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Transmission Issues

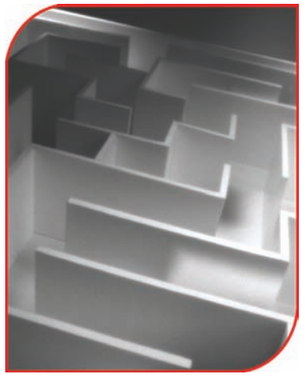
Think back ten years. In all likelihood the terms "congestion," "open access," or "ancillary services" are much more familiar to you today than in the past.

When used, they probably are spoken in the same breath as "uncertainty, reliability, and increased costs."

In our series of articles addressing electric cooperative issues, a key challenge facing cooperatives is managing uncertainty. Presently, the bulk of uncertainty for many cooperatives is related to power supply. However, in working toward solving power supply problems, one should not lose sight of the importance of being able to deliver power from sources to loads. Otherwise, as the old saying goes, the cooperative may be "all dressed up and nowhere to go," and face supply disruptions or unexpected costs.

Distribution cooperatives that own no transmission facilities often did not have to deal directly with transmission concerns in the past. Their power supplier handled both generation and transmission delivery. But cooperatives today, even those whose power suppliers bundle generation and transmission service and charges, find transmission issues are moving to a higher position on their priority list. Why? Transmission is becoming increasingly complicated.

As wholesale markets develop, transmission systems are no longer planned strictly for native load needs. Lawmakers and regulators have established new regulations intended to open the transmission systems to many market participants.



John Herrera, General Manager of Magic Valley Electric Cooperative, a distribution cooperative located in the Texas Rio Grande Valley, has seen the effect of legislative activity on transmission infrastructure development. "Uncertainty has been a key issue in the lack of transmission development in the ERCOT region," said Herrera. "The uncertainty surrounding the ability to build adequate transmission capacity to facilitate a deregulated industry has caused many of the problems we face with regard to transmission issues in ERCOT."

Transmission congestion, virtually ignored ten years ago except by system operators and planners, has moved to the top of the deliverability challenge.

For Herrera, congestion complicates the cooperative's operations and maintenance activities. "We are finding it increasingly difficult to schedule transmission outages through ERCOT," said Herrera. "In the end, our ability to maintain, upgrade and build facilities ultimately impacts our reliability and is a real concern."

See Transmission inside on page 3.

GUERNSEY Energy FOCUS
for the energy industries
July 2006

New PURPA Standards Require Action

The new Energy Policy Act (EPAct), passed in 2005, is most widely known for the repeal of the Public Utility Holding Company Act (PUHCA). But cooperatives should consider how they may be affected by other aspects of this wide-ranging legislation.

One such aspect deals with revisions to Public Utility Regulatory Policy Act (PURPA) "Standards." NRECA has conducted workshops and produced a Reference Manual and Procedures for Implementation of the PURPA Standards in the EPAct. It is strongly recommended that each cooperative review the manual, as it provides thorough analysis and a discussion of requirements under the law.

The most frequently asked questions we hear are, "What in the new law affects my cooperative?" and "What does my cooperative need to do to comply with the new law?"

PURPA Standards Title 1 of PURPA (1978) originally contained six "standards" outlining federal policy related to rate determination and design. Those standards were: (1) cost of service, (2) declining block rates, (3) time-of-day rates, (4) seasonal rates, (5) interruptible rates and (6) load management rates.

The Energy Policy Act of 1992 added four more standards to be considered: (7) integrated resource planning, (8) investments in conservation and demand management, (9) energy efficiency investment in power generation and supply and (10) effects of wholesale power purchases on utility cost of capital; effects of leveraged capital structures on the reliability of wholesale power sellers; and assurance of adequate power supplies.

The EPAct of 2005 contains five new PURPA federal standards for cooperatives to consider. The new standards are (11) net metering, (12) fuel sources, (13) fossil fuel generation efficiency, (14) time-based metering and communications and (15) interconnection.

Authority and Applicability to Utilities

PURPA (1978) required "each state regulatory authority (with respect to each electric utility for which it has rate-making authority) and each non-regulated electric utility shall consider each standard" and "make a determination concerning whether or not it is appropriate to implement such standard." It is important to note that, while PURPA required consideration of the standards, it did not require them to be adopted. The new law requires electric utilities to conduct the same consideration of the new standards.

Consideration requirements under PURPA Title 1 as a result of the 2005 EPAct apply only to state commissions and non-regulated utilities with annual retail sales of 500 million kWh or more during the two years prior to the year when the standards are being considered.

This means a considerable number of distribution cooperatives will be technically exempt from considering the five new federal standards.

However, all systems regardless of size should consider the potential benefit from the due diligence process involved in evaluating the appropriateness of the standards.

See PURPA on page 2.

InFOCUS

New PURPA Standards Require Action

Electric cooperatives must consider how the new PURPA Standards within the 2005 Energy Policy Act will affect them.

Transmission Issues are Affecting Cooperatives

Our second in a series of articles featuring electric cooperative issues:

Transmission issues are adding to the growing concern over power supply problems throughout the U.S. Unfortunately, cooperatives are feeling the effects.

GUERNSEY Seminars

GUERNSEY recently conducted five Financial Forecasting and Rate & Cost of Service seminars in Oklahoma City, Okla. and Douglasville, Ga. Over 150 cooperative staff participated in the hands-on workshops.

Upcoming Seminar - Knowledge is Power: Understanding Rates and Cost of Service

October 17-18, 2006
Oklahoma City, Okla.

Visit our Web site for more information and to register: http://www.chguernsey.com/seminar
Space is limited.

PURPA

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Consideration Process and Timetable

The process of consideration included in PURPA requires an evidentiary hearing to meet the following guidelines. Hearings must:

- be open to the public,
- include notice to participants, an opportunity for participants to present direct and rebuttal evidence, and to cross-examine witnesses,
- include a written decision, based on evidence in the written record of the proceeding, and
- be subject to judicial review.

These requirements allow a range of proceedings such as a "paper hearing" — where a determination is made based on the written filings from interested parties, a collaborative rule-making procedure or a full evidentiary hearing with written testimony from expert witnesses, rebuttal and cross-examination.

The timetable for completion of consideration is not the same for all standards. For standards (11), (12) and (13), commissions and utilities have until August 8, 2007 to begin consideration, and August 8, 2008 to complete the process and make a determination whether or not to adopt the new standards. Standards (14) and (15) have a different deadline for consideration, with the process beginning by August 8, 2006 and completed by August 8, 2007.

Failure to comply with consideration requirements will result in standards being considered and a determination made in the first rate proceeding three years after the law was enacted. There are no monetary penalties, but any person may bring an action to enforce requirements of PURPA Title 1 standards in the appropriate state court. Avoiding exposure to possible litigation provides strong motivation for completing the consideration process within the required timelines.

Consideration

What exactly does it mean to "consider" the new standards? Simply stated, it is conducting a review of the standards and examining the consequences adopting or not adopting those standards would have on your cooperative. There are three stated purposes of Title 1 PURPA standards:

- conservation of energy supplied by electric utilities,
- optimal efficiency of electric utility facilities and resources, and
- equitable rates for electric consumers.

At the very least, the consideration process should include how each cooperative and its consumers are affected by implementation of the standards in terms of these purposes. Other circumstances, purposes, state laws and prior actions should be included in the analysis.

"The process does not have to become overly burdensome"

For example, if the cooperative has already adopted a policy regarding net metering and interconnection, that policy would be appropriate to use in consideration. Many state commissions have adopted rules related to net metering and interconnection and, although a cooperative may not be jurisdictional to the commission, its policies may have been crafted to comply with commission provisions. The cooperative staff, on its own or with outside assistance, would represent the cooperative's position on the issues, providing the necessary analysis and/or testimony. The cooperative should exercise an appropriate level of due diligence in evaluating the standards. The determination whether to adopt or not adopt the standards must be based on the written record established during the process.

Public Notice and Participation

The consideration process is intended to provide the public adequate notice and opportunity to participate. Whether the cooperative chooses to conduct a full evidentary hearing with witnesses and direct testimony or to utilize a rule-making or other collaborative approach, the key is to ensure access and encourage involvement by all affected parties. The EPAct goes as far as to require the cooperative to provide compensation to consumers for the cost of participation or intervention in certain circumstances.

Getting Started

The first step in the process is the adoption of a resolution by the Board indicating the cooperative is considering the EPAct standards, setting out the procedural schedule and providing the provisions for notice to all affected parties. While several cooperatives have adopted a hearing process that is consistent with a regulated environment, the process does not have to become overly burdensome. The level of participation by members and other affected entities will greatly influence the complexity of the process.

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Transmission

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The construction of new transmission has lagged behind development of wholesale markets and the effects can be felt in many areas across the country. As a result, transmission arrangements are often the critical path for meeting power supply obligations, and may impose substantial risks on users. "Cooperatives today need to be concerned with transmission issues because of the increasing need for reliable transmission capacity as a result of load growth," said Herrera.

Long-Term Transmission Constraints

Transmission constraints can be considered in two time frames – long-term and short-term. Power supply planning typically considers long-term constraints. Long-term firm transmission service requires sufficient transmission capacity availability from the source to the load under a wide range of reasonably foreseeable system contingencies (i.e., generation and transmission outages) over and above previously committed service and a "cushion" for emergencies. Failure of new construction to keep pace with increased usage of the transmission system has often resulted in situations where long-term firm transmission service is not available, or available only with substantial lead time and an agreement to pay the cost of required system improvements.

Short-Term Transmission Constraints

In the short-term, constraints may limit the amount of power that can be transmitted, even if long-term firm transmission service (e.g., network service) has been obtained. Congestion occurs from time to time when limitations on the transmission system prevent economic dispatch of generating facilities (which may be determined by a number of market participants acting independently). As the frequency and severity of congestion increases, the long-term solution is to increase electric infrastructure through new strategically sited generation or transmission facilities. In many cases, transfers can continue by changing the generation dispatch, albeit at a potentially higher cost, based on the price differentials between generators. Congestion costs can be mitigated through purchasing "insurance," such as congestion revenue rights. This, again, adds to the cost and complexity of the transmission arrangements. In those cases where there is a structured market, regulators seem to prefer "nodal pricing," where the price for energy may vary for every point where power is delivered to or from the transmission system.

"A deregulated industry has caused many of the problems we face with regard to transmission issues in ERCOT"

Cost Issues

Historically, power supply cooperatives have socialized all costs, and each member cooperative would pay its share through the unit charges in rates. Over time, however, some power supply cooperatives have moved towards direct assignment of transmission costs associated with directly serving a single member.

Assigning transmission costs can be likened to rate design. Wholesale rate design for cooperatives is a zero-sum game. Rates are intended to recover a given revenue requirement. However, changes to a rate design that shifts revenue between fixed (demand) and variable (energy), or from cost socialization to direct assignment, reduce costs for some member-cooperatives and increase costs for others. Treatment of transmission cost is no different.

Direct assignment has become more common in regions where there may be a large diversity among members or where cooperatives serve large individual consumers. Costs for facilities investment, such as substations or radial lines, may be directly assigned to a particular member.

The rationale for this approach may be to mitigate cost subsidization among members or, particularly in the case of a large load, to recognize both the distribution cooperative's and the power supplier's investment risk for a consumer not willing to enter into a long-term contract.

Many times, the decision to directly assign costs, from a G&T's perspective, is the result of a compromise among the competing needs of the member cooperatives. In these cases, a portion of costs are directly assigned (e.g., substation and/or radial lines) while other costs are socialized (e.g., power supply and transmission network).

Managing uncertainty is not easy and it is impossible to apply a one-size-fits-all solution.

Regulatory Issues

It is not original to say that "deregulation" is often more accurately "re-regulation." Certainly FERC open access requirements and various state deregulation experiments have not resulted in a reduction in regulatory burdens borne by cooperatives owning and operating transmission facilities; quite the contrary. Some would argue that the additional regulatory burden is in itself an inhibiting factor in adding new transmission facilities, even in congested areas.

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