

# Business & Technology Update



Thursday, December 6, 2018 | [coop.com](http://coop.com) | [BTS Website](#) | [Archive](#) | [Web Version](#) |

## Closing the Digital Divide with Broadband

Today, over 20 million people in the U.S. lack access to broadband internet services. Electric cooperatives are making great strides in bringing connectivity to rural communities to help members and support economic development. Read about the achievements of Valley Electric Association in our latest case study, hear from NRECA's CEO Jim Matheson at a recent Bloomberg interview, and see WIRED's featured article "Rural Americans Are Rebooting the Spirit of the Internet."

- [Valley Electric Case Study](#)
- [Jim Matheson Interview at Bloomberg](#)
- [WIRED article](#)
- Contacts for Questions: [Paul Breakman](#) (Business Models and Strategy); [Russell Tucker](#) (Economic Analysis); [Brian O'Hara](#) (Policy); [Stephen Bell](#) (Communications)

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## Raising Your Cybersecurity Awareness

Cyber threats to the electric grid are a stark reality today. The following are various efforts and opportunities to help cooperatives raise their cybersecurity posture:

- **Cybersecurity Summit and Classes at Idaho National Laboratory**  
Join us at our next RC3 Cybersecurity Summit and Classes on January 28-29 at Idaho National Laboratory to hear the latest on cybersecurity for cooperatives. The Summits are not technical sessions, and any members responsible for cybersecurity decisions at their co-ops are encouraged to attend. **Registration is free.** Presentations from our past two Summits are now available on cooperative.com.
  - [Registration](#)
  - [RC3 2018-2019 Summits Website](#)
  - Contact for Questions: [Cynthia Hsu](#)
- **CyberStrike Workshop**  
On January 30, NRECA is hosting a CyberStrike Workshop at Idaho National Laboratory. This workshop will provide hands-on practice using simulated demonstrations of cyber-attacks, including attacks based upon the real-life events in the Ukraine that opened breakers, turning off power to hundreds of thousands of people. Attendance is ideal for engineers, operators, and advanced IT/security professionals. **Registration is free.**
  - [Registration](#)
  - Contacts for Questions: [Dan Walsh](#) (Generation Assets), [Cynthia Hsu](#) (Cybersecurity), and [Lauren Khair](#) (Industry Analysis)

## Upcoming Events

- [RC3 Cybersecurity Summit and Classes](#) – December 11-12, Great River Energy, Maple Grove, MN ([Full, Wait List Available](#))
- [RC3 Cybersecurity Summit and Classes](#) – January 28-29, Idaho National Laboratory
- [CyberStrike Workshop](#) – January 30, Idaho National Laboratory
- [2019 TechAdvantage® Conference and Expo](#) – March 10-13, Orlando, FL

### BUSINESS AND TECHNOLOGY STRATEGIES PORTFOLIO



PROVIDING SOLUTIONS AND ACTIONABLE ADVICE



RURAL COOPERATIVE CYBER SECURITY CAPABILITIES PROGRAM

- **U.S. Department of Defense Test of a Power Grid Hacking**

As part of National Cyber Security Awareness Month in October, the U.S. Department of Defense conducted a live, week-long federal research exercise in which more than 100 grid and cybersecurity experts worked to restore power to an isolated, custom-built test grid. Read about this effort in a recent WIRED article.

- [Article](#)
- Contact for Questions: [Cynthia Hsu](#) (Cybersecurity); [Tracy Warren](#) (Communications)

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## How Electrification Can Benefit Low-Income Consumers

Since low-income consumers use less energy than their higher income counterparts, it can be relatively difficult and expensive to provide them with significant savings through conservation. At the same time, low-income consumers spend a higher proportion of their income on energy, so any savings can greatly impact their quality of life. This EPRI Journal article written by NRECA's Senior Director of Strategic Initiatives, Keith Dennis, reviews how Beneficial Electrification opens new savings opportunities for consumers of all incomes through more efficient use of energy.

- [Article](#)
- Contact for Questions: [Keith Dennis](#)

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## Using Design Thinking to Better Understand Consumer Needs

Design thinking is an approach to developing products, services, and experiences that address consumers' unmet needs. This allows companies of all types to create better offerings, improve customer experiences, and as a result, increase customer satisfaction. These two new advisories provide further explanation of Design Thinking and a case study on how Poudre Valley REA used it to gain a deeper understanding of the energy habits, goals, and perceptions of their co-op members.

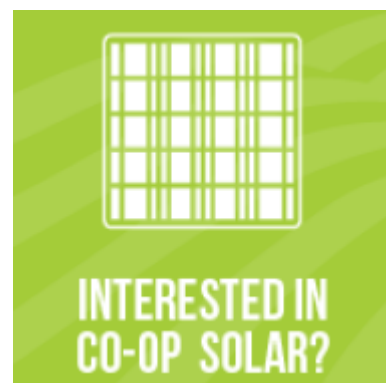
- [Advisory: Insights from Design Thinking Research](#)
- [Advisory: Case Study of Poudre Valley REA](#)
- Contact for Questions: [Brian Sloboda](#)

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## Energy Storage Cost-Benefit Analysis with White River Valley EC

The price of energy storage is decreasing rapidly, making it increasingly useful as a tool to manage peak demand, defer capital investments, and provide reserves services to the bulk power system. To assist cooperatives with calculating the costs and benefits of applying energy storage to their systems, NRECA has produced three analytical models to determine the value of energy storage for peak demand management, deferring capital investments, and arbitraging different energy prices. This advisory explains the models and how they were developed and tested with the help of White River Valley EC and the support of the U.S. Department of Energy.

- [Advisory](#)



- Contact for Questions: [David Pinney](#)
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## Can Grid Edge Devices Benefit Distribution Systems?

The relatively low cost and autonomous operation of grid edge smart distribution devices make them potentially enticing options for utilities to soften the impact of PV on their distribution feeders and provide other benefits. NRECA and DSTAR sponsored a recent independent third-party evaluation of commercially available Smart Devices and their potential benefits for distribution systems. This advisory provides an overview; and the full report will be available early next year.

- [Advisory](#)
  - Contact for Questions: [Brian Sloboda](#)
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## Finding Added Benefits in Solar+Storage Technology Offerings

While solar systems have been available from third-party vendors for some time now, integrated residential solar-plus-storage systems are becoming more accessible to homeowners and co-op members in some markets. This new article reviews the current market for solar+storage technology and some current vendor offerings cooperatives may want to consider.

- [Article](#)
  - Contact for Questions: [Allison Hamilton](#)
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## New EV Truck and SUV Models Coming Soon

As the electric vehicle (EV) market continues to develop, many co-ops have inquired about EV pick-up trucks for their fleets. Rivian Automotive unveiled their long awaited electric pickup and full size SUV at the Los Angeles Auto Show in late November. This new advisory reviews recent developments in the EV market and considerations for cooperatives.

- [Advisory](#)
  - Contact for Questions: [Brian Sloboda](#)
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## New TechPark® at TechAdvantage® 2019

Located in the TechAdvantage Expo, the TechPark delivers timely information about technology solutions that will enhance your business operations. TechTalk sessions feature case studies and new technology reviews that allow you to learn directly from product and service providers and the co-ops that use them. You'll learn how to apply these experiences and tools to enhance your business and address key challenges. Conference attendees will be provided an FM radio and earbuds to listen to presentations in the TechPark. A sample of this year's TechTalks include: Upgrading Legacy Load Management Systems for DER; Virtual Reality to Reduce Risk; and Cybersecurity Monitoring to Protect Infrastructure.

- [Registration](#)
- Contact for Questions: [Mary Ackleson](#)

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## Complimentary Online Courses on PV Safety and Impact Available to Members

Two one-hour online courses are now available to NRECA members regarding PV Safety Concerns and a PV System Impact Guide. NRECA has worked with SOS Intl, a leading training provider for electric utilities and NRECA Associate Member, to convert material developed during the Solar Utility Network Deployment Acceleration (SUNDA) project to create online courses for members. This advisory provides details on this opportunity:

- [Advisory](#)
- Contact for Questions: [Patti Metro](#)

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