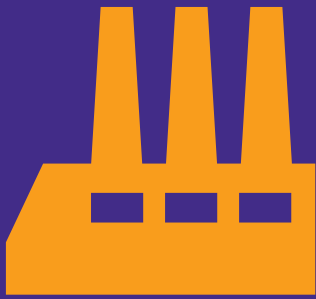


CELEBRATING PUBLIC POWER'S 2019 R&D ACCOMPLISHMENTS



**950
PUBLIC POWER
UTILITIES STRONG**

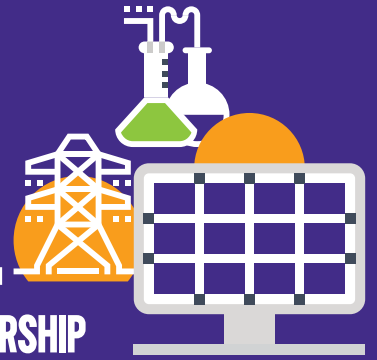
Members collaborated, innovated, and pooled resources and ideas to move public power – and the electric industry – forward.



**18
GRANT &**

**24
SCHOLARSHIP
PROJECTS COMPLETED**

Members can access reports, white papers, webinars and more for these and 500 other completed projects in the DEED Project Database.



**\$202,729
SAVED**

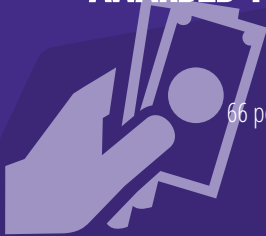
Members saved big on complimentary and discounted DEED products.



\$1,394,705

**AWARDED TO 17
PROJECTS**

66 percent of member grant proposals received funding.



**11
WEBINARS HELD**

629 members heard results from innovative, completed grant projects.

**\$140,000
AWARDED TO STUDENTS**

Members supplemented their workforce through 37 scholarships, internships, and research grants.



**3
ENERGY
INNOVATOR
AWARDEES**

Fayetteville Public Works
Commission, NC

Nebraska Public Power
District, NE

City of Palo Alto
Utilities, CA

**1
AWARD OF
CONTINUED
EXCELLENCE
AWARDEE**

Austin Energy, TX



**\$1.2M
IN UNCOMMITTED FUNDS**

Members can apply for this funding to support future initiatives.



American Public Power Association

2019 COMPLETED GRANT AND SCHOLARSHIP PROJECTS

Click the name of each project to bring you to the DEED Project Database for more information.

Distributed Energy Resources

G-399 *Battery Energy Storage System And Micro-Grid Demonstration of an Optimization-Based Control Strategy*, Rancho Cucamonga Municipal Utility, CA

G-401 *ERMU Partners with City of Elk River and Local Businesses to Provide Fast EV Charging as Part of Green Step Cities Initiative*, Elk River Municipal Utilities, MN

G-407 *Public Power EV Planning Toolkit*, American Municipal Power, Inc., OH

G-409 *Analytics Using StorageVET*, New York Power Authority, NY

S-244 *Investigation of a High Voltage Electric Field on the Soiling Rate of PV Panels*, City of Moreno Valley; Ryo Huntamer, University of California-Riverside, CA

S-246 *Energy Storage Intern*, Austin Energy; Julia Conger, University of Texas at Austin, TX

S-254 *Austin SHINES Project Student Intern*, Austin Energy; Cydnie Golson, University of Virginia, VA

S-257 *Electric Vehicle Load Prediction and Charging Scheduling for Grid Services and Cost Reduction*, Burbank Water and Power; Behnam Khaki, University of California—Los Angeles, CA

Energy Services

G-397 *Leveraging Experience from Stanford and EDF to Develop Information and Tools for Thermal Microgrid Feasibility Assessments*, Palo Alto, CA

G-398 *Utilizing Smart Meters and Smart Load Management Switches to Update Peak Load Saving Estimates for Modern Residential Appliances*, ElectricCities of North Carolina Inc., NC

G-404 *Multi-Family Energy Efficiency Pilot Project*, Lincoln Electric System, NE

G-406 *Energy-Savings Potential in Commercial Food Service Plug Load Equipment*, Silicon Valley Power, CA

G-410 *Data-Driven Customer Segmentation for Reducing Peak Power Energy Consumption*, New River Light & Power Co., NC

S-243 *Energy Efficiency Intern to Work with Existing Weatherization Education Outreach Program (WEOP)*, Fort Pierce Utilities Authority; Gabriela Rangel, Indian River State College, FL

S-247 *Cost and Energy Implications of Energy Sector Transformation on Water Heating Systems*, Salt River Project; Naushita Sharma, Arizona State University, AZ

S-259 *Energy Efficiency Services Outreach Coordinator for Retail Customer Relations*, Illinois Municipal Electric Agency; Lexi Yoggerst, University of Illinois-Springfield, IL

Engineering & Operations

G-402 *Small System Maintenance Manager*, Massena Electric Dept., NY

G-403 *Non-Communicating Automatic Feeder Restoration*, Kerrville Public Utility Board, TX

G-408 *Discovering Ferroresonance in Your Utility*, Tillamook People's Utility District, OR

S-245 *Improve High Temperature Reliability of Gallium Nitride (GaN & Trap Density in Novel Gallium Oxide (GA₂O₃))*, Freedom System Center NC State University; Faisal Azam, North Carolina State University, NC

S-248 *Transmission, Substation and Distribution Infrared Inspection Program*, Beaches Energy Services; Mason Hardee, University of North Florida, FL

S-251 *Engineering Intern-A*, Independence Power & Light; Max Anderson, University of Missouri-Kansas City, MO

S-252 *Engineering Intern-B*, Independence Power & Light; Steven Lee, University of Kansas, KA

S-253 *Developing and Testing Algorithms for Optimizing VAR Support Using an 8760 Hour Load Model*, Silicon Valley Power; James Wang, Santa Clara University, CA

S-256 *CDE Lightband Internship Summer 2019, CDE Lightband*; Luke Daniel, Tennessee Technological University, TN

S-260 *Electrical Engineering Intern*, Kaukauna Utilities; John Vanderwyst, Northeast Wisconsin Technical College, WI

S-262 *Event Detection and Classification in Power Grid Using Machine Learning and Synchrophasor Technology*, Municipal Electric Power Association of Virginia; Shiyuan Wang, George Washington University, Washington, D.C.

S-263 *Advanced Artificial Intelligence for Online Power System Stability Surveillance*, City of Manassas; Bhavesh Shinde, George Washington University, Washington, D.C.

S-265 *HCI Communications Portal*, Northern California Power Agency; Jack Ta, University of California-Davis, CA

Economic Development

S-264 *ElectriCities of NC Economic Development Intern*, ElectriCities of North Carolina; Laquell Harris, Shaw University, NC

Geographic Information Systems

S-250 *System Mapping Intern*, Indiana Municipal Power Agency; Elijah Diehr, Trine University, IN

S-255 *GIS Enhancement*, Florence Utilities; Shayla McLain, University of Wisconsin- La Crosse, WI

S-258 *Infrared Inspection, GIS Data Processing and Asset Management*, Beaches Energy Services; Nahum Michel, University of North Florida, FL

Key Accounts

G-395 *Landlord Connection Series*, River Falls Municipal Utilities, WI

Mutual Aid

G-412 *Surveying the Potential of Electrifying the Navajo Nation*, Navajo Tribal Utility Authority, AR

Public Communications

G-400 *Using Consumer Engagement Tools to Build Better Relationships Between the Customer and Utility*, Cleveland Public Power, OH

Renewable Energy

G-411 *Increasing Low-to-Moderate Income Household's Access to the Benefits of Rural Public Power Community Solar Programs*, WPPI Energy, WI

S-249 *Generating Power from Rainfall*, Silicon Valley Power; Shreyes Nallan, Santa Clara University, CA

S-261 *Renewable Cost Calculator*, Heartland Consumers Power District; Peter Choudek, St. Cloud State University, MN

S-266 *Combined Stochastic Wind and Solar Power Bidding in the Southwest Power Pool Market*, Lincoln Electric System; Josue Campos do Prado, University Nebraska-Lincoln, NE

Safety

G-405 *SafetySmart Video Series, 2nd Edition*, Minnesota Municipal Utilities Association, MN

Workforce

G-396 *Power Career Workshop 101*, ElectriCities of North Carolina, Inc., NC

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2451 Crystal Drive
Suite 1000
Arlington, Virginia 22202-4804

www.PublicPower.org

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