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GUERNSEY Energy

FOCUS

for the energy industries

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Keeping the Cooperative Whole

Ask most distribution cooperatives to describe their purpose and you may hear something like, "to provide member-owners with excellent service at the lowest price consistent with sound cooperative business practices." These important but sometimes conflicting goals require a careful balancing act, especially when considering purchased power costs.

For a typical distribution cooperative, purchased power is the largest cost, amounting to 60 or even 70 percent of total expenses. Many cooperatives anticipate those costs will increase. Factors such as fluctuating fuel prices and transmission congestion increase the risk of wholesale price volatility in some areas. Unless the distribution cooperative has a plan in place, changes in wholesale power cost may result in an unanticipated impact on its financial health and member bills.

Importantly, the issue does not exist in a vacuum. While many states no longer regulate how cooperatives pass through power cost changes to members, some do. Relationships between regulatory bodies, power suppliers, distribution cooperatives and members differ in each state. Each cooperative must weigh its own potential risk and design its own solution from its available options.

Regulation

By the late 1970s many cooperatives were regulated by state commissions to some degree. Many regulators recognized electric utilities could not absorb the rapid fuel cost increases of the

day. To address the problem many states permitted either a *flow-through*, streamlined rate approval process, or some form of power cost recovery factor (PCRF).

The *flow-through* enables cooperatives to adjust rates to conform to the wholesale demand and energy changes. The PCRF, also known as PPRF, PCA, ECA and other acronyms, allows utilities to establish the level of purchased power cost which retail rates are designed to support. Any changes from this *embedded* or *base* power cost are either added or credited to monthly bills as a per-kilowatt hour charge.

When wholesale power prices are stable, all methods of recovering changes in purchased power costs work. But, during times of power cost increases or instability, differences between methods - how they are applied and how they affect the cooperative and its members - become more evident.

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Market Power Concerns

As the 2005 summer approaches, market power concerns have again become an issue in many parts of the country. Higher demand and a normal, summer weather pattern will likely strain regional grids powered by essentially the same generation capacity.

As a result, 2005 may pose far greater capacity concerns than 2004. In a market with already escalating wholesale power costs, market power issues are of great importance for electric cooperatives.

From a buyer's perspective, market power refers to the ability of a seller to raise its price above marginal cost. Typically, this becomes an issue at the worst possible times, when market resources are constrained and demand is very high. Electric cooperatives can be at great risk during such periods, as resources purchased at market-based rates during such times can be astronomically expensive.

In May 2004 the Federal Energy Regulatory Commission (FERC) issued an order addressing procedures it would use for determining the existence of generation market power. The procedures mandate that a company seeking to sell electricity into

wholesale power markets must pass two market power screens or, alternatively, pass a delivered price test to be eligible for sales at market-based rates. These screens are designed to foreclose suppliers potentially wielding market power from using such power to unreasonably raise prices during peak periods.

As of December 2004, ten companies have received deficiency notices from FERC, warning them of impending investigations under section 206 of the Federal Power Act concerning perceived market power within portions of their service territories. Specifically, deficiency notices were sent to Alliant Energy, AEP, Entergy, Duke Power, Great Plains Energy, Pinnacle West,

Public Service Company of New Mexico, Puget Sound Energy and Southern Company, warning them their prior filings were insufficient to pass FERC mandated market power screens. Subsequent investigations will surely follow as other companies fail to comply with the FERC's new requirements.

The outcomes of impending 206 Investigations are of great interest to all wholesale power buyers within the affected markets. In the absence of market power concerns, buyers within

a region benefit from sellers' market based rate authority, as competition tends to drive wholesale prices toward cost. Capacity surpluses during off-peak periods guarantee that almost every region can benefit from market-based rates without concern of market power issues. However, as regional resources become constrained during on-peak periods,

sellers within a region become increasingly likely to wield monopoly power over uncommitted capacity, allowing for abuse of market-based ratemaking authority.

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InFOCUS

Illiquidity Affects Power Markets and Prices

Market liquidity issues may impact wholesale power contracts more than most cooperatives realize.

Market Power Concerns

Will market power play a role in this summer's wholesale power costs?

Keeping the Cooperative Whole

Fluctuating power costs cause cooperatives to re-evaluate cost recovery methods.

TheBlur

More on Market Power

Look for the April issue to feature extensive coverage on market power issues.

Power Supply Cost Increases

Of course, not all power suppliers forecast increases. Others anticipate small, regular or manageable increases as opposed to wildly fluctuating increases. Each distribution cooperative should

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GUERNSEY continues to support and be a leader in the electric cooperative industry. We have worked with cooperatives since 1936. Stop by our booth and visit about the solutions you need. Come see our consultants at booth #701.

PCRFB

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gauge, not just the impact of any projected total power supply cost increases, but how those increases might be reflected in wholesale power rates. In anticipating future wholesale rates, consider plans by a power supplier to replace, upgrade or add new generation, transmission costs, the power supplier's fuel mix and if the power supplier's existing rates include fuel factors or other adjustments that change monthly.

The cooperative should be knowledgeable of its power supplier's procedure for changing rates, including how much input into and notice of wholesale rate or cost changes it can expect. Ultimately, the distribution cooperative must consider how a power supplier's changing costs are likely to be reflected in wholesale power rates.

Does the Cooperative Need a PCRFB?

Most GUERNSEY clients who may do so have some method of recovering power cost such as a PCRFB. "Power cost from our G&T has been relatively stable but we feel the ability to pass through changes in wholesale cost is an important management tool to keep the cooperative whole," said Todd Townsend, vice-president for corporate services at Ozarks Electric Cooperative. "In Arkansas cooperatives can use an energy cost adjustment (ECA) clause to recover changes in wholesale fuel and energy charges. We recognize the possibility of increased wholesale demand charges in the future. If that occurs, we will need to review our retail rate design and make the necessary changes. These changes will require approval by the state commission through an expedited filing with the commission."

Regulated cooperatives in some states use a different method for recovery of changing power costs. "Wyoming is one of those states," explained Jim Hudelson, manager

of Wyrulec Company. "The rules governing cooperatives provide for a streamlined flow-through process. The cooperative develops the necessary changes for each rate class based on a cost of service study and provides the results to commission staff. Approval typically is accomplished in weeks instead of months. Our G&T is not regulated, but along with stable power cost, has established internal procedures to guarantee member cooperatives sufficient notice so we can have retail rate changes approved prior to any wholesale rate changes."

Cookson Hills Electric Cooperative Manager Kendall Beck says his board is committed to the concept of tariffs that reflect the total cost of providing service and does not apply a PCRFB. Beck notes, however, the cooperative's G&T has a long history of stable power cost and that, as a deregulated Oklahoma cooperative, Cookson's board can change rates to pass through purchased power increases within 30 days.

PCRFB Design Considerations

Regulated cooperatives with PCRFB factors often must report factor calculations to state regulators. Whether regulated or not, cooperatives should take extra care in calculating and applying PCRFB factors. Since the amount of the PCRFB may change monthly based on the cooperative's calculations, there is more opportunity for human error than with more basic rates that only change when tariffs change. In addition, cooperatives should carefully consider the effect on members before establishing PCRFB designs that differ dramatically from pre-deregulation designs.

After it was removed from state commission rate regulation, Southwest Texas Electric Cooperative chose to maintain the commission-approved method for calculating its PCRFB. "We felt the existing PCRFB design worked well for us and we wanted to minimize the structural changes made to rates and procedures after we were deregulated," said General Manager, Buff Whitten.

If the cooperative's regulatory environment permits it to design its own PCRFB recovery mechanism, several items should be considered.

A PCRFB factor is not a substitute for rate design. It is a means for cooperatives to "stay whole" during fluctuations in power costs. It is neither the best nor fairest means of recovering those costs. Since the PCRFB is typically an energy-only charge, changes in wholesale demand costs are recovered, not from retail demand charges but from retail energy charges. This creates a subsidy between high and low load factor customers. Additionally, if a

large cumulative wholesale rate increase has occurred since retail rates were established, a PCRFB can become a large portion of the member's total bill and cause published tariffs to be misleading.

Some cooperatives calculate its PCRFB quarterly or semi-annually as opposed to monthly. This

approach minimizes monthly swings in the PCRFB to which members object, but leaves the cooperative vulnerable in the event of large, rapid changes in power costs. In addition, unexpected increases in power cost during summer months, may have to be recovered from months with typically lower kWh sales.

See PCRFB on page 3.

"...the ability to pass through changes in wholesale cost is an important management tool..."

Illiquidity Affects Power Markets and Prices

As the saying goes, "Things aren't what they used to be." In the good ol' days, a wholesale power customer needing requirements service could simply purchase power under a regulated rate for all of the customer's usage, regardless the level.

With the exception of G&T-member contracts, such arrangements are now rarely available. As a result, wholesale customers must pay potentially volatile, forward market prices for specified quantities or limits, and generally have exposure to even more volatile spot market prices for requirements in excess of the contract quantities.

Wholesale rates are generally unregulated, and the applicability of the rates is almost always limited to some maximum level of load. In many instances, loads in excess of prescribed limits are priced based upon some measure of market prices. Determination of a market price for power is difficult. Power markets are characterized by a physical requirement that production and consumption balance on a continuous basis. That, in conjunction with the unusually low short-term price elasticity for electric

power, can produce prices that change dramatically over a short period of time. Many power markets have little price disclosure, low liquidity and high market share concentrations. All of those conditions are contrary to the characteristics of a competitive market. Given the foregoing issues with power markets generally, it is important to understand market limitations and how published index prices are determined before agreeing in a contract to using any particular price index to a potentially significant degree.

One of the concerns with many power market indices is a lack of liquidity in the underlying market. The whole notion of a published index for a market price is premised upon sufficient trading volume that the resulting prices are reflective of "willing buyer-willing seller" transactions - free of undue influence by any market participant.

summer and high in winter, while seasonal rates are high in summer and low in winter.

Reconciliation from previous periods should be included to account for any previous over- or under-collection. Cooperatives should consider energy used by non-metered lighting in calculating the PCRFB. Some cooperatives have cost-plus rate designs for industrial members which bill the wholesale power cost separately from distribution wires charges. Purchased power billing and usage for these members must be removed prior to PCRFB calculation for the remainder of the system. Each of these situations require special care in PCRFB calculation.

The reality is most unstructured markets have relatively thin trading volume. Reported trading volume is thinner or even zero. Some firms no longer report trades out of concern over allegations of price manipulation. Those that do report may do so out of self-interest with expectations that their reported trades may influence index prices in a desired direction, which may be higher or lower. Whether low reported trading volume is the result of few actual trades, a lack of reported trades, or both, does not matter. In either case, the reasonableness of the indicated index price is questionable. To the extent that a contract is tied to a particular index, failure of the reported index price to accurately reflect the market will affect the cost of power under the contract, although those impacts could be either adverse or beneficial, depending upon the circumstances.

Wholesale power customers should understand the extent to which their costs can vary due to changes in market prices and load levels to balance expected cost and the risk of substantial cost swings.

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System losses must be included in PCRFB calculations. Many cooperatives see big swings in calculated percent of losses from one month and one season to another. Some method of leveling these swings, either by making all calculations based on kWh sold or using an annualized loss figure for the year is preferred.

Many cooperatives have seasonal rates, reflecting higher purchased power cost in the summer. Some PCRFB designs conflict with these rates because the calculated PCRFB is typically low in

Summary

Many industry experts predict increased purchased power cost. Some power suppliers anticipate changes in energy charges related to fuel cost increases while others anticipate increased demand charges related to plant additions. Different regulatory environments require different time lags between anticipating wholesale increases and implementing retail rate changes. Most cooperatives have some method to address changes in power cost. Each cooperative should review its method to ensure it continues to meet its own unique needs within its own regulatory environment. There is no one-size-fits-all answer.

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