecting utility infrastructure and utility broadband networks, as well as policies affecting commercial services from the carriers that are being phased out or replaced during the IP-transition, pole attachments, and tower siting. Additionally, UTC continued to be very active in advocating for access to funding for utilities to deploy broadband networks in unserved areas. We filed numerous comments on the proposed rules for the upcoming auction that will determine how funding is awarded to applicants that propose to provide broadband to unserved areas.

The full list of UTC Filings is available on our website at: utc.org

# Frequency Coordination At Its **BEST**

### New PLC Database for Amateur Radio Operators

For decades, it has been the responsibility of the Utility Technology Council's (UTC) Spectrum Services department to maintain a Powerline Carrier Database (PLC) for the sole purpose of protecting utilities' transmitter frequencies from government-authorized facilities. These PLC systems operate along the 10-490 kHz range and utilize underground powerlines for communication deemed essential to bringing electric service to the public. UTC maintains over 200 utilities' organizational information and compares it to the government user data, provided by the National Telecommunications & Information Administration (NTIA), with the goal of preventing interference between the two.

In 2017, the Federal Communications Commission (FCC) adopted rules permitting fixed amateur radio operations in the 135.7-137.8 kHz and 472.0-479.0 kHz bands. The rules stated that to operate along these ranges, an amateur radio user must file with UTC with 30 days to either approve or deny the proposed amateur applicant. UTC observes the applicant information, compares it with existing utility data already in the PLC, and determines whether the amateur radio applicant is within one kilometer of an existing utility station that also operates along the amateur frequency ranges. UTC will then report these amateurs to the nearest utility for final confirmation.

### UTC Spectrum Services

Frequency coordination is a necessary service for any organization/individual with a private radio system. While UTC Spectrum Services is known for our high performance in the utility sector, our professionals have provided coordination for a variety of clients. These clients range from large hospitals like the Children's Hospital Colorado, to esteemed private research institutions such as Northeastern University. We have even recently completed work for the National Football League; no job is too big (or too small) for this team. UTC simplifies the task of filing with the FCC, and takes out the hassle of dealing with all the red tape, planning and paperwork. Our experts excel at streamlining the coordination process by utilizing the Universal Licensing System and Form 601 electronic filing, for optimal FCC response time.

UTC offers special assistance when monitoring the course of your license once filed with the FCC. License Sentry™ is a service which can aid in the proactive management of FCC licenses. UTC's FCC license management can assist in adding, modifying, renewing and cancelling FCC licenses, and providing notification to the FCC regarding construction. Working in combination with the License Sentry is Frequency Sentry™, a unique tool that notifies clients by email when there are other applications filed that may have a potential for interference with their existing one. It is UTC's goal to keep our clients 100% up-to-date on any filings that may be of concern.

### UTC Spectrum Services offers years of frequency coordination experience in:

- Private Land Mobile Radio coordination
- 800-900 Land Mobile Application Preparation
- Below 512 MHz Application Preparation (601 Form and appropriate schedules)
- Multiple Address Systems (MAS)
- Microwave Systems
- Trunked Systems
- Tower Construction Notification Filing (Schedule K)
- Large Internal System Coordination
- Power Line carrier (PLC) Coordination

> UTC simplifies the task of filing with the Federal Communications Commission (FCC), and takes out the hassle of dealing with all the red tape, planning and paperwork.

# Membership Is Our
# **PRIORITY**

In 2017, with our members at the heart of our objectives, UTC made great progress in setting new goals and attaining them. Our focus was on re-identifying and analyzing the needs of our members with the purpose of better understanding shifts in their technology, regulatory and advocacy landscapes. To that end, UTC worked with McKinley Advisors, a consulting firm for associations, to circulate a survey designed to compile feedback and data from our membership. The survey yielded a large number of responses which were evaluated in order to help adjust and redirect UTC's efforts where necessary. The survey, alongside some professional recommendations from McKinley Advisors, supported the first goal of the 2017 Strategic Membership Plan (SMP), which can be found on our website under the Member Center.

The SMP contains the following overarching intentions:

• Prioritizing membership activities and services

• Ensuring excellent customer service by staff on behalf of the members

• Generating revenue

• Identifying ways to improve and promote UTC's value

Specific and quantifiable goals were set for the organization, with outlined tactics and expectations for each accountable staff member. Through encouragement and support, UTC empowered staff and volunteer members, from research subcommittee to Board of Directors, in meeting these goals.

## Here are just some of UTC's membership accomplishments in 2017:

• Held monthly committee calls with its members to network, collaborate, and gather feedback on various comments submitted/filed on public policy issues.

• Launched the UTC Connection – a monthly eNewsletter distributed to all UTC Members, in order to provide a specific update on upcoming events and committee calls.

• Gained 29 new associate members and 14 new utility members.

• Met with U.S. Senators and Representatives who serve on congressional committees relevant to UTC's priority issues: Senate Commerce, Science and Transportation; Senate Homeland Security and Governmental Affairs; Senate Energy & Natural Resources Committee; House Energy & Commerce Committee; and House Homeland Security Committee.

## UTC Committees Working for Members

- The Rural Broadband Council changed its name to the Utilities Broadband Council to focus its efforts beyond the rural areas and share knowledge for municipal and investor owned broadband as well. It continues to oversee and coordinate the activities of UTC related to the deployment of broadband networks and the offering of broadband services.

- The IT/OT Committee focused on creating the Smart Systems for Smarter Communities project for the Telecom & Technology conferences. They also identified 72 potential new associate members of UTC, based on utilities' experiences with IT vendors who are not currently members.

- The UtiliSite Council held an outage restoration summit as well as a wireless colocation summit in 2017. It continues to focus efforts around joint use, colocation and fiber leasing program within UTC members.

- The Knowledge & Learning Division spent 2017 focusing on support for the Telecom & Technology Conference educational program and the *UTC Journal* content to share the knowledge of the UTC membership across all audiences.

- The Security, Risk and Compliance Committee subject matter experts have been contributing to numerous critical infrastructure protection initiatives, while the committee continues to provide educational opportunities for our members.

- The Public Policy Division worked to develop a Policy Resolution process to be rolled out in 2018. This will allow UTC voting members to express UTC's views on public policy issues affecting the regulation of carriers and utilities.

- The Regional Council spent 2017 renewing focus on member recruitment and engagement through regional webinars and events to highlight and educate members in the region.

- The Technical Division surveyed utility members for an IP Transitions research project. The results will serve as the data behind a technical whitepaper due out in 2018.

- The Telecom Committee conducted a survey of the members regarding OPGW lifecycle, and reported the preliminary results during the 2017 Telecom and Technology conference in Charlotte. The next step is to draft a full report on OPGW lifecycle, based on these findings in 2018.

- The Membership Division focused on the membership survey and growth activities related to the Strategic Membership Plan and dues restructuring.

# OUR **Future**

The single most important accomplishment UTC must achieve in 2018 and beyond is to continually focus on our members' telecommunications and technology needs from the perspective of the only trade association dedicated to this niche.

## We're looking forward to building on the many successes from 2017. Here are some of our plans for 2018:

In 2018, UTC will enhance its membership collateral in several ways – both to help reach existing members and their leadership and to engage new members. We will be releasing "Voice of the Member" videos throughout 2018-2019; refining and making broadly available a "C-suite" power point presentation; and creating an elevator speech that provides detail into the value of UTC membership.

Former UTC Board Chair Tom Perry will join UTC as a Regional Representative who will work with the regions to identify strategic meetings with utilities and grow member engagement.

A key activity that underpins all communications to, through, and with our members is the UTC database. A major cleanup of the database began in 2017 and will continue into 2018, with expected completion in 2019.

UTC is, for the first time, creating a policy resolution development process that was finalized in late 2017 and will be implemented in 2018, with the first resolutions considered in May at the annual conference in Palm Springs.

The full 2018 Work Plan is available to members through the UTC NetWorks Portal.

## Supporting Future Technology and Telecommunications Talent Today

UTC, in 2017, made great strides to support future technology and telecommunication talent with the official launch of the UTC Foundation (UTCF). The foundation's Mission is to sponsor educational incentives and programs to attract, retain and support top technology and telecommunications talent to foster the future workforce in critical infrastructure industries. Its Vision is an abundance of skilled and passionate talent transforming critical infrastructure industries through technology.

At the 2017 Telecom & Technology conference, the UTC Foundation Golf Tournament brought utilities and vendors together for a fun day of sport with all proceeds going to the foundation. Also at this conference, UTCF presented its first grant of $7,500 to the Energy Production & Infrastructure Center (EPIC) at the University of North Carolina at Charlotte. UTCF has gained momentum in other venues as well. Thanks to the generosity of the UTC Regions, member companies and individual donations, the UTC Foundation has, as of December 2017, raised a projected $31,780 in contributions.

In the year ahead, the UTC Foundation hopes to continue not only raising funds, but also awareness, to foster interest and excitement in the utility industry among young emerging talent.

*For more information on the UTC Foundation, visit utcfoundation.org.*

## UTC Foundation 2017 Board of Directors

- Neil Broyles, Chair, Navaho Tribal Utility Authority
- Joy Ditto, CEO & President, UTC
- Brett Kilbourne, Secretary, UTC
- Steve Vick, Treasurer, UTC
- Connie Allen, Motorola
- Kamal Ballout, Nokia
- Mike Beehler, Burns & McDonnell
- Lamont Hill, Oncor
- John Sullivan, Portland General Electric (retired)
- Robert Burchard, Full Spectrum
- Melvin Chaaruvilayil, KC Power & Light
- Glenn Johansen, LightRiver Technologies
- Jeff Katz, Public Service Enterprise Group (PSEG)
- Jeff Selman, Tri-State G&T

# 2017 Education and Training

2017 was full of UTC knowledge sharing around the world. We provided many opportunities for education and training for our members and the utility community at large.

## 2017 WEBINARS

- Reliable IT-OT Convergence with No Impact to OT Safety and Reliability Hosted by Juniper Networks
- Distribution Reliability: Connecting it All. UTC IT/OT Webinar hosted by Black & Veatch
- UTCC - PVNO & LTE in Canada
- UTCC - LTE Overview and Private LTE Architecture
- Keeping the Lights on with Advanced Analytics - Ciena and Walker & Associates
- New FAA Tower Lighting Regulations per FAA 70/7460-1L - Flash Technology
- Utility Member Exclusive: Big Data and Analytics in an Electric Utility - Presented by Region 7
- IT/OT Networks – Cyber threats, Vulnerability, Solutions? Presented by Fujitsu
- Connecting the grid when there are no connections…WAN/FAN Applications
- Enhancing Network Visibility and Reliability through Analytics - A UTC Webinar Presented by Ciena
- Utility Member Exclusive: New England Shared Telecommunications Network (STN) – Presented by Region 1
- Telecom 101 Exclusively for UTC Utility Members

- Utility Exclusive: New Congress - How Utilities Can Shape the Discussion
- Policy 101 Exclusively for UTC Utility Members - Presented by the Public Policy Division
- Lessons from the Ukraine Distribution Systems Attack
- Region 8 UTC Webinar: Distribution Automation Communications – Lite

## 2017 EVENTS

- Utility Telecom Forum (Regions 8-9-10) 02/05/17 - 02/08/17 | Reno, NV
- Region 7 Meeting 02/16/17 - 02/17/17 | San Antonio, TX
- Region 3 Spring Meeting & Expo 03/01/17 - 03/02/17 | Chattanooga, TN
- Rural Broadband Workshop 03/13/17 - 03/14/17 | Sacramento, CA
- Region 6 Meeting & Expo 03/20/17 - 03/22/17 Kansas City, KS
- UTCAL Latin America 04/04/17 - 04/07/17 | Salvador, Brazil
- Region 5 Meeting 04/18/17 - 04/21/17 | Bismarck, ND
- UTC TELECOM & TECHNOLOGY 2017 05/08/17 - 05/12/17 | Charlotte, NC

- AUTC Annual Conference 05/15/17 - 05/19/17 | Cape Town, South Africa
- Utility Broadband Workshop 08/10/17 - 08/11/17 | Tampa, FL
- Regions 1-2 Combined Regional Meeting 09/06/17 - 09/08/17 | Galloway NJ
- Region 9 Meeting 09/14/17 - 09/15/17 | Spokane, WA
- EUTC Annual Conference 09/19/17 - 09/22/17 | Lisbon, Portugal
- Canadian Utilities & Critical Infrastructure Information & Communications Technology Conference 09/26/17 - 09/29/17 | Saskatchewan, Canada
- UtiliSite Colocation Summit 10/03/17 - 10/04/17 | Myrtle Beach, SC
- Region 3 FALL Meeting & EXPO 10/04/17 - 10/06/17 | Myrtle Beach, SC
- Region 8 Fall Technical Meeting 10/12/17 - 10/12/17 | Denver, CO
- Region 10 Technical Meeting 10/19/17 - 10/20/17 | Phoenix, AZ
- Region 4 Fall Meeting 10/26/17 - 10/27/17 | Columbus, OH

# Innovative **Utilities**

These are just some of the innovative stories from UTC utility members that were published in the 2017 *UTC Journal*.

**DUKE ENERGY**

Ian Hartzog, Senior Business Analyst at Duke Energy shared the strategy for Duke Energy's "3rd Grid" at the 2017 Telecom & Technology Conference in Charlotte. The project examined the collaboration that took place between Telecom and Grid Solutions groups at Duke to create a strong enterprise plan for the future. This innovative idea developed a comprehensive communications strategy that addresses aging infrastructure, mobility requirements, emerging technology and advances in power delivery which can be a challenge for all utilities. However, the Duke Energy team was able to develop a strategy that addresses today's challenges as well as a 15-year plan to satisfy future business requirements. They learned a few things along the way. A preliminary article on the project was published in the 2nd Quarter *UTC Journal*.

**SALT RIVER PROJECT**

Dawn Jurgensmeier, Principal Enterprise Architect with SRP discussed driving automation with Distributed Energy Resources (DER). Her premise is that companies that have successfully survived a disruptive technology in their industry had to be able to adapt quickly. Salt River Project had to make innovative adaptations for DER. Electric utilities once had control over their sources of generation, but DERs introduce new sources of generation that can be intermittent and challenging to manage. However, these new power sources can also offer potential benefits for utilities as well as for the smart communities they serve. As potential penetration of DER continues to increase, automation will be key in managing the changes in the grid. SRP has begun efforts of automation through software applications like Distributed Energy Resource Management Systems (DERMS) and Distribution Management Systems (DMS). For more information, read Dawn's article in the 2nd Quarter *UTC Journal*.

**AMEREN**

Liana Hite, Supervisor-Telecom Field Operations for Ameren in Illinois spoke at the 2017 Telecom & Technology conference and also authored an article for the *UTC Journal*. She focused on changing culture through innovation and collaboration. Our quickly evolving world has created a generation of tech savvy consumers who want the lights on and the house warm. Our power conscious customers want control, choice, and the ability to set their own price. Power companies need to move quickly to catch up with this changing world or be left behind by the new market entrants who are better able to leverage the new technologies. Ameren saw that in the not-so-distant future some transforming technologies are likely to disrupt the historic utility business model. Ameren took a unique approach to innovation by creating cross functional, diverse teams. Through team discussions, the level of understanding between traditional silos of work such as accounting and design or energy delivery and IT began to develop at a faster pace creating a higher level of consensus and thoughtfulness in decision making. They attacked the questions: How do we keep pace? What do we do? What does our company look like in 15 years? Breaking down of silos within an organization is the first step in creating an innovative utility. The Ameren story is available in the 4th Quarter *UTC Journal*.

# Thank You

Access Energy Cooperative

Alabama Gas Corporation

Allamakee-Clayton Electric Cooperative

Alliant Energy

Ameren

American Electric Power Company

Arizona Electric Cooperative

Arkansas Electric Cooperative

Avangrid

Avista

Bandera Electric Cooperative

Barc Electric Cooperative

Barry Electric Cooperative

Basin Electric Cooperative

Berkeley Electric Cooperative

Black Hills Energy

Blue Ridge Electric Membership

Boardwalk Pipeline Partners

Bonneville Power Administration

Brazos Electric Power Cooperative

Bruinswick Electric Membership

Buckeye Power

Burbank Water and Power

Callaway Electric Cooperative

Cass County Electric Cooperative

Centerpoint Energy

Central Electric Power Cooperative

Central Florida Electric Cooperative

Central Hudson Gas & Electric Corporation

Central Iowa Power Cooperative

Central Lincoln People's Utility

Central Nebraska Public Power

Chelan County PUD

Chugach Electric Association

Citizens Electric Corporation

City Decatur

City of Folsom, Environmental & Water Resources

City of Lakeland

City Utilities of Springfield

Clay Electric Cooperative

Cleco Corporate Holdings

Cleveland Utilities

Colquitt Electric Membership Corporation

Columbia Water & Light

Co-Mo Electric Cooperative

Consolidated Electric Cooperative

Consumers Energy

Consumers Power

Conway Corporation

Cornbelt Power Cooperative

CPS Energy

Dairyland Power Cooperative

Dayton Power & Light Company

Delta-Montrose Electric Association

Diverse Power

Dixie Electric Power Association

Dominion Resources

Douglas Electric Cooperative

DTE Energy

Duck River Electric Membership

Duke Energy Corporation

Duquesne Light Company

East Columbia Basin Irrigation

East River Electric Power Cooperative

Eastern Oregon Telecom

El Dorado Irrigation District

El Paso Electric Company

Energy Northwest

Entergy

Escambia River Electric Cooperative

Eugene Water & Electric Board

Eversource Energy

Excelsior Electric Membership

Exelon Corporation

Flathead Electric Cooperative

Florida Power & Light Company

Forked Deer Electric Cooperative

Gainesville Regional Utilities

Gascosage Electric Cooperative

Georgia Public Web

Georgia System Operations Corporation

Gibson Electric Membership Corporation

Grays Harbor County Public Utility

Great River Energy

Habersham EMC

Hawaiian Electric Company

Holston Electric Cooperative

Hoosier Energy Rural Electric

Huntsville Utilities

Idaho County Light & Power Cooperative Association

Idaho Power Company

Illinois Rural Electric Cooperative

ITC Holdings Corporation

JEA

Joe Wheeler Electric Membership Corporation

Johnson County Rural Electric Membership Corporation

Kamo Power

Kansas City Power & Light

KCK Board of Public Utilities

Kenergy Corporation

Kitsap County Public Utility District No. 1

Lake Region Electric Cooperative

Lee County Electric Cooperative

LG&E and KU Services Company

Lincoln Electric System

Los Angeles Department of Water & Power

Louisiana Generating

Lower Colorado River Authority

Lyon Rural Electric Cooperative

M & A Electric Power Cooperative

Madison Gas & Electric Company

Memphis Light, Gas & Water Division

Meriwether Lewis Electric Cooperative

Mid-Carolina Electric Cooperative

Mid-South Synergy

Midwest Energy Cooperative

Midwest Energy

Mille Lacs Electric Cooperative

Minnesota Power

Minnkota Power Cooperative

Modesto Irrigation District

Montana-Dakota Utilities Company

Nashville Electric Service

National Fuel Gas Distribution

National Grid Usa Service Company

Navajo Tribal Utility Authority

Nebraska Public Power District

New Horizon Electric Cooperative

New York Power Authority

NextEra Energy Seabrook

North Attleborough Electric Department

North Georgia Network

Northeast Missouri Electric Power Cooperative

Northeast Rural Services

Northern Electric Cooperative

Northern Indiana Public Service Company

Northern Neck Electric Cooperative

Northern Virginia Electric Cooperative

Northwest Iowa Power Cooperative

Northwest Open Access Network

Northwestern Corporation

NV Energy

NW Natural

Ohio Valley Electric Corporation

Omaha Public Power District

Oncor Electric Delivery Company

Orange & Rockland Utilities

Orlando Utilities Commission

Otter Tail Power Company

Owen Electric Cooperative

Ozarks Electric Cooperative

Pacific Gas & Electric Company

PacifiCorp

Parke County Rural Electric Membership Corporation

Pedernales Electric Cooperative

Pennyrile Rural Electric Cooperative

Peoples TWP

Platte River Power Authority

Plumas-Sierra Rural Electric Cooperative

Portland General Electric Company

Powersouth Energy Cooperative

PPL Corporation

PREPA Networks

Public Service Enterprise Group

Puget Sound Energy

Ralls County Electric Cooperative

Rappahannock Electric Cooperative

Regional Water Authority

Richland Electric Cooperative

Rushmore Electric Power Cooper

Sacramento Municipal Utility District

Salem Electric

Salt River Project

San Bernard Electric Cooperative

San Luis Valley Rural Electric

Santee Cooper

SCANA Corporation

Sempra Energy Utilities

Sequachee Valley Electric Cooperative

Silicon Valley Power

Snohomish County Public Utility

Soquel Creek Water District

South Central Arkansas Electric

South Central Indiana Rural Electric Membership Cooperative

South Feather Water & Power

South Florida Water Management

South Plains Electric Cooperative

South Texas Electric Cooperative

Southern California Edison Company

Southern Company

Southern Illinois Power Cooperative

Sunflower Electric Power Corporation

Sunny Slope Water Company

Sweetwater Utilities Board

Tacoma Power-Utility Technology Services

Talquin Electric Cooperative

Tampa Electric Company

Tennessee Department of Transportation

Tennessee Valley Authority

Texas Lone Star Network

Tri-County Electric Cooperative

Tripp County Water User District

Tri-State Generation and Transmission Association

Turlock Irrigation District

United Electric Cooperative

Vermont Electric Power Company

Voam Electric Cooperative

Wabash Valley Power Association

Warren Rural Electric Cooperative Corporation

Washington Gas Light Company

WEC Energy Group

West River Electric Company

Westar Energy

Western Area Power Administration

Western Farmers Electric Cooperative

Wolf Creek Nuclear Operating Corporation

Wolverine Power Cooperative

Woodbury County Rural Electric

Xcel Energy Services

# Thank You 2017 UTC Board of Directors

## 2017 BOARD OF DIRECTORS EXECUTIVE COMMITTEE

Kathy Nelson,
Great River Energy
Chairwoman of
the Board

Joy Ditto,
UTC President
& CEO

Roger Bryant,
Southern Company
Vice Chairman
of the Board

Greg Angst,
CenterPoint Energy
Secretary/Treasurer

Matt Schnell,
Nebraska Public Power Dist.
Immediate-Past Chairman

## 2017 BOARD MEMBERS

- Kevin Huff, Salt River Project
- Mike Lowe, Blue Ridge EMC
- Matt Holthe, Nebraska Public Power District
- Randy Klindt, Ozarks Electric Cooperative
- Scott Hughes, Great River Energy

- Chuck Hackney, CenterPoint Energy
- Chris Campbell, Salt River Project
- Doug McGinnis, Exelon Corporation
- John Nachilly, Eversource Energy
- Liana Hite, Ameren

- Michael Silvas, NRG Energy
- Travis Phifer, Tri-State G&T
- Dewey Day, Pacific Gas & Electric
- Scott Klauminzer, Tacoma Power
- Sheila Wells, Nashville Electric Service
- Todd Marlowe, AEP

## 2017 UTC INTERNATIONAL CHAIRS AND BOARD MEMBERS

- Africa UTC: Fessor Mbango, Erongo RED
- European UTC: Dr. Andreas Breuer, Innogy
- UTC Canada: Geoffrey Trofimuk, SaskPower
- UTC America Latina: Dymitr Wasjman

## 2017 UTC U.S. REGIONAL CHAIRS

- Matt Acton, Eversource Energy
Region 1
- (vacant)
Region 2
- Mostafa Shamsuddin, NES
Region 3

- Philip George, AEP
Region 4
- Paul Lambert, East River Electric Power Coop.
Region 5
- Melvin Charuvilayil, Kansas City Power & Light
Region 6

- Michael Silvas, NRG Energy
Region 7
- Frank Savage, Black Hills, Colorado Electric
Region 8
- Ethan Angele, Avista
Region 9
- Eric Fritz, Sacramento Municipal Utility District
Region 10

Utilities Technology Council™

1129 20th Street, N.W. Suite 350
Washington, D.C. 20036

Phone: 202.872.0030 | utc.org