

Preparing for Successful Electric Negotiations

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The key indicator of profitable production is cost per unit of output as shown in the following generalized equation:

Cost Unit	$\frac{\text{Materials} + \text{ENERGY} + \text{Labor} + \text{Maintenance} + \text{Capital} + \text{Overhead}}{\text{Units of Production}}$
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Cost reduction has often been focused on reducing the number of workers per unit. While layoffs and downsizing have been a quick way to cut costs, the near- and long-term consequences—such as reduced attention to maintenance and improvement programs—are making some enlightened management teams search for better ways to lower unit costs. Utility rate negotiation is proving beneficial for a growing number of plants and, in some cases, also for their utility suppliers.

The intense contest for profitability now faced by many manufacturers is no longer local. It is national and even international. Competition for industrials has been a continuous, overriding concern for many years. Competition for utilities is just beginning. The winds of change are blowing strongly for electric and gas utilities. The massive deregulation program offers an exceptional opportunity to restructure plant relationships with their utility suppliers.

Now is the time to start negotiating with your utility company for an improved package of rates and other benefits. The pressures of the coming deregulation make most of them much more willing to talk. If you can develop some benefits that you can offer to them, you significantly increase your negotiating power. Table 1 lists several examples of successful recent utility contract re-negotiations.

Table 1. Negotiations Equal Results

Negotiations	Results
Midwest Manufacturer	25% electric rate reduction
Midwest Cement Plant	22% electric rate reduction
Northeast Steel Company	25-30% reduction translates into “millions per year”
Northeast Metals Firm	20% savings—provides expansion possibilities
Northwest Manufacturer (computer parts)	\$250,000 per year saved with “customer choice”

The steps in the negotiating process with your utilities are described in the following sections.

DOING YOUR HOMEWORK

Advance Work Carefully Done Makes the Difference

Probably the single most important piece of advice is contained in this title. Keep in mind that the utility companies specialize in negotiating utility contracts of all types, with all types of consumers. However, negotiating may be a one-time effort for most of their customers.

You need to develop a thorough understanding of:

- Your own power and energy use patterns
- Future change in these patterns
- Possibilities of internal flexibilities in the way power is used
- What does the utility company really want?
- What are you really willing to give?
- What have they given to other similar customers?

Take the time to do homework right and lay the proper foundation for the negotiation process. Trying to shift directions in mid-negotiations

may be quite difficult.

Gather Information on Your Utility Company

All utility companies have web pages on the Internet that contain a wealth of information. In addition, you can download selected portions of their 10K's from the SEC web page. It will provide more detailed and less market-oriented information.

Much more helpful, but potentially more expensive, is information on generation and transmission costs, rates, comparative financial condition and potential stranded investment costs. This specific information is available from a few selected utility data bases. The cost of this information is in the several thousand dollar range, but is well worth the expense.

Determine Your State's Legislative Climate on Deregulation

Many states originally took a negative position on deregulation. However, that is rapidly changing to a willingness to have test programs in order to gain more understanding of the effects of retail wheeling on both consumers and their utility companies. Some utilities are recognizing that the tide is beginning to turn away from the long-effective utility company legislative efforts, shifting to a position that is more balanced for all.

Industrials typically leave these legislative matters to others. As a consequence, the default position has favored the utility companies' position. All states have a group that advances the interests of industrials and related groups of users. Your participation is extremely important and valuable.

Talk to State Regulatory Staff

Similarly, most state regulatory agencies receive more attention from utility representatives than from their customers. We have often seen a strong exchange of staffers between the two groups. This presents a challenge to prevent bias in regulatory actions.

The staff may be aware of some initiative that is planned that will be helpful in your negotiations. It is important to establish a good working relationship with them without being extreme in your advocacy.

Mandated Rate Changes or Rollbacks

Are there any mandated rate changes or rollbacks proposed? In one recent negotiation, we were aware of a pending rollback in rates mandated by the state regulatory agency. This needs to be included in your planning for the rates that you request.

Do Not Blindly Accept Their Numbers

The easy thing to do is to accept the utility company's estimate of a new rate's impact on your operations. They will not know all the plans for utility management to optimize power and energy usage, and their model just might be erroneous. Catching an error puts them further on notice that you are a serious negotiator who knows what to do.

Build a Computer Model of Your System to Test Proposals

One of the most important steps in your negotiation process is the preparation of a computer model of your plant operation. This will help you test various combinations of rates and procedures such as load management, load shifting, real-time pricing or similar alternatives. For maximum effectiveness, the model should be constructed on an hourly basis. Much of the data can be obtained from the utility company. Others must be estimated from daily or even monthly data.

Benchmark the model against the most recent year of operation (at least), and adjust until you have an acceptable match. Sometimes the negotiations will move rather quickly and you must be able to determine the impact of the latest offer on your operation in a short period of time.

Have a Knowledgeable Utility Attorney in Your Pocket

Chances are that your contract will become much more complicated than those of several years ago. It should also be much less one-sided than the older one. The new contracts raise questions as to acceptability to the regulatory agencies. Often, a utility negotiator will say that a clause that you want is not legally possible or acceptable to the regulators. Your attorney can be a big help in a limited role, although they do not understand your utility requirements and might not be as effective in a direct negotiating posture.

Coordinate Carefully with In-Plant Changes

As you determine the direction of the negotiations, you can evaluate modifications to your utility management strategy to take advantage of the new situations. Often, this can be a powerful means of reducing utility costs in your facility.

DEVELOP YOUR NEGOTIATING ALTERNATIVES

Many alternatives exist that should be considered for specific situations. Examine all of your options; eliminate the ones that are impos-

sible; evaluate the possible; and develop a plan of action that best suits *your* needs.

Relocating Your Load

1) Plant Shut-Down

Discuss a shut-down of your plant. The only thing that would be worse to a utility company than reducing your rates would be to lose your total load. If you can make this argument really stick, it is a very powerful one. *Bluffing will be tough to do.*

2) Plant Relocation

Discuss a relocation of your plant. This is a variation of the previous technique, which works best if you have plants in other areas that might pick up your manufacturing operation.

3) Shift Current Production Site

Discuss a shift of production to a remote site. This is another variation which might reflect a severe reduction of manufacturing plant operation with a consequent reduction in utility load.

4) Shift New Production Site

Discuss putting new production at a remote site. This is a very powerful argument, because you are offering a new load to the utility in return for rate relief.

Look at Different Power Sources

1) Convert to a Municipal System

Convert your local utility system to a municipal system. Some cities are taking over the electrical distribution system of the investor-owned company supplying power to your area. This approach allows them to purchase power from alternative sources. An alternative available to plants adjacent to a city with municipal power is to have their plant annexed without property tax being included. The city can then supply them power purchased from other sources. This requires careful negotiation, because the power costs in many municipal systems may be higher than from your utility company.

2. REA Co-operative

Purchase your power from an REA co-operative. Some co-ops are

now willing to work through the legal, regulatory and political hurdles to start supplying power to utility company customers. This won't be easy to accomplish, however.

3) Power Marketer

Purchase your power through a power marketer. One of the best ways to make the above two alternatives really be valuable to you is to have a marketer supply cheaper power to your new source. At present, this would have to be done on a wholesale basis to the municipality or co-op. However, with full deregulation you may be able to purchase directly from the marketer.

4) Sell Your Contract

Sell the contract you have with your utility company to a marketer or broker. Some are willing to take over your existing utility company contract in return for the right to supply power to you when deregulation comes.

Local Generation

1) On-site Base Load Generation

Install on-site base load generation. Add a generating unit (often a more efficient gas turbine-driven generator) that will run constantly to supply all, or a significant part, of the power requirements of your facility. This option is tough to justify unless you can use the waste heat in your processes. Many do not want to have the responsibility of operating a power plant. It might be possible to turn it over to a third party to run.

2) Peak Shaving

Use the on-site generation for peak shaving. The variable operating requirements of a peak shaving approach allows consideration of a diesel-fired reciprocating unit driving a generator. First costs are less than for a turbine generator, but the operating costs are higher. Shaving the peaks off of the plant demand pattern can be quite effective in lowering the demand portion of your utility costs.

3) Emergency On-Site Generation for Utility

Dedicate the on-site generation for the utility company's use in an emergency. If you have a back-up generator, or choose to add one,

some utilities will contract with you to consider it an emergency source of power for them if they can dispatch it. They may pay you handsomely for this privilege.

4) Purchase Power from Fellow-Industrial

Purchase your power from another nearby industrial who has surplus generation. Depending on the regulations in your area and the attitude of your utility company, this arrangement might work. You would have to be assured that this supply would be very reliable.

Does It Make Sense to Buy Your Substation?

Are you metered on the high-side or low-side of your substation? If you own the substation, you probably can get a lower transmission voltage rate. The offsetting cost of ownership and maintenance must be considered. Typically, most utility companies will now allow you to purchase the substation on reasonable terms. Remember—the utility companies usually depreciate their distribution equipment on a 30-year basis, so go for the depreciated value.

Most utility companies will provide maintenance services for a fee. This is well worth the cost to have experts take this hassle.

An important long-range factor is retail wheeling. Ownership of your own substation could give you added flexibility to take advantage of wheeling from others in the future.

Look Inside Your Plant

1) Internal Peak Shaving

Reducing peak demands is one of the most beneficial means of reducing power costs. After an initial reaction of “there are no opportunities to cut any operating loads during peak periods,” the staff can usually make some very significant cost reductions with this approach. Let the staff be creative with this one.

2) Internal Energy Use Reduction

Most people think about reducing internal energy use when they are trying to cut power costs. Usually, there are some significant opportunities in shutting off unnecessary equipment or reducing the load on some of the equipment. Again, the workers will have the best ideas in this category.

3) Utility Technical Help

Ask your utility to provide you technical help from the Electric Power Research Institute, (EPRI) or other sources. Look at the big picture. Ask for everything that you think might be a possibility. Most utilities can use their membership in EPRI to provide you some technical assistance from one of their trade organizations or from internal sources. Don't be bashful!

Consider Joining with Others

To multiply your negotiating efforts, consider teaming with other customers. The greater the load you represent, the more attention you can get from your utility company.

Aggregating, or pooling loads, may not yet be possible in your area. If not, just negotiate together for separate contracts.

Look for Non-Electrical Ways to Mutually Benefit

Utility companies are diversifying into many new areas that may be of benefit to your company. Energy consulting, testing, performance contracting and communication systems are being offered.

Be careful of the quality of these services. Start-up efforts sometimes are lacking in experienced staffing. Consider selling them some of your product, or buying something other than electricity from them. One of our clients buys ash that is produced by their utility company power plant. They use the ash for raw materials in their own process, and also provide waste disposal sites for some of the ash.

Another client is joining with an unregulated subsidiary of their utility company to put in a cogeneration unit and some plant improvements. Ownership and operation of these projects must be carefully delineated in the contract to prevent misunderstandings.

DECIDE WHAT YOU ARE WILLING TO OFFER

Contract Length

The impending massive changes brought by retail wheeling sets up strong conflicts on term of the contracts. Users want as short a term as possible, while utilities want as long a term as possible. Given normal conditions, you should opt for no more than a three year length in your contract. However, if you can extract sufficient concessions to provide

flexibility to take advantage of retail wheeling when it comes, a longer length contract can be a significant attraction to your utility company.

Load Management to Match Their Needs

Utility companies with few reserves of power want the highest possible load factor in their customers. This provides the most revenue for them, with the least amount of generation equipment. Serious efforts to smooth out peak demands may be very attractive to them.

Purchase Other Services from Them

Utilities are trying desperately to diversify, and are looking for other sources of revenue beyond their high-priced generating facilities. Many are offering various specialties such as security, heavy equipment testing, engineering services or performance contracting on some of your in-plant equipment upgrades. This makes good sense, if you can take advantage of their specialized expertise. Otherwise, be very cautious about lack of experience and high overhead factors.

CHOOSING PRICING AND TERMS

Push Your Utility Company for New Rates

Carefully evaluate your facility's needs, then consider these options. You must be willing to weigh the risks against the benefits and find the rate that best fits your situation.

1) Time of Day

Use a Time of Day rate for special applications. Carefully examine your manufacturing process to evaluate shifting part of your load to off-peak periods. This requires strong coordination with manufacturing, but will cause little objections from the utility companies. The benefits can be quite attractive.

2) Real-Time Pricing

Use Real-Time Pricing, combined with reduction in peak demands. If you have supplemental generation or can shift loads to off-peak periods, the newer Real-Time Pricing rates can be beneficial. You must be aggressive in managing your peak loads.

- 3) Interruptible Rate
Use an Interruptible rate to lower demand costs. Many plants can allow a part of their load to be curtailed in return for attractive reductions in the demand charges. Production staff often are reluctant to agree, so careful study, followed by some internal “give and take” will help reach a balance that will optimize the profits to the plants.
- 4) Interruptible Rate with Buy-Thru
Use an Interruptible rate with a buy-thru to eliminate any interruptions to plant operation. If you like the advantages of an interruptible rate without the interruptions, consider a buy-thru clause in your contract. This would allow your utility, during a curtailment, to purchase your power requirements from the grid and pass it on to you. This temporary power source will be more expensive than your normal power, but its short duration should still make it quite attractive.
- 5) Interruptible Rate with Buy-Thru and Limited Interruptions
Another alternative is to use an Interruptible rate with a buy-thru and limited interruptions. Combining the two previous recommendations might work for some manufacturers—a favorite of a Wisconsin utility.

Consider Index Pricing

It is impossible to predict exactly what changes will occur in the pricing of power and energy. Similarly, during periods of high profits it may be easier to pay higher prices than during those cyclical periods when product pricing drops. Sometimes it is appropriate to tie future rates to some index, such as the price of product in order to better balance plant profitability.

In order to increase the liquidity of power marketing, the New York Mercantile Exchange has established a very active market in power futures contracts—an activity destined to have a growing impact on the price and availability of power across the country. A tabulation of recent prices for on-peak and off-peak power across the nation is shown in Table 2.

Table 2. Recent Prices of Spot Electricity

	Weekly Range (On-Peak)	Weekly Index (On-Peak)	Weekly Range (Off-Peak)
Western Markets			
COB/NOB	\$11.00 to \$15.00	\$13.80	\$5.75 to \$8.00
Mid-Columbia	\$11.00 to \$14.50	\$12.75	\$4.75 to \$7.50
Midway	\$10.00 to \$13.00	\$11.00	\$6.00 to \$6.50
Mead	\$11.00 to \$15.00	\$11.00	\$5.00 to \$7.00
Four Corners	\$11.00 to \$17.00	\$12.00	\$6.00 to \$9.00
Palo Verde	\$11.00 to \$17.00	\$12.00	\$5.00 to \$9.00
Northeastern Markets			
NEPOOL	\$23.20 to \$28.00	\$26.00	\$17.00 to \$18.00
NYPP	\$21.00 to \$26.00	\$23.25	\$14.75 to \$18.00
PJM	\$19.00 to \$25.00	\$22.70	\$16.50 to \$18.00
Midwestern Markets			
ECAR	\$16.00 to \$25.00	\$19.75	\$12.00 to \$17.00
MAIN	\$16.00 to \$28.00	\$19.45	\$11.00 to \$14.50
MAPP	\$15.00 to \$21.00	\$17.75	\$10.00 to \$12.50
Southern Markets			
SERC	\$16.00 to \$22.00	\$19.50	\$14.00 to \$15.00
SPP	\$16.00 to \$19.50	\$17.50	\$12.00 to \$14.00
ERCOT	\$19.00 to \$21.00	\$19.30	\$12.00 to \$14.00

Look at both of these indexing possibilities for providing future flexibility. Keep in mind that this market is quite young and may evolve significantly in the coming months.

Change the Energy Price Components

Take a look at your current rate structure. There may be certain components that are very restrictive for the way that you are doing business. The demand charge may be hurting your opportunities to optimize production. Try shifting more of the cost to the hourly kWh charge. The Time of Day rate that once was suitable may now be harmful to you in

your present method of operation. A more balanced rate might be acceptable to your utility company.

Choose Your Terms before Beginning Negotiations

Carefully evaluate all rate alternatives and choose the one best suited for your operation. Use it as your opening negotiating position. Do not let the utility company set the playing field for the negotiations.

Risk Management

The old approach of a standard rate for everyone provided manufacturers a cocoon of protection from choice and responsibility for utility rate management. It was also quite restrictive and expensive. With rate relief there are many more choices and the possibility of making wrong decisions. Typically, the greater rate relief will come from assuming greater responsibility for managing your utilities, and taking more risks that your best guess might not do as well as expected.

A significant question to be answered concerns the amount of risk of utility price variation, and management's acceptance of it in the future. Considerable education may be required to get them to see that normal business risks now extend to managing utilities; however, the potential benefits greatly outweigh the potential hazards.

Be Sure to Have Wheeling Rights

Even though retail wheeling may not be available in your area, you should include provisions for your utility company to wheel power to you from an outside source. FERC Order 888 says that they must charge you no more for this service than they charge themselves internally. This prevents them from hitting you with an unrealistically high fee for wheeling services.

PLANNING FOR FUTURE CHANGES

Anticipating Deregulation

Some people think that no negotiations with their utility company can be successful until retail wheeling is available in their area. On the contrary, the best time to negotiate a utility contract is BEFORE the availability of retail wheeling. The utility companies are anticipating the coming changes and are more willing to consider concessions now.

Contract Terms

Be sure to include adequate protection for the changes in both power supply and transmission that will occur in the future. Provide for the maximum degree of flexibility.

SUMMARY

PREPARE, PREPARE, PREPARE. Know *your* situation and *their* situation. This hard work *will* pay off!!

ABOUT THE AUTHOR

Paul Cunningham, P.E., has more than 30 years' experience as a consulting engineer and utility executive. He has performed more than 100 studies of engineering, financial, managerial and political feasibility for a variety of projects.

In the area of planning and organizing, he developed studies to establish a unique joint electrical utility for four cities with a 10-year capital improvement plan of \$1.7 billion, including a 400 MW lignite generating plant, participation in a nuclear plant, and related transmission facilities.

Mr. Cunningham supervised financing totaling \$60 million and preliminary work on another \$150 million while coordinating with rating services, bankers and others in the financial community.

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