Jim Jones

COOPERATIVES HAVE A FIRM FOUNDATION

Electric cooperatives have a good start in a couple of important areas. Distribution cooperatives traditionally have strong relationships with their customers. Also, they already collaborate and operate with other organizations for the delivery of electricity. Generation and transmission cooperatives provide wholesale services and interact with markets, while distribution cooperatives provide retail services and interact with customers.

Sharing systems and investments among cooperatives is not a new notion. They have cooperated in both areas in the past with both good and bad results. The Cooperative Research Network has a study under way to look at shared systems among cooperatives and where they may make sense and to provide guidance on the opportunities and risks of acquiring and using shared systems.

ONE THING IS FOR SURE

The future is on its way. The time for us to think big is now. Think big with ambition and optimism to plan for the long-term future. But to manage the enormity of this transformation, start small. Start small with prudence and agility to deliver real results for short-term success.

Jim Jones is a vice president and chief information officer of Great River Energy.

Get involved

+ THE "WHO" OF INTELLIGENT INITIATIVES

By Roger Gray

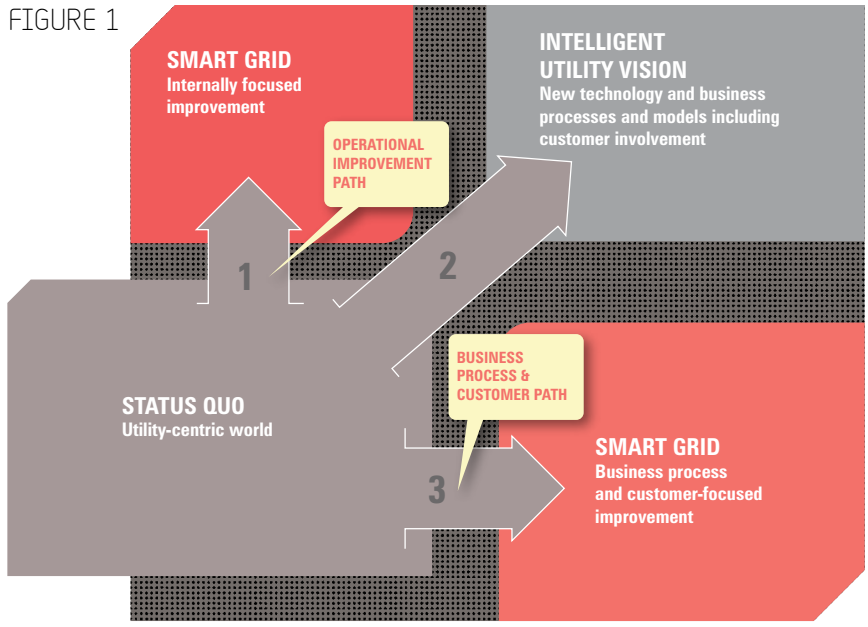
HOW YOU ORGANIZE TO IMPLEMENT YOUR INTELLIGENT UTILITY VISION is more important than the smart grid system you pick. In fact, neither the intelligent utility nor the smart grid are single systems. Rather, intelligent utility is a vision implemented by strategy, business process, and system change. *Figure 1* depicts options for moving from status quo to an intelligent utility. The left-hand side of the diagram (*path #1*) is the operational improvement path that was traditionally a transmission and distribution domain. This is what we've done for the past century—faster, cheaper, better. Each utility organization historically improved its results in a silo fashion. The path from left to right along the bottom (*path #3*) is the path that focuses on changing business processes, planning systems, and adding customer involvement. Intelligent utility is a strategy that coordinates operational improvement paths along with changes to business processes and customer involvement. Without a vision, you risk developing a series of uncoordinated *#1* and *#3* projects and initiatives.

So how do we get on the *path #2* in *Figure 1*? The wrong questions are: Who is in charge of intelligent utility and smart grid? What system do we pick? The right questions are: Who needs to be involved in intelligent utility and smart grid? How do we develop a shared intelligent utility vision and plan?

WHO NEEDS TO BE INVOLVED IN INTELLIGENT UTILITY AND SMART GRID?

Involvement in the intelligent utility effort transcends the utility and goes beyond its walls. Utility departments, such as operations, planning, transmission,

FIGURE 1



Source: GNEX Ltd.

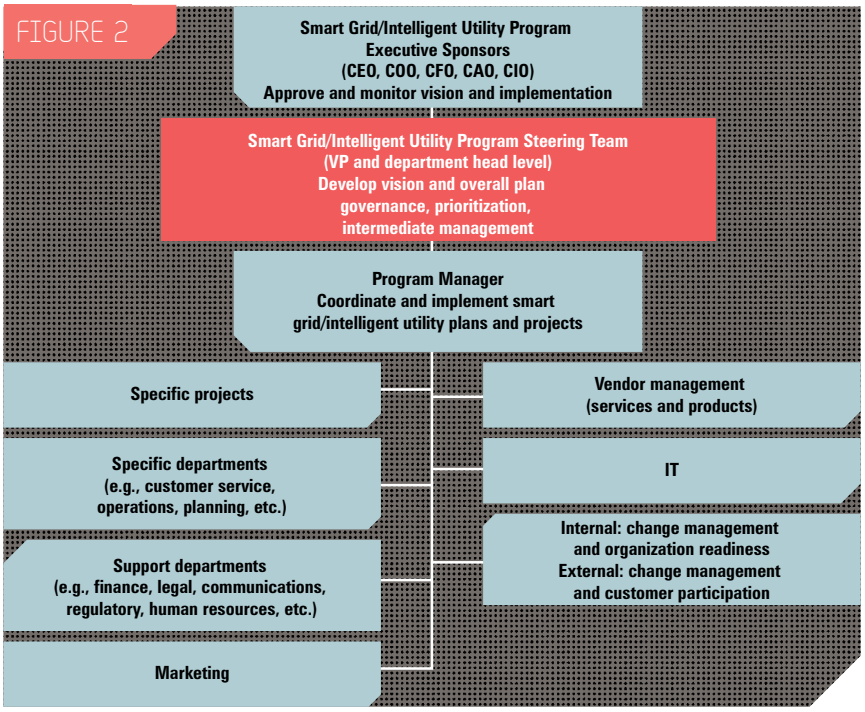
distribution, customer service and IT, need to work together to develop a common and shared intelligent utility vision. Other support departments, such as regulatory, finance and human resources, are also important players. The plan and vision should start from the top down. The risk of a purely bottom-up approach is that the focus becomes a series of technology projects.

A single smart grid system is unlikely, and a technology debate is the wrong focus.

A single smart grid system is unlikely, and a technology debate is the wrong focus. However, based on an intelligent utility vision, the systems (not system) and business processes are highly coordinated and include customer involvement. Putting IT in charge places the focus on the technology; it does not belong there. Certainly, IT will be essential in helping implement smart grid systems that comprise the intelligent utility. If the discussions in your organization start to sound like federalism versus states rights, then something is seriously wrong. Instead, the discussion should be focused on who is involved, how do we create a common vision and plan (not system) and how do we get it done?

A steering team structure with clear governance probably is the best bet. *Figure 2* is one possible smart grid/intelligent utility planning and execution structure. The effort does not need a specific department. Much of the organization choice depends on the company's culture and history. If there is a highly autonomous business unit structure, for example, a different model may work better. The important thing is that the organization's leadership not let intelligent utility or smart grid end up being a collection of uncoordinated technology projects built in silos.

FIGURE 2



Source: GNEX Ltd.

HOW DO WE DEVELOP A SHARED INTELLIGENT UTILITY VISION AND PLAN?

Before wading into the technology, it is important to step back and establish an overall vision and plan across the utility. The focus belongs on the changes in business process, how the utility models and plans its systems and future interaction with the customer. If you have a strategic planning department and they have not started thinking about this, ask them what they are doing. It is about rethinking everything. Would you build the same distribution system if you could control or substantially influence customer load? Probably not. What is it going to take to integrate 20 to 30 percent renewable resources?

As utilities start to organize to plan and implement intelligent utility and smart grid projects, we need to recognize what is a fundamental weakness in our industry: marketing and the customer relationship. The utility industry has only introduced one product in the last century (that would be electricity) and we generally think of marketing as the department that Dilbert makes fun of in the Scott Adams comic strip. If our industry is going to both engage and rely on customers as part of the intelligent utility, we need to get a lot better at marketing and working with customers.

Once the overall intelligent utility vision and plan are created, then come execution, budgeting, technology selections and systems development. Each utility situation will be different. What is critical though is that all of the technology projects and business process changes are part of an overall plan and vision. The most robust plans will take into account the fact that we cannot anticipate everything today and will provide for adjustments and course corrections.

Roger Gray has worked for Los Angeles Department of Water & Power, Southern California Edison, Pacific Gas and Electric and Duke/Louis Dreyfus. He is now an independent consultant.