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## The Costs and Risks of Making Do With Worn-Out Facilities

Many cooperatives still operate in facilities built in the 1950s and 1960s. Most have been renovated, expanded and renovated again.

Mechanical equipment, roofs and other critical building systems have been replaced time and again. All cooperatives face the decision of renovating, expanding or new construction. Much consideration is given not only to the financial implications of renovating versus new construction, but also the issue of member perception.

Cooperatives weigh the cost of maintaining old, inefficient and poorly functioning facilities in an effort to save money against the cost associated with increased capital expenditures. The benefits of planning for and executing modest, sensible improvements far outweigh the supposed benefits of abiding offices, warehouses and site facilities that are no longer fully functional and require increased maintenance expenses.

Common among cooperatives providing services from worn facilities are infiltration of the building envelope by air and water, and code violations.

An example of infiltration's potential damage: weathered and cracked window sealant introduces small amounts of water causing contracting and


expanding forces during freeze and thaw. Combined with rot, this creates sizable cracks introducing even more air and moisture in an on-going cycle. Insulation can become water-saturated and cease performing. Visitors and staff experience thermal discomfort as the building leaks conditioned



air and bleeds energy. Water in the building envelope can lead to other catastrophic issues such as structural rot and mold growth. Once mold is in the building cavities indoor air quality suffers, which in turn impacts employee health, attendance and even retention. Mold discovery poses the risk of tort litigation and the prospect for sudden closure and remediation of facilities. In order to mitigate potential risks, cooperatives should handle such risks deliberately, with appropriate

And, it provides a "road map" of options to aid in facilities planning in support of their strategic objectives. A broader goal is to aid cooperatives in implementing a clear, cost-effective framework within which regular facilities maintenance and improvements planning are brought within reach.

### Process

An assessment by your cooperative staff's present needs and challenges, short-term and long-term objectives, as well as a review of the history of your cooperative's facilities, is the initial task in identifying potential improvements. A site visit for observation is useful to verify questionnaire responses and may serve as the basis for reporting findings and recommendations. An FRP report will be a useful tool for cooperative leaders and a valuable roadmap organizing current facility and site conditions, future plans and goals and options for short-term and long-term goals. The value of the FRP document lies in its usefulness as a framework for evaluating conditions and as a planning tool for improving space conditions and functionality. 

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#### Facilities Review and Planning

Developing a convenient framework for evaluating current conditions and in turn a roadmap for facilities planning that aligns building planning with cooperative objectives is critical in evaluating the decision to renovate or construct new facilities. Cooperatives interested in creating high-performance office, warehouse and site facilities to arrest waste and better serve member owners may be interested in utilizing the facilities review and planning process (FRP). The FRP process, designed for electric cooperatives, provides an assessment of a cooperative's office, warehouse and site facilities for the following issues:

- Life safety, fire protection, accessibility and energy code compliance
- Overall condition of building envelope and integrity of systems
- Facility space allocation as it relates to function, flow, adjacencies and growth
- Site and building security, parking and emergency response readiness

#### Goal

The goal of the FRP process is two-fold. It assists cooperatives in identifying areas for improvement.

life-threatening situations. Dead-end corridors can become death traps in a burning building filled with smoke and no visibility. In addition to the all-important risks to human life, cooperatives with aging facilities may be unknowingly embarking upon financial risks of litigation in the event of loss.

Accessibility guidelines facilitate wayfinding and mobility for the disabled. The Americans with Disabilities Act is written such that non-complying buildings, of whatever age, must be made compliant.

Energy codes set standards for building energy efficiency. Buildings with inefficient windows, porous building envelopes, and outdated HVAC and lighting systems violate energy codes. Cooperatives often choose to model energy conservation in their facilities. LEED (Leadership in Energy and Environmental Design) certification and Net-Zero Energy certification are two ways cooperatives can green their facilities and their public image. The design of a cooperative facility is potentially an outreach tool that aligns with cooperative values and objectives.

## InFOCUS

### The Costs and Risk of Making Do With Worn-Out Facilities

*Aging buildings and mechanical systems could be costing you more than you realize.*

### NERC Reliability Compliance: Something for Everyone

*Balancing your cooperative's individuality with NERC compliance can be a challenge, even for veteran staff.*

### What is Green?

*"Going Green" you hear the phrase everywhere, but how does that impact your members and your cooperative?*

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discretion and planning, well in advance. There is an important connection between building conditions and a host of other cost-bearing issues and risks.

Cooperatives, like any long-term building occupant, may eventually fall afoul of building codes. Building codes regulate health, safety and welfare and undergo regular revisions as the science of building advances. Some cooperatives with aging facilities may be at risk of health and safety codes if they have not been diligent in ensuring regulatory compliance. Critical issues such as fire protection and proper egress bear on safety in

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# NERC Reliability Compliance: Something for Everyone

Everyone must do something. This is one of the few commonalities shared among electric cooperatives when it comes to compliance with NERC reliability standards.

Every cooperative is unique. Whether it is the structure of the cooperative's power supply arrangement, transmission service agreements, utility assets, service territory configuration or operating practices, this uniqueness makes NERC compliance a challenge.

## Background

The National Energy Regulatory Corporation is a regulatory organization subject to oversight by the U.S. Federal Energy Regulatory Commission (FERC). NERC's mission is to ensure the reliability of the bulk power system in North America. Initially formed in 1962 as an informal, voluntary organization to facilitate coordination of the bulk electric system and as subsequently promulgated by the Energy Policy Act of 2005, NERC evolved to become FERC's designated "electric reliability organization" (ERO). In 2007, three key events occurred further defining NERC's role:

- FERC approved eighty-three reliability standards
- FERC approved the delegation of NERC's authority to monitor and enforce reliability standards compliance to eight Regional Entities
- Compliance with approved NERC reliability standards became mandatory

The net effect of NERC's new role in the utility industry, along with newly mandated compliance standards, is that electric utilities must perform accordingly in order to exhibit compliance and avoid costly fines. This sounds easy enough; however, where does one start in

order to determine what is required of their system?

## How to Get Started

Bulk power system owners, operators, and users are required to register with NERC. This is the first step in defining the cooperative's reliability standards responsibilities. In many cases, an electric cooperative may register individually. A

cooperative may also register as part of a Joint Registration Organization, such as a G&T Cooperative who is accepting the reliability responsibilities and reporting function of its members. How the cooperative is registered determines with which reliability standards it must comply.

Identifying the cooperative's contractual arrangements is very important and a key step in becoming "auditably compliant" with NERC reliability standards. This will enable the cooperative to better understand who is responsible for the critical compliance tasks which directly impact the cooperative. Contracts such as purchased power and transmission service arrangements often will define responsibilities such as new delivery point arrangements, ownership, common designation of facilities, and other generation and transmission-related arrangements related to services provided to the cooperative. Specific documents such as the

cooperative's Network Integrated Transmission Service Agreement, Network Operating Agreement, Open Access Transmission Tariffs or their equivalent and Power Supply Agreements contain important contractual language and oftentimes assign responsibility for tasks critical to reliability standards compliance.

Documented policies, operating procedures, guidelines and testing are critical to proving reliability

standards compliance. Many reliability standards require cooperatives to exhibit compliance through policies, annual awareness training and annual policy


reviews. Documented operating procedures are especially important. Additionally, periodic equipment maintenance and testing prescribed by certain reliability standards must be documented as well as supported via defined programs, documented procedures and in some cases, evidence supporting the testing intervals and methodology chosen.

Cooperatives may find themselves in a state of non-compliance for any number of reasons. The most common may be the lack of understanding exactly how the NERC Reliability Standards specifically apply, especially at the distribution level. Three years have passed since the mandatory compliance date and there is little leeway from the cooperative's regional entity for non-compliance. As a result, all utilities, large and small, have a fiduciary responsibility to their members to be certain the compliance requirements of the cooperative are addressed

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and continuously monitored. Evolving reliability standards and routine reporting requirements require a planned approach in order to exhibit "continual compliance."

It is no longer satisfactory to just manage the utility in a prudent manner. NERC compliance is dependent upon having the appropriate processes in place and maintaining compliance documentation. Cooperatives must organize that information in a manner which enables staff to fulfill program requirements and periodically update necessary information in order to exhibit compliance. Managing compliance efforts is not a simple task and cannot be accomplished with a simple program document. With proper preparation a cooperative can comply with all reliability standards and avoid the costly process of self-reporting non-compliance, preparing time consuming mitigation plans and potential costly penalties. It is important to remember that every cooperative must do something. 

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# Green: A State of Mind

The world is abuzz with the term "green." You see it in the news, on TV, in retail stores and on products you purchase. But what does "green" really mean?

We can think of "green" as a metaphor for sustainability. How does sustainability bear on the design, construction and operation of electric cooperatives?

Green issues have come of age. Change brings confusion, skepticism, myth and even fear. The concept of "green" is no exception. So much so, it has taken decades to finally find a place in the mainstream. Green strategies and designs are being adopted by corporate America, the federal government and businesses and households across the nation.


Rural electric cooperatives are likewise making the transition with projects such as smart grid deployments, renewable energy projects and LEED® certification. Cooperatives are embracing an ethic of stewardship and resource conservation, becoming leaders and educators in their communities. Members are learning about energy efficiency and conservation through a variety of weatherization and energy efficiency programs. And, by visiting the cooperative, some are learning how the cooperative is embracing environmental stewardship by constructing new headquarters to LEED® certified standards.

There is growing awareness that solutions, whether energy sources or designs for buildings, must prove economical not only in the short-run, but over the entire life cycle. Electric cooperatives hold a unique place in the American economy to "walk the talk," remodeling or building new headquarters and warehouse facilities

to LEED®-certified standards of green. Not only is it the right thing to do, it is a timely outreach opportunity.

Green starts with a shift in the way we think about things. Instead of asking the question "How much does it cost to be green?" we should ask "What will it cost if we don't go green?" This concept is simple in nature. Instead of thinking of the bottom line, "what does it cost right now?" we shift our thinking towards the *triple bottom line*; balancing economic, human and environmental prosperity through time.

The triple bottom line when making decisions for your cooperative, your members and your future is to consider how that decision affects your profitability, your members, yourself and environmental resources, not only in the next year, but also in the next five, ten or even 20 years.

So what is green? It is decision making that helps ensure sustainability for your cooperative and your members through time. We all must consider that our children, grandchildren and great-grandchildren will be living in a world we create today. At the core of green is an ethic of responsibility married to a common sense value of economical solutions. Green is about reducing waste. Electric cooperatives, coming from a "waste not - want not" culture, understand these values and are stepping up to the green challenge. 

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