



# The Strategy Importance of Investing in Technology (Hint: Not This Technology!)

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President and CEO

American Public Power Association

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NC Public Power's Connections Summit

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# American Public Power Association—the Basics

- We are the national service organization (trade association) for the U.S.'s 2,000 electric utilities owned by state/local government
- Public power serves 49 million people in 49 states and 5 territories
- 1411 dues-paying utility members (the two NC joint action agencies pay your dues, which we truly appreciate!)
- Located in Crystal City (Arlington), VA

# APPA Leadership and Staff

- Board sets APPA policy direction
- Coleman Smoak (Piedmont Municipal Power Agency, Greer, SC) is Chair; Decosta Jenkins (Nashville Electric Service) is Chair Elect; Jolene Thompson (AMP/OMEA) is Vice Chair
- Tony Cannon of Greenville UC is on the Board
- APPA has 68 staffers doing everything from lobbying to education to coordinating mutual aid after storms—mutual aid has certainly kept us busy (thanks to all of you who have sent help!)

# Change—The New Normal

- Across the country, we see rapid changes in our industry:
  - New technologies
  - New competitors
  - New ways of living
  - New customer choices and expectations
- **“Business as usual” will not be enough in this new environment; we need to anticipate what customer needs/wants will be and move first to supply them**
  - *“I skate to where the puck is going to be, not to where it has been.” Wayne Gretzky*

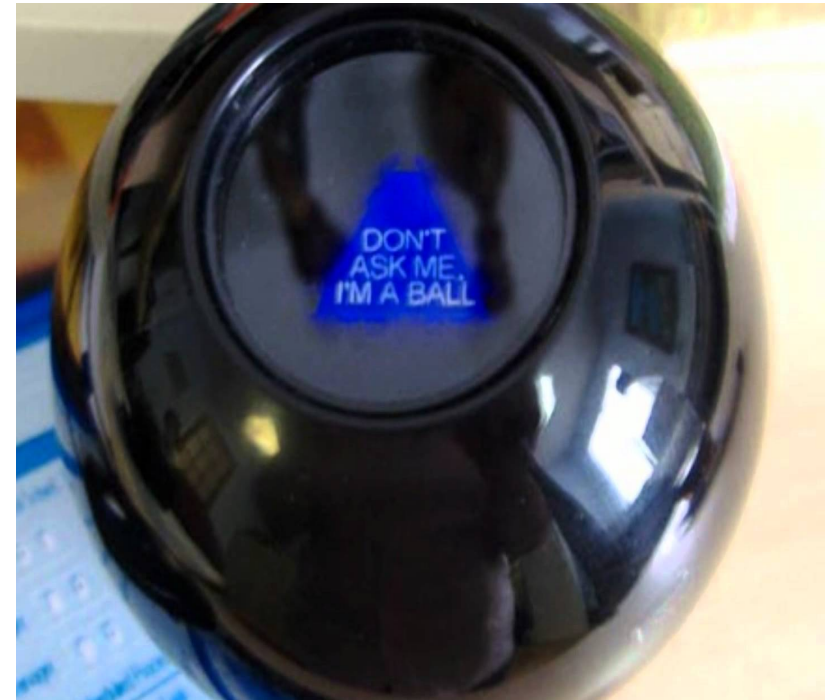
# Electric Utility Industry Outlook—

- Lack of clarity in federal energy policies—some states/cities stepping into the breach
- More distributed generation (DG)
- Expanded use of new technologies: storage, Electric Vehicles (EVs), smart meters/grid
- Increasing industry complexity—many new players (can be partners or competitors)
- Flat (or even declining) load growth in most regions due to increased energy efficiency (EE) and demand response (DR)—but EV & electrification push could offset?



# Electricity Utility Industry Outlook (cont'd)

- Customer expectations are increasing; lower tolerance for outages
- Need for new investment to make grid smarter, more reliable
- Cyber/physical security concerns must be addressed or we will face the consequences
- Workforce turnover is an issue
- Low level of knowledge by public and many policy makers of how we do what we do—leads to unrealistic expectations





# What More and More Customers Will Want (Commercial and Industrial)

- Industrial and commercial customers increasingly want green/sustainable energy to meet corporate goals
- Following the lead of Apple, Google, Facebook, Walmart
- They are entering into direct contracts with suppliers and aggregating their loads to buy renewable power supplies, often “disintermediating” utilities who cannot help them meet their goals
- Doing on-site solar, EV charging, EE measures at their facilities



# What Some Retail Customers Already Want (and More Will Want in the Future)

- Increasingly, retail customers want to:
  - Use technology to control their electric usage
  - Tell Siri or Alexa to pay their electric bill
  - Invest in their own onsite power and storage facilities, so they never experience an outage
  - Sell excess power to each other (using blockchain?)
- What makes economic sense for individual retail customers might not add up to a sustainable distribution system, unless someone (*why not us?*) manages all this to maximize benefits for all customers

# What We Need to Do to Respond?

- Public power utilities have to up our game — we need to work together to anticipate and manage this change, provide these retail-level services, and partner with third parties with the necessary products and skills to do this—will need to leverage technology to make this possible
- Working together will
  - Reduce costs
  - Speed deployment
  - Result in better solutions than we could come up with individually

# Joint Action—in all its Forms--Will be Vital

- Joining together with other public power utilities to procure diverse generation resources, develop DG, DR and EE offerings for retail customers, and employ technology to deliver these offerings will be a must—a joint action agency is a great platform to do this
- Advocating for the policies and regulations that will allow you to do this requires state and federal advocacy—ElectriCities and APPA work together in harness to explain our views and needs to Congress, the Administration, and regulatory agencies

# How Can Public Power Pivot to Meet Retail Service Challenges?

- We must recalibrate our thinking
- We need to redefine our relationships with our retail customers, thinking beyond just “keeping the lights on and the beer cold”
- Can no longer stay in our “comfort zone”--on our side of the meter, providing basic electric service and sending bills; we must diversify the menu of products and services and tell our customers who we are!

# But We Need to Do More Than Just Get Their Attention--We Need to...

- Develop new rate designs to meet increased levels of DERs and avoid subsidization across customer classes
- Handle flat and even decreasing demand for electricity from traditional loads
- Help retail customers manage their usage through EE and DR by investing in the necessary technologies
- Develop and support new loads—e.g., EVs
- Incorporate storage to support increased use of renewables and better align demand and supply (EVs? Even the humble water heater?!)

# Public Power Forward

- To help our member utilities across the country deal with these changes, the Association developed its “Public Power Forward” strategic initiative
- Our Goal: Make public power utilities the *trusted energy advisors* in their communities
- As community owned and controlled, not-for-profit public power utilities, we have some built-in advantages, but we need to capitalize on our strengths, and be nimble about it

# Public Power Forward: Association Member Toolbox

- Policy research/analysis for members: what are DOE, states, other utilities/sectors doing on DG, DR, EE?
- Provide options/case studies/best (and not-so-best) practices; share the lessons learned!
- Make sure federal and state policymakers and thought leaders understand public power's views
- Communication toolkits: to educate member communities and retail customers on these issues
- Find it all at [www.publicpower.org/index.php/public-power-forward](http://www.publicpower.org/index.php/public-power-forward)





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DISASTER RESPONSE

# Public power advances restoration work on Virgin Islands

December 20, 2017

Bonds and Financing

## Lawmakers urged to ease advance refunding bond repeal transition

The American Public Power Association and the Large Public Power Council have joined with a large group of stakeholders in



## MEMBER UTILITIES

Access the many benefits that come from being a public power utility member.



## POLICYMAKERS

Understand the policy implications of local and national issues on public power.



## ELECTRICITY CUSTOMERS

See how public power delivers you and your community safe and reliable electricity.



## REPORTERS & RESEARCHERS

Learn the reasons for public power's continued success through reports and statistics.

# You Must Decide How to Engage

Public power utilities must decide when/how to invest in new technologies and revise their rates, services and operations to:

- Offer retail customers options such as green power, DG, DR (including storage), and EE
- Modernize utility operations; add new loads (EV charging, for example)
- Make sure interests of **all** customers are protected when doing this
- Different utilities will likely move at different rates—we reflect the values of our communities

# Grid Security

- As we invest in new technologies, we must ensure that we keep our IT and OT systems hardened against cyber threats
- We already possess substantial amount of data regarding our customers, and will have lots more as we invest in smart meters, sensors, next generation thermostats, DR-controllable water heaters and A/C units, etc., etc.
- All it takes is one messy breach to get your utility's name in the papers, and not in a good way
- Must earn and keep the customers' trust by protecting them, their information, and their electric service

# Grid Security and Policymakers

- Cyber/grid security getting lots of attention on the Hill and in the media (like the Wall Street Journal...)
- The unified electric utility industry message:
  - We take grid security very seriously; do nationwide table top exercises like Grid Ex
  - We work with federal government partners through the CEO level Electricity Sector Coordinating Council (ESCC)
  - The NERC-FERC CIP standards provide a solid foundation for security efforts, but more mandatory standards are not the answer
  - We must recognize we cannot protect all assets from all threats all the time, and instead must *manage risk*
  - Close industry-government coordination is *crucial*

# DOE-Association Cooperative Agreement

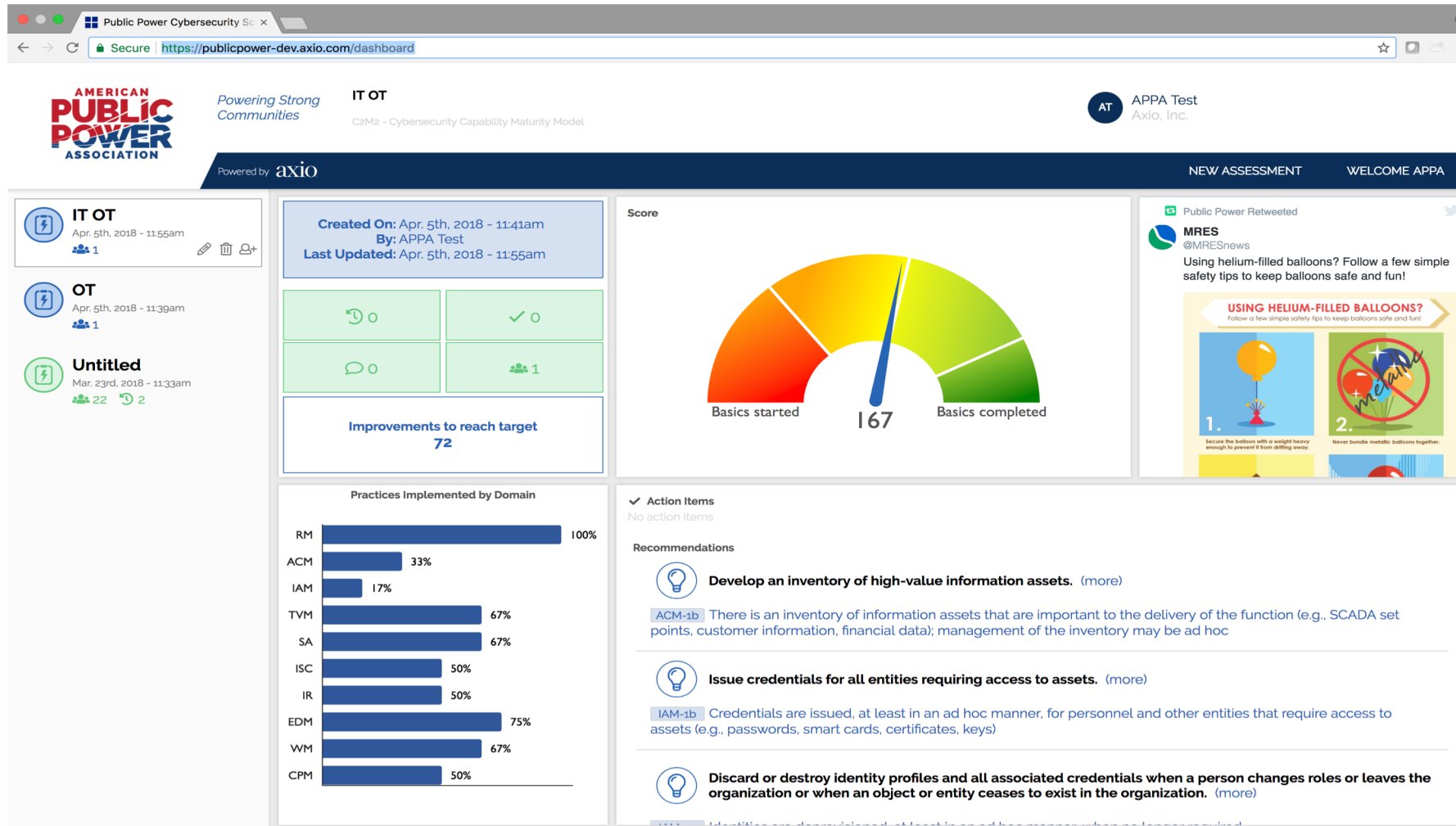
- \$7.5 million over three years (until 2019) has been authorized; NRECA has a parallel agreement (we are coordinating with them on work products)
- Goal: develop a cyber security culture at public power utilities (especially smaller distribution utilities); help them understand and address their cyber security risks
- Developing technical/policy guidance, piloting deployment of new technologies and improving information sharing
- Trump Administration's DOE budget would have cut Year 3 funding; we – and Congress -- pushed back

# Current Cyber Initiatives

- Baseline Assessment Survey (to understand public power utilities are addressing cyber security now)
- Cyber security training (can bring to your region)
- Cybersecurity Scorecard (Maturity Model just for us)
- Onsite Vulnerability Assessments
- Assess Cyber security technologies
- Improving Information Sharing
  - Electric Sector Information Sharing and Analysis Center (E-ISAC) is the national focal point: <https://www.eisac.com/>
  - If your utility is not signed up, please do so! If you have difficulties, contact Nathan Mitchell at [nmitchell@publicpower.org](mailto:nmitchell@publicpower.org)

# Cybersecurity Scorecard: Dashboard

## www.PublicPower.org/Cybersecurity





# Finally--We Need To Tell Our Customers *Who We Are*. Why?

- Our research shows most public power retail customers under age 55 do not know their utility is community-owned and not-for-profit!
- Competition is all around — public power business model is under threat by both traditional and new competitors
- Customers want convenience and one-stop shopping for their energy needs
- You need to win customer loyalty and keep it

# Another Reason: Sellout Efforts

Free electronic copies of our new sellout guide for members at [www.PublicPower.org](http://www.PublicPower.org) (look in the Product Store); it covers:

- Benefits of public power
- Preventing a sellout attempt from emerging
- Communicating the value of public power
- Anticipating and responding to a sellout threat
- Preparing for a sellout evaluation
- Determining the value of your utility
- Communicating with stakeholders during a sellout evaluation
- Costs and risks of selling your public power utility
- Includes case studies, resources

#PublicPower [www.PublicPower.org](http://www.PublicPower.org)



# Communicating the Value of Public Power in Your Communities—3 Rules

- **Emphasize we are “public power”** (sounds better than “munis”), are owned by the community and are part of it, not a large corporation—we are the “real deal”
- **Stay on your customers’ radar screens**—be in the news and online (website, Facebook and Twitter at a minimum) and be social—post at least 2-3 times a week (pretty much all the time if there is an outage or other emergency!)
- **Connect with the community**--support local initiatives, host an event, join in the Public Power Day of Giving, Public Power Week, invite people to visit you, go to the schools

**Access our full suite of templates and resources**  
**[www.PublicPower.org](http://www.PublicPower.org)**  
**(Click on Members and Communication Templates)**

**Subscribe to our monthly emails with ideas and  
resources for social media content**  
**[Email News@PublicPower.org](mailto:EmailNews@PublicPower.org)**

# 2018 “Raising Awareness” Campaign

- In fall 2018, we launched a national campaign to raise awareness of public power
- It is intended to help our member utilities reach their retail customers, raising their profiles in their communities
- Using social media, community activities, and other low-cost ways to get the public power message out
- The campaign encourages customers to get involved and share what public power means to them

# WeAreCommunityPowered.org

## #CommunityPowered



# Moving Public Power Forward Through Collaboration

- Collaboration at all levels—local/state/joint action/federal--will help us all move forward—we need to share the learnings
- We need to demonstrate our *continuing* value to the communities we serve (remember, memories are short...)
- Public power has a great opportunity if we stay true to our to our ideals and roots while adapting our mindsets and services to this new era!





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