2017 YEAR IN REVIEW

HELPING PUBLIC POWER UTILITIES ADDRESS KEY CONCERNS

RATE MANAGEMENT • NEW TECHNOLOGIES • WORKFORCE

& LEADERSHIP • GRID SECURITY • LEGISLATIVE & REGULATORY THREATS

OPERATIONAL EXCELLENCE
 PROMOTING PUBLIC POWER











DEAR MEMBERS,

Just as you as electric utilities work to better serve your customers in a changing landscape, we as an association are working to better deliver products and services to you that meet your most critical needs.

In 2017, we surveyed our members and learned more about your greatest concerns. Some of these concerns are decades old but continue to challenge and drive much of what you do. Others reflect new social and economic trends. The results confirmed what we learned from talking to many of you at our conferences, and as we visited with you at regional and utility meetings and events.

It was good to check our Association GPS and confirm that we are going in the right direction. We are already focused on helping you navigate all of these issues — because your success is vitally important to us.







In this 2017 Year in Review report, we show how many of our member utilities addressed key concerns in 2017 by leveraging Association services available to your staffs and boards. From advocacy to training, from operational best practices to networking forums, our service offerings cover the waterfront. We are gratified to know that the Association's services are making a difference to our members. Read on to discover how. And tell us how we can work together in 2018 to make public power even stronger. After all, that is what we do — power strong communities.

Best Wishes,

Sue Kelly Walter Haase
President & CEO Board Chair

Rate Management

Challenges

Today, people use more efficient lights and appliances, build more energy efficient houses, increasingly generate some of their own power, and shave their daily peaks with the help of new technologies. Are you ready for flat and even decreasing demand for your product? Have you considered new rate designs to meet the financial challenges that come with these new trends?

Association Impact

Our training, data analysis, and advocacy for public power utilities in 2017 helped to

- Increase understanding of rate-setting basics.
- Facilitate utilities sharing best practices and new approaches in rate design.
- Provide rate comparisons among different types of electric utilities in each region.
- Educate board and council members, and customers, on rate decisions.

RESOURCES FOR YOU

Education & Training

Business & Financial Conference

Customer Connections Conference

Webinar: The Future of Rate Design

Institute courses on cost of service and rate design

Webinars and workshops on governance

Reports & Case Studies

Annual Statistical Report

Financial & Operating Ratios of Public Power Utilities

Rate Design Options for Distributed Energy Resources

Distributed Generation Rate Design Alternatives to Net Metering

Special issue of *Public Power Magazine* on Customer Service

Idea Sharing

Accounting & Finance listserv

Customer Service listserv

Costs to Prices listserv

- Counter a federally mandated, one-size-fits-all approach to rate design for distributed energy resources.
- Defend public power's right to self-supply in wholesale electricity markets to keep the bills low.



"Austin Utilities needed to develop a cash reserve policy.

Through due diligence, we discovered that it would be expensive to hire consulting services to develop a policy.

Fortunately, we are American Public Power Association members and participated in its Academy webinar series on this topic. As a result, our staff gained the knowledge they needed to design our own policy — saving our utility, and ultimately our customers, thousands of dollars."

MARK NIBAUR, GENERAL MANAGER, AUSTIN UTILITIES, AUSTIN, MINNESOTA





"Most of our Minnesota municipal electric utilities are quite small, with limited staff resources available to meet the challenge of responding to new developments in a rapidly changing industry. Through our partnership with APPA, we are developing a Public Power Forward Toolkit that will provide small municipals with the information they need to rethink their rate design; accommodate challenging new technologies like distributed generation, demand response, and energy storage; and deploy new system technologies such as AMI, Meter Data Management, smart CIS systems, SCADA, and GIS to improve their operational efficiency and meet the increased expectations of customers."

JACK KEGEL, EXECUTIVE DIRECTOR, MINNESOTA MUNICIPAL UTILITIES ASSOCIATION



New Technologies

Challenges

We cannot go on with business as usual while the world around us is turning upside down. We are witnessing the birth and evolution of new technologies, new competitors, and new ways of living. For example, a steady conversion to electric vehicles and heating could possibly double current levels of electricity demand by 2050. If these new loads appear, are we ready to support them?

Association Impact

Our reports, news stories, webinars and conferences, and Demonstration of Energy & Efficiency Development (DEED) research and development grants and scholarships turned the spotlight on technology in action:

- How utilities are implementing battery storage, solar generation, and infrastructure development for electric vehicles.
- Best practices in distributed generation management and rate setting.
- Thought leader perspectives on trends and technologies shaping electricity use and customer preferences.
- Funding innovation through demonstration projects and future workforce development.

RESOURCES FOR YOU

Enabling a Dialogue

Webinar series — electric vehicles, storage, smart meters, solar, rate design

Public Power Forward Summit

Conference sessions on preparing for the future

Public Power Forward listsery

Experts to speak at regional and member meetings

Exploring Real-world Implementation

DEED R&D grants for utilities

New reports — energy storage, distributed energy resources, electric vehicles, community solar

Special issue of Public Power Magazine on disruptive technologies

Case studies in Public Power Daily and Association blog

2017 BY THE NUMBERS

\$1.1 million

More than \$1.1 million awarded in DEED R&D grants and scholarships

150

150 participants discussed the future at the December 2017 Public Power Forward Summit

Workforce & Leadership

Challenges

Public power utilities are going to need help, from both inside and outside our ranks, to develop the skills and services we need to meet our customers' rising expectations. This is no easy task. Our workforce is changing. We are already putting millennials in new positions to keep abreast of changing customer behaviors and expectations. Ten years ago, how many of you had employees whose job was to keep up with social media and respond instantly when you had outages? Now, if you don't do this, you can expect your utility's reputation to suffer.

Association Impact

In 2017, our vast array of Academy conferences, programs, webinars, and custom trainings — coupled with a range of reports, case studies, and toolkits — provided

- Comprehensive training, skill development, continuing education, and professional development for utility staff from all departments.
- Networking opportunities for public power professionals to exchange ideas with peers.
- Growth and industry exposure for future leaders.
- Data and insights for salary comparisons.
- New ideas on increasing diversity and managing multiple generations in the workplace.

RESOURCES FOR YOU Training Topics Networking Forums Tools & Data Administration & business Listservs: 30+ special interest groups Online job postings for utilities Advocacy Small group meetings HR360 — one-stop shop for tools, forms, and policies Crisis management Panels and committees 2017 Salary Survey Report LinkedIn group for public power Customer service Workplace Mentoring Toolkit women Disaster response Association experts and leaders at Electricity industry jobs study member and regional meetings Distributed generation Student scholarships funded internships at utilities through Energy efficiency DEED program Engineering and operations Governance and leadership Key accounts management Legal & regulatory issues **Public communications** Rates and financing Safety

2017 BY THE NUMBERS

48

48 custom utility inhouse training events with 1,086 attendees held onsite, saving on travel expenses

2,539 • 47

2,539 public power professionals in 47 webinars on governance, accounting and finance, new technologies, customer engagement, and disaster response

21

21 student scholarships awarded by the DEED program to develop the next generation of public power employees



MEMBERS SHARE

"The Engineering & Operations Technical Conference and National Conference allow us to build relationships with peers from public power utilities across the country — professionals we rely on for assistance during natural disasters. Our employees gain insights into new technologies and trends and network with other professionals for best practices. We get to develop relationships with industry partners."

JIM FERRELL, PRESIDENT/CEO, JACKSON ENERGY AUTHORITY, TENNESSEE





"As a small utility (less than 10,000 meters with no AMI or SCADA) we were more inclined to believe that we're not as vulnerable to hacking as our larger counterparts in the industry. However, we became the victims of attempted financial fraud and have seen an uptick in sophisticated phishing schemes. We reached out to the Association for the cybersecurity vulnerability assessment to ensure that we are covering the major bases and doing all we can feasibly do to protect our assets and network. We really appreciated the professionalism and the quality of the report that we received and we are incorporating many of those recommendations into our strategic work plan."

STEVEN TAYLOR, GENERAL MANAGER AND **KRISTIN MASTELLER,** DIRECTOR OF BUSINESS SERVICES, MASON COUNTY PUD, WASHINGTON



Grid Security

Challenges

No utility, large or small, is immune from cyber or physical attacks. A successful attack on the data and control systems used to operate our electric infrastructure could substantially disrupt the flow of power. The most effective way to enhance cybersecurity is by improving information sharing between the federal government and all critical infrastructure sectors, and acting on that information. Cybersecurity protection must be an iterative process, as the nature of the threats constantly evolves.

Association Impact

In June 2016, the Association entered into a cooperative agreement with the U.S. Department of Energy for a three-year program to improve the cyber and physical security posture of public power utilities. In the first year, the Association engaged more than 150 public power utilities who became more cyber aware and ready through

- Onsite vulnerability assessments, with detailed security improvement reports.
- Cybersecurity self-assessment workshops and tabletop exercises.
- Access to managed security service providers at steep discounts.
- Cybersecurity scorecard assessment to help utilities identify vulnerabilities and strengths.
- A full suite of cybersecurity trainings for leadership and operations personnel.

RESOURCES FOR YOU

Utility Resources

Conference workshops

Webinars

Cybersecurity training sessions and tabletop exercises for executives, managers, and IT/OT staff

Managed Cybersecurity Providers

Cybersecurity Information Engagement Guide

Stakeholder Collaboration

Electricity Subsector Coordinating Council participation

Recommendations to E-ISAC on how to share threat information most useful to public power utilities

Facilitated GridEx IV participation and debriefs for public power

Customer Awareness

Animated videos on cybersecurity

Media relations support for utilities

News stories, articles, blogs, and infographics

2017 BY THE NUMBERS

11

5 • 123 • 14 • 403

11 cybersecurity vulnerability assessments conducted at public power utilities

5 cybersecurity self-assessment workshops with 123 participants and 14 tabletop exercises held to enhance cyber preparedness for utilities with 403 participants

Operational Excellence

Challenges

Resilience is about technology and innovation that responds to customer needs. We've seen an upward trend in transmission and distribution infrastructure investment in recent years — investments like smart meters, distribution automation, outage management systems, synchrophasors, and new generation portfolios. We in public power are enhancing operational excellence while being as economically and technologically efficient as we can. But we also know that the best way to keep a system running well is to maintain it well.

Association Impact

Our resources, trainings, and programs supported operational excellence at public power utilities across the country and helped them

- Comply with new and revised safety guidelines and standards for all employees.
- Prepare for disasters through simulated tabletop exercises.
- Get and give mutual aid for power restoration in the wake of devastating natural disasters like Hurricanes Harvey, Irma, and Maria; the California wildfires; and many more.
- Track and benchmark outage data and causes.
- Earn national recognition for demonstrating best practices in reliability, safety, workforce development, and system improvement.

RESOURCES FOR YOU

Reliability

RP₃ — Reliable Public Power Provider program offers recognition and best practices insights for applicants

eReliability Tracker allows outage reporting for data analysis and benchmarking

Engineering & Operations Technical Conference

Special issues of Public Power Magazine on Infrastructure and Engineering

Disaster Response

Mutual aid network activated in multiple disasters

Crisis communications training and hands-on support

Advocacy with federal government for financial assistance

Participation in the Electricity Subsector Coordinating Council to enhance industry-government response to natural disasters

Safety

16th Edition of the Safety Manual

Safety resources and trainings

Spotlight on safety at annual Lineworkers Rodeo

Safety Awards of Excellence

Safety listserv

2017 BY THE NUMBERS

223

223 utilities provided mutual aid in the wake of disasters throughout the year 111

111 utilities recognized for excellence in safety

235

235 utilities now designated as Reliable Public Power Providers to demonstrate operational excellence

425

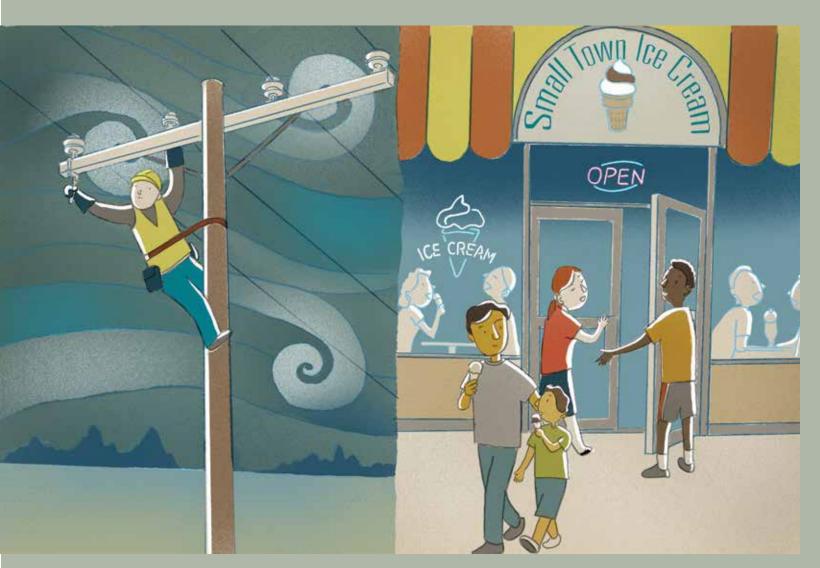
425 utilities using the eReliability Tracker to track and benchmark outage data and causes 121

121 utilities recognized for top quartile reliability performance compared to all electric utilities



"When you look at the devastation and havoc wreaked upon our service territory by [Hurricane Irma], it is a testament to the Association's efforts and tireless work that we restored power to our customers in near record time. In this most desperate time of need in our community, the Association went far beyond what was necessary and helped us perform miracles."

LYNNE TEJEDA, GENERAL MANAGER & CEO, KEYS ENERGY SERVICES





"We applaud the passage of legislation that would preserve the current law treatment of tax-exempt municipal bonds. Lower borrowing costs for bond-financed projects allow for greater investments, reduce rates for residents, help create jobs, and spur innovation and economic growth. Tax-exempt financing works. And we are grateful the American Public Power Association worked on this issue for BPU — and for all of public power."

DAVID E. MEHLHAFF, CHIEF COMMUNICATIONS OFFICER KANSAS CITY BOARD OF PUBLIC UTILITIES



Legislative & Regulatory Advocacy

Challenges

A \$250 million power plant would cost \$80 million more to finance if tax-exempt bonds were repealed, \$40 million more if the tax exemption were capped, and \$30 million more if municipal bonds were replaced with direct payment bonds.

Association Impact

In 2017, we advocated in Congress and with federal agencies on the issues most important to you. We mobilized and coalesced member voices to

- Protect tax-exempt status of municipal bonds used to fund public power infrastructure
- Push back efforts to privatize federal dams
- Support policy changes that would facilitate energy infrastructure, including hydropower licensing reform, pipeline permitting reform, and vegetation management
- Drive toward common-sense environmental regulations — air, water, and waste
- Fight attempts by the FCC to regulate public power pole attachments for wireless providers
- Facilitate the development of a cyber and physical security framework for utilities
- Support compliance on safety and OSHA guidelines

RESOURCES FOR YOU Engaging with Regulators Educating Legislators Keeping Members Informed & Media Comments filed on Email updates Legislative Rally unifies Grid reliability and resilience pricing public power advocacy **Public Power Daily** Legislative issue briefs Blogs and social media Fast start resource pricing in wholesale markets Congressional visits Public Power Magazine — Storage and distribution in wholesale special issues on advocacy and Hearings & testimonies infrastructure Social media advocacy Regulatory burdens imposed on utilities by environmental regulations Disposal of coal combustion residuals

2017 BY THE NUMBERS

500

and non-liquid remediation wastes

500+ public power leaders at Legislative Rally in Washington DC

225

225 individuals contributed to PowerPAC in 2017 for bipartisan support to elected officials supporting public power

Promoting Public Power

Challenges

If you have built a good relationship with your retail customers by providing attractive and affordable service options, strong customer service, and supporting the community and its values, chances are they will not want to cut the cord. But for that to happen, public power utilities must be out in their communities, getting to know their customers and building real connections. The more we connect, the more our customers will see the value of their local public power utility.

Association Impact

In 2017, our work — in the capital and across the nation with members — helped to

- Equip members in 10 pilot communities with resources to meet dayto-day communication needs.
- Provide a range of customizable tools and templates for member use
 infographics, videos, bill stuffers, articles, press releases, social media content, etc.
- Celebrate Public Power Week (Oct 1 – 7) in communities nationwide to drive home public power benefits.
- Emphasize public power's distinctive focus on community through a new Association brand.
- Raise awareness of public power with a new Association website with replicable content for members.

RESOURCES FOR YOU

National Outreach

Strong media presence

Growing engagement on social media

Member spotlight through stories in *Public Power Daily* and *Magazine*

Awards and recognition for utilities and staff

Member Empowerment

Public Power Week tools and ideas

Communication tools and templates

Consumers' Guide to Impostor Utility Scams

Monthly emails with social media tips and resources

One-on-one consulting, visits, and meeting presentations

Public Communications & Customer Service listservs

Webinars and workshops on communicating the value of public power

2017 BY THE NUMBERS

650

650 articles in Public Power Daily, Magazine, and blogs — sharing news and member successes 900

Nearly 900 media mentions to raise the profile of public power

80,000+

80,000+ engagements through social media More than 500,000 visitors to PublicPower.org



MEMBERS SHARE

"When we regularly communicate the value of public power, it helps us build goodwill so we can secure funding for capital projects, inoculate against rate increases, and be effective in our legislative efforts. Educating customers early and involving them in decisions helps them understand and accept change. But we don't have enough time or resources to do this on our own. Only one out of 118 public power utilities in Kansas has a full-time communications person. So it was great to participate in the American Public Power Association's Raising Awareness Community Pilots. We provided input and got very high-quality materials to share that elicited a great response from the community. We look forward to sharing the benefits with all Kansas members after the pilot."

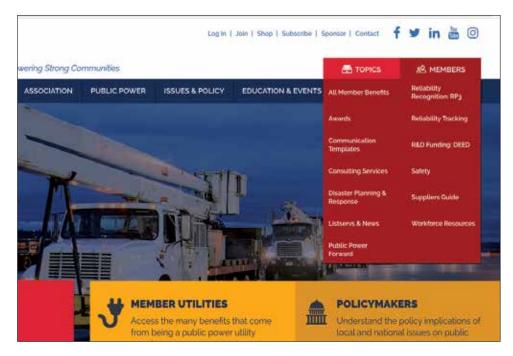
GREG DUMARS, CITY ADMINISTRATOR, CITY OF LINDSBORG AND **COLIN HANSEN,** EXECUTIVE DIRECTOR, KANSAS MU<u>NICIPAL UTILITIES</u>



Easy Access to Resources and **Member Benefits**

See what's new, get the resources and information you need, and connect with us through our new website at www.PublicPower.org





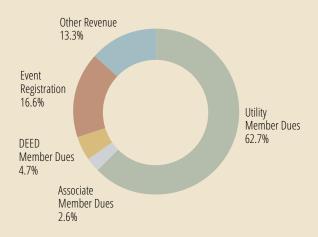
Public Power by the Numbers



INVESTING IN MEMBER SUCCESS

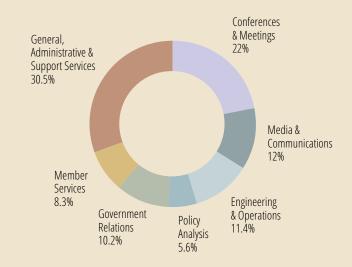
2017 ASSOCIATION REVENUE

Total Revenue: \$22,722,678



2017 ASSOCIATION EXPENSES

Total Expenses: \$19,168,215



Note: The 2017 revenues and expenses are projections based on unaudited numbers.



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