

Project Management Office: More than Schedules and Budgets

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ABSTRACT

The changing landscape of the power industry and the qualities of the leaders needed to move business forward in the 21st century are vastly different from the past 75 years. A few of the adaptations include responding to new political, environmental, and compliance mandates; balancing the departure of industry-experienced baby boomers and the resulting influx of new personnel; and implementing new energy technologies. This paper will review the challenges that today's power industry faces and review the skills needed to address them, illustrating what electric cooperatives must do to continue to provide the most effective way to keep the lights on, lead a new generation of workers, and manage an industry transformation unlike any experienced in recent history.

Introduction

The electric cooperative industry is reaching the end of a nearly 100-year life cycle, and it is time to address the aging infrastructure, new generation of consumers, and advancement of technology that is changing the landscape of energy production and distribution in the 21st century. Today's utilities need to address their steadily increasing capital and operating budgets and determine how to handle future rate structures while also facing significant challenges that will require a diverse portfolio of both new and existing energy solutions that must include consideration of emerging technologies, existing infrastructure maintenance, environmental requirements, and regulatory mandates. These are all components necessary to create the electric cooperative of the future.

How will utilities manage all of the challenges, and how do they plan to finance electric energy in the future? What steps are needed to train the entirely new workforce replacing experienced baby boomers as they exit the industry? Who will be the leaders capable of preserving the historical cooperative spirit while also building a new energy future? Most importantly, can the electric utility of the future manage the business with the same fundamentals used in project management, including identifying all the business phases with defined processes that are (a) repeatable by all business units, (b) transparent to the end consumer, and (c) defensible to a new generation of member-owners? This paper will reveal what it will take to manage a changing energy landscape by using proven project management philosophies viewed from the perspective of an electric cooperative.

A FOUNDATION FOR CHANGE

Historically, leaders of an electric cooperative were mainly concerned with getting power to the people in rural areas. The organizations consisted of boards of directors—many rural neighbors, who, together with the cooperative staff, built an infrastructure that allowed even the most remote portions of the United States to access reliable electricity. However, all this has changed. Electricity is still central to social, economic, security, and environmental necessities, but the electric utility business must be more flexible than ever before to address situations that did not exist when the system was originally constructed. This requires today's energy leaders to be incredibly resourceful and innovative.

Today's utility leaders must have savvy political understanding, varying technical expertise, strong business sense, and most importantly, the ability to communicate to ratepayers the need—no, *requirement*—for often costly system upgrades that are the result of a political climate that is increasingly influential. Foremost in this need is the discussion on climate change and the political reaction to this theory. Balancing compliance mandates with affordable energy and environmental concerns means leaders must have “bifocal vision”—the ability to take care of the needs of today and meet current obligations while also creating and implementing plans for the future (Daft, 2014).

Difficult decisions by organizations will determine which technologies to invest in and when to implement them. A leader at the helm must weigh the consequences of long-term investments to meet the goals of their cooperative member-owners/ratepayers, and this ultimately still means providing reliable power at an affordable rate. Business changes to meet today's challenges will have to start by having a board of directors that recognizes the need for new leadership and leaders who can influence employees to embrace the changes required to create a vibrant energy future.

Establishing a new culture

Businesses across the nation are vying for a small pool of qualified applicants and new technology is being developed in almost every sector of the business. Across the United States, utility companies—

every one of them—has a relationship with a college or university. The connection benefits both partners. The utility gains a valuable future employee resource because students will be trained to meet the needs of the company. The college or university gets a potential hiring resource for its qualified graduates. It is definitely a win-win situation (Larson, 2014). Looking for qualified candidates to fill the baby boomer shoes is no easy task, but it is a requirement. In addition, businesses need to plan as though every employee could leave at any time, with processes and adequate training readily available.

Despite the large risk companies face by losing their intellectual capital, most corporations still have no plan to manage and transfer knowledge. Transferring years of industry knowledge from the boomers into a recorded process is necessary so new workers will understand previous and current methods. Just as importantly, this information will allow new workers to further develop more innovative, productive, and competitive ways to do the work.

Unlike the past, power companies should not depend solely on the lure of competitive salaries and benefit packages to attract new employees. The new workforce generation has already begun transforming work culture. Forward-thinking organizations have begun implementing the following key strategies to inspire millennials: workplace communications, technology and social media, corporate philanthropy, and workspace design. Addressing these four elements of organizational culture will enable employers to create an environment in which all employees are able to function productively and enjoy greater job satisfaction (Ferri-Reed, 2014).

The fact is that “keeping the lights on” in today’s world has become more complex, politically influenced, and publicly questioned than when the baby boomers were at the helm. The desire for information and inclusion will require established utility companies to revisit the “silo” mentality of the past—where information existed with the individual and/or group that most needed it—and become more proactive in providing cross-training and broader education to address the needs of a new generation. Because the consistency of employees and the work practices of the past are going to change abruptly with the significant employee changeover of the future, the biggest challenges for all utilities will be to:

1. document current processes before veteran employees leave,
2. create accelerated training opportunities for new employees to meet the needs of a rapidly changing set of work conditions, and
3. discover innovative ways to manage vacated positions.

Even though today’s energy workers hold an understanding of a system that is decades old and facing end-of-life, this knowledge needs to be shared so that important future decisions can be made. One of the most important decisions will be how to finance the maintenance and/or rebuilding of electrical infrastructure that is fast approaching its end-of-life.

One approach to addressing the situation

Increased capital spending is a reality for today’s electric utilities and the need for consistent methodology to evaluate projects both individually and alongside other projects a necessity. Companies must also be able to identify project risks in their strategic decision-making. The customer value, not necessarily an economic value, and the risks associated with any project are other factors that need to be calculated. Investments made by businesses are included directly in the rate structure paid by the customer, which is why consumers want to have an understanding about when, where, and how the system is constructed and maintained.

However, determining the value of a project is more than simply working on the financial impact to the ratepayer. In evaluating the future investment in electric energy, utilities across the country must consider the impact of new technologies, customer expectations, regulatory changes, and the cost of doing business

now and for years to come. How much we burden future generations with a system that might be obsolete due to the increase in alternative energy sources is one of the most challenging aspects of managing an aging infrastructure.

Maintaining the existing system, many parts of it well over 60 years old, is going to be an economic challenge because of the many unknowns surrounding the industry today. It is important that all aspects of the business are taken into consideration, including the rapidly changing environmental and regulatory concerns. Federal mandates through the Federal Energy Regulatory Commission (FERC) and the North American Electric Reliability Corporation (NERC) are in place to guide the energy landscape of the future. The EPA has also played an integral role in defining utility responsibilities and mandates, all of which have a huge impact on how energy is generated and distributed to the customer.

Regulations, requirements, and reasons for change

While having enjoyed decades of reliable, affordable, and efficient energy supplies, the tide has shifted. Energy producers, currently given a short reprieve, are going to have to accept that change in power production is inevitable. The expectation is that reliable energy will come from new sources, preferably renewable sources, despite the fact that the technologies for those new sources are still in their infancy. While wind and solar generation are showing extreme promise and increasing popularity, some would argue that the “hurry up and get it done” mentality without the necessary technology is an unreasonable request. The future challenge will require energy producers to provide reliable power while not inconveniencing their customers. How power companies will accomplish the production of green, clean, and reliable power that is cost-effective and efficient is still unclear.

The electric cooperatives, like all energy providers, are struggling to find balance and stability in an ever-changing energy environment. One way to combat these concerns is to systematically define the work and break it into manageable pieces, allowing assessment and execution of each phase individually and collectively. This process is the basis of project management, with its defined principles applied across the industry. It starts with recognizing the need for organized steps, documented processes, consistent training, and regular accountability to help manage the future production and delivery of energy to various stakeholders while acknowledging external influences and constant introduction of new technologies.

PROJECT MANAGEMENT OVERVIEW

Defined, structured, and properly executed project management has become necessary in business due to the increase in the magnitude and cost of projects. For electric cooperatives across the nation, the number of projects has been steadily increasing since the early 2000s, with spending in the billions of dollars. The increased work load impacts all aspects of the organization from human resources (staffing), procurement (purchasing), engineering (design), operations (construction), and finance (funding).

Introducing the concept of centralized project management

Many organizations have developed their own methodology to define projects based on the company’s strategic initiatives, stakeholder expectations, and economic impacts. In the cooperative business model, it is necessary to monitor project success based on the expectations of the key stakeholders served. The uncertainty surrounding the future of energy generation has complicated the rebuilding of aging infrastructure and has placed businesses in a position of having to make expensive decisions with minimal knowledge of what the future holds. Now more than ever, it is necessary to have in place a systematic approach to quantify the need and value of a proposed project.

The creation of a Project Management Office (PMO) to manage all project work is one way to address this need. A PMO effectively defines, manages, and maintains projects within an organization and strives for standardization and economies of repetition in the execution of projects. This is an initial step in getting a handle on the ever-increasing workload brought about by both internal and external changes facing the electric cooperatives. It is also one way to manage the ever-increasing risks of doing business in today's world where the future is often unpredictable.

The value of risk assessment

The number one shortcoming and frequently overlooked aspect of project management for cooperatives might very well be the lack of proper risk management. Given that much of the work is primarily an effort to "keep the lights on," it is no wonder that risk management is not viewed as a necessary project management component. Just by the broad definition of "keeping the lights on," it might seem that the greatest risk is not having energy flowing to the consumer.

Nevertheless, if risks are not discussed at the planning stage, it is likely that, when they are discovered, the impact to the project will be significant. If identified project risk, addressed during planning, takes into account weather, emergent work, equipment needs, etc., it allows for better use of both human and capital resources. The goal of an effective PMO is to address the risks on both large and small energy projects and provide guidelines and assistance in developing an adequate risk register at project inception. Project risk planning is a necessary step to creating a broader project management scope. Developing methods for assessing risk is one of the key components of implementing robust project management and requires cooperatives to evaluate each project based solely on what might go awry and determine the budget and schedule implications.

PROJECT INITIATION: The first step in enterprise project management

The first step in project management is the initiation phase. It is often challenging to convey to management and staff the importance of spending time on this critical phase. For example, it may be perceived by engineers that if a problem is identified, it should be fixed immediately. Finance may believe that, unless there is adequate funding, the project should be postponed. To add another level of complexity, this same project, if viewed by management, may receive the comment that if a key stakeholder wants it done, do it! Varying perspectives mean that each stakeholder has his or her own opinion about when and why a project should be executed.

Establishing governance: An important first step

Before project initiation steps are created, it is necessary to identify the group that will be responsible for making sure that the processes are adhered to in a way that is both consistent and comprehensive to the organization. Therefore, establishing some form of governance for the portfolio of projects is an important first step. According to the Project Management Institute (2013), project governance—the alignment of the project with stakeholders' needs or objectives—is critical to the successful management of stakeholder engagement and the achievement of organizational objectives. Bringing together key stakeholders to build, support, and monitor the project phases is an integral piece of commencing project initiation. Instituting a governance board supported by senior management establishes the ability to consistently assess projects based on specific evaluation and prioritization criteria. This process assures all project sponsors that their project ideas are being fairly reviewed.

A deeper assessment comes from a second group made up of individuals who are more closely aligned to the work and take the time to review and recommend suggested projects for the upcoming years. The Project Management Committee (PMC) is the steering committee that will determine what projects ultimately move forward. It is the responsibility of the PMC to determine if the projects are in alignment

with corporate objectives, stakeholder needs, and financial constraints. But more importantly, it is up to the PMC to determine the likelihood that the proposed projects can be done on time, within scope, and within budget. Project sponsors are likely to have an optimistic view of the value their project brings to the organization and it is the responsibility of the PMC to objectively evaluate the risks, goals, and final outcome of the project before granting its approval.

The initiation of any project requires considerable time and effort to assess and deliver the project overview to the key stakeholders. It takes a team of skilled subject matter experts (SMEs) to assist in compiling enough information into a charter to support the investment of time, cost, and resources to advance a project. It is then—and only then—that management can determine if a project can and should move forward into the planning phase.

PROJECT PLANNING: The most important phase of project management

In the electric cooperative world, there was a time in the not-so-distant past when a project plan consisted of a three-sentence project description, a budget estimate submitted in one lump sum, and a vaguely stated proposed year of construction. The engineers would assess the condition of the infrastructure based on their experiences, come up with a project idea, and submit it to a senior manager, who would compile the list and present it to the board of directors. The list would be approved, and the projects would be underway. Or not. You see, there was no way to review the success or failure of a project because there was no one tracking the process. Each year, a bevy of projects would be submitted, and some would get done, some would not, and many would just land on the list again. And this was how project management was frequently done until someone finally asked incredulously, “What is going on here?”

Planning is essential

One of the most interesting and involved steps in project management is the development of the project plan, which helps identify the construction parameters through the Work Breakdown Structure (WBS) and determine the many steps required to carry out a project.

The project plan is also used to define the project goals and objectives and how they will be accomplished. It gives an overview of the workflow, along with the human and capital resources needed, and includes the initial budget and completion date. It is a living document that changes throughout the life of the project and is updated regularly. Each step of the project plan outlines what is required to create a successful outcome. Project managers often face resistance when working their way through the project planning steps. According to some, “It was so much easier when all we had to do was get a budget amount and a simple project scope to the engineer!” This is often the cry of the disenchanted staff member who has to provide the requested information. However, this all-important step is now a requirement, and the days of managing a project ad hoc are no longer acceptable.

One of the primary reasons for implementing a robust PMO is to manage not just the work within the organization, but to have a consistent way to manage the contracted labor used for design and construction. A well-defined project plan and associated schedule allow the project manager to follow the project flow, determine human resource needs, make adjustments, and most importantly, sign off on contracted labor receipts knowing exactly what has been done and what is left to do. Without adequate project planning, contractors were managing the projects instead of the owner. It is obvious why that might not be in the best interest of the organization.

Changes are normal

The project plan is an integral part of a project and, along with the budget and schedule, offers a project manager a means by which to define all the project parameters before the actual work begins. It seems strange that this major step was overlooked for so long and that projects were allowed to drag on for years with no oversight, no real schedule, and budgets that exceeded the original amount by double—without anyone asking why. Managing projects with guidance from the PMO is one way to *identify* accountability, but managing projects against the defined project plan is the best way to *maintain* accountability.

In the electric cooperative used in this discussion, managing a project means also managing changing weather conditions, break-in work (often due to changing weather conditions), and the need to complete construction projects during a few decent construction months when the weather is tolerable for outdoor work. Project instability is expected. Variables need to be considered before the project begins so that those incidents can be met head-on instead of allowing engineers, crews, and outside contractors to just “wing it.” The project plan is the means to bring all variables under one umbrella and eliminate, or at least reduce, any surprises.

Once a project plan has been established, including a detailed project scope, further details are created by determining the WBS to provide the means to develop both the budget and construction schedule. Determining each component of the work allows consideration for the use of both internal and external resources needed for project completion. It also provides an opportunity to decide what types of equipment will be required, identifies interaction with other utilities, and exposes construction concerns and risks.

Managing the unpredictable

Many a project manager has become dismayed upon realizing that the staff they need is not always readily available just because that is what *their* schedule requires. Management of the portfolio of projects means meeting the needs, expectations, and requirements of multiple stakeholders across multiple projects. Human resource management is the second biggest challenge when establishing a project schedule. According to the *PMBOK Guide* (Project Management Institute, 2013), human resource management is the process of identifying and documenting project roles, responsibilities, required skills, and reporting relationships and creating a staff management plan. However, it does nothing to align multiple project needs across a limited number of available resources. This is where having a well-defined WBS comes in handy and provides the framework for assigning actual hours of each resource to each activity and aligning them across multiple projects.

The use of project management tools is nothing new, and several options are available from simple to complex implementation. Project management tools provide an opportunity to view the project data in a number of ways and can give the project manager and team the ability to predict proactively when a modification is required. Scheduling software programs can display dates and activities, and many allow access from anywhere—a feature that is especially useful if field personnel are expected to provide regular schedule updates.

Deciding what project management software to use requires extensive review of a company’s needs and reporting considerations. Many organizations start out with one of the easier project scheduling tools before delving into the more complex versions. Two well-known software packages, Microsoft Project and Primavera P6, are both able to manage multiple projects within a portfolio. Other considerations would be the need to manage resources (human and equipment) and budgets and create reports. Depending on the expectations of the PMO, or project manager, it may be beneficial to use a more sophisticated project management tool that allows for portfolio management of numerous simultaneous projects. The downside to using software such as Primavera P6 is that it generally requires a dedicated

operator and can require extensive training and practice to properly execute. The plus side is that once Project or P6 is in place, an organization has a robust project management tool that can provide insight into changing project conditions and how that impacts the overall project schedule and budget.

Resistance to change

Quite often, it is *assumed* that a project has gone well, but no one knows exactly why except that it was finished, hopefully within the budget or planned timeframe. It is rare that a project is exactly on time, within budget, and within scope. There are always variables along the way. Using project management tools and procedures creates processes that are repeatable should a project be done well and defensible if it has challenges. Allowing staff to see the variances within the project gives them a better understanding of why management wants and needs these procedures.

It is not easy to convince crews that the schedule allows management to see when and where there are too few workers to get the job done, which, when identified, helps them get additional resources sooner rather than later. It is up to the PMO and project manager to share the schedule and any resource concerns as early in the project as possible with the involved stakeholders. This information sharing is useful when addressing staff resistance and helps explain the benefits of utilizing project management tools, which include updating schedules, filling out variance sheets, establishing change management practices, and regularly communicating project statuses to all the involved stakeholders.

It is only through consistency and the analysis of project metrics that improvements can be recorded and continued on a regular basis. Providing adequate information during the planning stage through a well-defined project scope, a schedule based on the work breakdown structure, and an accurate budget allows an organization to have the information required to properly determine if a project will be effective during the design and construction phases.

PROJECT MONITORING AND CONTROL: Ongoing management

As in most businesses, it is not unusual for there to be a question about the current status of any given project. Before using defined project management practices, this question was typically answered with one of these three responses: (a) We are working on it, (b) it is done, or (c) it is still on the list. As basic as it sounds, this response was probably adequate when there were only a handful of projects underway and an engineer could answer whether or not the prints were issued and the operation's crews could comment on whether or not the work was underway. Now imagine how frustrating this would be if you were the CEO or vice president responsible for financing over 100 capital projects and you were asked to give the current status of the projects to your organization's board of directors or your cooperative's member-owners. Giving vague answers with no explanation is not good when trying to explain the status of a multimillion-dollar proposed budget, for example. In fact, it might look like the organization was not providing due diligence in project management. Herein lies the value of an active PMO used to oversee projects and programs and provide the methodology that allows for accurate, consistent, and repeatable status reporting.

Projects that are strongly defined but loosely managed

One of the initial concerns about a determining a project's actual status is how to manage and document changes during design and construction. Historically, if something came up during construction, it was modified in the field but was never documented in any way. There was no change management process in place that allowed changes to be reviewed or approved by anyone other than the project engineer and/or someone from field operations. It could be said that monitoring was always loosely being done, but it

wasn't controlled, and no one could readily answer questions about the true status of a project. Being able to monitor and control a project means that communication is ongoing and there is a method to capture any and all changes, variances, or other issues.

In the past, project handoff was from engineering (design) to construction (build) with no formal process in place to record any field modifications until after the fact. Engineers were consulted, prints were marked up, and the work proceeded regardless of the impact to scope, schedule, or budget. The bottom line is that electrical rates are determined based on the actual cost of doing business, and systematic project management can save thousands of dollars and, if managed effectively, ultimately benefit the member-owner and/or ratepayer.

Establishing project management controls in the electric utility business means that processes have to be created and adhered to with measurement criteria that allow for evaluation of the successful execution of a project. Once the project phases are identified and project activities are defined, it is easier to put both man-hours and budget amounts into place to establish the baseline from which to measure the KPIs. These KPIs can be reported regularly, by project phase, to compare actuals against budgets and allow for project control to manage the outcome.

It is relatively easy to record the steps required for the design of a project and equally straightforward to create an accurate material list, but correctly estimating crew hours in the field is a challenge. It is through the management of project costs, identifying the risks and the associated contingency dollars, and providing a more realistic budget that project management provides value to the organization. No longer is it acceptable to "just wing it" when it comes to establishing a project schedule and budget.

One of the most challenging aspects of creating a PMO is staffing it adequately with people trained to use consistent processes to manage and control a project. The initial steps of creating project governance and oversight are necessary, but the more important aspect is developing individuals who can lead the projects from inception to completion and keep the project on track. In order to train individuals in how to manage a project, all aspects of project management must be in place with available documentation to assist in the explanations of why and how things are done.

A project manager may need a technical understanding, but more importantly, they need to have great people skills to effectively interact with a variety of professionals from accountants to construction workers, senior managers to cooperative managers, and everything in between. This high level of interaction demands that project managers be able to lead effectively and manage conflicts continuously to build good relationships and ensure the success of their projects.

Many experienced project managers will tell you that it is not the technical side of a project that causes project failure, but the people side, also known as the "soft side." Why is the soft stuff so difficult? If you think about it, most project management assets, tools, and techniques come with documentation, templates, and training to help apply an organization's intellectual capital and experience to projects. A project manager needs to understand far more than just the technical component of a project. They must be able to understand the human aspect of getting people to work together for the good of the common goal. Training technical staff to become more people-oriented is one of the bigger challenges in creating a functional, long-standing PMO that provides project management throughout the entire life of the project and can answer, with confidence based on sound data, what the project status is of any project, at any time.

The electric cooperative model has thrived as a business practice for nearly a century, and it will continue to thrive long into the future. But to do so, leaders must be willing and able to step forward and provide standardization to the work practices that will ultimately allow for more flexibility and resourcefulness.

This change must occur in order to provide electricity to a more demanding group of consumers who desire a high level of reliability, environmentally sound practices, and a fairly priced product. This service will become increasingly difficult if historical methods of conducting business are not reviewed, revamped, and realigned to reflect the needs of today's society. One way to address the need is to implement standardized methods to run the cooperative business through project management practices that will continue to support the cooperative principles of value, economics, participation, independence and community.

GUIDE FOR THE FUTURE

As many baby boomers leave the electric utility business and are replaced by new workers, businesses will have to address workers of all ages. The future of the power industry resides in the ability of the current workforce to welcome new ideas while still providing mentoring and support. By understanding and respecting generational differences, knowledge can be recorded and transferred so that the generations-old electric utility business can continue to operate reliably well into the future.

One of the most important decisions is going to be how to finance the maintenance and/or rebuilding of the electrical infrastructure that is fast approaching its end-of-life while also introducing new technologies. The question of how to continue to provide reliable energy while also trying to introduce new generation options like solar or wind is a huge undertaking. Future electric cooperative employees will have to be knowledgeable of all the work management practices of the cooperative, viewing it from the legal aspect, funding needs, construction concerns, and ratepayer perspectives to effectively manage the business.

Introducing project management

The creation of a project management office will help to move an organization away from a hierarchical, siloed way of doing business to a more matrix-type organization; however, this is not going to be easy. The greatest hurdle is going to be the perceived relinquishment of power to the project itself, as opposed to the individual or department's needs. It is also going to pose the problem of people claiming to have two bosses—their immediate supervisor and the PMO/project manager. The first steps to figuring out the best way to approach the issue of maintaining robust project management are:

1. Define the PMO and their roles and responsibilities.
2. Identify the roles, responsibilities, and reporting structure of the project managers.
3. Train all team members and their direct supervisors on the need for consistent project management practices.
4. Develop a communication plan so that no one is confused about roles, responsibilities, or reporting on projects.

For effective execution, the directive for implementing project management across the organization will have to come from the CEO and the executive staff. Anything less will result in managers circumventing the processes and confusion from the staff as they try to navigate two different sets of responsibilities and management styles during a project.

Defining the steps is the first step

Effectively implementing a project management office will require involvement from all departments, with an understanding of the practices needed for successful project execution and ongoing verbal and written communications throughout the organization on the purpose, focus, and efforts of the PMO. This is going to require a plan that addresses the concerns of supervisory staff, project team members, and the

executive team. Anything less than a well-communicated plan runs the risk of failure before it even gets off the ground.

The biggest challenge of creating a PMO is getting individuals to recognize both the value of planning and the overall need, especially when coordinating dozens of projects simultaneously. People seem to be aware of the need for a scope definition, but very few are familiar with what constitutes a WBS and have no idea how to manage the associated costs and schedules tied to the WBS. In addition, limited communication does not fully address all of the stakeholders involved in the project, including managing the finances or keeping the charter sponsor informed.

One of the concerns that plague the electric producers in today's energy market is determining when and where to spend their investment dollars. Should investment be in replacing aging infrastructure, or should it be in developing and implementing new technologies? Across multiple industries, including the electric industry, there is a challenge in selecting what projects should be undertaken. One way to address this concern is to determine the requirements early in the process and then apply project management techniques consistently throughout the process.

Project management is one way to help reduce the risks because there are standard processes in place to deal with all contingencies. As the electric utility business of the future weighs the pros and cons of providing for their members, they need to assess all the risks, determine the best course of action, communicate the decisions, and then monitor and control those processes, always allowing for changes and adjustments along the way.

As the PMO begins to develop processes that encompass all phases of a project, the biggest obstacle will be the overarching attitude that things were working well before and do not need to be fixed. This is an assumption rarely backed up with measurable consistency. With a systematic approach to project management, electric utilities will be able to select the best projects for execution and will be able to defend the selected projects adequately to their key stakeholders. A PMO offers a means to consistently manage a portfolio of projects and provide ongoing oversight, governance, and reporting to senior staff, the board, employees and all stakeholders.

References

Daft, R. L. (2014). *The leadership experience*. Boston, MA: Cengage Learning.

Ferri-Reed, J. (2014). Millennializing the workplace. *Journal for Quality & Participation*, 37(1), 13-14.

Larson, A. (2014). New technology is key to recruiting new power workforce. *Power*, 158(66), 54-56.