

Transitioning Public Power Forward to the Future

Public Power Forward Summit
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Sue Kelly
President and CEO
American Public Power Association



Association Members—A Diverse Community

- 1,400 member public power utilities, ranging from very large to very small
- *Median* size: 1,977 meters
- The common thread: public power utilities are vital to their communities, not only providing power, but supporting key community priorities, reflecting community values, supporting local economies

Why Are We Here?

- We are seeing 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 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—

- Unclear federal regulatory policies
- More distributed generation (DG)
- Expanded use of new technologies: advanced grid, storage, Electric Vehicles (EVs), smart meters
- 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)—a new reality for our industry



Electricity Utility Industry Outlook (cont'd)

- Customer expectations are increasing; lower tolerance for outages
- Need for new investment to make grid smarter
- 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 lead of Tesla, Mercedes-Benz, Apple, Google, Facebook, Walmart
- They are entering into direct contracts with suppliers and aggregating their loads to buy renewable power supplies
- **If we do not help our customers meet these goals, they can do it themselves**

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

- Increasingly, residential 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
- Public power utilities have to up our game — if we cannot provide these services on our own (or with each other), we need to partner with third parties that have the necessary products and skills to do this

One View of the Utility Future

- “Cleaner” resource mix (fewer fossil fuel resources, more carbon-free/renewables)
- More demand side resources (DR, EE, DG) and microgrids; more decentralized approach (under the banner of “resilience”)
- Full time-of-use rates/smart meters/smart appliances/energy storage/latest technologies—informed and empowered customers with many choices
- New uses for electricity—e.g., transportation

But There Are The Unavoidable Facts...

- You need transmission and distribution (and storage) to support this; the grid will need substantial investment (not to mention cyber/physical security!), and the costs must be recovered
- We already have substantial investments in long-lived wholesale generation assets
- Consumer appetite for increased utility bills is very limited at best
- *Any* loss of reliability will not go down well

How Can Public Power Keep Up?

- 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

We Need to Be Prepared to...

- Develop new rate designs to meet increased levels of DERs
- Handle flat and even decreasing demand for electricity from traditional loads
- Help customers reduce their usage through energy efficiency, demand response
- Develop and support new loads--electric vehicles and even heating
- Incorporate storage to expand use of renewables and better align demand and supply (could even be the humble water heater?!)

Public Power Forward

- To help our member utilities deal with these changes, the Association developed its “Public Power Forward” strategic initiative
- Our Goal: Make public power utilities the *service providers of choice* in their communities
- As public power utilities, we have some built-in advantages:
 - Community owned and controlled
 - Not-for-profit--no separate class of shareholders that must be “fed”
- But we need to capitalize on our strengths

Public Power Forward: Association Member Toolbox

- Policy research and 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

Research Available to Members

- Public Power Forward page on Association website (<https://www.publicpower.org/public-power-forward>) has many resources, including new white papers on:
 - Recent policy developments on DG, including state updates
 - Comprehensive overview of battery storage
 - Electric Vehicles (December 13 webinar as well)

Association Provides the Tools, Members Make the Decisions

Utility members must decide when/how to revise their rates, services and operations to:

- offer their retail customers more options such as green power, DG (including solar PV—community and rooftop), DR (including storage), and EE
- modernize utility operations; add new loads (electric vehicles, for example)
- Make sure interests of **all** customers are protected when doing this

This Summit Is An Important Part of Our Public Power Forward Effort

- Learn from industry technology leaders
- Learn what policy makers think
- Learn from *each other, ask questions*
- Help the Association help you in 2018 and beyond—what do you need us to do to best support you?
- Take what you learn home, and figure out what works for you—no two public power utilities are alike!



Moving Public Power Forward

- Collaboration will help us all move forward
- 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!

