

American Public Power Association

DEEDdigest

JANUARY 2019 EDITION

Upcoming Webinar FREE to APPA Members

DEED Grants & Scholarships: Application Tips to Get Funded

DEED will host a webinar **TOMORROW, January 10, 2019 from 2-3:00 p.m. EST** to provide answers to all your questions related to DEED grants and student internships.

The current grant and scholarship cycle is open and will close on February 15th. Your best bet is to visit the [DEED funding page](#), review the [DEED Project Database](#), and register for this free webinar today!

Register Now



DEED Webinars

A chronological listing of DEED webinars is posted for DEED member only access [here](#).

DEED webinars are provided free to DEED members. To find out if you are a DEED member, [click here](#).

Upcoming Webinars FREE to DEED Members

Replicate this Cybersecurity Toolkit

Cyber attacks are a growing and rapidly changing challenge that utilities face and must be prepared to mitigate. Northern California Power Agency plunged into solving this problem with the execution of a tabletop incident response exercise.

In this webinar you will learn how to use the toolkit they developed which features template resources such as an incident response plan; sample exercise agenda; and participant instructional memos.

NCPA received DEED funding to have a Cyber Security Analyst intern to help develop and coordinate the Cybersecurity Incident Response tabletop exercise.

Join us on **Wednesday, January 30 at 2:00 PM EST** to hear from staff at APPA, NCPA, and their

Managing Your AMI Data

While Advanced Metering Infrastructure (AMI) has introduced a streamlined customer data collection method for utilities, it has also created a need to manage this large influx of data. Algona Municipal Utilities and Iowa State University sought to create a simple alternative that could help utilities seeking to manage their customers' data. AMU and ISU developed a tool to extract portions of stored AMI data to better understand the load behavior of different customer classes, analyze peak load and energy consumption, and check for bad and missing data that could be misinterpreted.

This webinar will dive into how to use the analysis tool they developed, which contains an Excel and stand-alone MATLAB program.

student intern that planned and executed this project.

Register Now

Join us on **Wednesday, February 13, 2019 at 2PM EST** to hear from staff at AMU, Iowa State professors, and the PH.D. student that planned and executed this project.

Register Now

Welcome Our Two New DEED Directors: Josh Byrnes & Kyle Roadman

Please join us in welcoming our two newest DEED Board Directors, Josh Byrnes and Kyle Roadman!



Josh is currently the General Manager at Osage Municipal Utilities. He will represent Region 3, which includes Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota. Josh brings a multitude of diverse experience to the DEED program, from his decades of work in higher education to serving three terms as a State Legislator in the Iowa House of Representatives and his time as Chair of the Iowa House Transportation Committee.

Kyle is the Power Resources Manager at Emerald People's Utility District, where he leads the utility's wholesale power supply operations, including overseeing risk management, energy efficiency and demand-response programs. He will represent Region 9, which includes Alaska, Idaho, Montana, Oregon, and Washington. Kyle's education and experience in business and finance will prove invaluable in diversifying the DEED Board of Directors collective knowledge and expertise.

Click [here](#) for an updated list of the DEED Board of Directors.

DEED Awards: Your Utility Deserves Recognition!



You can't win if you don't apply!

Why should your utility apply for a DEED award? We asked nominators from the 2018 winning utilities to explain the value of submitting a nomination for their utility.

Mary Medeiros McEnroe, Public Benefits Program Manager at **Silicon Valley Power**, the 2018 **Award of Continued Excellence** recipient explained that "The process of documenting your utility's efforts is a worthwhile endeavor, as it can be used internally and locally to promote the good work [your utility has] done. It was an opportunity for the utility to be recognized locally [and] it instilled a sense of pride in the employees and management team. The national recognition from receiving this prestigious award is well worth the effort invested in the application."

Similarly, Bill Bottiggi, General Manager at **Braintree Electric Light Department**, a 2018 **Energy Innovator Award** recipient, says that "locally we use the award to keep the residents aware that we are here doing the best we can to keep our service at a high level and the rates as low as we can."

The Award of Continued Excellence recognizes a DEED member utility with demonstrated commitment to DEED and its ideals. The Energy Innovator Award recognizes a utility program or project that demonstrates advances in the development or application of creative, energy-efficient techniques or technologies that provide better service to electric customers or increase utility operations efficiency or resource efficiency.

Applications are due for both awards by January 31, 2019. For more information and to learn about past award winners, visit the [ACE and EIA information page](#). Questions? Contact Michele Suddleson at (202)467-2960 or e-mail DEED@PublicPower.org.

Spring Internship Cycle Now Open!



The Spring 2019 funding cycle is open! Apply for [scholarships](#) and [utility grants](#) by the **February 15 deadline**. Funding awards will be announced in mid-April. For more information, view [DEED's funding page](#), and attend our Thursday, January 10th webinar [DEED Grants & Internships: Application Tips to Get Funded](#), at 2 p.m. EST.

- **Apply for up to \$125,000 in grant funding for [DEED member's](#)** innovative utility projects. Grants support projects that improve utilities by increasing efficiency, reducing costs, investigating new technologies, offering new services, and improving practices to better serve customers. Contact your region's [DEED board director](#) and APPA staff to obtain guidance on your project idea.
- **Apply for student internship funding.** An intern is often a good way to obtain "free" manpower to help develop and implement programs or initiatives at your utility. If you have a project that is not appropriate for a DEED grant, and more of the standard system upgrade/normal maintenance activity/capital improvement project, apply for **\$4,000** to put an intern to work. More information is available [here](#) and in the [DEED Scholarship Guide for Utilities](#).

To get started, email DEED@PublicPower.org noting which application you wish to submit, a [utility grant](#) or [student internship](#), or call **202-467-2900** and ask for DEED program assistance.

Recently Completed Projects

Two grants and one scholarship have wrapped up since our last newsletter. Visit the [DEED Project Database](#) for a repository of information on hundreds of outstanding research projects funded by DEED. Search this unparalleled database to learn what other public power utilities like yours have done. Discover how you can replicate the success of research projects and get ideas for projects you can conceive and submit for DEED funding.

G-395 Landlord Connection Series

River Falls Municipal Utility developed the Landlord Connection Series (LCS) outreach program to improve the communication with the landlord community in order to have a greater impact on energy efficiency and other utility issues typically associated with multifamily homes and rental units. By offering free quarterly seminars and facilitating discussion on topics of interest to landlords, RFMU was able to increase landlord retention between the first and fourth event. Utilities seeking to strengthen their relationship with landlords can replicate this program. [READ MORE.](#)

G-396 Power Career Workshop 101

To address the growing need for younger generations in public powers roles, **ElectriCities of North Carolina** increased awareness of career opportunities by conducting 61 workshops across high schools and career fairs in the state. These workshops consisted of a PowerPoint presentation highlighting energy, careers in public power, and illustrated the types of jobs available, educational requirements, educational venues, and benefits and pay, and a hands-on demonstration of linemen equipment. These workshops successfully

sparked interest in many students seeking opportunities after high school. [READ MORE](#).

S-243 Energy Efficiency Intern to Work with Existing Weatherization Education Outreach Program
Fort Pierce Utility Authority hosted an intern interested in sustainable technologies and energy efficiency procedures. Through the Weatherization Education and Outreach Program (WEOP), the student assisted in mining, interpreting, and calculating energy and water savings data in homes that have participated in the program. The intern also had the opportunity to conduct field work with the Florida Department of Environmental Protection, allowing her to learn about pressing environmental issues. [READ MORE](#).

Fall 2018 Approved Scholarships

Congratulations to the Fall 2018 Scholarship recipients! A total of **6 educational scholarships**, **8 student internships** and **5 student research grants** were approved by the DEED Board of Directors. Read about these projects on the [DEED Project Database](#), linked below for each project.

Student Internships:

- CS-2206 Austin SHINES Project Student Intern, Austin Energy [READ MORE](#)
- CS-2207 Transformation, Substation and Distribution Infrared Inspection Program Intern - A, Beaches Energy Services [READ MORE](#)
- CS-2208 Infrared Inspection, GIS Data Processing and Asset Management Intern - B, Beaches Energy Services [READ MORE](#)
- CS-2209 Economic Development Intern, ElectricCities of NC [READ MORE](#)
- CS-2210 GIS Development Intern, Flora Electric Utility [READ MORE](#)
- CS-2211 System Mapping Intern, Indiana Municipal Power Agency [READ MORE](#)
- CS-2212 Reginald Hardee Line Worker Internship, Kissimmee Utility Authority [READ MORE](#)
- CS-2213 Internet of Things (IoT) Cybersecurity Practices from a Power Utilities Prospective, Tennessee Valley Authority [READ MORE](#)

Student Research Grants:

- CS-2214 Advanced Artificial Intelligence for Online Power System Stability Surveillance, City of Manassas Dept. of Utilities [READ MORE](#)
- CS-2215 Combined Stochastic Wind and Solar Power Bidding in the Southwest Power Pool Market, Lincoln Electric System [READ MORE](#)
- CS-2216 Event Detection and Classification in Power Grid Using Machine Learning and Synchrophasor Technology, Municipal Electric Power Association of Virginia [READ MORE](#)
- CS-2217 Generating Power from Rainfall, Silicon Valley Power [READ MORE](#)
- CS-2218 STATCOM vs. Synchronous Condenser: System Perspective for Stability & Control in Low-Inertia Systems, Silicon Valley Power [READ MORE](#)

Looking Back on DEED's 2018 Completed Projects

Congratulations to our member utilities and students who completed 18 grants and 19 scholarships during 2018! We look forward to beginning and completing more projects during 2019!

Completed Grants:

- G-377 Measuring the Benefits of Contract Voltage Testing, City Utilities of Springfield [READ MORE](#)
- G-378 Implementation and Best Practices for Unmanned Aircraft Systems (UAS) for Utility Operations, Huntsville Utilities [READ MORE](#)
- G-379 Economic Overhead Conductor Software (EOCS), DSTAR/DEED [READ MORE](#)
- G-380 Transformer Owning Cost Software (TOCS), DSTAR/DEED [READ MORE](#)
- G-381 Transformer Scrap/Repair Decision Software (TSRDS), DSTAR/DEED [READ MORE](#)
- G-382 Ferroresonance Guidelines for Modern Transformer Applications, DSTAR/DEED [READ MORE](#)
- G-383 Floating Wye-Delta Overhead Bank Overvoltages, DSTAR/DEED [READ MORE](#)
- G-384 Transformer Seasonal Loading Analysis Guidelines, DSTAR/DEED [READ MORE](#)

- G-385 Current Limiting Fuse Application Guidelines, DSTAR/DEED [READ MORE](#)
- G-386 Changing Nature of Loads and the Impact on Utilities, DSTAR/DEED [READ MORE](#)
- G-387 Guide to Best Practices for Improving Distribution Reliability, DSTAR/DEED [READ MORE](#)
- G-388 Cable Electrical Parameters Software (CEPS) Enhancements, DSTAR/DEED [READ MORE](#)
- G-389 Calibrated Modeling of Energy Savings of New High-Efficient Residential Window Coverings, Silicon Valley Power [READ MORE](#)
- G-390 Engaging Communities for Energy and Water Savings: Improving Measurement and Effectiveness of Energy/Water Audits for Low Income Neighborhoods, Gainesville Regional Utilities [READ MORE](#)
- G-391 Energy Efficient Air Management in Small Data Centers through the Use of Liquid Cooling Servers, Silicon Valley Power [READ MORE](#)
- G-392 A Tool for Mining AMI Data to Model Customer Loads for Small Public Power Utilities, Algonia Municipal Utilities [READ MORE](#)
- G-393 Evaluation of Control Devices for Distribution Feeders, DSTAR/DEED [READ MORE](#)
- G-394 Floating Solar Array Study Evaluation, Braintree Electric Light Dept. [READ MORE](#)

Completed Scholarships:

- S-225 Internship for Developing Short Energy Efficiency & Electrical Safety Educational Videos, Silicon Valley Power [READ MORE](#)
- S-226 Create Primer on Electric Utility Operating and Legal Issues for Municipal Utility Lawyers, Missouri River Energy Services [READ MORE](#)
- S-227 WISE-DEEP Community Information Expert, Hominy Electric Department [READ MORE](#)
- S-228 Renewable Energy Engineering Intern, Austin Energy [READ MORE](#)
- S-229 Project Lead on AMR to MilSoft Windmill Circuit Model Data Sharing Project, Lodi Electric [READ MORE](#)
- S-230 Engineering Intern, Bryan Municipal Utilities [READ MORE](#)
- S-231 Energy Efficiency Projects & Database Development Intern #7, DEED [READ MORE](#)
- S-232 DEED Program Intern #8, DEED [READ MORE](#)
- S-233 Energy Efficiency and Renewable Energy Analyst, Colombia Water & Light [READ MORE](#)
- T-14 Battery Storage Simulation, Braintree Electric Light Dept. [READ MORE](#)
- S-234 Student Internship- Economic Modeling, Austin Energy [READ MORE](#)
- S-235 Optimization of the Thermal Energy Storage System, University of North Carolina, Charlotte [READ MORE](#)
- S-236 Identifying Component Failure Type by Waveform Analysis on Relay Recordings, Bryan Texas Utilities [READ MORE](#)
- S-237 Risk-Aware Testing and Management of Synchrophasor Systems in Electric Power Grids, Bryan Texas Utilities [READ MORE](#)
- S-238 Engineering Intern - A, Independence Power & Light [READ MORE](#)
- S-239 Engineering Intern - B, Independence Power & Light [READ MORE](#)
- S-240 Cyber Security Intern, Northern California Power Agency [READ MORE](#)
- S-241 Reduction of Harmonic Distortion of Distributed Generation Units in Power Systems, Silicon Valley Power [READ MORE](#)
- S-242 Senior Power Analyst Intern (Third Summer), Emerald People's Utility District [READ MORE](#)

Contact

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