IMPACT OF ENVIRONMENTAL REGULATIONS ON UTILITY LINE SITING ACTIVITIES[1]

by William D. Ditman[2]

During the past six years no activity of the electric utilities has drawn more fire or undergone a more fundamental change as a result of environmental law than the siting of transmission lines.

In 1968, most electric utilities could make firm plans to meet the anticipated needs of an expanding economy. They had the total responsibility to determine the magnitude of the need, to select the proper technical solution, to select a route, purchase the right of way and construct the line; and all of this was done without the need to consult with outside sources. The only real obstacles to this process were recalcitrant property owners; however, condemnation procedures could be initiated with the courts dictating very minor adjustments and establishing values to be paid for easements. I do not wish to imply that the electric utilities were insensitive toward public feelings and attitudes, but there was no legal requirement and no forum to review plans with others outside the company. In many instances, the planning was accomplished by a very small elite group of engineers without reference to others within the company.

Today, in 1975, a growing number of states have enacted legislation requiring the review by a regulatory agency of the anticipated environmental impacts of proposed projects as well as providing for public hearings. Typical of these laws is the one enacted in 1972 by the legislature of the Commonwealth of Virginia:

56-46.1 *Commission to consider environmental factors in approving construction of electrical utility facilities; approval required for construction of certain electrical transmission lines; notice and hearings.*

"Whenever under any provision of law whatsoever, applicable to the Commission, the Commission is required to approve the construction of any electrical utility facility, it shall give consideration to the effect of that facility on the environment and establish such conditions as may be desirable or necessary to minimize adverse environmental impact."

"If, prior to such approval, any interested party shall request a public hearing the Commission shall, as soon as reasonably practicable after such request, hold such hearing or hearings at such place as may be designated by the Commission."

Prior to preparing the final plan and initiating work, a utility must now make application and with this application present environmental data before being issued a certificate of convenience and necessity. The regulatory agency will hold public hearings to determine public reaction to the plans and will approve or adjust applicant's proposal.

These state laws are a direct reflection of the National Environmental Policy Act (NEPA) which had frequently been referred to as the environmental bill of rights. NEPA is a statement of national concern and in very simple language states a national policy concerning man's use of the environment. Two principles have been forever etched into the way we do business. The first is that when developing a project, environmental studies and concerns will receive the same emphasis as engineering and economic concerns. The second is the right of the public to participate in the decision making process.

Indirectly, NEPA has had far reaching impact on the manner in which utilities carry out siting procedures. To fully appreciate this impact, it would be instructive to review the particulars of a specific case. While obviously every case is unique in it's particulars, there is a clearly defined pattern that if properly understood by all parties, future decisions will be reached in a more timely manner.

The case selected for review is one in which there was personal involvement, and one in which a very complete record exists for public review and study.

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[1]Presented at the 51st Annual Convention of the International Shade Tree Conference in Detroit, Michigan, August 13, 1975.

[2]**Acknowledgement.** I wish to express my appreciation for the help of Mr. Richard D. Rogers, Jr., General Counsel of the Virginia State Corporation Commission; his thoughtful comments provided valuable insight into the role played by a regulatory agency in the line siting process.

Case Study
Commonwealth of Virginia
State Corporation Commission
Appalachian Power Company—Case No. 10848

In the 1960's the American Electric Power Company designated and initiated construction on the nation's most powerful transmission grid; 765 kv. This would be the backbone of the system. One link of this grid, located in the operating territory of the Appalachian Power Company, was a proposed line from the existing Cloverdale Station near Roanoke, Virginia to a proposed terminus due west of Lynchburg, Virginia—Ivy Creek. This line would provide reinforcement to an area that planning studies showed would need additional transmission support by 1976.

In mid 1970, using traditional planning procedures, route selection and line design had progressed to the point that easements were being secured at certain critical locations. By June of 1971, the first ten miles of a thirty-six mile line had been obtained, and it was hoped construction could be initiated sometime in 1972.

During the summer of 1971, opposition to the line route began to surface in Bedford County; opponents to the project came together and formed the Bedford County Environmental League, later known as the Central Virginia Environmental League. Their stated objections were twofold; one that the line would impact unfavorably on the very scenic Peaks of Otter, an important geologic feature of the Blue Ridge Mountains, two that the line would impact unfavorably on three historic landmarks.

The league invited representatives of APCo to attend one of their meetings to describe the route, to explain the route selection process and to discuss the specifics concerning the need for this particular facility. The meeting took place in January 1972 and had the immediate effect of solidifying the opposition.

As a direct result of this project, in March of 1972, the Legislature of the Commonwealth of Virginia enacted a bill which required the State Corporation Commission to consider environmental factors and hold public hearings prior to granting a certificate of convenience and necessity for any transmission line of two hundred kilovolts or more.

In accordance with the law, on August 16, 1972, APCo petitioned the SCC for a certificate of convenience and necessity for a proposed 765 kv transmission line from Cloverdale, Virginia, to Ivy Creek, Virginia.

The opponents requested a public hearing, and the initial hearing was held in Bedford, Virginia on November 15, 1972. APCo in an effort to respond to local attitudes presented a route which reflected significant changes based on the information obtained during the January confrontation. However, this did not satisfy the intervenors, and it was apparent that they were well organized, well represented and determined to see the line removed from Bedford County.

As the hearing continued on November 24, 1972, three issues emerged:

1. There was no need for the line as the existing grid would take care of the future need.
2. Even if there was a need for additional transmission facility, the 765 kv line was the improper technical solution, a lesser facility would suffice and be sounder environmentally.
3. Given the need for an additional line the route selected was environmentally unsound.

By February of 1973, two issues had been settled; the commission was satisfied the need for an additional transmission line existed, and the 765 kv technology was a good engineering solution. In order to resolve the issue of the route, the commission instructed APCo to study alternative routes, one north of the proposed line and one to the south.

APCo, in order to insure a thorough study, evaluated two routes north and two south. In subsequent hearings in May, the SCC ruled out the northern routes because of their considerable impact on public recreation areas, national forest and the Blue Ridge Parkway. The original proposal and the two southern routes were kept under active consideration.

At this point a new issue emerged, the siting of the eastern terminus. The intervenors contended that a terminus east of Lynchburg would have less environmental impact. On July 20, 1973, the Commission instructed APCo to study a new line,

termed the Joshua Creek Line, that would terminate east of Lynchburg at a new station site.

This constituted a major revision of the original proposal that involved a new set of property owners in another county, Campbell County. This required reopening the case for an additional public hearing to accommodate the new set of property owners, and this hearing was held on March 11, 1974.

After the hearing in March, the SCC narrowed consideration to the original proposal and the Joshua Creek Line and on July 5, 1974 ruled in favor of the latter.

The decision was promptly appealed to the State Supreme Court by various groups from Campbell County. On June 13, 1975, the Supreme Court of Virginia rendered a decision affirming the route certified by the SCC. This ended for Appalachian Power Company three years of procedural delay caused solely by the participation of the public sector.

Discussion

This was the first case reviewed by the SCC under the Virginia law; there was no precedent to follow, and the procedures had to be developed step by painful step. As a result, this landmark case has provided some important lessons for others who may become involved in similar actions either as an applicant or as a reviewer.

This was a relatively straightforward situation lacking the complex ecological issues associated with other landmark cases such as nuclear plants. The issues were clearly defined: APCo proposed a facility to meet an immediate need at the least cost that in their opinion did not unduly impact on the environment; the intervenors did not believe the line was needed and if a line was needed, they did not want it to cross their part of Bedford County.

APCo tried to confine the issue to a relatively narrow zone of consideration, a ten mile strip connecting the two station sites. They stressed the short term need of additional transmission support for the Lynchburg area, the fact the Ivy Creek site had been acquired, the additional costs of making line relocations and the fact that a new set of property owners would be just as dissatisfied with the line.

The intervenors displayed a remarkable ability to broaden the zone of consideration by probing for the long range plans of APCo and suggesting alternatives to the basic proposal. Each time a new alternative was suggested and judged viable by the SCC, APCo was instructed to conduct more studies evaluating solutions that were essentially proposed by the intervenors. However, the key issue for the intervenors was aesthetics, the visual impact of the line on the profile of the Peaks of Otter and three relatively unknown historic landmarks. During the course of the hearing, they were successful in having the entire area designated as a critical environmental area by the state. They also attempted to have a Federal agency assume responsibility for reviewing the proposed route, but in this they were unsuccessful.

The SCC opened the door for consideration of pure ecological impacts and considered information on clearing practices, construction techniques and right of way maintenance techniques. They also received information on the impact the energized line would have in the area. These considerations seemed to be secondary in nature as the main thrust of the intervenors was one of preserving scenic and historic values, their objections concerning ecological impacts served more to reinforce their arguments for moving the line and to further broaden the issue.

The SCC focused on the central issue and rendered a decision based on the total public interest rather than the personal preferences of those who resided in any given area. While the final routing may seem to be an extreme deviation from that proposed by APCo, it was based on data submitted by APCo as to the long term future development of the transmission system. By looking to the future needs of the system, the SCC eliminated future line routing problems for an extended portion of the line. The SCC maintained firm control and guided the review in an exceptionally orderly manner; the hearing took thirteen days spread over a period of two years with many groups and individuals from the public sector participating, thereby meeting the intent of the law. This was noted in the affirming decision of the State Supreme Court.

In spite of the order of the process, it still required three years to wade through the regulatory procedures, two years before the SCC and one year before the State Supreme Court. Significantly, there was no fragmentation of review authority, and the issue of Federal vs. state control did not enter into the case. Given additional complexities, additional time would have been required. This loss of time is being referred to as regulatory lag and if not dealt with by the utilities and the regulatory agencies could well be the cause of future energy shortages.

Once the regulatory process is initiated, management loses its initiative and prerogative to make the final decision, utility management proposes and a regulatory agency composed of lay people will make the final decision based on data submitted by the utility and the intervenors. The utility will find this decision favorable or unfacorable depending on how closely they adhere to and appreciate the principles of *ADAPT*. This word is a composite of five words that in essence are key words for basic actions a utility can take to enhance it's ability to cope with the regulatory process and to retain management's right to manage.

Attitudes

There must be a fundamental change in the perspective from which planning takes place. The days of carte blanche power to condemn are over; the environmental review now takes precedence and condemnation cannot be initiated until after settling the environmental issues. Therefore, planners must adjust to the idea that public attitudes and desires must be factored into the planning process.

Data

The key to evaluating potential environmental impacts is a detailed knowledge of the service area, and an organized effort should be made to acquire every available piece of information concerning the service area, such as historic landmarks, critical environmental areas, rare and endangered species, public recreation areas, scenic rivers and scenic landscapes. Knowledge of an obscure historic landmark just might save a lot of headaches.

Another valuable source of data is the body of employees. Utilities have long prided themselves as being members of the communities served, and yet in planning the people who live and work in a particular area are not consulted about local conditions that could hamper line siting activities. In particular, foresters, right of way agents and others with specific knowledge of the area should be brought into the planning arena.

Alternatives

Unfortunately, some very unpleasant confrontations have taken place because planners fell into the trap of saying there were not alternatives, when on examination they really meant there were no reasonable or practical alternatives. The public wants to know the other ways in which the problem could be solved. Based on this case, the message is clear all the alternatives to the proposed course of action must be described and described in such language that the lay public and lay personnel of the reviewing agencies can understand.

People

Siting a line is no longer an engineering problem but is now a people problem. In the final analysis, whether an action is deemed significant or insignificant by a review agency is based not on the ecological impact but on the impact on the sensitivities of people. To determine this impact and get public response there must be disclosure of plans, and this should take place at the earliest possible moment. There is some reluctance to really open the doors to the public and this stems from the fear that public involvement is synonymous with public control, allowing uninformed lay people to make decisions that are management's prerogative. Properly handled, this simply is not the case. It is merely a process that incorporates ideas and values from outside the organizational structure, and this is good for any group.

Time

Additional time must be built into the planning process to allow for *ADAPT* and a reasonable period of review. The amount of time will depend on the complexity of the issue, the number of review agencies and the nature of public response.

Summary

In 1972, Appalachian Power Company filed an application with the Virginia State Corporation Commission to construct a 765 kv transmission line approximately thirty-six miles in length costing an estimated 9.5 million dollars, terminating at a site owned by ÅPCo west of Lynchburg, Virginia.

In 1975, the Virginia State Supreme Court affirmed a decision by the State Corporation Commission to certify a 765 kv line approximately eighteen and one half miles longer, costing an estimated five million dollars more and terminating at a site not under control east of Lynchburg, Virginia.

The magnitude of this change attests to the impact of public participation on line siting activities of the utilities. The public will be heard and their views will be given serious consideration. Required hearings are not mere formalities satisfying obscure legal requirements.

ADAPT is a process, a way of doing business that will help utilities cope with the unique requirements of environmental laws. But most importantly,, management will retain the right to manage and make the decisions necessary to accomplish the time honored mission of the electric utilities — to provide an adequate and reliable supply of electric energy at the lowest possible cost.

Enviro Audits
Roanoke, Virginia

ABSTRACTS

Anonymous. 1976. **Some important native shrubs of the West.** U.S. Forest Service, Intermountain Forest and Range Expt. Sta., Ogden, Utah.

Arid and semiarid valleys and most foothill and mountain ranges of the West may seem to be wastelands to many who travel through them. But the observant visitor notices that domestic livestock and game animals, grazing small shrubs mixed with herbs on our deserts or seen with their heads thrust into bushes, are fat and healthy. Many shrubs of the West have a wide range of uses — to improve wildlife habitat, stabilize soil, revegetate disturbed areas, and in the development of foods and medicines. They add diversity in natural and manmade landscapes, which probably reduces the number and intensity of plant pest problems. Most are attractive to people and wildlife, thrifty, require very little maintenance, and grow well in this varied western country. Most are sun-loving plants, but others prefer some shade. Particular combinations provide flowering beauty from early spring through late fall. Certain shrubs grow into small trees that provide shade and ornamental values. Some provide berries for jams and jellies, beverages, pies, valuable oils, flour or meal, and other useful products. This brochure is intended to stimulate your interest in native western shrubs and introduce you to a few of the better known species, their place in the plant community, their worth on wildlands, and their culture and potential for future use. Most can be successfully planted from seed or seedlings growing in the wild.

Jensen, K.F. and R.G. Masters. 1975. **Growth of six woody species fumigated with ozone.** Plant Disease Reporter 59(9):760-762.

Investigations are being made to determine the effects that low levels of ozone and other atmospheric pollutants have on the growth and development of tree species. In an earlier study, the response of nine woody species to 30 pphm ozone was examined. This level of fumigation caused a significant reduction in the height growth of sycamore, silver maple, and sugar maple. Seven of the species also tended to lose their leaves sooner in the fumigation treatment. In this study white birch, yellow birch, bigtooth aspen, eastern cottonwood, Japanese larch, and white spruce seedlings were fumigated with 25 pphm ozone for 110 days. Height growth of the white birch seedlings was reduced, but not by a significant amount; growth of the other species was not affected. The number and size of the white birch leaves were also reduced during the fumigation period.