APPENDIX G

BENEFITS OF POWER POOLING AND ITS SIGNIFICANCE TO MEMBERS OF THE FLORIDA MUNICIPAL UTILITIES ASSOCIATION

by
Robert E. Bathen, Principal Engineer
R. W. BECK AND ASSOCIATES
Analytical and Consulting Engineers
Denver, Colorado

before the
Seventh Annual Conference

Florida Municipal Utilities Association
Lake Worth, Florida

April 1-3, 1964

BENEFITS OF POWER POOLING AND ITS SIGNIFICANCE TO MEMBERS OF THE FLORIDA MUNICIPAL UTILITIES ASSOCIATION

Introduction

Since the end of World War II, the people of the United States have witnessed the almost unbelievable results of an ever-expanding modern technology. The results of this technological revolution in such fields as communications, medical science, air and ground transportation, and space technology are well-known to every man and woman attending this Seventh Annual Conference of the Florida Municipal Utilities Association.

What may not be so well-known, however, except to those managers and directors responsible for guiding your electric systems, is the modern technological revolution that is taking place in the power industry, particularly in the last five to ten years. With the exception of atomic power, the power industry cannot claim any exotic "break-throughs" in technology. Rather, the revolution has been one of constant but rapid improvement in the art of power generation and transmission with emphasis being placed on larger and larger generators and higher and higher transmission voltage. Million kilowatt generators are being seriously considered, and extra high voltage transmission lines of 500,000 kv and 750,000 kv are in the planning stage.

The reasons for this emphasis on larger generators and higher transmission voltages have been the almost insatiable demands for abundant supplies of low cost power by a rapidly expanding population. The physical interconnections resulting from various types of power pooling arrangements throughout the United States, and the sharing of generating capacity, are becoming primary factors in the power industry's ability to serve this ever-growing load. Lower investment cost for generating capacity and lower energy costs from larger, more efficient units are the benefits resulting from such power pooling.

If the municipal and rural cooperative electric systems in the United States are to continue to play their historical role of providing a significant portion of the nation's power supply at the lowest possible cost, their efforts to obtain the benefits of equitable power pooling arrangements must be intensified.

We are concerned that some municipal and rural cooperative systems are lagging behind in their efforts to develop low cost power supplies necessary to continue to fulfill their historical role as the "yardstick" against which to measure power costs from other suppliers. As evidence that the municipal and cooperative systems have, over the past 10 years, not fully taken

advantage of the modern technology that is working for the commercial utilities, we have reproduced as Exhibit "A" at the end of this paper an important chart that appeared in the March 1961 issue of Public Power, modified to include 1962 data. This chart shows that the power production expenses of commercial utilities in the United States per kilowatt hour declined steadily from 4.96 mills per kilowatt hour in 1950 to 4.22 mills in 1961. For the public power distributors, the power production expenses have been substantially level during the same period ranging from 4.86 mills per kilowatt hour in 1950 to 4.58 mills in 1961.

If this general trend continues for as much as another 10 years, a decade of even greater predicted growth, it is possible that the commercial utilities will be holding the "yardstick" on power costs and retail rates of the municipal and rural cooperative systems.

At the end of this paper is also found Exhibit "A-1", which shows some projected trends on capital and fuel costs for nuclear and coal fired thermal plants. The information for these curves was taken from one of the series of Reports from the National Power Survey of the Federal Power Commission and, therefore, represents the considered judgment of a large segment of the electric utility industry. With the downward trend of power production costs in optimum size generating units, it is imperative that to the maximum extent possible, municipal and rural cooperative systems participate in power pooling and move with the tides of technology. It will be impossible to "sit this one out" and succeed in your endeavors.

As will be pointed out later, the growth challenge that faces the electric systems of the State of Florida is likely to be greater than that of any other area in the United States. It is, therefore, encumbent upon you, the individual members of FMUA, comprising elected officials with limited prior backgrounds of power supply and power pooling matters; you, the managers and directors who are responsible for guiding the growth and expansion of your systems; you, the superintendents and operators who are responsible for the day-to-day functions of your utility systems; and you, the staff engineers and consulting engineers, who are responsible for planning the growth of the system; all of you collectively to make a concerted effort to understand the whats, whens, wheres, whys and hows, of modern power pooling and its substantial benefits.

The discussions which follow will appear to be gross over-simplifications to some members of FMUA who are recognized national leaders in the power field. However, if your efforts to secure for your systems the substantial benefits of power pooling are to be successful, there must be a common level of understanding among all the members individually and collectively of FMUA regarding this important subject, and it is to that purpose this paper is dedicated.

Power Pooling Described

What is power pooling? Power pooling has been described in a number of different ways. One definition used by the legal advisory committee of the National Power Survey, Federal Power Commission, in its Report A "Rate Regulations and Power Pooling Agreements", is that power pooling means interchange, capacity sharing and similar transactions designed to achieve joint economy of generation or transmission. One of my associates, William E. Trommershausen, in a recent paper presented to the American Public Power Association described power pooling as the art of bringing ends and means together where the ends are considered to be generators, substations and transmission facilities at all voltage levels, and the means can be considered to be the pooling contracts, the power dispatchers, the control, telemetering and communication systems, and, above all, the desire to mutually share the benefits that can accrue from power pools both large and small. Therefore, any interconnections between two or more electric utility systems for the purpose of providing emergency and scheduled standby service, reduction in reserve requirements, the purchase of surplus capacity and energy, and the purchase of economy energy, which, incidentally, is nothing more than purchasing energy from the most efficient generating unit on the interconnected system, and the joint or coordinated construction of transmission and generating facilities to meet these purposes on a mutual basis can all be considered as power pooling.

When should power pooling be considered? Power pooling should be considered whenever the economic benefits to be derived from such pooling exceeds the cost of proceeding with alternative power supply and transmission programs. There are, of course, instances when power pooling should be considered if the only benefits to be derived are to provide a more reliable power supply to the customers.

Where should power pooling be considered? Should it be considered only where large systems can be interconnected and the annual benefits amount to millions of dollars per year? Should it be considered only where neighboring systems having the same basic philosophies such as municipal and rural cooperative systems, or neighboring commercial systems? The answer is no. Power pooling should be considered wherever neighboring or successively neighboring electric utility systems can sit across the negotiating table in an attitude of mutual respect, with each party being in a position to contribute some portion of the overall benefits to be shared by all. In this light, a single transmission intertie between a neighboring cooperative system and a municipal system can be as important a step as the construction of a high voltage intertie reaching from time zone to time zone and interconnecting literally millions of electric utility customers. The place to start is wherever there are opportunities for benefits large or small, for it is from the beginnings of small power pools between neighboring systems that the large pools of the United States have grown.

Why should power pooling be considered? We have already pointed out a number of reasons - primary among them being the ability of municipal and cooperative systems to meet the future demands for abundant low cost power by reducing the cost of reserve requirements to meet peak loads, by reducing the cost of energy through base load production in large efficient generating stations, to take advantage of diversity between utility system loads and to provide more reliable service to the customer. The primary reason, however, is to secure for your customers any and all of the substantial benefits that can be derived from power pooling.

How should power pools be formed? There are no set formulas or guidelines to assist you in arriving at means of forming effective power pools. Each area of the country, each area of the state and each individual utility system is peculiar unto itself. There is, however, one essential element that must be present before technical details of interconnections and pooling arrangements are even worthy of discussion. This element is the willingness to mutually cooperate with the recognition that some measure of local control must be sacrificed for the more important benefits that can accrue through participation in power pools. Once this is recognized, and is accepted by the potential participants of the power pool, the aims and purposes of each individual system can be expressed and discussed. One system might place more emphasis on the reliability of service provided by a strong interconnection; another system that may be planning the installation of a new generating unit may wish to construct that unit in its largest economical size; another system with less capability for financing the cost of large generating units may be more interested in purchasing economy energy to meet its base load requirements and installing or retaining less efficient smaller units for standby and peaking service. Two neighboring systems may wish to obtain all of the foregoing benefits and build large efficient generating units on a "take-your-turn" basis in their own respective service areas selling suplus capacity and energy for a short period of time one to the other.

It is not until the officials of the participating agencies have reached an agreement to agree and have outlined the basic aims and purposes they hope to achieve through power pooling that you should expect your legal and engineering consultants to be able to make a significant contribution. However, once these basic principles have been established by you, your consultants can phrase the technical and legal terminology that will effectuate your aims and purposes. On completion and execution of such power pooling and interchange agreements, the necessary physical facilities can then be planned, financed and constructed.

What are the benefits of power pooling? We have discussed in general a number of the benefits of power pooling; namely, reduction in reserve capacity requirements, increased reliability of service through emergency interchange agreements, purchase of energy from the most efficient power generating facility, and soton. To illustrate the potential extent of some of these benefits, a few examples are in order.

Let us assume Utility A has an installed capacity of 100 megawatts, the largest unit of which is a 44 megawatt machine. Operating as an isolated system, this utility, therefore, has 56 megawatts of firm capability to meet its system loads. If its system loads are near or approaching its firm capability, this system is, therefore, maintaining 44 percent reserves.

A neighboring Utility B has total installed capacity of 50 megawatts, and its largest generating unit is a 22 megawatt machine, leaving a firm capability of 28 megawatts. Assuming its peak loads are at or near the firm capability of 28 megawatts, this utility also is maintaining 44 percent reserves.

Under pooled operation, these two utilities would have an installed capacity of 150 megawatts. Since the largest unit in both utilities is 44 megawatts, the firm capability, assuming an adequate transmission tie, would be 106 megawatts. The reserves with the largest unit out of service would, therefore, have been reduced from 44 percent to less than 30 percent. The firm capability of the individual systems of 84 megawatts would be increased to 106 megawatts, permitting substantial load growth of the two systems without the immediate need for any additional generating capacity. In addition, if there is substantial diversity between the two systems, at the time when their peak loads occur, the margins between peak load requirements and firm generating capability would have been increased even more.

In terms of dollars and cents, using the foregoing example, the need to add additional generation for the two systems would have been reduced by 22,000 kilowatts, which if evaluated at a figure of $200 per kilowatt would be a savings of investment cost of over $4,000,000.

Such a savings in itself might mustify the construction of an interconnecting tie line. However, there are other benefits that could be observed using this example. Let us assume that the 44,000 kilowatt unit of Utility A is operated at 60 percent plant factor, or, in other words, on the average produces only 60 percent of the energy that it is capable of producing in a year. If this unit could operate at a higher plant factor, the cost of energy produced would be somewhat lower. In addition, the cost of energy produced from the larger 44,000 kilowatt machine could be expected to be substantially lower than the cost of energy produced from the 22,000 kilowatt machine of Utility B. There is, therefore, an opportunity for the sale of energy from Utility A to Utility B at a cost somewhere between the incremental cost of producing energy from A's largest machine and the incremental cost of producing energy from B's largest machine. These are known as economy energy sales and the benefits to both parties can be substantial in terms of lower power costs. The foregoing example should serve to illustrate the substantial benefits that can accrue from power pooling, even on a small scale between two neighboring systems.

How should the benefits of power pooling be distributed? There are no set formulas for the distribution of benefits of power pooling, and it is sometimes difficult, or even impossible, to use fully distributed costs as a yardstick for decisions as to whether or not to enter into such power pooling arrangements. The aforementioned Legal Advisory Committee Report A of the National Power Survey on Rate Regulation and Power Pooling Agreements is recommended to you as important reference material which considers distribution of costs and receipt of benefits from power pooling and sets forth some excellent examples. There is, in fact, only one criteria that becomes limiting, if the benefits are to be justified strictly on an economic consideration, and that is that the estimated cost to the buyer of the most economical alternative cannot normally be exceeded.

We have reviewed numerous power purchase contracts, interchange agreements, and power pooling agreements throughout the United States, including some of those that are currently in effect in the State of Florida. In far too many of these contracts involving commercial utilities and municipal or rural cooperative systems, there appear restrictive provisions which impose economic sanctions on the public and cooperative systems. Such restrictions include a disproportionate amount of reserve capacity devoted to pooled operation, restrictions on the smaller municipal and cooperative systems prohibiting additional interconnections with other power suppliers, and disproportionate values of capacity and energy for power purchased from the public systems as opposed to power sold from the commercial utilities. It is, in our opinion, completely unrealistic and unjust for one party to impose severe economic sanctions by contract just because the other party is at a disadvantage in the bargaining session. It has been our experience that all contracts having such severe economic sanctions built in are soon breached through legal or other means. Whenever we encounter such power contracts, we invariably find that one party in the agreement has not planned ahead and protected himself with an alternative power supply arrangement. The best means whereby an individual utility can protect itself against such economic sanctions in power purchase or power pooling arrangements is that each develops reasonable alternatives and then proceeds to compare the anticipated results with the possible benefits of the proposed contractual arrangements. This is your best assurance of a just distribution of the benefits and the costs in pooling and power purchase contracts.

Examples of Large Regional Power Pools

There exists in the United States today several large regional power pools of a number of different types. These types can be divided into several categories, which include the sole supplier type, such as TVA or the U. S. Bureau of Reclamation, Missouri Basin System as it was operated up until a few short years ago. In such instances, a single agency owns all the generation and major transmission, distributing power over a wide area to a number of distribution systems who buy their total requirements from the single agency.

A second type of power pool includes the Northwest Power Pool that has operated in the Bonneville Power Administration Service Area for a number of years, and the more recently formed preference customer power pool formed in the Missouri River Basin known as the Missouri River Basin Joint Systems Group. These pools have in common the fact that one agency owns the major generating facilities in the region and owns and operates the backbone transmission system, which is operated as a common carrier. Power generated in the agency's major facilities and power generated by its interconnected customers are, therefore, transmitted over the grid.

A third general type is the power pool in which the aggregate generation and transmission facilities are owned independently by a number of separate individual private or public systems. These latter groups are certainly not as formal as the others, but they have in the past played an important part in achieving the benefits of power pooling in the United States, and in our opinion, are the types of pools that must be formed and expanded in order to meet the future requirements of our growing economy.

In the December 2, 1957 issue of Electrical World, there appeared an article explaining how four commercial utilities in the State of Connecticut had developed an effective state-wide pooling arrangement. The presidents of these four companies appointed an engineering committee in the fall of 1952 to study how best to serve the combined future bulk power requirements as though they were "one-system." At the same time, they appointed an implementation committee to study ways and means of implementing the results of the engineering committee's study.

The engineering committee worked very closely together over a period of about 18 months in attempting to come up with a plan that would meet the requirements of the state as a whole and would provide generating and transmission facilities adequate for the expected needs at the lowest possible cost irrespective of territorial lines. The committee divided the work along the general lines of load forecasting, power production and transmission. It was not concerned with distribution systems of the companies. All known generating sites in the state were studied and the largest units that could be justified were worked into these plans. A number of alternate long-range transmission systems to meet future projected loads were studied using an a-c network analyzer, and the total annual costs for production and transmission were worked out for several layouts.

Both the engineering committee and the implementation committee reported the results of their studies, and an overall set of principles were drawn up to guide the general program of coordination known as a "declaration of policy." This declaration of policy agreed to by these four commercial utilities back in 1952 is as follows:

1. That the planning for the supply of this bulk power system should be coordinated, using a "one system" approach.

2. That the installation of additional generating capacity should be related to the combined loads of the interconnected systems of the companies affected. By mutual agreement, each additional generating unit should be, insofar as practicable:

a. The largest size that the existing circumstances can justify.

b. Timed to meet the requirements of the combined loads.

c. Located and owned in accordance with two factors, namely:

(i) The preferred location to serve the prospective combined loads, either in an existing or a new site, and

(ii) Rotating installations so that in the long run no one company will have an unreasonable capital investment made for the benefit of others and no one company will be dependent on other companies for a disproportionate amount of its capacity requirements.

3. That the installation of, and participation in, each additional unit should be a separate matter to be mutually agreed upon. Participation in each unit should be on an "equalized reserve" basis insofar as practicable.

4. That, under such a coordinated program, additional transmission facilities and intercommunications may be required and that the cost of such additional facilities should be borne by the participating companies on an equitable basis.

5. That the accomplishment of maximum economy requires coordination of the operation of both new and existing facilities to the mutual benefit of all the companies concerned.

The heart of the plan developed by these four commercial utilities is the joint planning of generation and transmission using a "one system" approach and sharing the resulting overall generating capacity on an equalized reserve basis. It is not necessary to go into detail, but a few principles are worthy of note. For each new planned generating unit, a participation agreement is drawn up. This agreement binds each company to participate in the

new unit in accordance with a formula which produces equalization of reserves based on peak loads for the next several years after the unit is in service. It is assumed that participation in any given unit will not be of long duration. Whenever the load of the Sponsor-Owner of a particular unit grows to the point where the total capacity of the unit is required for its own loads, the participation ceases. The only continuing obligation is the agreement to supply power at cost by the other participants in the event of a breakdown of such unit. This is necessary and fair because the unit will generally be over-size for the owner's system.

Other economies resulting from coordination of transmission on a one-system basis also were achieved through this pooling arrangement.

Such pooling or capacity coordinating arrangements are far from new in the private utility segment of our electric utility industry. However, most are of the nature of some sort of deficiency charge which is applied if certain reserve generating capacity is not maintained. Few, if any of them, start from the grass roots of joint capacity planning from a one-system basis, or for the sharing of capacity energy output in full annual cost of new units. This plan, therefore, was held up as a shining example of how a group of relatively small independent utilities could secure the bulk power economies of larger systems, without the sacrifice of their basic independence. In this regard, the guidelines developed by this group might well be applied in planning municipal and cooperative pooling arrangements.

There is one paragraph in this 1957 article that is worthy of a direct quote, as follows:

> "In all these joint arrangements-production transmission, interchange-the priceless ingredient of success is the mutual respect and confidence of the four parties. Sharp practices and selfish objectives have no place in arrangements of these kinds. In fact, a careful analysis will prove such tactics will be detrimental to the long-run self-interest of any company."

These same principles should be recognized in any proposed pooling arrangements. However, the municipal and cooperative systems must ready themselves through an active program of study and planning before they can sit down at the negotiating table with one another and the commercial utilities in their areas in an atmosphere of respect and confidence.

Returning briefly to the overall aspects of regional interties and nationwide power pooling, there appeared in the St. Louis Post Dispatch in February of this year, an excellent editorial regarding power pooling in the United States. This article quoted some statements by Joseph C. Swidler,

Chairman of the Federal Power Commission, regarding the estimates that this agency had made regarding the benefits of a fully coordinated power supply system in the United States.

As was pointed out in this article, the United States is probably the only industrial nation in the world with no national coordination of its power supply. There are 3,600 separate electric power enterprises in the country. Four hundred of them are private, 1,000 are cooperative, and 2,200 are public. Chairman Swidler believes that national guidelines are necessary to enable them to fit their plans into nationwide perspective. FPC is seeking to provide those guidelines in the National Power Survey which is to be completed in April of this year, the second in the history of the United States and the first since 1935. The Federal Power Commission estimates that an improved efficiency of only 5 percent resulting from a fully coordinated system of power supply could reduce generating costs almost $300,000,000 a year from the outset, increasing with demand, which has been doubling every 10 years. They estimate that three billion dollars could be saved in the next 17 years from reduction of reserve capacity alone, made possible by interchanges among systems.

The benefits of widespread coordination in pooling arrangements on a region-wide and nation-wide basis are, therefore, important not only to the healthy growth of every municipal, cooperative and commercial utility in the United States, but to the nation as a whole. The results of the National Power Survey soon to be released are bound to have a significant bearing on future power supply planning in the United States. Let me assure you that the long-range planning of the commercial utilities in Florida and across the United States will be reflected in the results of this important survey. It is a matter of deep concern, however, that the planning necessary to provide for the future requirements of a great majority of the municipal and small cooperative systems on a coordinated interconnected basis will by default, not be reflected in the National Power Survey. The reason is that far too many municipal systems and neighboring cooperatives have not sat down together and worked out coordinated generation and transmission plans that were sufficiently developed to be submitted to the National Power Survey and included in its results. It is likely, therefore, that the commercial utilities have included the future power requirements of public power distributors in their own forecasts of area loads even though there are no binding committments that the municipal and cooperative systems expect to purchase power from the commercial utilities. This "big brother" approach to the expansion of area generation is not, in our opinion, condusive to the development of a sound basis for mutual respect and cooperation. This attitude must be reversed by the municipals and their neighboring cooperatives by developing their own alternative power supply programs, and then sitting down with the commercial utilities to see where these plans can be improved by coordinating with the plans of commercial utilities into widespread power pools.

Existing Power Pooling in Florida

In this paper, the need for additional power pooling planning affecting both municipal and cooperative systems has been stressed. I would not want to leave the impression, however, that the recognition of the need for such pooling arrangements and the actual implementation of such arrangements has been totally lacking in the State of Florida. Actually, there has been rather good progress in the matter of simple interconnections between immediately adjacent systems which are described as follows:

1. The Orlando Utilities Commission has interchange agreements both with the Florida Power Corporation and the Florida Power and Light, which agreements are almost identical in their terms and conditions. The existing capacity of the tie with Florida Power Corporation is approximately 100 megawatts at 115 kv and it is planned to have a second FPC tie in operation by mid-1964 at 220 kv. The present tie with Florida Power and Light is approximately 250 megawatts at 220 kv. Mr. Curtis Stanton, Executive Vice President of the Orlando Utilities Commission was kind enough to let us review a copy of this interchange agreement. From our review, these agreements appear to have taken into consideration all possible benefits of pooled operation. There are four separate schedules for different types of service and interchange between the two systems which include: (A) Firm Interchange Service; (B) Emergency Interchange Service; (C) Scheduled Interchange Service; and (D) Economy Energy Service. The benefits to the Orlando Utilities Commission, as well as to FPC and FP&L, particularly when the planned larger interconnections are completed, should prove to be substantial indeed.

2. The municipal systems of Vero Beach and Fort Pierce have, for a number of years, had a 5,000 kilowatt tie line operated at 33 kv. Plans are under way now to increase the capacity of the tie line and to increase the voltage to 69 kv. This tie line has proved invaluable to both systems in providing capacity during scheduled maintenance shutdowns of their units, purchase of economy energy, emergency interchange and firm power interchange. This tie line permits both cities to install larger generating units on a "take-your-turn" basis with substantial benefits to both parties.

3. The municipal systems of Kissimmee and St. Cloud have an existing interconnection agreement. The tie line has a capacity of 1,500 kw and is operated at 14.4/25 kv. Although the tie line has been used primarily for emergency in backup of either plant, it is also used for economy operations by both parties. Mr. Roy Hansen, Director of Utilities for the City of Kissimmee has informed us that in the near future, this interconnection may be increased to 5,000 kw at 33 kv.

4. The City of Lakeland, Florida has an interconnection agreement with Tampa Electric Company.

5. The City of Jacksonville has an interconnection with Florida Power and Light.

6. The City of Tallahassee has an interconnection with the Florida Power Corporation whereby the City, over its 66 kv transmission facilities, can purchase emergency and/or interruptable electric capacity to 8,000 kw together with associated energy.

There may be yet other interconnections of which we are not aware and others that may be planned. An intertie is currently under study between the Key West Electric System and the Florida Keys Electric Power Cooperative in connection with a proposed 50,000 kilowatt power plant combined with a 10.0 million gallon per day water desalination plant. Although many other factors must also be considered, it is clearly evident that a high voltage intertie between the two systems is necessary to economically dispose of this block of power.

From the foregoing, it can be seen that certain municipal and cooperative systems in the State of Florida recognizing the benefits of power pooling, have made extensive efforts in this direction. However, these efforts alone are not sufficient to meet the challenges that face all of the municipal and cooperative systems in Florida over the next decade. As evidence thereof, I should like to bring to your attention certain facts and figures.

Need for Additional Power Pooling in Florida

We have included at the end of this paper a chart marked Exhibit "B", which shows the historical growth in electric energy output in the United States for the last 30 years. The extension of this same curve to 1980 represents one of the several projections of electric energy requirements that was developed by a responsible study group. Actually, no one present can develop an accurate chart of future power needs, but one thing is abundantly clear - the use of electric energy in the American economy is growing at a substantial rate.

If we examine the curve on Exhibit "B", we will see that the industry is probably just at the knee of the curve from the standpoint of the development of the nation's power supply. This means that even though the electric power industry has done a remarkable job over the past 30 years, the job ahead is even more challenging.

From the curve on Exhibit "B", the total energy output for utilities in the United States for the year 1950 was approximately 330 billion kilowatt-hours. Over the 10 year period of 1950 to 1960, this increased to 750 billion kilowatt-hours, or 230 percent, representing an average annual growth rate of 8 1/2 percent per year.

Of even more immediate interest to members of FMUA is a special report that appeared in the January 13, 1964 issue of U. S. News and World Report. This report analyzed the growth of the United States between now and 1970. Segregating the population into 19 "strip cities", which are areas where population growth tends to spread along major highways, until one population center merges with another, this article predicted that by 1970 nearly 70 percent of all Americans will live in urban areas. The following table shows how the existing and predicted 1970 population is distributed between these 19 strip cities, all other metropolitan areas and the rest of the United States. The following table shows the results of this analysis on a nationwide basis, together with the analysis of one of the strip cities; namely, Jacksonville to Miami, Florida.

	Millions of People			
	Latest (1960)	By 1970 (Est.)	Increase by 1970	Percent Gain
Total, 19 Strip Cities	101.0	124.5	23.5	23%
All other Metropolitan Areas	14.8	18.2	3.4	23%
Rest of United States	64.2	65.6	1.4	2%
Jacksonville-Miami	3.0	5.1	2.1	67%

The growth of the Jacksonville-Miami area between now and 1970 of 2.1 million people or a gain of 67 percent is second in growth rate only to the Phoenix-Tucson area, which has a predicted gain of 74 percent. However, the growth of 2.1 million people is more than three times the total increase of 700,000 people predicted for the Phoenix-Tucson area. For the entire State of Florida, the July 1963 population estimate of 5,650,000 is estimated to increase to 7,382,000 by 1970, a gain of 31 percent which is the highest in the nation for a state with present population in excess of two million.

According to the article, the typical American of 1970 is to be a young adult living in a metropolitan area and dependent upon a vast system of public works, modern transportation and electric, sewer and water systems.

Those of you who are responsible for planning for growth in Florida have no doubt seen similar figures, but this article clearly brought home to ... the challenge that faces you in planning for the future electrical power requirements to meet this tremendous growth increase. Taking into account both population increases and increased use of electrical energy, instead of looking the conventional 10 years in the future before your load requirements and generation requirements will double, it appears that you can expect such doubling as early as 1970-1972.

The question is, are the municipal and cooperative systems in Florida fully prepared to meet this challenge and to provide the necessary investment capital to construct the needed generation and transmission facilities? Judging from your past performance, I can say with confidence that you will get the job done; however, you will do the job better at a lower investment cost, lower production cost and lower rates for services if your efforts in the field of coordinated power pooling are intensified. The need in Florida between now and 1970 is for an abundant supply of low cost power rather than a barely adequate supply of relatively high cost power. A cooperative understanding is necessary now to decide whether the municipal and rural cooperative systems in Florida are going to grow with this growth as isolated systems, or whether you are going to grow as coordinated and integrated systems.

Since the key to integrated pooled operation is transmission, it is worthy to review the existing high voltage transmission in the State of Florida.

High Voltage Transmission in Florida

We have reviewed the most recent Federal Power Commission maps "Principal Electric Facilities - Southeastern Region" dated 1963, which include the State of Florida. There is no backbone system of Federally-owned transmission in your state that you can rely upon as a common carrier to effectuate the interchange and pooling agreements that you may wish to make with one another. Such backbone transmission as does exist is owned primarily by Florida Power and Light and Florida Power Corporation. We have no knowledge as to the future transmission planning of these commercial utilities between now and 1970. The results of the National Power Survey, which will be limited to showing planned transmission facilities of 230 kv and above, will soon be available for you to determine what the plans of these commercial utilities are. However, at the present time, it is worthy to note that there is not a single 230 kv high voltage transmission line coming into the State of Florida. Therefore, in a sense, it can be said that the State of Florida is being operated as an isolated system with respect to the rest of the United States; almost in the same manner as many of the municipal systems in the State of Florida are operated as isolated systems with respect to the transmission that does exist within the State.

We note also, such 230 kv transmission facilities as do exist in the State connect primarily the major load centers of private companies. As a result, there are extensive no-man's lands where high voltage transmission is either weak or entirely lacking in the State. It is more than just coincidence that some of the major municipal systems in the state are located within the area of these "no-man's lands."

For the present power supply situation, this is unfortunate because it prevents or reduces the possibility of immediate strong interconnection with other utility systems within the State. However, for the long-range power supply picture, it could be a fortunate circumstance materially benefiting the municipal and cooperative systems in the State. These are areas where you have a primary interest and the commercial utilities have a secondary interest in transmission. Therefore, it could very well provide an opportunity for the construction by the municipal and cooperative systems of strong high voltage transmission lines for the primary purpose of supplying your basic power requirements while secondarily interconnecting minor load centers of the commercial utilities in exchange for similar rights and benefits in areas where the commercial utilities have strong transmission interconnections.

In some respects, the State of Florida needs such comprehensive overall planning more than other areas in the United States. From our work in Florida, we are familiar with the typical load shapes of some of the systems, and they are similar. Summer peak loads have associated with them large amounts of energy due primarily to air conditioning. Winter peak loads, however, are both sharp and infrequent and have very little energy associated with them. As evidence that you have recognized the need for meeting these sharp peaks with the lowest possible cost generating facilities you have seen in the State of Florida in recent years, the installation of numerous standby or peaking type gas turbine and Diesel units. This foresight and planning is commendable, however, the provision of such reserve and standby capacity can be provided even more economically under pooled operations if the necessary transmission facilities are constructed to permit such operations. In addition, by such interconnections, the summer energy requirements can be met with low cost power production from large efficient units.

In view of the foregoing, I should like to suggest to you today how the Florida Municipal Utilities Association might expand its role in future power pool planning in the State of Florida.

Possible Future Role of FMUA in Power Pool Planning

Addressing you today, it is difficult to realize that this is only the Seventh Annual Conference of this important organization. We have followed with interest your progress since your First Annual Conference, which was held in Orlando March 23-25, 1958. In reviewing the excellent news letters prepared by Mac Cunningham, your Executive Secretary over the past six years, we have seen your organization face many challenges.

In general, it seems that the early problems were centered around attempts by the private power interests in the State of Florida to take over certain municipal operations. We know that this threat still exists, but as your organization has grown strong the strength of this threat has materially diminished.

That your organization has learned first-hand the benefits of mutual cooperation is evidenced by the success of your Mutual Aid program. For years the private power companies in the state in their efforts to deride public-owned systems, leveled the charge that during disasters when lines were down, they had ample equipment and men to rush to the aid of the stricken area, whereas the municipal and cooperative systems did not. You met this challenge by an agreement in mid-1960 between the directors of the Florida Statewide Cooperative Association and the FMUA to form a mutual aid program. On September 9th, only a few months later, you had an opportunity to observe the benefits of having met this challenge. Hurricane "Donna" was one of the most vicious and destructive hurricanes in the history of the State. As a result of heroic night and day efforts by line crews from municipal systems that were not hit so hard, those systems that suffered extensive damage had service restored in record time. This challenge was met just in time.

The challenge of almost fantastic growth that now faces you will not strike as quickly as Donna, but the effects of not planning for it can be just as damaging to the economic well-being of your systems. I have previously pointed out the need for extensive planning and study, and I now hereby suggest that the Florida Municipal Utilities Association is a group ideally constituted to undertake the important role of providing leadership in making such studies.

You have already heard an address by Mr. Harold Lee, Executive Director of Midwest Electric Consumers Association. This organization provided just such leadership. They conducted studies and carried out programs, including network analyzer studies of future transmission requirements in the Missouri Basin and future generating requirements to assure an adequate supply of low cost power for member systems. The results of their efforts have been truly outstanding. From this leadership, there has been formed the Missouri Basin Systems Group, which I am confident will prove to be one of the most effective power pooling arrangements in the United States. The Missouri Basin Systems Group comprises hundreds of cooperative and municipal systems which, through joint use and sharing of transmission capacity and generation capacity with those of the U. S. Bureau of Reclamation, will provide almost immeasurable benefits to its members.

Here, then, is an outline of a program that might be considered by the Florida Municipal Utilities Association in its efforts to secure the benefits of long-range power supply planning for all of its members:

First and foremost would be the formation of a permanent overall Municipal and Cooperative Power Supply Study Group. The members of this group could be selected from among those many qualified leaders in your organization who direct and supervise your municipal and rural cooperative systems. Such a group should be provided with adequate funds through solicitation or assessment to carry out its work in an effective manner. It should be charged with the responsibility of studying and preparing alternative plans for power generation and transmission on an area-wide and state-wide

basis which will produce the maximum benefits to the member systems. In order to carry out its work effectively, the group should be permitted to employ engineering, legal and other technical consultants as required. In addition, consideration should be given to the formation of special committees within the overall group as follows:

A. Load Forecast Study Committee

This activity is essential to the successful formulation of long-range plans. For planning purposes, optimistic estimates are needed in order to justify the installation of optimum facility. A balance must, of course, be maintained or the cost of providing future capacity can begin to exceed the present day benefits. Therefore, a good rule of thumb is to use optimistic load forecasts for planning purposes and conservative revenue forecasts for financing purposes.

One method by which such a Load Forecast Committee could be effectively utilized is to have all participating systems submit to the Committee annually their five-year, ten-year, and long-range load forecasts, so that the Committee has a sound basis for preparing up-to-date area-wide and state-wide load forecasts for the member systems. Such load forecasts become the groundwork on which other special committees can develop sound plans.

B. Transmission Study Committee

A Transmission Study Committee utilizing basic load information supplied by the Load Forecast Committee could develop alternative plans for transmission systems interconnecting the participants' major load centers in a given area and could ultimately develop area-wide and state-wide transmission plans which would serve the participating municipal and cooperative members. To effectively develop such plans would require extensive a-c network analyzer studies and would involve considerable cost. These studies are, however, absolutely necessary and their cost would more than be offset by the potential benefits that such comprehensive planning can provide.

C. Power Generation Study Committee

Such a Committee could utilize the data developed by the Load Forecast Committee and, taking into account all existing generating capability of the municipal and cooperative systems and their presently planned expansion programs, develop optimum locations for additional major generating facilities to most effectively serve the future loads of the participating members. Such additional generation to meet future load growth could, of course, be planned on a number of different bases, including the installation of large, efficient units in existing plants on a take-your-turn basis or the installation of new facilities at new sites on a "sharing of capacity" basis. The financing of such new generation would, of course, be matters to be

studied in detail in cooperation with the fiscal advisors and bond counsels for the municipal systems, as well as the REA in Washington with respect to financing of any of the facilities by the REA cooperatives.

D. Legal and Legislative Committee

Not being thoroughly familiar with Florida laws, we recognize that there may be a number of stumbling blocks in the path of developing effective transmission and generation plans between the municipal and cooperative system. In addition, extensive and detailed contractual arrangements would have to be worked out in order to implement such generation and transmission plans as would be developed by the other committees. Furthermore, such a Legal and Legislative Committee could provide a pool of information and advice to assist municipal systems that do not have their own generation and must rely on the commercial utilities as their sole source of supply in their efforts to obtain equitable power purchase contracts. In this regard, the recent efforts made before the Federal Power Commission, under Section 202b of the Federal Power Act, by such communities as Shrewsbury, Massachusetts, and the results of the recent decision by FPC in the Colton Case (California), give promise that where there is an informed municipal utility organization, discriminatory practices by the private utilities against their municipal customers can be prohibited.

E. Fuels Resource Committee

The function of such a Committee could be to study alternate fuel resources for power generation in the State of Florida. The need for such a Committee is already well-recognized, since many of the members of FMUA are members of the Oil User's Association. This Association comprising commercial, municipal, and cooperative generating utilities, has expended considerable effort in attempting to lift restrictive residual oil import quotas. Because of these quotas, fuel prices in the State of Florida, for power generating purposes, are extremely high, on the order of 37¢ to 42¢ per million btu. However, through utilization of ocean-going barges, the nation's coal companies have recently expressed considerable interest in supplying this form of fuel to large power generating facilities in Florida at attractive prices. The work such a Committee in studying and recommending alternative fuel supplies for planned generating facilities could prove extremely beneficial.

F. Atomic Power Study Committee

The advances in nuclear fuel technology within the last two to five years indicate that the date when atomic generating facilities might become commercially feasible in the State of Florida may be much sooner than was suspected just a few short years ago. Almost every commercial utility organization in the United States has such an Atomic Study Committee. I would not attempt to predict when atomic power plants could be playing an important

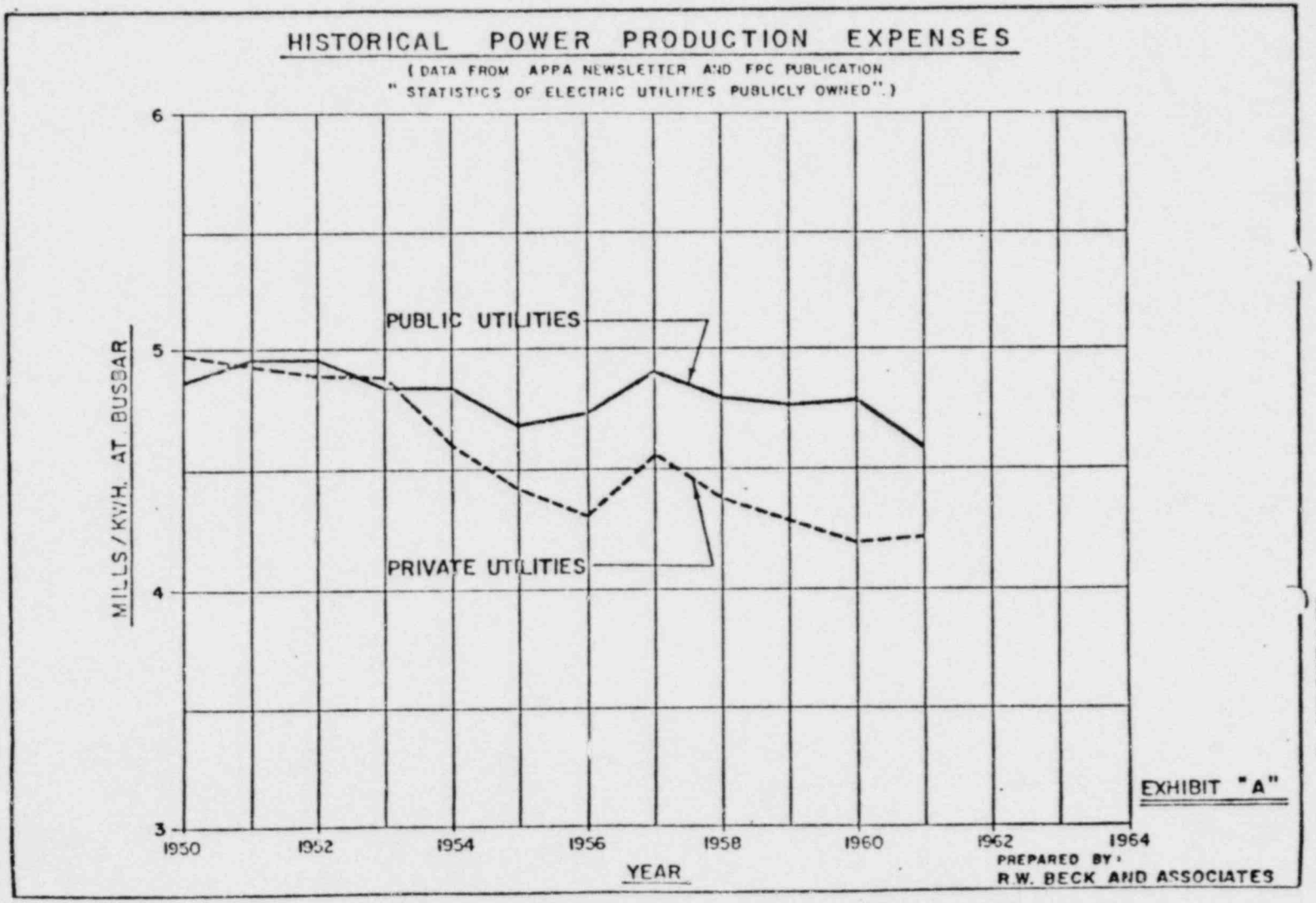
part in your power generation program. However, it appears that the role of atomic power seems best suited to large generating facilities. The commercial utilities can now effectively integrate into their future generation programs such unit sizes of 150 to 500 megawatts as soon as their studies indicate that this is their cheapest alternative power supply source. You should be in the same position and the time to initiate such studies is now, for this is a fast-moving field and extremely technical in nature. The municipal and cooperative systems in the State of Florida should not let themselves by default get into the position whereby, at some future date, perhaps not too far off, an accusing finger can be pointed saying that "you have not kept up with the times."

Should you, the members of the Florida Municipal Utilities Association, seriously consider formation of such a permanent overall Municipal Power Supply Study Group and associated Committees, in your efforts to meet the challenges of rapid growth and advancements in modern technology, I am confident that you will meet this challenge as you have met past challenges, in a spirit of cooperation, with vigor and intelligence and, above all, with ultimate success.

I should like to leave with you three more guidelines which I firmly believe can prove to be your most effective tool in planning power supply programs to provide abundant supplies of low cost power for your customers. These are:

(1) ALTERNATIVES
(2) ALTERNATIVES
(3) A L T E R N A T I V E S

It has been a pleasure to have this opportunity to discuss the overall problems of power supply and the potential benefits of power pooling with you today. We hope we will have an opportunity to meet with you and share experiences with you in the future, as you make continued progress in solving the complex problems facing the Florida Municipal and Cooperative Electric Systems.

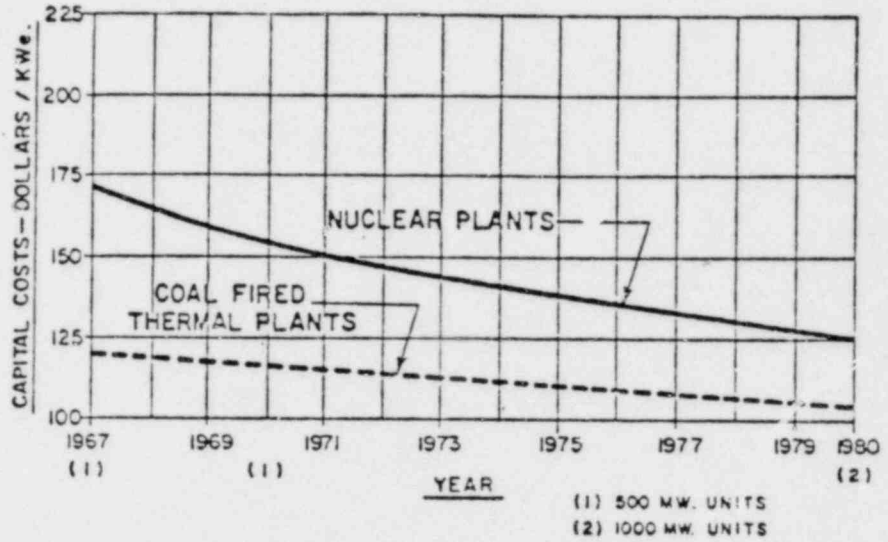

HISTORICAL POWER PRODUCTION EXPENSES
(DATA FROM APPA NEWSLETTER AND FPC PUBLICATION
"STATISTICS OF ELECTRIC UTILITIES PUBLICLY OWNED".)
MILLS/KWH. AT BUSBAR
6
5
4
3
PUBLIC UTILITIES
PRIVATE UTILITIES
1950
1952
1954
1956
1958
1960
1962
1964
YEAR
EXHIBIT "A"
PREPARED BY:
R.W. BECK AND ASSOCIATES

APPENDIX G

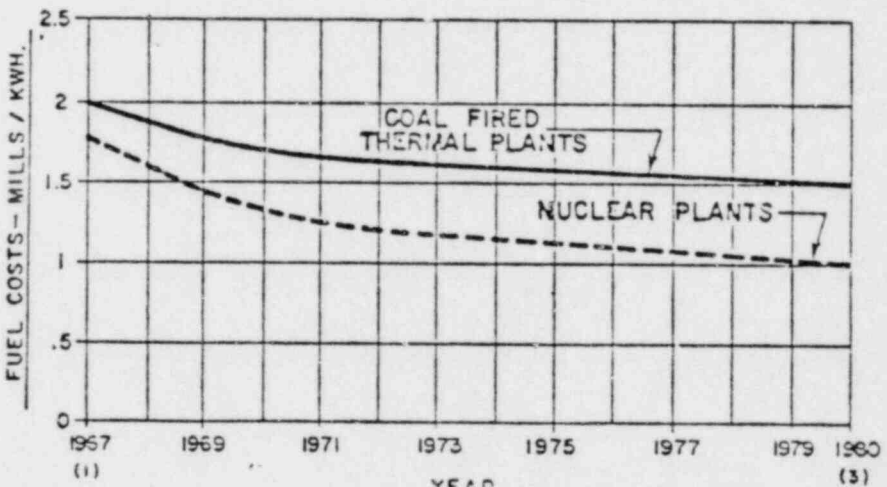
PROJECTED CAPITAL AND FUEL COSTS

NUCLEAR VS. COAL FIRED THERMAL PLANTS

(NATIONAL POWER SURVEY —
ADVISORY COMMITTEE REPORT NO. 15, JULY 1963)



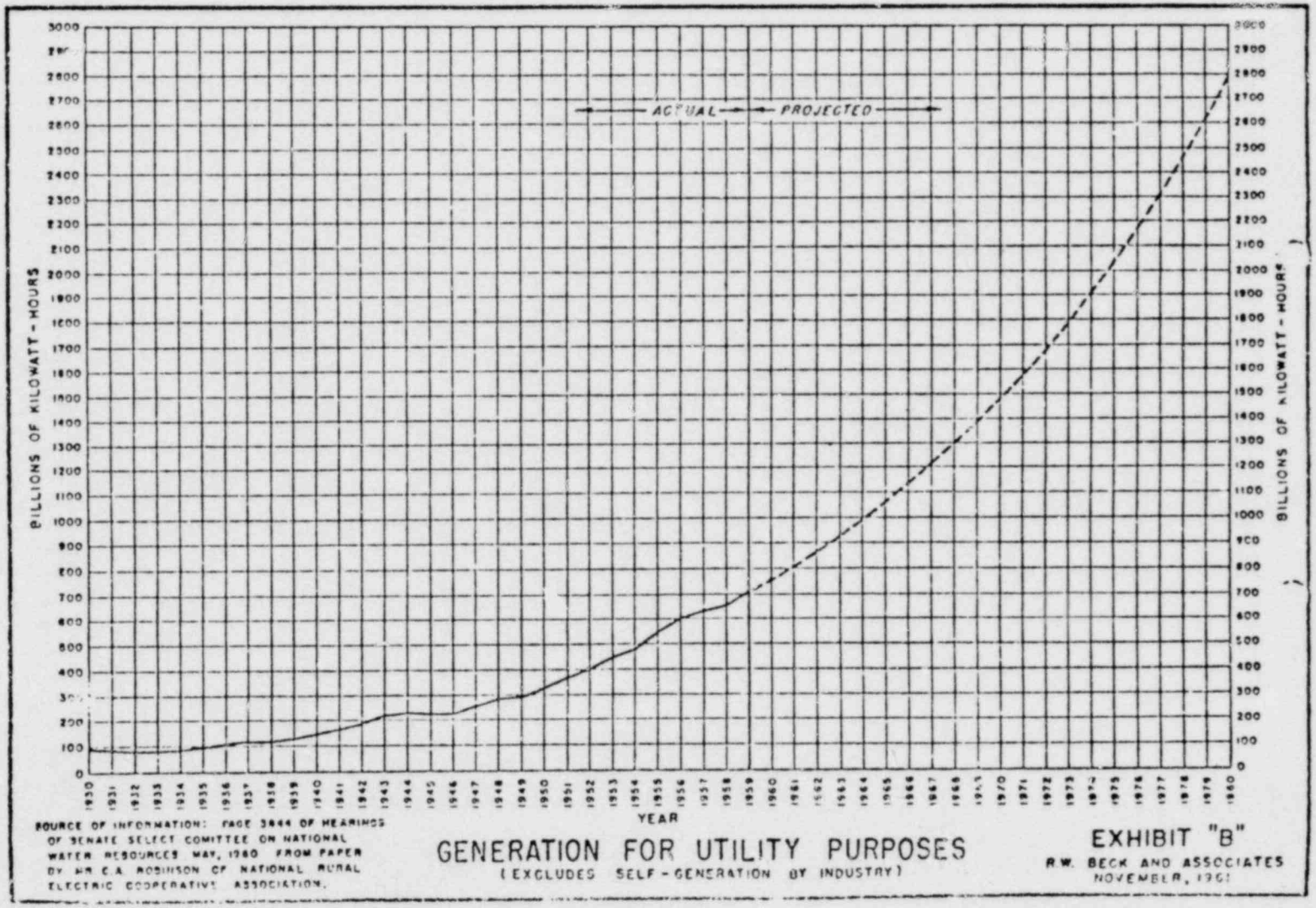
(1) 500 MW. UNITS
(2) 1000 MW. UNITS



(1) HEAT RATE 8800 BTU.
(2) HEAT RATE 8600 BTU.
(3) HEAT RATE 8500 BTU.

EXHIBIT "A-1"

PREPARED BY:
R.W. BECK AND ASSOCIATES


ACTUAL
PROJECTED
BILLIONS OF KILOWATT - HOURS
BILLIONS OF KILOWATT - HOURS
YEAR
SOURCE OF INFORMATION: PAGE 3844 OF HEARINGS OF SENATE SELECT COMITTEE ON NATIONAL WATER RESOURCES MAY, 1960 FROM PAPER BY MR C.A. ROBINSON OF NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION.
GENERATION FOR UTILITY PURPOSES
(EXCLUDES SELF-GENERATION BY INDUSTRY)
EXHIBIT "B"
R.W. BECK AND ASSOCIATES
NOVEMBER, 1961

APPENDIX H

U. S. DISTRICT COURT

FOR THE SOUTHERN DISTRICT OF FLORIDA

LAKE WORTH UTILITIES AUTHORITY, et al., Plaintiffs, vs. FLORIDA POWER & LIGHT COMPANY, Defendant.	Case No. 79-5101-Civ.-JLK

DEPOSITION OF BENJAMIN FUQUA

Washington, D. C.
Tuesday, 22 September 1981

Deposition of BENJAMIN FUQUA, called for examination by agreement of counsel, at 12th Floor, 1025 Connecticut Avenue, N. W., at 9:00 a.m., before JOEL BREITNER, a Notary Public within and for the District of Columbia, when were present on behalf of the respective parties:

DANIEL GUTTMAN, ESQ., and SUSAN WHITE, Spiegel & McDiarmid, 2600 Virginia Avenue, N.W., Washington, D.C.; on behalf of the Plaintiffs.

J.K. BOUKNIGHT, ESQ., and PETER FLYNN, ESQ., Lowenstein, Newman, Reis & Axelrad, 1025 Connecticut Avenue, N.W., Suite 1214, Washington, D.C.; on behalf of the Defendant.

ALSO PRESENT:

HOLLY LINDEMAN, ESQ., Lowenstein, Newman, Reis & Axelrad
CHARLES DURST, paralegal

80 05 04
BPTgdv

was that we did negotiate and establish territorial agreements.

Q Did any of the territorial agreements with the Florida Power Corporation, if you recall, distinguish between wholesale and retail sales?

A We never made any territorial agreement in regard to wholesale.

Q My question is, though, did any of the ones -- the agreements that you made -- distinguish? Say this relates to wholesale and not retail? Did they spell out that it was related to one but not the other?

MR. BOUKNIGHT: I object to the question. Mr. Guttman, to the extent that you are asking him what the contents of written agreements is, those agreements can speak for themselves.

He's answered your question about wholesale agreements.

BY MR. GUTTMAN:

Q Can you answer the question? Did any of the territorial agreements distinguish between wholesale and retail; if you recall?

A In our view a territorial agreement referred only to retail and not to wholesale, and that applied to the one

with Florida Power Corporation.

Q Do you recall, did FP&L ever sell at wholesale in Florida Power Corporation's retail territory?

A I do not recall that they did.

Q Was there any reason why not?

A Do you mean any legal reason?

Q Any reason of any sort that you can tell me.

A So far as I know, they never undertook to wholesale in any area which was considered to be our service territorry.

Q I understand that's your statement, but do you know of any reason why that was so?

A No. I don't know the answer to that.

Q Do you know if Florida Power Corporation ever undertook to wholesale in the area that was your retail service territory?

A I just answered that question.

Q That goes both ways? Neither you nor Florida Power Corporation?

A That's right.

(Discussion off the record.)

MR. GUTTMAN: Lon just pointed out that in the

APPENDIX I

UNITED STATES DISTRICT COURT,
MIDDLE DISTRICT OF FLORIDA,
JACKSONVILLE DIVISION

GAINESVILLE UTILITIES DEPARTMENT and CITY OF GAINESVILLE, FLORIDA, Plaintiffs,	)	
-vs-	)	No. 68-305-Civ-J
FLORIDA POWER AND LIGHT COMPANY, Defendant.	)	

The above-entitled matter came on for further hearing before His Honor, Gerald Bard Tjoflat and a jury in Courtroom No. 1 in the United States District Courthouse, Jacksonville, Duval County, Florida, on Monday, July 14, 1975, commencing at 9:25 o'clock a.m.

- - -

Lillian A. Balboni, CSR
and
Ruth B. Odom, CSR
Official Court Reporters

superiors at Florida Power and Light?

A Not to my recollection.

Q When you wrote the Federal Power Commission a few days later, did you tell them you didn't have any agreement with Florida Power Corporation that would prohibit Florida Power from connecting with Gainesville?

A The letter I wrote to them speaks for itself. We have read it.

Q You didn't tell them anything about that?

A I don't think territorial agreements were mentioned.

Q Not in your letter?

A No.

Q Did you ever bring that, what you referred to as a mistake, to the attention of anyone?

A Well, I have stated categorially over and over again that we had no territorial agreement with Florida Power Corporation in Alachua County.

Q Did you ever tell the Federal Power Commission that?

A I'm sure that at some point we have must. I have no recollection of it.

Q I am asking you if you have --

T5-5-BR

Q And Mr. Clapp --

A They were there in proximity. Your witnesses have testified to the same thing.

Q All right. And Mr. Clapp wanted you to stay out of it, too; didn't he?

A I don't know what Mr. Clapp's --

Q You don't know what he said in his letter?

A I know he made a mistake about --

Q Oh.

A -- about it, at least if indeed you read into it that he said there was some kind of a territorial agreement between Florida Power and Light and Florida Power Corporation in Alachua County, that he made a mistake.

Q You didn't --

A Although he never did say that in his letter.

Q Did you read that in to his letter?

A No, sir.

Q No?

A I did not.

Q Did you read into his letter that he was objecting to any interconnection between Gainesville and Florida Power and Light?

A No, sir, I don't know that I read that into

I don't know that I gave it any thought.

BY MR. McKENNA:

Q When he started out saying with reference to Mr. Kelly's alternative reaching an interchange agreement with Florida Power and Light Company, you didn't give any thought as to what he was talking about there?

A No, sir.

Q All right. Well now, again to get back, Mr. Dunn had asked for your comments before these letters went out, hadn't he, before they responded?

A You will have to identify the letters. There have been so many now here, and you keep throwing them at me --

Q Plaintiffs' Exhibit 5.

A -- I don't know which one you are talking about.

Q Plaintiffs' Exhibit 5, Mr. Fuqua. You have got it before you. The last paragraph.

A (Examining document) Yes, I see. Do you want it read?

Q No. Mr. Fuqua, isn't it true that people at Power and Light did coordinate these responses with the people at Florida Power Corporation?

A Not to my knowledge. And you are not going

APPENDIX J

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
JACKSONVILLE DIVISION

GAINESVILLE UTILITIES DEPARTMENT and CITY OF GAINESVILLE, FLORIDA, Plaintiffs, vs. FLORIDA POWER CORPORATION and FLORIDA POWER AND LIGHT COMPANY, Defendants.	Civil Action No. 68-305-Civ.J.

DEPOSITION OF: BEN H. FUQUA

TAKEN: Pursuant to Notice by Counsel for Plaintiffs

DATE: December 5, 1972

PLACE: Florida Power & Light Office Miami, Florida

TIME: 9:05 o'clock, a.m.

BEFORE: Gerald N. Eichar, Jr., Notary Public, State of Florida at Large.

= = = = = =

boundary line drawn by the territorial agreement?

MR. MATHEWS: I'll object to the form, and then he can go ahead and answer, if he can.

THE WITNESS: Well, the only answer I can give is, as I have testified before, it's my view and, I believe it to be the official view of our company, that whatever territorial agreements we have had with any electric supplier applied only to retail customers.

BY MR. SCOTT:

Q Yes, I remember that you did that.

A Not to wholesale customers.

Q You did testify to that. But here we are talking about inter-connections.

A Well, it appears to be the same thing. If you interconnect, I suppose it would be with some wholesale customer. I presume it would be.

Q Why do you presume that?

A Well, I don't know of any other candidate of an interconnection. Maybe there are some, I just can't think of any at the moment.

Q Well, have you been aware, at any time, the possibility that the territorial agreements do foreclose

APPENDIX K

IN THE UNITED STATES DISTRICT COURT IN AND FOR THE MIDDLE DISTRICT OF FLORIDA, JACKSONVILLE DIVISION

GAINESVILLE UTILITIES DEPARTMENT and CITY OF GAINESVILLE, FLORIDA, Plaintiffs, vs. FLORIDA POWER CORPORATION and FLORIDA POWER AND LIGHT COMPANY, Defendants.	No. 68-305 Civ. J.

- - - - -

DEPOSITION OF: BEN H. FUQUA

TAKEN: Pursuant to notice by counsel for Plaintiffs

DATE: September 27, 1972

PLACE: Florida Power and Light Company Miami, Florida

TIME: 9:10 o'clock a.m.

BEFORE: Judy S. Eichar, CSR Notary Public, State of Florida at Large.

- - - - -

Q Do you recall whether any time period of development of the area was anticipated? By that, I mean do you recall whether you had in mind an estimate of how soon the area would be developed after that agreement was made?

A I don't recall that we made any estimate.

Q Do you know of any other instances where Power and Light made an agreement of this sort drawing a boundary line in an area that had not yet been developed but where a collision was possible in the future?

A I have no details or specific knowledge, no, sir.

Q Are you aware of any company policy with respect to drawing boundary lines in advance of development of an area?

A I know of no policy.

Q Mr. Fuqua, did you have any role or did you play any part at all in the preparation of answers to interrogatories served on Power and Light by the plaintiffs in this case?

A I can't recall that I did.

Q Did you know who would have or did work on preparation of the answers to our interrogatories requesting a list of territorial agreements?

Q Yes, sir.

A I don't -- I am not familiar with the agreement. I haven't read it in years, if I ever have read it. All I can say on that point is that I believe that our company and its management have consistently stated that the territorial agreement that we have are, in our judgment and understanding, applicable to retail customers only.

Q Where have those statements been made?

A I don't know that they have been made. I say that is our understanding.

Q I see.

A At least it is my understanding.

MR. SMITH: Excuse me. Are you waiting for these (indicating)?

MR. SCOTT: Yes.

BY MR. SCOTT:

Q I hand you now a letter from Mr. Fite to Mr. Clapp of Florida Power Corporation dated July 21, 1958.

A Yes, sir.

Q Which refers to a letter you wrote to a Mr. Clapp on July 18th of 1958, but then refers in the second paragraph to the territorial question which we discussed in Boston. Were you, by any chance, in

APPENDIX L

APPENDIX L

·A·S·R·

VOLUME XIX
PAGES 1-270
EXHIBITS

UNITED STATES DISTRICT COURT,
MIDDLE DISTRICT OF FLORIDA,
JACKSONVILLE DIVISION

STENOGRAPHIC RECORD

GAINESVILLE UTILITIES DEPARTMENT and CITY OF GAINESVILLE, FLORIDA,

Plaintiffs,

-vs-

FLORIDA POWER AND LIGHT COMPANY,

Defendant.

No. 68-305-Civ-J

TRANSCRIPT OF PROCEEDINGS

July 21, 1975

- - -

ASSOCIATED STENOTYPE REPORTERS
1121 AMERICAN HERITAGE LIFE BUILDING • JACKSONVILLE, FLORIDA 32202
903 BLACKSTONE BUILDING • JACKSONVILLE, FLORIDA 32204
Lillian A. Balboni and Staff 356-0401 — 353-0544 — 354-8170

Q What was Mr. Clapp's attitude?

A Well, he just wouldn't have anything to do with it under any conditions. He, as I've testified before, apparently would rather give up his right arm than give up a customer.

Q Did you have any understanding, secret, oral, implied or otherwise, with Mr. Clapp about interconnections between Florida Power and Light and any other company, municipal or otherwise, in the state?

A Positively not.

Q To your knowledge did Mr. McGregor Smith have any such understanding with Mr. Clapp?

A I'm sure that he didn't. I didn't know of any and I don't see how there could have been, with the relationship that they had.

MR. McKENNA:

Your Honor, I move to strike that answer.

THE COURT:

I'm going to let him answer it.

Q Were you the Number 2 man during the period up until you succeeded Mr. Smith as Chief Executive Officer, or were you the next one in the hierarchy of Florida Power and Light?

APPENDIX M

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
JACKSONVILLE DIVISION

GAINESVILLE UTILITIES DEPARTMENT and CITY OF GAINESVILLE, FLORIDA,

Plaintiffs,

vs.

FLORIDA POWER CORPORATION and FLORIDA POWER AND LIGHT COMPANY,

Defendants.

No. 68-305-Civ-J

- - - - - - -

DEPOSITION OF: ROBERT H. FITE

TAKEN: Pursuant to notice by counsel for plaintiffs

DATE: December 4, 1972

PLACE: Florida Power and Light Office
Miami, Florida

TIME: 9:20 o'clock a.m.

BEFORE: Gerald N. Eichar, Jr.
Notary Public
State of Florida at Large

A Because we have no such agreement with Florida Power Corporation, and never did have, and it's entirely in error what Clapp has said there.

Q Did you so inform the Federal Power Commission?

A I didn't personally; no, sir.

Q Why not?

A I don't know. I don't remember it. All I know is there's no such agreement that ever existed between this company and Florida Power Corporation with respect to the territory where Gainesville is.

Q Did you ever communicate with Mr. Clapp about the accuracy of that statement?

A I can't remember having done so; no, sir.

MR. SCOTT: Would you rather not mark this (indicating)?

MR. MATHEWS: It makes no difference.

MR. SCOTT: I think I will make it Exhibit Number 34 to Mr. Fite's deposition.

(Whereupon the above mentioned document was marked as Exhibit Number 34 for identification by the reporter.)

BY MR. SCOTT:

Q Mr. Fite, I would like to show you next a memorandum, undated, from Mr. Fuqua to you about the City of Jacksonville. It relates to a matter that we

APPENDIX N

75TH YEAR

Florida Power
CORPORATION

March 30, 1976

Mr. R. N. Skinner, Chief Engineer
Fort Pierce Utilities Authority
P. O. Box 1480
Fort Pierce, Florida 33450

Dear Mr. Skinner:

Thank you for your letter of March 17, 1976.

Florida Power Corporation has a wholesale tariff on file with the Federal Power Commission. If the city ultimately determines that it is interested in purchasing wholesale service, such service would be available under the terms of the current rate, a copy of which is attached.

Since we are not familiar with the Fort Pierce electric system, we feel that we need some additional information before responding further to the questions in your letter of March 17, 1976. If you would send us a copy of your most recent Federal Power Commission report, or similar information, I believe that we could then evaluate the situation and give you a meaningful answer.

You can be assured that we are giving your questions careful consideration and will attempt to respond as soon as possible.

Very truly yours,

Lee H. Scott
Vice President

LHS:mt

APPENDIX O

UNITED STATES DISTRICT COURT
FOR THE
SOUTHERN DISTRICT OF FLORIDA

The Fort Pierce Utilities Authority of the City of Fort Pierce, the City of Gainesville and the Gainesville-Alachua County Regional Utilities Board, the Lake Worth Utilities Authority, the Utilities Commission of New Smyrna Beach, the Sebring Utilities Commission, and the Cities of Alachua, Bartow, Fort Meade, Homestead, Kissimmee, Mount Dora, Newberry, St. Cloud, Starke, and Tallahassee, Florida,	
Plaintiffs,	Civil Action No. 79-5101-Civ-JLK
v.	
Florida Power & Light Company,	
Defendant.	

DEPOSITION OF EVERETT B. HOWE

Taken in the above-styled cause, at City Hall in Fort Meade, Florida, on the 17th and 18th of September, 1980.

Reported by:

M. Kim Odom, CVR

VOLUME I OF II

Southern Reporting Services
219 South Calhoun Street
P.O. Box 608
Tallahassee, Florida 32302
(904) 222-6061

on my part, but someplace in that 1,000 megawatt class.

Q Do you know when Florida Power and Light Company first committed to construction of it? Again I'll take a ball-park estimate.

A St. Lucie No. 1, we're talking about?

Q Yes, sir.

A Six or seven years ago.

Q Know when it went into operation?

A No.

Q Do you know where it's located?

A East Coast, no I've never been there.

Q You don't know where on the East Coast?

A No, I know where St.-- the village of St. Lucie, and I would only assume that's where it is. No, I don't know where it is, I've never seen it.

Q Since you've been here at Fort Meade, has the city of Fort Meade ever asked Florida Power and Light for participation in any of those three plants?

A Through our attorneys we have asked for participation.

Q Have you ever talked with anyone in the employ of Florida Power and Light Company about participation in those plants, any of those plants?

A I don't recall that I have.

Q Have you ever talked with--

APPENDIX P

APPENDIX P

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

THE FORT PIERCE UTILITIES AUTHORITY OF THE CITY OF FORT PIERCE, etc., et al.,	:	
Plaintiffs,	:	
vs.	:	CIVIL ACTION NO. 79-5101-Civ-JLK
FLORIDA POWER AND LIGHT COMPANY,	:	
Defendants.	:	

THE DEPOSITION OF: DANIEL A. KLEMAN

TAKEN AT THE INSTANCE OF: The Defendants

DATE: Wednesday, May 28, 1980

TIME: Commenced at 10:10 A.M.
Concluded at 4:00 P.M.

PLACE: 305 South Gadsden Street
Tallahassee, Florida

REPORTED BY: PEGGY ENGLES, RPR, CP
Notary Public in and for the
State of Florida at Large

* * *

prior to my association with the City in 1974. I don't know how far beyond that -- back beyond that point.

Q And you rely on Beck -- by you, I mean Tallahassee -- relies on Beck for the development of necessary engineering and economic data for use in planning Tallahassee's generating and transmission facilities; is that correct?

A Yes.

Q On page three of the transcript -- as I read it -- you recommend to the Commission that it reserve any judgment, as to whether it would wish to purchase any of the nuclear power that might be offered as an outcome of that lawsuit. Is that not right?

A Yes.

Q Why did you ask them to reserve judgment on that question?

A Simply, so that the City Commission would have available to it all of the options that are available at the time of the completion of the litigation; whether that be by settlement, or by ultimate resolution through the courts.

Q In other words, when the City of Tallahassee filed its lawsuit, it had not decided whether it wanted to acquire an ownership interest in any FPL plant; is that correct?

A What the City of Tallahassee sought at the time of entering the lawsuit, was the opportunity to consider the purchase of ownership in FPL and nuclear power plants.

Q I don't think that was responsive to my question.

MR. DYM: Can I have it read back?

(Whereupon, the pending question was read by the reporter.)

THE WITNESS: I don't want to be unresponsive. And my response then would be that the City of Tallahassee wanted the opportunity to consider that, because it did not have the opportunity to consider -- to weigh all of the benefits. It was not a firm commitment made at the time of the filing of the lawsuit that the City of Tallahassee would purchase X-percentage of any of the power plants involved in the litigation.

BY MR. DYM:

Q Or any percentage whatever?

A Or any percentage whatever.

Q Now, you used the words "firm commitment." Was there any non-firm commitment by the City of Tallahassee that it would purchase any percentage of a nuclear plant?

A I could only respond that there wasn't a decision by the City Commission to purchase, but that the City sought the opportunity to consider that, and could only do that -- it appeared -- through the opportunity for litigation.

Q Do you know whether the City has ever made an offer to FPL, which FPL could accept, under which the City would purchase a share of an FPL nuclear plant?

A I don't have personal knowledge of that, no.

Q Well, could such an offer have been made since 1974 without your knowledge?

A I am certain there have been discussions between City electric department staff and representatives of the Florida Power and Light Corporation, and maybe discussed in that context, and not reported back to me.

Q No, I'm using the term "offer." In other words, an offer that's made to FP and L, that the City of Tallahassee wishes to purchase X-percent of a nuclear plant, which FPL could then turn around and accept, in which case there would be a binding commitment. Now, my question is whether such an offer has been made.

A I don't recollect any.

Q Well, if such an offer had been made, would you know of it?

A Yes.

Q And you don't know of any; is that correct?

A I can't recollect that there was any. You know, there was a lot of discussion -- and it goes back four or five years ago -- about involvement in -- three, four and five years ago -- about involvement in additional nuclear. And it was some of those discussions that led to the Crystal River participation.

I know there were some discussions about being able

Mr. Morgan, dated October 5, 1979. And it's from Mr. Carl B. Porter, who is a partner of R. W. Beck and Associates. I believe that on page three, Mr. Porter estimates -- if you would build a line by yourself -- it would cost you $2.8 million. Do you have any different understanding now?

A No.

(Whereupon, the instrument last-above referred to was marked for identification as Claimants' Exhibit No. 16.)

BY MR. BOUKNIGHT:

Q Mr. Porter also says that if you were to install the line, that in 1982, you would save approximately $400,000; and those savings would increase, and would amount to approximately -- or in excess of -- $1 million by 1988. Is that your present understanding that could be realized, the savings that could be by constructing this line?

A Yes.

Q All right, sir. How are you going to save this money?

A To the purchase of electricity at lower rates than can be generated, and electricity can be generated by the City of Tallahassee.

Q From Georgia Power Company?

A That's my understanding, yes, yes.

Q Anybody else?

A Anybody else that we would purchase from?

Q Yes, sir.

A Not to my knowledge.

Q All right.

A Georgia Power is a part of Southern Company. So, I don't know whether that means we buy some other part of the Southern Company's power.

Q Have you been offered some power by the Georgia Power Company?

A Not to my knowledge.

Q All right.

A There have been discussions with Georgia Power -- Florida Power -- as I mentioned a couple of times earlier today.

MR. JACOBS: Is this the file copy? Is this the file one?

MR. BOURNIGHT: That's the one that was in our files.

BY MR. BOURNIGHT:

Q I believe you said just a moment ago, Mr. Kleman, you said something that indicated to me that you were weighing constructing this transmission facility possibly against participation in the Florida Power Corporation coal units; is that correct?

A Against Florida Power coal units?

Q Yes, sir.

A Those are both projects that are under consideration by the City of Tallahassee. Any and all projects are being reviewed, any and all opportunities. That includes FPC coal units, Vogtle one and two through FMPA, Georgia tie line, Jackson Bluff hydro-electric dam, and all the others that were referenced earlier.

Q Is it your understanding that all these alternatives are available to you, if you choose to avail yourself of them; is that right?

A Yes.

Q All right. What kind of contractual relationship does the City of Tallahassee have with FMPA?

A I don't know that I can explain that to you. The City is a member of FMPA. Beyond belonging to FMPA, we have entered into, recently, the agreements regarding the feasibility work leading toward those five projects that I spoke to earlier.

Q All right. Now, by member of FMPA, let me put it this way: Has anyone discussed with you the possibility that the City would be asked to execute a power supply contract with FMPA?

A I think so.

Q Has anyone showed you a draft of such contract?

A I don't remember that.

Q Well --

APPENDIX Q

Volume No. 3

OFFICIAL STENOGRAPHERS' REPORT

BEFORE THE

FEDERAL POWER COMMISSION

SUBJECT

In the Matter of:

FLORIDA POWER & LIGHT COMPANY

DOCKET NO. E-9574
(PHASES I AND II)

Held at Washington, D. C.

Wednesday, June 29, 1977

PAGES 360 TO 560

Columbia Reporting Company
OFFICIAL REPORTERS
300 SEVENTH STREET, S.W.
WASHINGTON, D.C. 20024

TELEPHONE 554-9050

(FPC - FLORIDA POWER & LIGHT COMPANY, DOCKET NO. E-9574 (PHASES I & II), Wednesday, June 29, 1977 at Washington, D. C., Volume 3)

C O N T E N T S

that in the process of beginning our engagement we undertook a rather extensive field trip to look at the physical facilities, to look at them, ascertain the way in which they are maintained, just physical observation, and those kinds of things would indicate to an observer that this is an organization that can handle a transmission and distribution system. This is a judgment.

Q I refer you to B-1, Item 4, Schedule 6-3, page 55. That Item 4 reads "Arrangements would have to be made for wheeling of power if the system on which the project is built is not adjacent to Vero Beach. Wheeling will add additional costs to incoming power. No current wheeling options are available."

As to that last statement, can you tell me on what you base that conclusion?

A Comments from the City.

Q Do you recall what the nature of those comments was?

A I think it was probably a simple question and the answer.

Q Do you recall whether they said they could not obtain wheeling services? Is that essentially what your recollection is?

A I think it is accurate as stated, that at that time, based on our conversations with the City, no current wheeling options were available.

We did not circularize utilities in the State of Florida and ask "Would you be willing to wheel power to the City of Vero Beach and if so what would it cost?"

To whom in the City did you speak? Do you recall?

A I think it would have been Mr. Little.

MR. REITER: I have no other questions.

PRESIDING JUDGE: Mr. Spiegel, are you ready again?

MR. SPIEGEL: Yes, Your Honor. I have a few questions.

REDIRECT EXAMINATION

BY MR. SPIEGEL:

Q Did you indicate that you wanted to correct something that had been said?

A Yes. Thank you.

I said earlier on the record that I was aware of no direct communications between our firm and Florida Power & Light. It was pointed out to me that we did receive from the Florida Power & Light Company -- and this was addressed to Mr. John Little of Ernst & Ernst, so this gets a little confusing. Mr. John Little is one of the consultants we employed on this engagement, who is with our firm, and the material transmitted directly to Mr. Little, which also went to Mr. John V. Little at Vero Beach and to Mr. Nason, are rate calculations and consumption levels and rate schedules we used, for Florida Power & Light, that we used as input. I wanted to make sure that I was correct. It was transmitted as

APPENDIX R

APPENDIX R

Florida Power

M. E. Hebb, Jr.
Vice President
Assistant to the President

April 3, 1975

Gainesville/Alachua County
Regional Utilities
P. O. Box 490
Gainesville, Florida 32601

Attention Mr. Robert E. Roundtree, General Manager
Public Utilities

Re: Summary of Expressions of Interest and Allocation - Crystal River No. 3 Nuclear Unit

Gentlemen:

We wish to take this opportunity to thank you for your expression of interest in participating in our Crystal River No. 3 Nuclear Unit. We have now reviewed the sixteen expressions of interest which we received and have applied the allocation formula set forth in our letter of January 29, 1975. Attached is a summation.

There were no expressions of interest for the Anclote No. 2 fossil-fired unit, or the Bayboro regenerative combustion turbine generators.

Finally, we are still in the process of evaluating the expressions of interest which we received on the 1980's Nuclear Project, Units No. 1 and 2. We will inform you regarding the outcome of these expressions of interest at a later date.

Very truly yours,

MEHJr:bj

479643

APPENDIX R

SUMMARY OF EXPRESSIONS OF INTEREST

CRYSTAL RIVER [illegible]

System	Expression of Interest - % Maximum	Minimum	Allocation %	Approx. MW
Alachua, City of	0.6430	0	0.0739	0.6
Bartow, City of	4.4750	0	0.5141	4.2
Bushnell, City of	0.2880	0	0.0331	0.3
Clewiston, City of	1.8200	0	0.2091	1.7
Gainesville/Alachua Co. Regional Util. Board	10.0000	0	1.1487	9.5
Homestead, City of	6.0610	6.0610	0	0
Jacksonville Electric Authority	10.0000	0.600	1.1487	9.5
Kissimmee	5.8790	0	0.6753	5.6
Leesburg, City of	6.0800	0	0.6984	5.8
New Smyrna Beach Util. Commission	4.1576	0	0.4776	3.9
Ocala, City of	10.0000	0	1.1487	9.5
Orlando Util. Comm.	10.0000	0	1.1487	9.5
Sebring Util. Comm.	3.3210	0	0.3815	3.1
Seminole Electric Coop.	10.0000	0.1000	1.1487	9.5
Tallahassee, City of	10.0000	0	1.1487	9.5
Williston, City of	0.3890	0	0.0447	0.4
Totals - All Expressions	93.1136	-	-	-
Totals, with Homestead deleted	87.0526	-	9.9999	82.6
(Denominator used in allocation formula)				

APPENDIX S

IN THE UNITED STATES DISTRICT COURT
IN AND FOR THE SOUTHERN DISTRICT OF
FLORIDA, MIAMI DIVISION

CASE NO. 79-5101-Civ-JLK

THE CITY OF GAINESVILLE AND THE GAINESVILLE-ALACHUA REGIONAL UTILITIES BOARD, THE LAKE WORTH UTILITIES AUTHORITY, THE UTILITIES COMMISSION OF NEW SMYRNA BEACH, THE SEBRING UTILITIES COMMISSION, AND THE CITIES OF ALACHUA, BARTOW, FT. MEADE, HOMESTEAD, KISSIMMEE, MT. DORA, NEWBERRY, ST. CLOUD, STARKE AND TALLAHASSEE, FLORIDA,

Plaintiffs,

v.

FLORIDA POWER & LIGHT COMPANY,

Defendant.

VOLUME I

15th Floor Conference Room
Southeast National Bank Building
Miami, Florida
Wednesday, 1:40 p.m.
April 22, 1981

DEPOSITION OF HENRY CLAY PETERS, JR.

Taken on behalf of the Defendant before Joannie Fieger, Court Reporter, Notary Public in and for the State of Florida at Large, pursuant to Notice of Taking Deposition.

- - - - - -

phase.

I remember we had one at Biscayne. Seemed like we had two at--around South Dade High School somewhere we put in at a later date.

Q Did you from 1970 until the time that the existing interconnection was put in place continue to use these ties on a firm basis to purchase power from Florida Power & Light Company?

A We used them on a firm basis.

Q Did you purchase a fairly substantial amount of energy from Florida Power & Light through these ties?

A I can't recall what we had purchased through them. I don't have those figures.

Q During this period from 1970 until the existing interconnection was installed, can you ever remember an occasion when you desired to purchase power from Florida Power & Light Company on the basis that we've been talking about; the firm basis to serve portions of the city's load and when you were unable to obtain that power?

A Are you getting at when we was given the SR rate?

Q Let me ask you this: You have described purchases that the city was making on a

firm basis which were going on in 1970 when you assumed your responsibilities as acting utilities director which continued. Do you recall the rate schedules on which these purchases were being made?

A I can't recall exact dates on when Florida Power & Light gave us the SR rate. I knew previously to then it was on what they call the WH rate, I believe. Sometime along the line they gave us the SR rate, but I can't remember when.

Q Up until the time that the existing interconnection was installed, did you ever try to purchase power under the WH or the SR rate or try to purchase more power under those rates and have difficulty in obtaining that power?

A More power other than the three ties?

Q Yes, sir, or more power through the three ties.

A Not that I recall. Seems we had a limitation on each tie, and that was probably the reasons that that's all they would carry.

Q That's all it would carry electrically?

A Right.

Q Would you describe these ties that we have been talking about as interconnections?

A The three ties?

APPENDIX T

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

CASE NO. 79-5101-Civ-JLK

ORDER DENYING MOTIONS FOR SUMMARY JUDGMENT ON PLAINTIFF'S GAS CLAIM AND GRANTING DEFENDANT'S SUMMARY JUDGMENT MOTION ON PLAINTIFF'S NUCLEAR ACCESS CLAIM

FLORIDA CITIES,

Plaintiff,

vs.

FLORIDA POWER & LIGHT CO.,

Defendant.

This cause came before the Court on motions for summary judgment on plaintiff Tallahassee's nuclear access and natural gas claims. There are three motions before the Court: defendant's motion for summary judgment on plaintiff's nuclear access claim; defendant's motion for summary judgment on plaintiff's natural gas claim; and plaintiff's cross-motion for summary judgment on the same natural gas claim. These motions were made pursuant to Fed. R. Civ. P. 56.

In essence, plaintiff's natural gas and nuclear access claims allege that defendant's actions have injured plaintiff and violated the federal antitrust laws. In the natural gas claim, plaintiff alleges that defendant conspired with a natural gas supplier and a natural gas producer to reduce the quantity of natural gas supplied to plaintiff. In the nuclear access claim, plaintiff alleges that defendant has blocked and continues to block access by plaintiff to nuclear-generated electricity and the associated benefits that result from participation in nuclear power production. The natural gas and nuclear access claims are considered separately below.

The Natural Gas Claim

This claim primarily involves four entities: Florida Gas and Transmission Co. (FGT), the alleged exclusive pipeline supplier of natural gas to peninsular Florida; Amoco Production Co. (Amoco), a producer and seller of natural gas and the major supplier of natural gas to FGT; defendant, Florida Power and Light Co. (FPL), a publicly-owned utility; and plaintiff, the City of Tallahassee, Florida. The events which gave rise to plaintiff's natural gas

Dupe of
8114164488

claim against FPL may be summarized as follows.

In 1964, Amoco and FGT entered into a twenty year warranty gas supply contract. The following year, Amoco and defendant entered into a twenty year warranty gas supply contract (the MMBTU contract). The Amoco-FPL agreement allowed either party to legally terminate the agreement in the event that the regulatory permits necessary for the execution of the contract were not obtained within a specified time. A regulatory delay occurred, and as of January, 1967 Amoco legally cancelled the contract.

In the mid-1960's, defendant contracted with FGT for the transportation of natural gas. The contract required FGT to obtain whatever regulatory approval was necessary to transport defendant's gas, and for FGT to keep defendant informed about "all contracts, authorization, permits and approvals which may affect the transportation of defendant's gas." National Gas Transportation Agreement, Art. II, Par. 3 (Mar. 12, 1965).

On March 1, 1967, the Federal Power Commission (FPC) issued a decision allowing FGT to expand its gas pipeline, but only if FGT could show the Commission that it had a stable source of purchaser income. FGT was given a certain amount of time to show FPC it had such an income.

On March 22, 1967, Amoco and FGT entered into an agreement which has been referred to as the "banking arrangement." This agreement, which apparently was not disclosed to the public or the Federal Power Commission until 1975, modified the existing contract between Amoco and FGT. It permitted Amoco to supply FGT with varying quantities of natural gas instead of uniform quantities as the original Amoco-FGT contract required. Plaintiff alleges that this modification was exacted by Amoco as a quid pro quo for the reinstatement of the MMBTU contract between Amoco and defendant. The reinstatement of the MMBTU contract, which occurred in May, 1967, apparently enabled or facilitated compliance by FGT with the FPC's March 1, 1967 decision.

Soon after the consumation of the "banking arrangement," Amoco shipped surplus gas to FGT. FGT sold some of this surplus

to its customers, and some to a different supplier. In the early 1970's, as prices rose and gas supplies apparently dwindled, Amoco reduced gas supplies to FGT. FGT, in turn, curtailed supplies to its own customers, including plaintiff. Plaintiff had an interruptible supply contract with FGT and thus was subject to cuts in supply. Defendant, on the other hand, had a non-interruptible contract and continued to receive the amount agreed upon in the reinstated MMBTU contract.

Plaintiff essentially contends that FGT, acting as defendant's agent, negotiated the reinstatement of the MMBTU contract for defendant, and that the "banking arrangement" was made with the purpose of reducing--or had the likely effect of reducing--future gas supplies to plaintiff. In addition, plaintiff claims that defendant's actions wrongfully and tortiously interfered with the contract rights of plaintiff.

Defendant contends that FGT did not act as its agent in efforts to reinstate the MMBTU contract. Defendant also asserts that even if such an agency relationship is held to have existed, it would be improper to hold defendant responsible for the reduction in supplies from FGT to plaintiff because the occurrence of the Arab Oil embargo and the scarcity of natural gas supplies could not have been forseen in 1967. Defendant further contends that FGT and Amoco had independent business reasons for entering into the 1967 "banking arrangement," and that plaintiff and others believed that natural gas would remain in plentiful supply.

After careful consideration of the record, the comprehensive written submissions of the parties, and the oral arguments of counsel, it is

ORDERED and ADJUDGED that defendant's motion and plaintiff's cross-motion for summary judgment on plaintiff's gas claim are both denied. The Court denies these motions because it finds that there exist genuine issues of material fact, the resolution of which are integral to a judgment as a matter of law. One such controverted fact is defendant's participation in, or influence over, the 1967 "banking arrangement." Whether defendant did in

fact conspire with FGT and/or Amoco through the "banking arrangement" to deprive plaintiff of a portion of its natural gas supply is a question that simply can not be satisfactorily resolved based on the existing record. It is clear, however, that the issue of agency is far more concrete than the "mere suspicion" alleged by defendant. Plaintiff supports its agency theory by referring to an agency provision in the MMBTU contract between Amoco and defendant, an agency provision in the Gas Transportation Contract between FGT and defendant, testimony by Amoco's Harold M. Hawkins,[1] and an internal memorandum of defendant.[2] The Court simply can not conclude on the basis of this evidence, in addition to the apparent incentives for defendant to reinstate the MMBTU contract, that no genuine issues of fact exist with respect to the agency theory.

Other facts remain at issue. One such fact is whether the "banking arrangement" had the purpose or likely effect of diminishing gas supplies to plaintiff. The existence of this and other disputed material facts, which, if proved, may lead to a violation of federal law, require this Court to deny summary judgment on the natural gas claim.

The Nuclear Access Claim

The facts which gave rise to this claim are briefly as follows. Defendant's first nuclear generating plant, Turkey Point No. 3, began operation in 1972. Defendant now owns and operates three nuclear generating facilities -- Turkey Point Nos. 3 and 4, and St. Lucie No. 1 -- and is constructing a fourth facility, St. Lucie No. 2. These units presently provide 29% of the total amount of electricity produced by defendant[3] and, when the fourth unit is completed, will have cost defendant in excess of $1 billion, 650 million. Defendant asserts that these nuclear facilities are extremely cost efficient

---

1. See plaintiff's memorandum in support of its motion for summary judgment (Motion) at 10.

2. Id. at 10-11.

3. Affidavit of Robert Gardner (Gardner Affidavit) at 7.

producers of electricity.[4]

Plaintiff owns a share of Florida Power Corp.'s Crystal River No. 3 nuclear facility but does not own, or deal with, any of defendant's plants. Plaintiff claims that when it notified defendant in 1976 that it was interested in participating in defendant's proposed South Dade nuclear facilities, the request was flatly denied.

Plaintiff contends that defendant has a legal obligation to provide plaintiff with access to nuclear generated electricity for the following reasons: defendant is monopolizing the market of nuclear generated electrical power; defendant acheived and is maintaining his monopoly through anticompetitive means; defendant's behavior has denied plaintiff access to economies of coordination and scale, the benefits of nuclear power production in general, and the ability to compete effectively with defendant; and defendant's development of nuclear power was not innovative or undertaken alone and therefore is not defensible under judicial precedent. Plaintiff further contends that defendant is obligated to deal with plaintiff because defendant's nuclear facilities constitute essential facilities under a "bottleneck theory" of monopolization.[5]

Defendant maintains that even if it concedes for the sake of argument that nuclear-generated electricity is a separate market, that plaintiff is a competitor of defendant, and that plaintiff's lack of access to defendant's nuclear facilities has denied plaintiff the ability to compete effectively with defendant, defendant still has no legal obligation to share nuclear power facilities acquired through business acumen and various efficiencies with an entity that simply did not have similarly insightful business judgment. Defendant contends that plaintiff's claim is also defective because: plaintiff's request for participation occurred only in 1976, after defendant had assumed substantial risk in constructing and operating its nuclear facilities; plaintiff's expressed interest

---

4. See "Memorandum of Florida Power & Light Company in Support of Motion for Summary Judgment of City of Tallahassee's Nuclear Access Claim" (Def. Memo) at 3.

5. "Florida Cities' Answer to "Motion to FPL for Summary Judgment of City of Tallahassee's Nuclear Access Claim" (Answer) at 113.

in participating in defendant's facilities consists only of a desire to have the "opportunity to consider" participation; and defendant is using its nuclear facilities only to supply its customers with electricity, not to injure plaintiff.

After careful consideration of the record, the voluminous submissions by the parties, and the oral arguments advanced by counsel, it is

ORDERED and ADJUDGED that defendant's motion for summary judgment on plaintiff's nuclear access claim is granted. This Court recognizes that in considering a motion for summary judgment, it "must construe all pleadings liberally in favor of the par[ty] against whom the motion is made, and [that] the motion should be granted only where the moving party is entitled to judgment as a matter of law and the record clearly shows that no genuine issue of material fact exists." Dassinger v. South Central Bell Telephone Company, 505 F.2d 672, 674 (5th Cir. 1974). In the instant case, a liberal construction does not save plaintiff's nuclear access claim from summary judgment.

Plaintiff's claim alleges violations of the Sherman Act, 15 U.S.C. §1 et. seq. Plaintiff argues in its response to defendant's summary judgment motion,[6] that its claim under §1 of the Sherman Act, 15 U.S.C. §1, survives a motion for summary judgment.[7] The Court disagrees. Section 1 bears on all contracts, combinations or conspiracies which unreasonably restrict competition. There has been no showing whatsoever by plaintiff that evidences the existence of any such conspiracy, combination, or contract. Defendant apparently sold nuclear generated electricity only to its own customers prior to a recent sale translated pursuant to a settlement agreement with the Nuclear Regulatory Commission and the Department of Justice.[8] Apparently, no other sales to non-customers have occurred. The one sale, particularly given the circumstances under which the sale occurre surely does not indicate a combination or conspiracy in restraint of trade. Moreover,

---

6. See Answer at 3.

7. Plaintiff's Claim under Section 1 does not appear to be specifically alleged in its complaint. However, for the purpose of deliberation on this motion, the Court shall assume a Section 1 violation has been alleged.

8. See Reply Memorandum of FPL in Support of Motion for Summary Judgment of City of Tallahasse's Nuclear Access Claim: (rep memo) at 19

even if defendant voluntarily initiated sales to non-customers for purely business reasons, a concurrent refusal to sell nuclear energy to plaintiff does not by itself support a Section 1 claim. Since the Court further finds that defendant did, in effect, "go it alone" in developing nuclear power, no Section 1 claim is made out.

The gravaman of plaintiff's nuclear access claim lies under Section 2 of the Sherman Act, 15 U.S.C. §2. This section prohibits monopolization, attempts to monopolize, or conspires to monopolize. A violation of this section occurs if the following elements are shown: "(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." U.S. v. Grinnell Corporation, 384 U.S. 563, 570-71 (1966). Plaintiff's nuclear access claim fails to establish a state of facts that would meet either element.

A. Monopoly Power

The Court finds that the relevant market for purposes of Section 2 analysis is not nuclear generated electricity, but electricity generated from all sources, including such fuels as gas, coal and oil. According to U.S. v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 396 (1956), "In determining the market under the Sherman Act, it is the use or uses to which the commodity is put that control." DuPont decreed that the litmus test is whether the commodities are "reasonably interchangeable by consumers for the same purposes." 851 U.S. at 395. Du Pont's directives govern the instant case. Although nuclear power may be more cost-efficient than other methods of electricity generation, nuclear generated electricity is simply one type of electricity production. It is likely that consumers use the electricity produced without regard to the production source. Hence, the interchangeability of nuclear generated electricity suggests that it should not be treated as an independent market.

Examination of the electricity market reveals that nuclear generated facilities produce but a small share of the total amount

of electricity generated. Even defendant, which operates three nuclear facilities, obtains only 29% of its electricity from nuclear power. Moreover, defendant does not control all the nuclear facilities in close proximity to plaintiff. The Crystal River facility and Georgia Power's Vogtle nuclear units are two examples of facilities now owned by defendant.

Under du Pont and Grinnell, monopoly power exists if an entity controls the price or competition in the relevant market, or owns a predominant share of the relevant market.[9] The Court does not find that defendant has monopoly power as defined by du Pont and Grinnell. Therefore, plaintiff's Section 2 claim must fail.

B. Willful Acquisition of Monopoly Power vs. Business Acumen

Even if defendant is deemed to have monopoly power in the relevant market, plaintiff's Section 2 claim still fails. Basically, the Court finds that defendant's acquisition of nuclear generating facilities occurred as a result of its business acumen, and is therefore protected under the second element of a Section 2 claim. The Court finds that defendant did not engage in anticompetitive acts in acquiring or maintaining its nuclear facilities, that defendant's facilities are not bottleneck resources, and that plaintiff has not shown a firm interest in or need for access to defendant's facilities. Plaintiff's attempts to controvert these facts have been unconvincing.

Business Acumen

Plaintiff claims that defendant's nuclear facility acquisitions were not due to business acumen. Rather, plaintiff asserts that government assistance, concerned action, and a cautious, risk-averse approach to nuclear power led to defendant's acquisition of nuclear facilities. Plaintiff supports its assertion that defendant did not "go it alone" in developing nuclear facilities by pointing to the existence of a joint study group of which defendant was a member,

---

9. See 351 at 380 and 384 U.S. at 571.

and the contention that defendant's units were "effected by coordination."[10] The Court believes that plaintiff's evidence does not reasonably allow an inference of joint effort. Plaintiff's attempts in its Answer to describe other concerted activities participated in by defendant also do not warrant the conclusion of joint development of nuclear facilities. It is to be expected that an entity as large as defendant, in a business as interconnected as electric power production, would interact with other power producers and even seek out advice. It is improbable that defendant would be able to, or would want to, literally "go it alone." It thus is unfair to look upon the interactions presented to the Court as evidence of concerted activity, particularly given the size and complexity of a project such as a nuclear generating facility.

A further indication that defendant acted alone in constructing and operating its nuclear facilities is the Court's finding that defendant assumed the risk in the construction and operation of its nuclear facilities. There has been no contradictory evidence showing that defendant did not assume such risks or that the risks were not substantial. Plaintiff contends that although nuclear power production may involve some risks, the risks were taken by "pioneers" and not defendant.[11] The extensive outlay of capital required to construct a nuclear facility, combined with the uncertain acceptance of nuclear generated power, indicates that the risks assumed were substantial.

Defendant's assumption of substantial risk and its individual foray into the nuclear facility business leads this Court to conclude that defendant's acquisition of nuclear generating facilities was simply the result of sound business judgment. As stated in Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 176 (2d Cir. 1979), "[a] large firm does not violate §2 simply by reaping the competitive awards attributable to its efficient size..." Hence,

---

10. Statement of Mr. Jablon, counsel to plaintiff, at hearing on September 30, 1981.

11. The Three Mile Island disaster, however, is evidence of the on-going risks of nuclear power production. Millions of dollars are surely lost when a facility lies dormant, whether the reason be a breakdown or a denial of regulatory permission to operate.

although we find defendant's reliance on Berkey to be misplaced, plaintiff has not shown that defendant's propitious investments in nuclear power was anything but the sound business judgment of a large firm.

The Court also agrees with defendant that plaintiff's "public domain" argument is irrelevant to the Section 2 Sherman Act analysis. The presence of the Atomic Energy Act Amendments of 1954, P.L. No. 83-703, 83d Cong., 1st Sess., indicates that individual electric utilities may indeed construct and operate nuclear generating facilities.

No Anticompetitive Acts

There is no evidence that defendant attempted to block or is blocking access by plaintiff to nuclear power participation. As defendant has repeatedly stated, it has used its nuclear generating facilities to service its own customers.[12] The recent sale to non-customers was made pursuant to a settlement agreement and does not indicate any sort of discrimination against plaintiff. Plaintiff's unsuccessful effort in 1960 to join the Florida Operating Committee has not been shown to have been due to illegal or improper "muscle flexing" by defendant. Rather, it is noteworthy that plaintiff was subsequently admitted to the Committee.[13] Defendant's 1976 refusal of plaintiff's request to participate in defendant's nuclear power production, moreover, has not been shown to be anything but a sound business decision. As defendant argues, sale of electricity to plaintiff would have forced defendant to seek alternative energy sources at its own customers' expense.

In addition, plaintiff's allegation that defendant blocked legislation that would have permitted expanded nuclear participation is misleading and unsubstantiated. E.C. Shreve, Jr., Executive Vice President of Florida Municipal Utilities Association, asserts in his affidavit that the defendant refused to endorse a model statute patterned after the Georgia legislation which created the

---

12. See, for example, Def. Memo. at 6, 8.

13. Plaintiff was invited to join the Florida Operating Committee in 1971. See Answer at 82.

Municipal Electric Authority of Georgia. Mr. Shreve alleges that defendant's refusal was motivated by anticompetitive concerns. Shreve does not alleges direct knowledge that such was the case, however, just that it was his "understanding". There is no additional evidence that defendant was motivated by anticompetitive concerns, or that defendant's actions were not justified by legitimate business concerns.

The 1976 request raises questions of plaintiff's earnestness in seeking nuclear power. Plaintiff's request came well after defendant had begun operation of a nuclear power facility. The request only consisted of an "opportunity to consider" purchasing a share of defendant's facilities or unit power from defendant. There is no indication that plaintiff had a specific plan or even had the necessary approval of the governing board of plaintiff, the Tallahassee City Commission.[14] Without such approval, an agreement of sale would have been pointed.

There is also inadequate evidence as to plaintiff's purported inability to obtain adequate alternative energy sources, or to enter into nuclear generation on its own. Plaintiff's evidence simply points out that access to defendant's facilities would be more economical than alternative sources and would be more beneficial--and economical--than starting out on its own.

Bottleneck Resources

The Court also finds that defendant's generating units do not constitute "bottleneck resources." Plaintiff has not shown that defendant's facilities are essential to plaintiff's electric utility system. Although the essential nature of a facility may potentially present a factual issue, the only showing by plaintiff to this effect has been that access will simply improve plaintiff's existing electricity sources vis-a-vis defendant.

In summation, plaintiff has failed to establish the existence of a genuine issue of fact which would preclude judgment against it as a matter of law. There has been no showing of a contract,

---

14. See Def. Memo at 24, Note 4.

combination or conspiracy in restraint of trade, that defendant possessed monopoly power, or, even assuming that defendant had monopoly power, that defendant acquired or maintained its nuclear facilities through other than business acumen. Basically, plaintiff appears to be seeking the fruits of another's labors without justification. Fairness and the law dictate that defendant should be able to reap what it has sown.

DONE and ORDERED in chambers at the United States Courthouse, Miami, Dade County, Florida, this 9th day of October, 1981.

JUDGE JAMES LAWRENCE KING

JAMES LAWRENCE KING
U.S. DISTRICT JUDGE

cc: Alvin Davis
Mr. Jablon
Joseph C. Jacobs
Ron M. Landsman
Alan J. Roth
Daniel Guttman
Marta Manildi
Joseph Van Eaton
J.A. Louknight, Jr.
Herbert Dym
Edward Brinson