

THE ACADEMY OF ELECTRICAL CONTRACTING

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What Will Be The Contractor-Electrical Utility Relationship
For Line Work Ten Years From Now?

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WHAT WILL BE THE CONTRACTOR-ELECTRICAL UTILITY RELATIONSHIP FOR LINE WORK OR THE OUTSIDE ELECTRICAL INDUSTRY TEN YEARS FROM NOW? Will there be any new field or new service that the contractor will be offering the line construction client?

In dealing with these questions it will be better to call upon experience rather than to reference material that you will already have had access to. This will permit general statements and for this paper be more informative.

The paper will address itself to the following consideration: What a construction line contractor thinks he ought to do for the ten years ahead.

The business of serving the public utility customer in the energy and communications area of the economy is our sole business. With this directive as our guide, certain words and phrases become part of our vocabulary:

1. Quality of Performance.
2. Technical Competence.
3. Availability.
4. Planning/Schedule/Completion.
5. Earned Profit.

Looking back ten years or more for guidelines for the future, we find that the same values are valid today. Physical changes will be gradual in our industry. Transmission will go to higher voltages; the structures will become more beautiful; the switchyard and substations will continue to meet electrical needs; new underground distribution installations will be constructed. We have already seen the industry increase transmission voltages: 115, 138, 230, 345, 500, 765, 000 volt lines, and it is predictable that this will continue as it was patterned in the past. The U. S. Department of Housing and Urban Development goal is for the construction or rehabilitation of 26,000,000 housing units in the next decade. The Federal Power Commission's 1970 National Power Survey details the expansion and development of the electrical industry that must occur through 1990 if projected demands are to be met.

With these demands and the ecological limits, a region-by-region or a national power grid will evolve. This power grid will be constructed by contractor forces. The equipment requirement for this construction will mean a tremendous capital investment and the contractor's ability to provide such capital will govern his share of this market. There is, therefore, no doubt that the contractor will be performing more and more services for the utilities.

Increasing concern over the appearance of the completed line will add costs that will increase utility's investment over and above the factors of load and demand. This will not be applicable only to transmission, as we expect the sub-transmission systems to be re-designed. These designs

will incorporate underground and overhead construction with predictable increase in cost over previously installed systems.

The line builder will require substantial amounts of capital to supply the plant and equipment for the work expected. This may induce corporate changes in the present makeup of the line contractor as we know him. There is no need to try to describe in detail what form this may take, as the circumstances will be too varied. Size will be an important factor, with depth of top management a requirement, so as to satisfy the clients and financial backers. To our vocabulary list we must here add the word "reputation." It may be likened to motherhood: only earned upon delivery, and in the next ten years we have to deliver, on top of all that we project, everything that has previously been delivered in the history of the industry.

Looking forward ten years to business opportunity, we felt it might be informative and educational to solicit comment from representatives of major utilities on the contractor's role in the next ten years in the industry. The following observations are the result of that solicitation:

"The contractor's role... will be determined by how he reacts to a changing environment. The ten years will be frustrating and challenging. The wage-price spiral will not be halted in time to keep American labor competitive with foreign labor and hence foreign products will be used more... the contractors, because of this wage-price spiral, will have increasing competition from non-union labor and also from the 'in-plant' labor force... the contractor

"must, therefore, counter this large labor cost differential by improved productivity and finding better methods or equipment... the owner will, in the next ten years, take a more active interest in the contractors' negotiations. It is equally important that the owner know what the cost of the settlement will be if he doesn't back negotiations. The owner is also interested because in many cases it will affect his own negotiations.

"The technical aspects of the work are also changing. We are miniaturizing with transistorized systems while building huge new structures. Power plant units will be in the 800 to 1200 megawatt size in the seventies. Steel transmission poles 150 to 170 feet tall and six feet in diameter are becoming common. Foundations go 30 to 50' into the ground. Substations will have aesthetically acceptable exteriors, will be aluminum or be more unitized in metal clad equipment. More lines will go underground and in urban areas there will be oil-filled pipe cable for 345,000 and 500,000 volt lines. There will be selective tree clearing on the right-of-ways. Overhead 765,000 volt lines will be normal contract work. The contractor will be called in for maintenance and emergency work on these EHV lines. All of these technical advances will require more and better apprentice training programs, specialists on transistor circuits, specialists for relays and for underground cable splicing at EHV voltages. The minority members will require special training.

"Probably one of the most important factors in the future, as it has been in the past, is supervision. A good superintendent can always make or break a job. Conversely a poor supervisor will lose money and probably the client. The next ten years will see more shift in emphasis to meeting schedules, using lump sum or incentive contracts to keep costs under control and improving quality on the job. The Health and Safety Act, with more inspectors, will put additional requirements on safety. The work area will be aesthetically acceptable even during construction. The owner will require the contractor to be more accountable for materials furnished for the job, more on-site protection from pilferage and recording of items that have been received and used. The foreman will be required to do more paper work, more planning and more controlling of the job in order to stay competitive. Preferably the foreman would be separated from the union and be an exempt employee of the contractor.

"What I have tried to say is that good, progressive contractors will take advantage of the changing conditions and expand with the economy. They will be involved with both labor and management in the areas of productivity, costs and changing technical requirements. They will see their opportunity as providing a service to the owner. The owner would like to have the contractor act as if he were partner

"to the owner by holding costs down, getting good quality work and upholding the owner's image to the public. The future will not be denied, but each contractor and possibly all contracting will be affected by what each of you do to combat the inflationary wage spiral and what steps you take to improve productivity...."

The conclusions to be drawn from these excerpts from our industry representatives' remarks are obvious:

1. Labor relations must be managed to insure competitiveness as well as the authority of the contractor, and this requires an industry-wide industrial relations program.
2. Training must be implemented on a company-wide basis from executive to groundman to satisfy the needs of the industry and to insure the company's profit, with particular attention to the specialties within the outside industry's broad scope.
3. The contractor will respond to the pressure of inflation. If the total solution of inflation were to be met, it would require the contractor to buy the government and render it profit-making! Short of this impossible action, we must have constructive savings programs, implemented by:
 - a. Work improvement methods, including engineered use of equipment and tools.

- b. Systematized improvement in union relations and personnel as well as in our trade organizations.
- c. Be more demanding of performance in day-to-day operations, and introduce our clients to the opportunity of assisting in planned cost saving.
- d. The contractor's position on the right-of-way requires that he conduct his activity as a guest on the property of others. Good housekeeping practices will be the key response to this.

In summary, the line contractor relationship with the utility companies ten years from now should be "Partners in Progress," with the world twice as bright.