

INDIANA MUNICPAL ELECTRIC ASSOCIATION



Power Connection



IME

Five Leadership Lessons from COVID-19 (Continued, Page 1)	01
Five Leadership Lessons from COVID-19	03
Improving the Cybersecurity of the Electric Distribution Grid (Continued, Page 7)	05
Improving the Cybersecurity of the Electric Distribution Grid (Continued, Page 9)	07
Improving the Cybersecurity of the Electric Distribution Grid	09
COVID-19's impact on power, utilities & renewables companies	11
Disaster Response and Mutual Aid	13
Quick and Easy Healthy Meal	

for Families on the Go! **Classic Stuffed Peppers**



15

17

Advancing Sustainability for Public Power

Safety Quote

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Indiana Municipal Electric Association

ISSUE 3 2020

FIVE LEADERSHIP LESSONS FROM COVID-19

Leaders are trying to adapt to one of the most challenging times in history. It helps to meet employees—and a difficult situation—both head-on and with empathetic agility.

Nothing tests your mettle as a leader more than times of extreme adversity. Yet here we sit in the middle of a global pandemic. Although none of us never could have imagined the sequence of events that we are experiencing today, I'm sure we have all learned some valuable lessons that are helping us navigate these unprecedented times.

Put your people first. At a time when so much was unknown about COVID-19, the one certainty was that the health and welfare members and staff came first. IMEA was an early mover to a remote environment. With few exceptions, the membership responded just as quickly to protect their staff by adjusting work schedules and following the CDC guidelines on social gatherings and cleaning and disinfecting.

Respond to your customers' changing priorities. As an organization, set your goals based on your customers' needs. The pandemic changed day-to-day life for our members and caused them to reprioritize a number of important initiatives. At IMEA, we chose to focus our time and energy on determining how we could be indispensable to our members.

We turned our efforts toward developing resources that would be timely and valuable and would support our members' efforts to adjust to their new circumstances.

Financially stress-test your organization. As non-for-profits, municipal utilities have limited cushion to help absorb annual losses.

(Continued, Page 3)



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FIVE LEADERSHIP LESSONS FROM **COVID-19**

(Continued)

Municipal utilities need to fully understand their current financial situation by developing different scenarios to gauge revenue and income fall-off.

Communicate frequently.

In a crisis, there is no such thing as overcommunication. It is important to frequently engage every stakeholder-internal and external—so they remain connected to the organization and its purpose.

Don't abandon your core mission in the face of a crisis.

And finally, while our short-term focus had to change to accommodate the evolving needs of our members, we were careful that any new endeavors aligned with our existing long-term strategy. We wanted to ensure the work we did in 2020 advanced the core mission of our organization and positioned us for future success.

I'm hopeful that the disruption caused by the pandemic will fade with the discovery of a vaccine. But there will be other setbacks and challenges. It's inevitable in business and in life. During these difficult periods, we must be visible, decisive, positive, and resilient.

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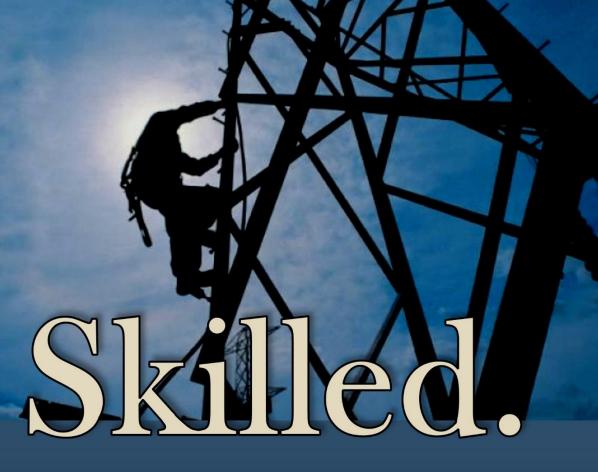
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Our Mission

The Indiana Municipal Electric Association (IMEA) is a service organization formed over 79 years ago. IMEA is a forum for municipal utilities all across Indiana to pool resources for effective representation and continuing education, both of which are vital for survival in a dynamic industry.

"We (IMEA) are a non-for-profit organization functioning as the statewide service association representing the issues and concerns of municipally owned and operated electric utilities. We provide value to your ability to meet your municipal utility needs toward your associates and/or customers. We are committed to providing the latest training in all facets of safety as well as keeping you abreast of cutting-edge technology and resources including leadership development, certified Journeyman / Apprentice training directed toward continuous improvement and exceeding way beyond our Members' expectations. We have a Board of Directors comprised of the municipalities' own members that are committed to growing the membership and service to our association. "We invite you to be a part of this governance and we are committed to the advancement and protection of municipallyowned electric utilities believing the local municipalities and their citizens have the right to keep control and provide services that meet their own needs."



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ABOUT THE IMEA

IMEA has operated as the statewide service association representing the issues and concerns of municipally owned and operated electric utilities while promoting the benefits and public power business model since 1941.



IMPROVING THE CYBERSECURITY OF THE ELECTRIC DISTRIBUTION GRID



OUR SOCIETY IS AN ELECTRIC SOCIETY.

From turning on the lights in the morning to powering multi-million-dollar manufacturing equipment, to operating billion-dollar transportation systems, electricity is the core element that connects how we live and work. Our reliance on electricity grows with each new connection to the grid. A disruption to the electrical distribution network would cause severe economic, health, and environmental damage. Cyberattacks are often viewed as a low probability, high consequence event. We believe that a better way to conceive of the risk of a cyberattack is as a low frequency, high consequence, and very probable event. And what increases the probability of an event? Complacency in the face of changing information and the information on the scope of the cybersecurity risk is growing ever more concerning. When confronted with a complex problem like cybersecurity, finding a solution can be done by visualizing the problem in five elements: vulnerability, threat, consequence, probability and response. This report focuses on response, the obstacles to increasing distribution grid resiliency and best practices for addressing those obstacles that are occurring in state regulatory utility commissions. Before getting to the response, it is best to understand the other four elements.

Vulnerability The U.S. electrical grid is the most complicated machine ever assembled. 3,300 utilities using 200,000 miles of high-voltage transmission lines and 55,000 substations send electricity over 5.5 million miles of distribution lines to customers. Hundreds of millions of moving, interconnected pieces working in concert to make sure that the lights stay on. However, the sheer size of the system makes it difficult to defend against all attacks. The vulnerability of our electric system increases as the potential attack surface of our electric system grows. Increases in automation, growth in the number and type of distributed energy resources, and the convergence of enterprise information technology (IT) and operations technology (OT) are producing a larger attack surface that must be protected against intrusion and attack. The distribution system constitutes 80-90% of all grid infrastructure and is the focal point for many parts of the evolving nature of electricity generation and distribution. A National Academy of Sciences report highlighted the rigidity of the electricity system and its inability to withstand or quickly recover from attacks on multiple components. 1 Adding millions of internet-connected home appliances to the grid management operations is creating new and unexpected points of access to a grid that was designed for a unidirectional utility-customer relationship. The pace of connections is accelerating which adds impetus to resolving obstacles now.

Adding to the complexity is the distribution utilities come in multiple sizes and business models. A distribution utility can serve a thousand customers or a million customers; it can be investor-owner, a membership cooperative, or a public power utility; it might be part of a larger FERC-regulated entity, subject to state commission jurisdiction, or responsive only to its members or elected officials; it might have dedicated cybersecurity staff or it might be reliant on external expertise. The diversity is a strength, but it raises difficulty in crafting a unified response. This report addresses some of the fundamental concepts that can be deployed across a variety of utilities.

Threat Every day brings more reports on new and emerging threats to the electricity system. Recent attacks in Ukraine demonstrated that distribution systems are ripe for targeting. The targeting of distribution systems is not a problem that exists only outside the United States. The ICS-CERT report noted that there were more than 270 cyber emergencies within the U.S. energy sector from the period of 2013-2015. In fact, the energy sector was targeted more than any other sector.

The sophistication of threat actors continues to grow as well. The capability and capacity of cybercrime groups and nation states increases every day and their focus on critical infrastructure systems is becoming more acute.

(Continued, Page 7)

MEMBER FOCUSED

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For over 30 years, the Indiana Municipal Power Agency has provided a low-cost and reliable power supply in an environmentallyresponsible manner to municipal electric utilities throughout the state. Today, IMPA is more than just a power provider - we're a family. Just like a family, IMPA is there to support your utility and your community no matter the situation. We work with our Members to support local initiatives, monitor and maintain infrastructure, foster community development, grow economic bases, protect and advocate municipal rights, and build relationships with local citizens.

Contact Dirk Garriott, Manager of Member Services for IMPA, to learn what the IMPA family can do for you.



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IMPROVING THE CYBERSECURITY OF THE ELECTRIC DISTRIBUTION GRID

(**Continued**) The Director of National Intelligence's Worldwide Threat Assessment recently stated that China and Russia have the capability to cause localized, temporary disruptions to U.S. gas and electricity distribution systems. More concerning is that the Assess reports that Russia is actively mapping American critical infrastructure systems "with the long-term goal of being able to cause substantial damage.

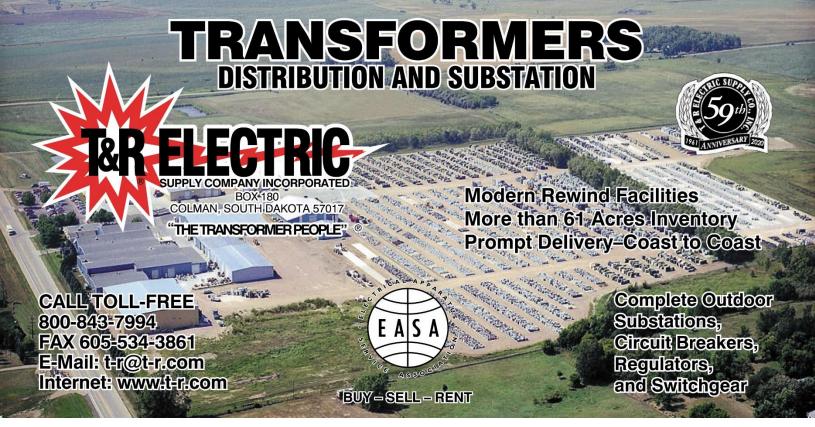
Probability The probability of an attack continues to grow. A recent survey of utility executives indicates almost half of them believe that that most important question is not "if" a cyberattack will occur but "when" it will occur. Large utilities are experiencing millions of attempts per day by parties seeking to gain access to their business enterprise and operations systems. The Tennessee Valley Authority, which supplies electricity to more than 10 million people in seven different states, is seeing an increased number of penetration attempts. Connecticut utilities see upwards of a million daily attempts to penetrate and compromise their systems. The same utility executives that are certain that an attack is imminent, also believe that their systems do not prevent all attack attempts.

It is worrisome that the initial point of penetration may only be platform that gives access to the intended target which turns every utility into a potential point of access, whether they serve 1000 customers or 5 million customers. Access to business enterprise systems can give entry into industrial control systems and operating systems. A small phishing attempt may be the opening move in a longer lasting and farther-reaching attempt to disrupt the grid. Moreover, attackers can inhabit a system for months, learning and mapping the movement of information and the levers of control. Penetrating the control systems of a distribution utility may request an access point into the bulk power system.

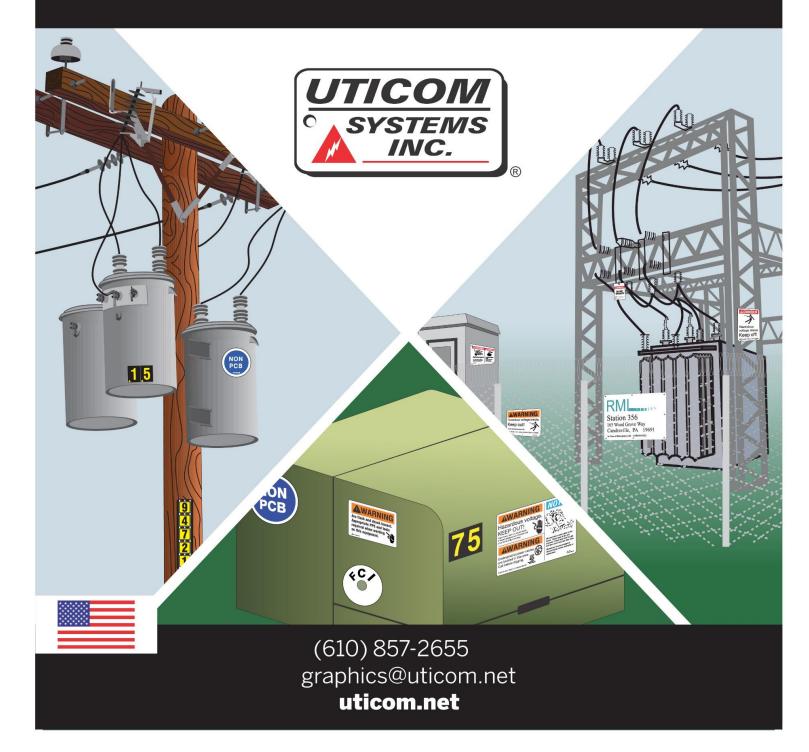
Consequence The consequence of a widespread cyberattack on the distribution system would be crippling to the U.S economy and create danger for the population. Unlike attacks on an information technology system, a cyberattack on industrial control systems and operating systems has the potential to disrupt power and fuel supplies and threaten human health and safety. Furthermore, a coordinated attack on multiple distribution system control centers and substation could have the same impact as an attack on the bulk power system. Electricity is the common link binding together the other 15 federal critical infrastructure sectors. Our electricity system is connected to our natural gas, water, communications, and fuel distribution systems. A prolonged loss of electricity would interfere with the delivery of other critical services.

Estimates of the potential economic damage of a cyberattack are staggering. The current number of annual outages, which overwhelmingly occur on the distribution system, costs the U.S. economy upwards of a \$100 billion/year.

(Continued, Page 9)



COMPLIANT GRAPHICS FOR HARSH ENVIRONMENTS



IMPROVING THE CYBERSECURITY OF THE ELECTRIC DISTRIBUTION GRID

(Continued)

A coordinated cyberattack on the east coast of the United States could cost upwards of \$243 billion in insurance costs alone and it would result in loss of life and damage to the environment.

Response Is there a single solution to mitigate this threat? No. As with many complex problems, many coordinated small steps are the best way of making progress. Increased attention, financial resources, and planning for cybersecurity will be critical to reducing vulnerabilities. We know that utilities and utility commission will be at the center of those efforts in proposing and evaluating cybersecurity and grid resilience enhancements to the distribution grid. A resilient system can only emerge from a coordinated forward-thinking response to address threats and vulnerabilities. What are the steps that can be taken now? Utility commissions must press forward in key areas to build and strengthen relationships with their regulated and non-regulated utilities, to evaluate traditional cost recovery mechanisms to determine if they align with system security goals, and to consider what metrics are needed to evaluate utility investments and system performance. Utilities and other stakeholders must be engaged partners in all facets of this process. This report seeks to push along discussions in these areas by highlighting key questions and identifying best practices for utility commissions and utilities. These are small steps in a coordinated response to protecting the grid.

Written by: (Institute for Energy and the Environment)

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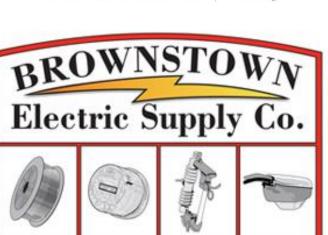
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COVID-19's impact on power, utilities & renewables companies

As the effects of COVID-19 ripple across the globe, utilities & renewables companies are understandably focused on keeping their asset online and providing safe, reliable supplies of electricity and natural gas. Many Power, Utilities & Renewables companies are being proactive in helping their communities by deferring payments, suspending shut-offs, and providing free supplies to unemployed people. Overall, demand has declined but it has not collapsed. The most significant impact is being felt in manufacturing and production centers where industrial demand has decreased, but there is an increase on residential customer demands. Owing to the decrease in demand, prices in electricity wholesale markets have decreased, along with LNG and C02 prices. On the renewables side, many companies have been suffering from disruption in the supply chain over the last two months. However the recovery of activity in China will reduce significantly the impact in the near term.

Potential medium-term impact on power, utilities & renewable companies

The Power Utilities & Renewable sector has a degree of resiliency, given multi-year regulatory and planning horizons. Nonetheless, potential medium-term impacts, if the crisis extends by four to five months, will include:

 Wholesale electricity prices are expected to remain very low, putting pressure on generators; however, the impact may be offset somewhat by decreased carbon prices in some regions.





- Supply chain interruptions will likely continue, affecting the availability of parts and equipment, and eventually will lead to maintenance and infrastructure development challenges.
- Nuclear generation will have operative problems due to issues in combustible recharging and difficulties in maintaining the periodic inspections of the installations.
- Renewable projects may be delayed due to lack of capital as well as equipment.
- Strains on the workforce, such as a shortage of engineers or restrictions on the movement of personnel, may create a new wave of operational challenges.

Key questions executives and boards should be asking

- How can we guarantee the safety and well-being of own people first?
- How do we make sure our assets and operations centers stay online in an environment where everyone feels at risk?
- How can we proactively secure a long-term supply of spare parts and equipment?
- What else can we do to support our customers and suppliers?

Practical next steps

Public Utility & Renewable leaders will be defined by what they do along the three dimensions of managing a crisis: respond, recover, and thrive. Some key next steps include:

- Develop contingency plans for keeping critical personnel on site and operating safely should employee movement be restricted.
- Re-assess global supply-chain dynamics and consider if sourcing more parts and equipment closer to operational territories may be appropriate.
- Consider if the crisis can be used as a catalyst to usher in the future of work by rethinking how and where work is done and accelerating adoption of automation and digital capabilities.

For additional steps that companies should consider taking, visit <u>www.deloitte.com/covid-19-resilient-leadership</u>

Author, Felipe Requejo Global Leader- Power, Utilities & Renewables Thank You to our Virtual 2020 IMEA Annual Business Meeting Signature Sponsor!



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Disaster Response & Mutual Aid

Public Power Utilities are committed to protecting the people working for them and to ensuring energy operations and infrastructure are supported throughout an emergency. Similar to other first responders that combine forces to assist communities in times of need, utilities come together to restore services and keep the public safe. IMEA has directed inter and intra state mutual aid efforts for over five decades.

Every emergency brings new challenges; the IMEA mutual aid program provides that critical point of contact for utilities to obtain emergency service in the form of personnel, equipment and materials. Our goal is to always ensure a **SAFE**, organized and expeditious response to every request for assistance.

Whenever there's a request and a response for assistance we review and evaluate the processes to see if there's something we can improve. The need for formalized mutual aid protocols has always existed but really became apparent when Superstorm Sandy caused widespread damage to the Northeast. In 2013 a national Mutual Aid Working Group was formed to establish a national network for public power utilities.

We work closely with APPA (American Public Power Association) and the ESCC (Electricity Subsector Coordinating Council) at the national level and serve as the primary Mutual Aid Coordinators for Indiana Public Power.

IMEA Mutual Aid Contacts

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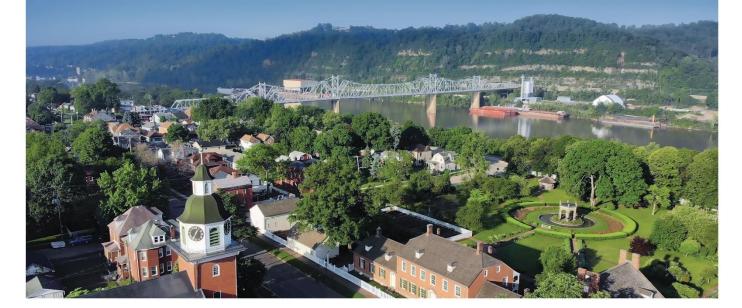
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Classic Stuffed Peppers



The bell pepper is an excellent vessel for stuffing meat, rice, and, of course, cheese. It's strong enough to hold its shape in the oven, and the flavor is subtle enough to go well with just about anything. This is our favorite recipe but the customization options are *endless*. We use shredded Monterey Jack, but feel free to swap in any other melty cheese that you have on hand. You can also use another ground protein (pork, turkey, or chicken) in the place of beef. You could even use Italian sausage!

INGREDIENTS

1/2 c. uncooked rice
2 tbsp. extra-virgin olive oil, plus more for drizzling
1 medium onion, chopped
2 tbsp. tomato paste
3 cloves garlic, minced
1 lb. ground beef
1 (14.5-oz.) can diced tomatoes
1 1/2 tsp. dried oregano
Kosher salt
Freshly ground black pepper
6 bell peppers, tops and cores removed
1 c. shredded Monterey jack
Freshly chopped parsley, for garnish

DIRECTIONS

1.Preheat oven to 400°. In a small saucepan, prepare rice according to package instructions. In a large skillet over medium heat, heat oil. Cook onion until soft, about 5 minutes. Stir in tomato paste and garlic and cook until fragrant, about 1 minute more. Add ground beef and cook, breaking up meat with a wooden spoon, until no longer pink, 6 minutes. Drain fat.

2.Return beef mixture to skillet, then stir in cooked rice and diced tomatoes. Season with oregano, salt, and pepper. Let simmer until liquid has reduced slightly, about 5 minutes.

3.Place peppers cut side-up in a 9"-x-13" baking dish and drizzle with oil. Spoon beef mixture into each pepper and top with Monterey jack, then cover baking dish with foil. 4.Bake until peppers are tender, about 35 minutes. Uncover and bake until cheese is bubbly, 10 minutes more.

5.Garnish with parsley before serving.





IMEA will be having a Business Meeting for Members via **Go To Meeting Webinar, October 14**th **at 10:00 a.m. EST**. The meeting is free of charge and will be useful and informative to all IMEA member utilities.

During the 2020 Annual Business Meeting, IMEA staff will provide brief updates about the numerous programs, activities, achievements and challenges of the previous year as well as the plans in place for the coming months of 2020 and 2021. In addition to learning about what is happening inside of IMEA, staff will also provide a comprehensive review of **financials**, **legislative & regulatory activities** as well as **new offerings in safety and training**.

The IMEA by-laws require the organization to hold an Annual Meeting to conduct the formal business of the association, including the election of officers. In a normal year, the IMEA Annual Business Meeting is held as part of the Annual Business Meeting & Tech Expo.

Unfortunately, this year's conference had to be cancelled due to the ongoing COVID-19 pandemic. IMEA is holding a virtual (ABM) this year via Go-To-Webinar. Access to the Go-To-Webinar will be emailed to all who register on the day prior to the 2020 Annual Business Meeting. **All registrants will receive a 2020 Annual Business Meeting Agenda and Minutes of the 2019 Annual Business Meeting**.

> Registration is now available! Please go to: <u>www.imea.com</u> / events to Register Today!

Advancing Sustainability for Public Power

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For leaders looking for an opportunity to position their utility for better financial performance and operational success, few initiatives resonate more than sustainability. Companies across a variety of sectors are starting to challenge their staff to incorporate sustainability into the many facets of their organizations. But how can you assess the potential impact of integrating sustainability and any resulting benefits within your company?

Utility leaders today are faced with a number of priorities, from solving issues with aging infrastructure to dealing with cybersecurity threats. In the face of these challenges, sustainability presents a unique opportunity to get ahead by improving the long-term health of your organization. For many public power utilities, sustainability provides a framework for bringing together the various elements of their mission of environmental stewardship coupled with social and economic development. Realizing this begins with understanding the broad definition of sustainability as it pertains to public power utilities and developing a blueprint for sustainability-driven organizational transformation.

The Role and Impact of Sustainability in public power

In the nascent days of the sustainability movement, most electric utilities focused specifically on the impact of their operations on the environment. More traditional topics like air and water pollution, or the efficient utilization of natural resources, were given a renewed focus as companies strived to be more "green."

However, as the industry continues to examine how sustainability can impact an organization and its customers, the definition has expanded beyond just environmental concerns. Sustainability now encompasses a three-fold mission, which includes focus areas for social and economic impacts alongside the traditional environmental focus. In conjunction with this three-fold sustainability mission, a recent study conducted by the Electric Power Research Institute (EPRI) identified specific sustainabilityrelated areas of concern for utilities within the broader context of their operating mission of providing safe, reliable, and affordable power.

The results of the study, which focused on 15 critical topics of interest across all three areas of sustainability, highlight how public power companies are facing many of the same key sustainability issues as the rest of the power industry.

The studies revealed that a number of utilities have created an environmental agenda that emphasizes such topics as greenhouse gas emissions and climate change, the reduction of other air emissions, water quality and availability, waste management (including coal combustion residuals), and habitat protection and biodiversity.

Many concerns raised by these environmental topics are colored by the additional sensitivity of public power entities to the potential economic impacts of new environmental regulations on the rising cost of electricity, as well as the need to balance environmental considerations with their economic development mandate. While these concerns are shared by all electricity providers, the unique connections between public power entities and their local communities heighten the need for carefully balancing the economic and social components of sustainability with the resource requirements posed by furthering environmental commitments. In particular, the social aspect of sustainability was very visible, with utilities focusing on topics such as public safety and health, deficit of skilled workforce, community support, increased stakeholder engagement, and economic development considerations In particular, the social aspect of sustainability was very visible, with utilities focusing on topics such as public safety and health, deficit of skilled workforce, community support, increased stakeholder engagement, and economic development considerations

Public Power and The "Social License to Operate"

With the creation and expansion of the societal sustainability agenda, many public power utilities have moved to reduce their carbon footprint, either by integrating new technologies with their existing generation or by developing, procuring, or constructing renewable generation. However, despite measurable progress, utilities can find themselves on the wrong side of public opinion, particularly around the sector's contribution to climate change.

Sustainability-Driven Organizational Transformation

When sustainability strategies stand apart from core business strategies, gaining support for your vision from your current organization can be difficult. The complexity and multidepartmental nature of sustainability issues requires a new, iterative and more dynamic approach to organizational development. Development, integration, and adoption of a sustainability strategy require significant changes in the organizational mindset and create an opportunity to rethink not only organizational approaches to sustainability but also the company's operating model and long-term objectives.

As you begin the implementation of your sustainability-driven organizational transformation, it will be necessary to monitor and track the performance of your strategic objectives. It is critical to establish channels of continuous two-way observation and review to ensure the transition is progressing as expected. Some of the key activities to ensure a successful implementation include

- Provide transparent **communication** to staff and leadership team
- Conduct effective training sessions on new policies and procedures
- Elicit **feedback** on progress of the strategy implementation across levels
- Establish relevant performance **metrics** and report them consistently

Providing visibility to your effort through reporting and communication demonstrates the commitment of the organization to achieving the stated objectives. An appropriate level of oversight and engagement will accelerate the pace of adoption for your new organization while ensuring that the sustainability strategy and execution continue to evolve.

Conclusion

Similar to other electric utilities, public power companies are facing heightening societal expectations to go beyond the basic initiatives of the past by fully integrating sustainability into their strategy and operations. To accomplish such integration, sustainability needs to be addressed as an enterprise-wide initiative impacting both CEO agenda and the day-to-day processes, policies, and procedures. Due to their unique mandate of environmental stewardship coupled with social and economic development, public power is uniquely positioned to be an industry leader in sustainability-driven organizational transformation. (Written Author, Scott Madden)





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