

American Public Power Association

# DEED digest

## SEPTEMBER 2019 EDITION

**DEED Webinars: Hear first-hand from public power innovators about their DEED supported projects**

### 2019 Energy Innovator Awards given for Reliability, Workforce, and Efficiency Initiatives

This webinar will present innovative, award-winning programs developed by three public power systems.

**Fayetteville Public Works Commission** has developed an innovative way to locate faults in its electricity distribution system. This has allowed PWC to limit outage durations, reduce callouts, and enhance the quality of life for its community.

**Nebraska Public Power District** implemented the “Pathways to a Technical Future” program to connect the STEM curriculum for students in kindergarten through college skills required for energy and public power careers. NPPD helped teachers and administrators to increase understanding of how electricity works, how to use it safely, and how to develop 21st century skills.

The **City of Palo Alto Utilities’** Home Efficiency Genie program provides community residents with free energy efficiency advice by phone and a subsidized, comprehensive in-home assessment for energy and water efficiency. The program was designed to address the fact that while most customers want to optimize the comfort and efficiency of their homes, they often don’t know where to start.

This webinar is free and open to anyone interested in energy innovation.

Learn more about the challenges and successes of these three pioneering initiatives by joining us on **Wednesday, October 9th at 2:00 PM EST** to hear from all three utilities.



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](#).

This webinar's speakers include:

- **Rick Anderson**, Electrical Engineering Manager, Fayetteville Public Works Commission
- **Chad Johnson**, Senior Education Specialist, Nebraska Public Power District
- **Scott Melberg**, Utility Program Manager, City of Palo Alto Utilities
- **Lisa Benatar**, Utility Program Manager, City of Palo Alto Utilities

Registration link coming soon.

## Help us deliver content you want - Take Our Survey!

As we continue our monthly *Dig Deeper with DEED* segments, we need to hear what topics are most important to you! Tell us what you want to see more of by [clicking here](#).

## Internship Opportunities Now Available

**Put an intern to work at your utility.**

Submit your internship application by October 15 to secure \$4,000 in funding to hire an intern

**DEED PUBLIC POWER**  
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### Apply for student internship funding

The Fall Internship Application Cycle opened on August 1st. **The deadline to apply is October 15, 2019.** 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 more of the standard system upgrade/normal maintenance activity/capital improvement project, applying for **\$4,000** to put an intern to work can be a good way to receive funding when it is not appropriate for a DEED grant. More information is available [here](#) and in the [DEED Scholarship Guide for Utilities](#).

To get started and gain access to the intern application, email [DEED@PublicPower.org](mailto:DEED@PublicPower.org).

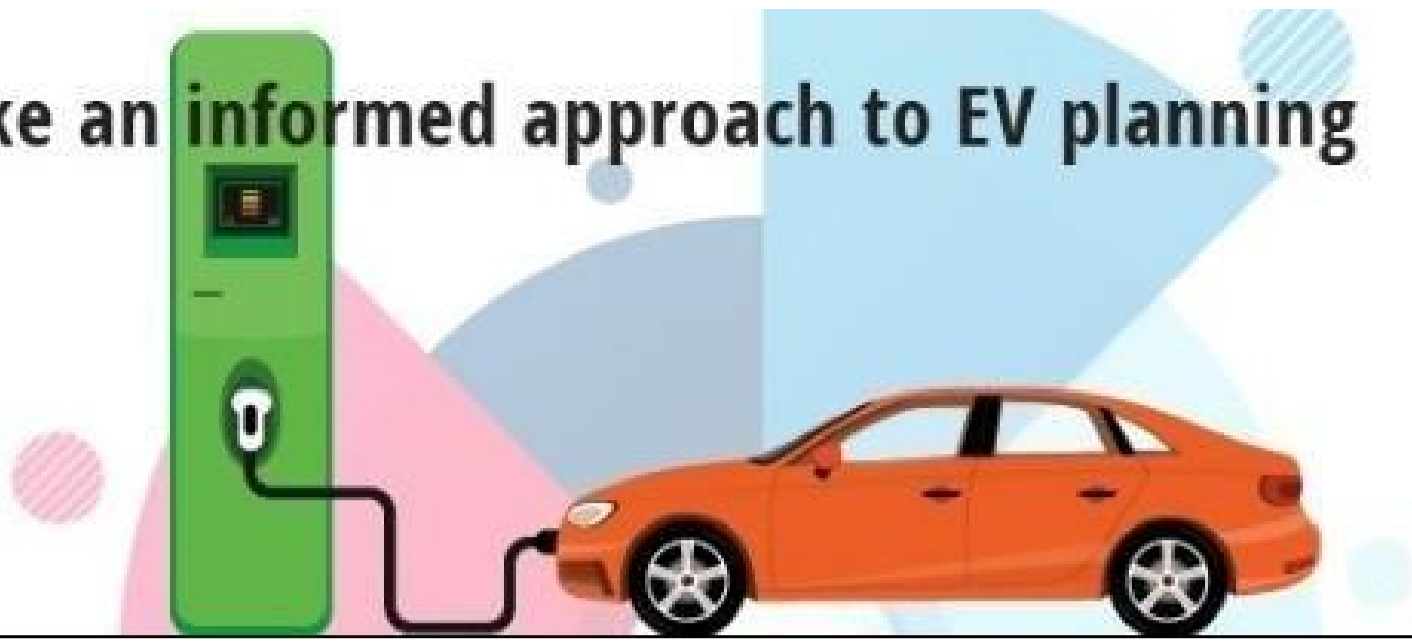
### Lineworker Scholarships

Having trouble recruiting lineworkers and other technical staff? Help us so we can help you. Send DEED your contacts at technical colleges, vocational schools, lineworker schools, and local high schools, and we'll promote public power and DEED scholarship opportunities to their students.

Please send your contact names, school affiliations, titles, and email addresses to [DEED@PublicPower.org](mailto:DEED@PublicPower.org).

## **PUBLIC POWER EV TOOLKIT now available** **New Tool Informs your Decision-Making for EV Programs**

# Take an informed approach to EV planning



DEED recently released its Public Power EV Planning Toolkit. Produced with a grant to American Municipal Power, the toolkit contains a spreadsheet and user instructions that helps you decide how much of your limited time and resources you can dedicate to planning and rolling out a strategy for EV adoption. The toolkit will help to provide you with meaningful insights for your service territory without excessive staff time spent on data input.

[Order here.](#)

## Dig Deeper with DEED: Wind

In the July publication of the DEED Digest, we dug deeper with solar energy topics. This month we are covering wind. Considering a DEED grant or scholarship involving wind energy? Related completed grants include:

- Nebraska Public Power District's grant, [\*A Comparative Study to Monitor Wind Resources with MiniSODAR & Compare with Conventional Monitoring Using 60 Meter Meteorological Tower\*](#)
- Nebraska Public Power District's grant, [\*Development of a Wind Turbine/Plant Operating Practices Guidebook; "Wind Operating Practices Guidebook"\*](#)
- Waverly Light and Power's grant, [\*Characterizing the Impacts of Significant Wind Generation Facilities on Bulk Power System Operations Planning\*](#)
- Waverly Light and Power's grant, [\*Distributed Wind Evaluation Methodology\*](#)
- APPA's grant, [\*Power Partnership Strategy with DOE's Wind Powering America Program\*](#)
- Eugene Water and Electric Board's grant, [\*Vertical Axis Wind Turbine Generator Demonstration\*](#)
- Municipal Energy Agency of Nebraska's grant, [\*Wind Energy Production Forecasting Module\*](#)
- Platte River Power Authority's student research grant, [\*Design HESS for Wind Turbine Generators\*](#)
- Westerville Electric Division's student research grant, [\*Optimization of Small Scale Wind Turbines to Utilize Low Wind Speeds\*](#)
- Santee Cooper's student research grant, [\*Wind Energy Penetration on Power Systems\*](#)

Check out DEED's **current** wind focused project as well:

- Lincoln Electric System's student research grant, [\*Combined Stochastic Wind and Solar Power Bidding in the Southwest Power Pool Market\*](#)

## EPRI Reports: Total Value Test and EV Charging White Paper



## TVT ASSESSES COST-EFFECTIVENESS, SOCIAL BENEFITS FOR ENERGY EFFICIENCY AND ELECTRIFICATION PROGRAMS

In its August 13, 2019 press release, the Electric Power Research Institute (EPRI) reported that it has published a new analytical framework to assess the cost-effectiveness of energy efficiency measures and programs. The Total Value Test (TVT) refines current analytical approaches and expands the application to any kind of energy efficiency program or electrification effort, in any economic sector.

"We designed the TVT based on guidance and experience from utility, regulatory, and policy experts, as well as a review of current test methodologies," said EPRI Senior Technical Executive Omar Siddiqui, who led this project. "We found that conventional cost-effectiveness methodologies, in their current application, are limited in accounting for the comprehensive set of benefits and costs of utility energy efficiency and electrification programs. We believe that the TVT better supports regulatory consideration of a broad portfolio of energy efficiency and electrification projects across economic sectors."

The TVT's development, attributes and application are summarized in a newly published, publically available EPRI report and includes a review and critique of current energy efficiency cost-effectiveness tests, perspectives from interviews with industry experts, the TVT's methodology, and three case studies.

Executive Summary is available [here](#). View the whole report [here](#).



### Interoperability of Public Electric Vehicle Charging Infrastructure

This new white paper identifies challenges and recommendations to enable greater interoperability and standardization of U.S. electric vehicle charging. The paper was done in collaboration with the Edison Electric Institute, the Alliance for Transportation Electrification, the American Public Power Association, and the National Rural Electric Cooperative Association.

[LEARN MORE](#)

The Electric Power Research Institute (EPRI) published a new white paper in collaboration with APPA, the Edison Electric Institute, the Alliance for Transportation Electrification, and the National Rural Electric Cooperative Association. The report identifies challenges, creates awareness, and provides perspective to achieve greater interoperability and open standards in the burgeoning U.S. electric vehicle (EV) charging market.

View the white paper [here](#).

## Recently Completed Projects

One grant and three scholarships wrapped up in the month since our last newsletter. Visit the DEED Project Database for a repository of 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-408 Discovering Ferroresonance in Your Utility**

**Tillamook People's Utility District** recently experienced an outage which then created a situation that caused padmount transformer, lightning arresters, and services meters to fail. A root cause analysis was performed and it was determined that ferroresonance was the likely cause of the failure. As a result, TPUD began to investigate potential conditions that might lend themselves to a similar event and introduce ferroresonance in the system.

Learn more about the project here: [READ MORE](#)

### **S-253 Developing and Testing Algorithms for Optimizing VAR Support Using an 8760 Hour Load Model**

**Silicon Valley Power** investigated the capacitor banks and their influence on power factor across the different grid levels. Analysis of the data led to the creation of a tool available on the DEED Project Database that can aid in the optimization of power factors. Main conclusions from this project have demonstrated that the grid currently operates near unity, but the need for capacitor banks and other VAR resources is crucial in maintaining the power factor unity and efficiency needed.

Learn more about the project here: [READ MORE](#)

### **S-250 System Mapping Intern**

#### **Indiana Municipal Power Agency**

**(IMPA)** desired to have a mobile-accessible GIS map of served communities to support planning and restoration efforts. The intern worked with IMPA Service Corp and community personnel to inventory utility assets & information, then develop an interactive map accessible via desktop or mobile of the town. In the case of emergency or storm restoration, IMPA Service Corp personnel will now be able to pull up the GIS map en route to the community.

Learn more about the project here: [READ MORE](#)

### **S-254 Austin SHINES Project Student Intern**

**Austin Energy** SHINES project aims to demonstrate a versatile solution to offering lower-cost, reliable renewable energy to customers through energy storage integration and alternative distributed energy resource (DER) management options. The student intern furthered their understanding of how other regions can optimize distributed power from photovoltaic (PV) systems.

Learn more about the project here: [READ MORE](#)

## **SAFETYSMART VIDEO SERIES now available**



Help your lineworkers work safer with APPA's new SafetySmart Video Series. Developed with a grant from the DEED program, the 25 videos break down critical safety procedures your crews need to know about pole rescues, confined space rescues, first aid, fall restriction, and more. The series is a perfect complement to [APPA's Safety Manual](#) and reinforces the National Electrical Safety Code and appropriate OSHA standards.

The video series is free for DEED members and \$100 for Association members.

[Order here](#)

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