PROPOSED AMENDMENT TO SECTION 271 OF THE ATOMIC ENERGY ACT OF 1954

HEARINGS

BEFORE THE

SUBCOMMITTEE ON LEGISLATION

OF THE

JOINT COMMITTEE ON ATOMIC ENERGY

CONGRESS OF THE UNITED STATES

EIGHTY-NINTH CONGRESS

FIRST SESSION

ON

PROPOSED AMENDMENT TO SECTION 271 OF THE ATOMIC ENERGY ACT OF 1954

MAY 27 AND JUNE 2, 1965

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PROPOSED AMENDMENT TO SECTION 271 OF THE ATOMIC ENERGY ACT OF 1954

THURSDAY, MAY 27, 1965

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON LEGISLATION,
JOINT COMMITTEE ON ATOMIC ENERGY,
Washington, D.C.

The subcommittee met at 2 p.m., pursuant to call, in room AE–1, the Capitol, Representative Chet Holifield (chairman of the Joint Committee) presiding.

Present: Representatives Holifield, Price, Hosmer, and Morris; Senators Pastore (chairman of the subcommittee) and Hickenlooper.

Also present: John T. Conway, executive director; Edward J. Bauser, asistant director; Leonard M. Trosten, staff counsel; George F. Murphy, Jr., professional staff member; and Jack Rosen, staff consultant.

Chairman HOLIFIELD. The committee will be in order.

Senator Pastore has been unavoidably detained at the White House. He was to chair this meeting. Under the circumstances, I have been asked to chair it. I will read the statement that Senator Pastore would have given had he been here.

The Subcommittee on Legislation of the Joint Committee on Atomic Energy today will receive testimony concerning three identical bills (H.R. 8443, H.R. 8444, and S. 2035) introduced on May 25, 1965.

(The bill follows:)

A BILL To amend section 271 of the Atomic Energy Act of 1954, as amended

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 271 of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power: *Provided*, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities, including those of the Commission, which authority such Federal, State, or local agency did not otherwise possess."

Chairman HOLIFIELD. The Joint Committee announced this hearing on May 25, and without objection, I shall introduce into the record a copy of the committee's press release.

(The press release follows:)

JOINT COMMITTEE ANNOUNCES HEARINGS ON TRANSMISSION OF ELECTRICITY TO STANFORD LINEAR ACCELERATOR

The Subcommittee on Legislation of the Joint Congressional Committee on Atomic Energy will hold a public hearing on Thursday, May 27, 1965, at 2 p.m., in the committee's public hearing room, concerning transmission of electricity to the Stanford linear accelerator. This was announced today by Senator John O. Pastore, chairman of the Subcommittee on Legislation.

The subcommittee will receive testimony on proposed amendments to section 271 of the Atomic Energy Act of 1954.

On May 20, 1965, the U.S. Court of Appeals for the Ninth Circuit ruled that the intent of Congress in originally passing section 271 prevented AEC from arranging for construction of an overhead electric powerline to service the Stanford linear accelerator. These proposed amendments clarify section 271 to show that Congress did not intend to prevent the AEC from taking actions such as this.

The Stanford linear accelerator project was authorized by the Congress in 1961, at a cost of approximately $114 million. When completed in 1966, it will be the world's largest electron accelerator. The first phase of the Stanford project will require approximately 100,000 kilowatts of electricity.

Witnesses representing the Atomic Energy Commission, Stanford University (Stanford Linear Accelerator Center), and others, are expected to testify.

A copy of section 271, as it is proposed to be amended, is attached. Proposed new language is italicized.

[Attachment]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 271 of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power: *Provided, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control or restrict any activities, including those of the Commission, which authority such Federal, State, or local agency did not otherwise possess.*"

AMEND SECTION 271

Chairman HOLIFIELD. These bills would amend section 271 of the Atomic Energy Act of 1954. The present language of section 271 is as follows:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power."

The immediate cause of these proposed amendments was a decision, on May 20, 1965, of the U.S. Court of Appeals for the Ninth Circuit. (See app. 1, p. 109.) In its opinion, the court ruled that the intent of Congress in originally passing section 271 prevented the Atomic Energy Commission from arranging for construction of an overhead powerline to serve the Stanford linear accelerator, now under construction on the property of Stanford University in California. These bills would clarify section 271 to show that Congress did not intend to prevent the AEC from taking actions such as this.

I wish to state at the outset that it is not the purpose of this hearing to reopen the entire question of whether the AEC should construct an overhead or underground powerline for the Stanford linear accelerator. That question has been examined several times in the past by the Joint Committee, including a hearing in January 1964 devoted solely to the problems of supplying power to this accelerator.[1] We

[1] See "Stanford Accelerator Power Supply"; hearing before the Joint Committee on Atomic Energy, Jan. 29, 1964.

are interested in exploring this morning what are the implications of this court of appeals decision on the AEC's program in general, and on the SLAC project specifically. We further wish to consider what these bills are expected to accomplish and the desirability of clarifying the Atomic Energy Act as is proposed.

Dr. Tape, I understand you will be the first witness today, and that you are speaking for the Commission.

Dr. TAPE. Yes, Mr. Chairman.

Chairman HOLIFIELD. You may proceed.

STATEMENT OF DR. GERALD F. TAPE, COMMISSIONER, ATOMIC ENERGY COMMISSION

Dr. TAPE. Thank you very much, Mr. Chairman.

The Commission is pleased to have the opportunity to comment on the proposed legislative clarification contained in H.R. 8443 and companion bills.

Such clarification would be helpful in view of the decision of May 20, 1965, by the Ninth Circuit Court of Appeals in California to the effect that section 271 of the Atomic Energy Act of 1954 was intended by Congress to prevent AEC from acting in a manner contrary to the requirements of local agencies with respect to the generation, sale, or transmission of electric power.

INTENT OF CONGRESS, SECTION 271

It has always been AEC's view that despite the fact that the congressional intent underlying section 271 of our act could have been expressed in a clearer form than the presently worded sentence constituting section 271, the legislative background made the intent of Congress quite clear. From the legal standpoint, it is our understanding that in the interpretation of statutes the legislative will is the controlling factor; the courts have often stated that, in effect, the legislative intention is the law.

Aside from the legal viewpoint, the Commission has always endeavored to carry out its responsibilities in a manner that wholly conformed with congressional intent embodied in duly enacted law. In this spirit, the Commission proceeded to arrange for the construction of transmission facilities to enable the Stanford linear accelerator project to be properly serviced with electric power required for its intended beneficial operation. Steps were taken toward that end based on the Commission's clear understanding that section 271 had no relevancy to the objective involved or the Commission's activities toward that objective. At the January 29, 1964, hearing before this committee we testified to our opinion that section 271 had absolutely no effect either to bar or to qualify AEC's otherwise unqualified right to condemn property for this project and to proceed with the construction of the transmission facilities. We stated our belief at that hearing that the history of section 271 shows clearly that it had relevancy only to AEC's new regulatory role and AEC's functions in connection with the generation of electric power in nuclear facilities by licensees of the Commission.

LEGISLATIVE BACKGROUND AND HISTORY, SECTION 271

We believe that the legislative background discloses that Congress did not intend by section 271 to provide for any preeminence of State or local regulatory agencies over the functions of the Atomic Energy Commission, or even to limit in any manner the Commission's authority as spelled out in other sections of the Atomic Energy Act of 1954. What clearly emerges from the legislative history was an uneasiness on the part of this committee that the broad and somewhat unique regulatory pattern provided for in chapter 10 of the 1954 act, and particularly in section 103 and 104 in chapter 10, might be misconstrued as authorizing the Atomic Energy Commission, through its licensing system, to go beyond considerations of the common defense and security and the protection of the health and safety of the public into other areas interfering with the authority or regulations of Federal, State, and local agencies with respect to the generation, sale, or transmission of electric power. Senator Hickenlooper, the manager on the Senate floor of the bill that was to become the Atomic Energy Act of 1954, made this clear during debate on the bill in the Senate. The following are pertinent remarks from Senator Hickenlooper's statement:

> What section 271 does is to make clear that this act does not interfere in any way with the jurisdiction of the Federal Power Commission over such activities, or with State agencies where they have jurisdiction, or with local agencies where they have jurisdiction.
>
> It is not an authority given in a negative way. It is a positive negation of any intent by this statute to interfere with the existing laws and the existing authorities, State and Federal, that have to do with electricity.[1]
>
> We are very careful in this bill not to attempt to write into it affirmative law which may have to be interpreted by the courts, but merely to say that the present existing authority shall not in any way be interfered with in the regulation of interstate transmission of electric energy, in that general field. We make it very clear that we do not disturb existing law.

COURT OF APPEALS VIEW, SECTION 271

Of course, under then existing law, which Senator Hickenlooper said section 271 did not disturb, and as the Ninth Circuit Court of Appeals in its May 20 decision explicitly recognized, AEC's activities were not subject to State or local restriction. The circuit court put it this way:

> Without doubt the sovereign immunity derived from the supremacy clause, coupled with these statutory provisions, authorize AEC to construct and operate an overhead transmission line in disregard of local authority or regulation, absent some statutory provision limiting AEC's authority in this regard. It is equally clear that neither the act, nor any other Federal statute called to our attention, contains an express limitation of this kind.

In effect, despite the fact that the congressional history shows that section 271 was not intended to disturb existing law, the court held in its May 20 decision that Congress intended by section 271 to disturb existing law.

This decision holds that section 271 is affirmative law limiting the authority of the Commission. This is in direct opposition to Senator Hickenlooper's statement:

> We are very careful in this bill not to attempt to write into it affirmative law which may have to be interpreted by the courts.

[1] 100 Congressional Record 11709, July 27, 1954.

I am attaching to my prepared statement some additional comments from the explanatory remarks made by Senator Hickenlooper during the floor discussion of the Atomic Energy Act when it was under debate.

(The material referred to follows:)

ADDITIONAL COMMENTS FROM SENATOR HICKENLOOPER'S REMARKS

Mr. HICKENLOOPER. * * * These licensees are private operators. They produce electric energy. Whether they produce it partly with uranium, partly with corncobs, or partly with coal does not make any difference. So far as the fact that they produce electric energy is concerned, that electric energy which goes into interstate commerce is under the control and jurisdiction and regulation of the Federal Power Commission under the proposed act, under section 271. * * *[1]

* * * * * * *

Mr. HICKENLOOPER. There was a move on the part of the committee to put this section 271 in the bill as a safeguard and an assurance that the existing authority of the Federal Power Commission or the Federal law or agency and the existing authority of the State agencies and the existing authority of local agencies, whatever they may be in connection with the transmission of electric energy, would not be disturbed or interfered with in any way. * * *[2]

* * * * * * *

Mr. HICKENLOOPER. * * * We say in this act that the same rules and regulations, power and authority of the Federal Government, or of the local and State agencies, that exist now over the transmission of electric energy in interstate commerce shall obtain so far as any license (from the AEC) is concerned. That is only a precaution. It would obtain if we never had that provision in the law. Even the provision of section 271 is not necessary in the law, in my opinion, for the Federal Government to assume jurisdiction over the transmission of electricity in interstate commerce by a licensee. We put section 271 in there as an assurance that the existing authority is not disturbed. * * * There cannot be any dispute under the language of the present bill because it specifically says that this bill does not in any way touch existing authority. That goes right on, and it exists just as it was before. We have gone to the trouble in this act—though I do not think it is necessary—of so stating for clarification. * * *[3]

CONGRESS AND AEC VIEW, SECTION 271

In short, the legislative background of section 271 makes it clear that this section was intended by Congress to be a nonessential appendage to the affirmative provisions of the Atomic Energy Act of 1954—a cautionary emphasis of the fact that sections 103 and 104 of the 1954 act reposed in the Commission only the authority to make determinations respecting the common defense and security and the protection of the health and safety of the public in connection with the utilization and production facilities of licensees of the Commission.

EFFECT OF COURT OF APPEALS DECISION ON AEC ACTIVITIES

If the interpretation of section 271 in this decision remained binding, major adverse consequences throughout the entire range and scope of all of AEC's programs could well result. In other words, aside from the particular problem of supplying electric power for the SLAC project, a statute which made all of AEC's activities subservient to the authority and regulations of local agencies with re-

[1] 100 Congressional Record 11709, July 27, 1954.
[2] 100 Congressional Record 11710, July 27, 1954.
[3] 100 Congressional Record 11712, July 27, 1954.

spect to the generation, sale, or transmission of electric power would invite local agencies to participate in all of the Commission's nonregulatory programs, including those relating to basic research, such as the Stanford linear accelerator project, and those pertinent to applied research and the development of atomic weapons. For, as is obvious, all of these activities involve the generation, sale, and transmission of electric power. Could not this decision be construed as permitting local authorities in areas in which AEC facilities are located to require AEC to bury its onsite transmission lines? For example, the city of Oak Ridge has expanded its corporate boundaries to include the entire Government reservation. AEC believes this interpretation would constitute an intolerable burden because it could prevent the most effective, timely, and economical discharge of the Commission's major responsibilities under the Atomic Energy Act.

EFFECT OF COURT DECISION ON STANFORD PROJECT

I have emphasized the potential effect of the court of appeals decision on important AEC activities. In addition, of course, are the immediate effects of the decision on the Stanford Linear Accelerator Center (SLAC) project.

Completion of construction of the linac portion of this $114 million project is scheduled for next spring. Growing electrical power requirements of SLAC are expected to exceed the capacities of the existing 60-kilovolt line to the site by January 1966. At the time the circuit court of appeals rendered its decision, the remaining time available for construction of the new overhead powerline on the Searsville route [1] had been reduced to a bare minimum due to the anticipated fall rains. As a result of the court's decision, additional delay is inevitable. We have attempted to assess the possible extent of delay which may be expected to result from the following courses of action:

1. *Placing the transmission line underground.*—The most recent information that we have from Pacific Gas & Electric Co. is that to design, fabricate, and emplace a 180-megawatt line underground would require approximately 2 years. To follow this course of action would result in a delay in commencement of full operation of the SLAC machine by approximately 18 months.

2. *Appealing the circuit court of appeals decision.*—From the standpoint of the judicial process, the Government can request a rehearing at the Ninth Circuit Court of Appeals in California, or can attempt to appeal the decision directly to the Supreme Court. Going to the Supreme Court requires the consent of the Solicitor General to present the case and the willingness of the Supreme Court to agree to hear the appeal. If the issue is considered by the Supreme Court, a decision by late fall of this year or early winter of 1966 is the most optimistic outlook. Assuming that the Government would be successful in such an appeal and construction of the transmission line is commenced promptly thereafter, completion could not be expected before August or September 1966. The resultant delay in operation of an accelerator would be approximately 6 months.

3. *Passage of proposed bill.*—If the clarifying bill under consideration here were enacted into law, we understand from the Department of Justice that there would be no remaining legal issues and

[1] See map facing p. 25.

that AEC should be able to begin construction within a few weeks. Completion of construction could be expected in early 1966.

ESTIMATED COST TO SLAC

In January 1964 when the Commission testified before this committee concerning the Stanford accelerator power supply, we estimated the cost of installing underground a single circuit 180-megawatt capacity transmission line at $2,640,000. This compared with the then estimate of $668,000 for an overhead dual circuit 300-megawatt line over the Searsville route.

As a result of the circuit court of appeals decision, however, additional significant cost factors now must be considered resulting from the delay in bringing adequate electric power to SLAC. Without adequate power for the new accelerator the scientific productivity of the Center will not reach the level which was planned after completion of the accelerator proper early next year. The cost of the inability to utilize this $114 million instrument as intended is hard to measure because many factors are involved. There will be the effect on and the cost of the SLAC staff. At present the SLAC staff numbers in excess of 1,000 or about the level planned for full operation. The buildup of a staff for operating a highly complex and technical facility such as SLAC takes considerable time and effort.

Lacking adequate electric power for scheduled accelerator operation, reduced operation will be carried out with resultant decrease in staff productivity. The cost of maintaining the staff is about $1½ million per month.

Of course, over and above such identifiable costs of delay will be the effects of postponing the scientific experiments to be performed with the accelerator. The cost of such delay is not subject to calculation. Dr. Panofsky will discuss this matter further when he testifies.

COST DIFFERENCES—OVERHEAD VERSUS UNDERGROUND LINES

In concluding my prepared statement, I would like to comment briefly regarding overhead transmission lines versus underground transmission lines for the SLAC project. The SLAC project cost estimate, which was considered by the Joint Committee, was based upon an overhead transmission line. The estimate did not include an additional $2 million for placing the line underground.

Despite this fact the AEC has not been unmindful of the concern expressed by local citizens over the appearance of the overhead line. Special effort has been taken to have attractive pole designs that would blend in with the landscape and would not require large-scale removal of trees or shrubs. The AEC is willing to bear the additional $300,000 involved in constructing this more attractive transmission line design. However, the AEC is not able to justify the much larger extra cost of placing the line underground. There are no underground transmission lines in the area involved. There already are many overhead transmission lines. Mr. Hosmer stated the issues succinctly in his statement of May 7, 1964. The question is:

> Is it worth a $2 to $5 million outlay by the Federal Government so that a few residents of a local community may enjoy an unhampered view of a horizon which is already cluttered with well over 1,500 electric transmission poles?

DISTINCTION BETWEEN TRANSMISSION AND DISTRIBUTION LINES

I also would like to point out that there has been no general conclusion that burial is the proper means of handling high-tension transmission lines. As the Panel on Underground Installation of Utilities of the White House Conference on Natural Beauty has just reported, where underground installation is under consideration—

There is need for a clear understanding of the great distinction to be made between low-voltage distribution and service facilities and high-voltage transmission facilities.

The Panel found a ratio of a magnitude of greater than 20 to 1 in the cost of burying high-voltage transmission lines as compared to using overhead construction. A strong program of research and development is recommended to the end that systems and equipment be developed for the efficient and economic transmission of electric energy at high voltages underground. The Panel also recommends improved overhead transmission line design to achieve greater esthetic acceptance.

It may be considered that present techniques of burial of high-voltage transmission, such as required for the SLAC project, leave much to be desired both as to initial cost and service interruption when repair is required. It is also apparent that improved appearance overhead high-voltage transmission lines have an accepted place in future planning.

Dr. TAPE. Mr. Chairman, this concludes my remarks.

Dr. Panofsky is here, and he has a statement as to the impact of the powerline problem on future operation of SLAC and the relative merits of underground and overhead distribution and transmission of electric power.

If you wish, he will go ahead with his statement, or I shall be glad to answer questions at this time.

Chairman HOLIFIELD. Dr. Panofsky, welcome to the committee. You may make your statement.

STATEMENT OF W. K. H. PANOFSKY, DIRECTOR, STANFORD LINEAR ACCELERATOR CENTER

Dr. PANOFSKY. Thank you very much.

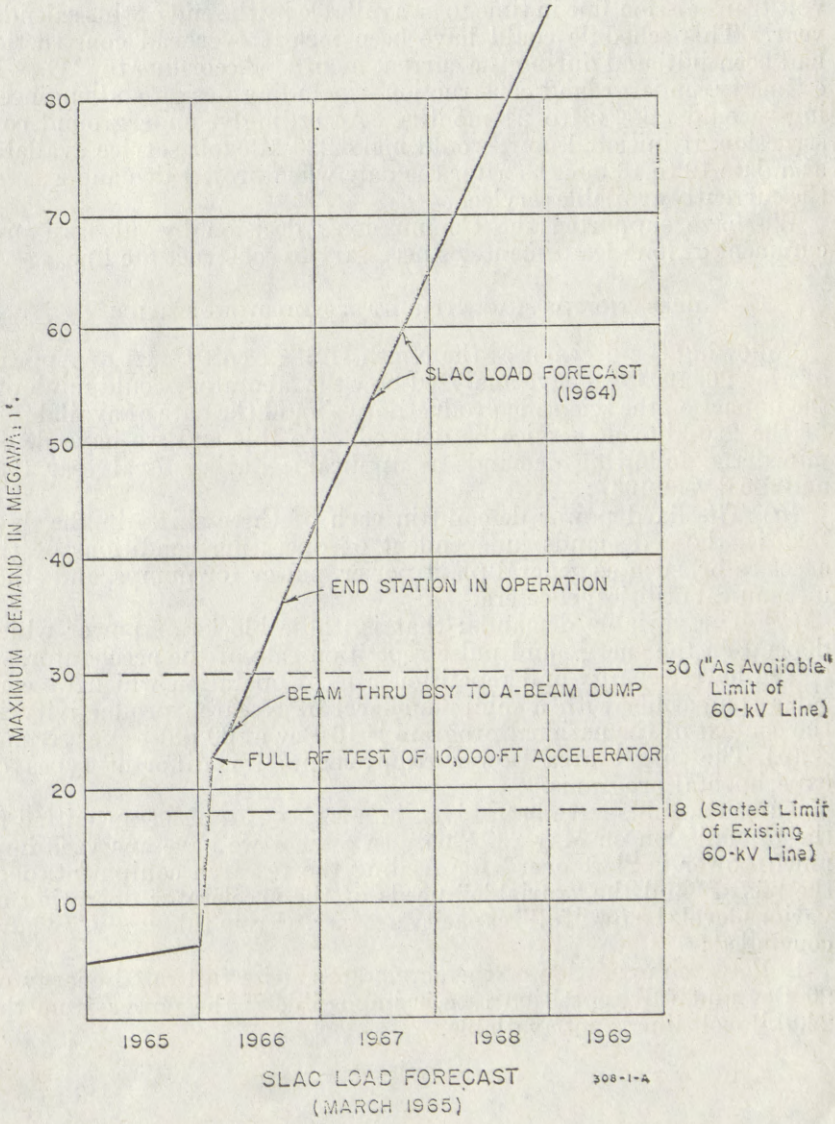
I appreciate the opportunity to contribute information to the deliberation of this committee on the technical background underlying these problems. I shall speak on (1) the impact of the powerline problem on the future operation of SLAC (2) the status of the relative merits of underground and overhead distribution and transmission of electric power.

INITIAL SLAC POWER DEMAND

SLAC has prepared forecasts of power demand at various times and submitted these to the Commission. By the nature of the work of SLAC, the certainty of these forecasts becomes less the further into the future our needs are projected. This is particularly true since (*a*) in the longer run the power demand at SLAC is dominated by the needs of the scientists using the SLAC facilities rather than the requirements of the accelerator itself; and (*b*) since SLAC is managed as a national facility, we are to develop flexible services to support re-

quirements of outside scientists which may arise. I have appended to the outline of my remarks three graphs. I would like to refer to those. Figure I shows the short-range demand projections as transmitted to the Commission in March 1965. This forecast is similar to the one submitted before with the exception that it reflects our specific accelerator turnon plans and our plans for activation of research equipment. That is the reason why there is a sharp kink in the forecast by the beginning of calendar year 1966 which represents the beginning of full turn-on of the accelerator. I might mention that by the end of April of this year, $77.3 million or 68.8 percent of the authorized construction funds for the project have been costed or committed.

FIGURE 1



The Pacific Gas & Electric Co. is committed to supply us with 18 MVA (million volt-amperes) over existing service and can probably supply us with 30 MVA over that service on a contingent or an "as available" basis. Our demand would thus exceed the committed capacity of the line at the end of this calendar year, and the "contingent" 30 MVA capacity by March 30, 1966; this latter date represents the scheduled date for initial operating tests of the completed 2-mile installation.

TIME SCHEDULE—OVERHEAD AND UNDERGROUND

Our plans have been developed in accordance with the decision of the Atomic Energy Commission to design and construct the 220-kilovolt transmission line in time to be available by the end of this calendar year. This schedule could have been met if overhead construction had been initiated during the current month. According to P.G. & E. estimates, underground construction—including design and engineering—would take 18 to 24 months. Accordingly, underground construction, if initiated now, would make 220-kilovolt service available at a date 12 to 18 months after the date when project demand exceeds the currently available service.

We have supported the Commission's decision by advance procurement of long leadtime items necessary to construct the line.

OPERATION OF SLAC WITHOUT 220-KILOVOLT SERVICE

Following the decision of the Ninth U.S. Circuit Court of Appeals of May 20, 1965, we have analyzed how the laboratory could minimize the impact on the scientific productivity should the date of availability of the 220-kilovolt service be delayed. To this end we have determined the following demands as applicable during fiscal year 1966 and fiscal year 1967:

(*a*) The fixed power demand in each of three shifts in the day; that is, those demands independent of operating conditions of the accelerator, such as general plant power, power for pumps, and other mechanical utilities; et cetera.

(*b*) The variable demands; that is, those blocks of power which depend on the energy and pulse repetition rate of the accelerator.

The lowest energy and repetition rate of operation which we consider compatible with a minimum level of research productivity in the context of the national program is 10 Bev at 60 pulses per second.

(*c*) The target area power requirements for different types of experimental programs.

These demands have been given in a series of tables transmitted to the Commission on May 25, 1965. In essence we have analyzed how much power is "left over" for feeding the research equipment, once the "fixed" and the "variable" needs of the accelerator operating at various levels below "full" capacity are met. From this study, we have concluded:

1. Research operation of the accelerator at its full rated energy of 20 Bev and full repetition rate is impossible if the power from the 220-kilovolt line is not available.

2. At the minimum operating level of 10 Bev at 60 pulses per second the remaining power is adequate to operate only one of the major pieces of experimental apparatus such as one of the spectrometers or one of the large experimental magnets during swing or owl shifts, if only the presently assured 18 MVA is available. If 30 MVA were available, the target areas would be operated fully with this minimal accelerator beam using the equipment available through most of fiscal year 1967.

3. At the reduced repetition rate of 60 pulses per second and the full 20 Bev accelerator energy, some of the initial exploratory experiments could be carried out without too much loss in effectiveness. This operation is impossible with 18 MVA input; even with 30 MVA input, only one or possibly two of the large pieces of research equipment could be operated in the research area.

We also conclude that without the availability of 220-kilovolt service it will be possible to operate only a small fraction of the research equipment in the target area at any one time; therefore, under these conditions effective operation of SLAC as a national facility for multiple users is impossible.

Despite these serious limitations, we conclude that the current power problem should not be allowed to affect our present construction schedule. Operation during fiscal year 1967 with some scientific productivity can be maintained at some increased cost due to inefficiencies caused by operation in inconvenient shifts, provided 30 MVA can be made available during at least one shift on a regular basis. Our current plans call for only one shift operation during fiscal year 1967; the reduced data rate imposed by the power shortage can to some extent be compensated by operating more than one shift at a date earlier than now planned and thus at substantial additional cost.

If the 220-kilovolt line is not available, we also will suffer from considerably poorer service over the 60-kilovolt circuit service since the load/no-load voltage variation exceeds the range of our regulating equipment.

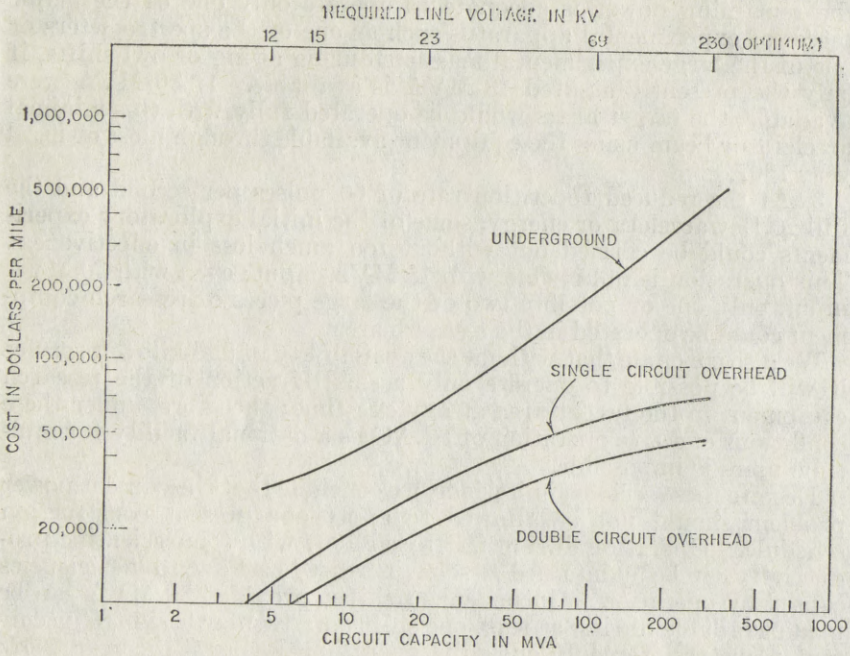
To summarize, postponement of the 220-kilovolt service to a date later than March 1966 would progressively impair the research effectiveness of the SLAC laboratory by forcing operation at lower energy and lower data rate and by making it impossible for us to serve multiple users. By fiscal year 1968 the harm would be exceedingly serious.

Operation at reduced data rate and energy resulting in impaired research effectiveness represents a direct loss to the country of scientific knowledge which is great but difficult to evaluate in financial terms.

RELATIVE MERITS—OVERHEAD VERSUS UNDERGROUND

I now turn to my second topic. We have studied the relative merits of underground and aboveground transmission in order to more fully understand the technical aspect of the problem. Figures 2 and 3 before you describe the result of this analysis. Figure 2 gives the cost per mile of overhead versus underground transmission plotted against the power to be transmitted over a given circuit.

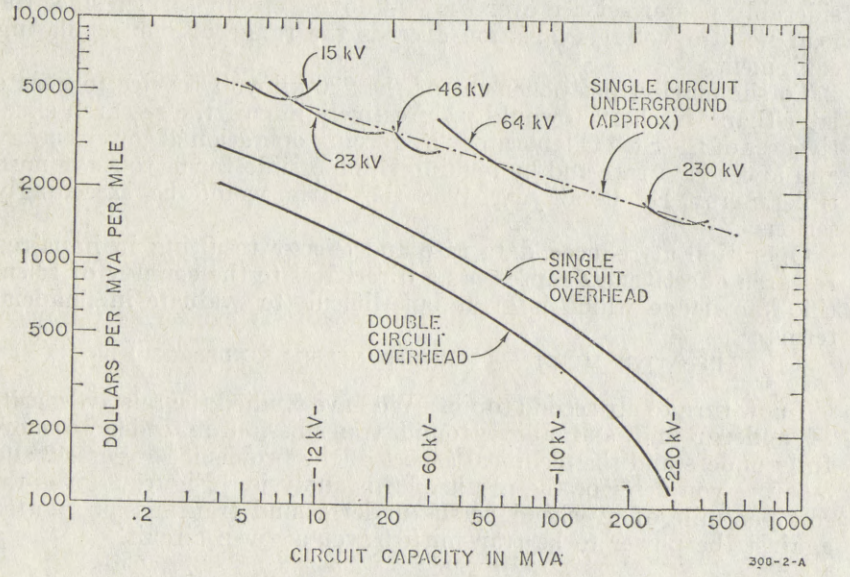
FIGURE 2



APPROXIMATE COSTS FOR ELECTRICAL TRANSMISSION
(LONG RUNS, NO BREAKERS, AVERAGE CONDITION)
MARCH 1964

308-3-A

FIGURE 3



308-2-A

RELATIVE COSTS OF UNDERGROUND CABLE AND OVERHEAD LINES
(LONG RUNS, NO BREAKERS, ROUGH APPROX.)
(MARCH 1964)

Chairman HOLIFIELD. Dr. Panofsky, some of the copies of your written statement you have given us don't have these figures. Start over on the picture.

Dr. PANOFSKY. Picture 1 [see p. 9] represents of growth of SLAC load demand in megawatts plotted against calendar years. It shows that we are crossing over the 18-megawatt limit by the end of this calendar year. It also shows that we are crossing over the "as available" limit; that is, the "contingent" limit of available power, by the first half of 1966. The first graph was the one to which the first half of my testimony was devoted to. It documents the relation of demand to available supply.

The second graph [see p. 12] shows horizontally the circuit capacity in million volt-amperes—which approximately equals megawatts—plotted against the cost in dollars per mile. Now, as you see, the jump in cost between underground transmission and overhead transmission is about a factor of 10 or more if you are looking at the 200-megawatt level on this graph. But if you are looking at the 10-megawatt level then you are only talking about a factor of 2. On the left-hand side of the graph; that is, low-power distribution, the curves are fairly close together. On the right-hand side of the graph; that is, high-power transmission, the curves are spreading far apart. This kind of graphical scale is such that this jump here represents a factor of 10 and this represents a factor of 2. [Witness pointing at graphs Nos. 2 and 3, p. 12.]

UNDERGROUND COST DIFFERENTIAL—HIGH VOLTAGE VERSUS LOW VOLTAGE

We conclude from these charts that the cost penalty for undergrounding a lower power, less than 10 MVA, distribution circuit, is about a factor of 2 whereas the cost penalty for undergrounding a higher power, greater than 200 megawatt transmission circuit is about a factor of 10. I might mention that this conclusion is the same conclusion which was reached by the Panel on Underground Installation of Utilities of the White House Conference on Natural Beauty to which Dr. Tape referred.

We have thus concluded that the "beautification dollar" is much better spent in undergrounding the lower voltage distribution circuits, rather than the higher voltage transmission lines. This conclusion is strengthened by noting that the average pole height of the high voltage transmission line engineered for the AEC is essentially the same as the pole height used in the distribution circuits in common use locally.

Accordingly SLAC has obtained support from the AEC toward undergrounding its entire secondary distribution system (other than temporary construction service) which would have a capacity to distribute electrical service in a fair sized city, and also its telephone circuits and its other utilities. In so doing, Stanford and the AEC have shown leadership in alleviating this problem without attacking it from a direction which would be wasteful in the use of available resources. This completes my statement, Mr. Chairman.

DELAY FACTOR OF UNDERGROUNDING

Senator PASTORE (presiding). Doctor, I was not here when you began your statement but I would like to reduce this to the simplest

terms possible. Is this problem of going underground or above ground merely a matter of expense?

Dr. PANOFSKY. No, sir. The matter of going underground is at this time a matter as far as SLAC is concerned, also a matter of considerable delay, and, therefore, delay of research——

Senator PASTORE. By what time?

Dr. PANOFSKY. By up to 18 months. If it were decided today to go underground and funds were available and the necessary initial negotiations took a negligible time, then the time at which the service would be available would be 18 months later than the SLAC demand exceeds the now available power.

Senator PASTORE. From a practical point of view, from the time of beginning up until now we didn't have this facility. Why is it so cataclysmic to delay another 18 months?

Dr. PANOFSKY. It is not cataclysmic in the sense that by March 1966 all the lights would go out. But all that would happen is that we would progressively be unable to perform at or live up to the potential which this facility makes otherwise possible. Previously, I have identified in specific terms what would happen; namely, we could not operate the accelerator at its highest energy for which it was designed. We could not operate it at what we call the design data rate; that means, the intended number of pulses per second. But we could operate it.

LOCAL EXISTING PRACTICE

Senator PASTORE. The thing that has disturbed me is that this has been a pending controversy for some time. No one challenges the fact that for esthetic reasons you go underground in preference to going above ground. I would prefer to go underground, discounting the element of cost. My understanding is that they have many poles there now. Is that true?

Dr. PANOFSKY. Yes, sir. I think you might address this question to the representatives of the area who are here.

Senator PASTORE. I am asking you because after all you are pretty familiar with the area, too.

Dr. PANOFSKY. Yes; that is correct. In the neighboring areas even the low-voltage distribution circuits have not been put underground with the exception of those in some subdivisions and also on the Stanford campus and on the SLAC site where the low-voltage circuits have been undergrounded.

TECHNICAL REQUIREMENTS—UNDERGROUND VERSUS OVERHEAD

Senator PASTORE. So that the record may be developed in every aspect, is it a fact that it does not make any difference whether you go above ground or below ground insofar as the efficiency of your facility is concerned?

Dr. PANOFSKY. We would be willing to accept, as far as technical requirements are concerned, underground service at 180-megawatt level, single circuit. We realize that this would expose the Commission and the Government to the need for a possible second circuit which may have to be constructed at some future time.

Senator PASTORE. Is there any reason why they can't be constructed at the same time?

Dr. PANOFSKY. There is no technical reason why it cannot be constructed at the same time except that we would not recommend that that be done, because the load requirements will not grow that rapidly, and, therefore, there does not appear to be a justification to have a second idle circuit be underground for this long period of time.

Senator PASTORE. How long is a "long period of time"?

FUTURE NEED FOR A SECOND UNDERGROUND CIRCUIT

Dr. PANOFSKY. This first circuit would probably be adequate during the current decade—through 1970.

Senator PASTORE. Probably?

Dr. PANOFSKY. That is right.

Senator PASTORE. It could go longer, or it could go shorter.

Dr. PANOFSKY. It could go longer or it could go shorter. As I mentioned here, one of our problems is that our load depends very much on the needs of the outside users over which we have no direct control.

SINGLE AND DOUBLE CIRCUIT—OVERHEAD

Senator PASTORE. As distinguished between going underground and going above ground would you put in full power if you went above ground from the beginning?

Dr. PANOFSKY. We would put in full power but only single circuit, which gives us lesser protection against outage or failure. In deference to the needs of improving the line we decided, and the Commission approved, that we would go only single circuit, which halved the available power and, therefore, exposes us to a larger risk of outages as compared to two circuits.

Mr. CONWAY. That is because of the difference between the pole and tower. From a technical point of view, the AEC would be better off to put in the high towers, but for esthetic reasons the AEC agreed to use the smaller single-circuit tubular towers. The two circuits would have been suspended from a tower which the local residents considered more objectionable.

Dr. PANOFSKY. That is right. The two circuits would have been carried on higher structures. Therefore, in reducing the height of the structure to a level much lower than other high-voltage lines in the area we went to single circuit but full power.

SINGLE AND DOUBLE CIRCUIT—UNDERGROUND

Senator PASTORE. Coming back to the first premise, though, if you went underground—I would like to get this a little more understandable in the record—you say there would be no need of getting the second circuit in the beginning. After all, could not this second circuit be placed in the same hole?

Dr. PANOFSKY. The answer is "No," because one of the limitations of underground construction is the heat generated by the circuit underground, and, therefore, the engineering demands make it necessary to separate if several circuits are used.

Senator PASTORE. Therefore, if we began to put the two in at the same time, we would have to build different tunnels for each one, anyway.

Dr. PANOFSKY. That is right.

Senator PASTORE. The reason why you are contemplating one circuit, and then later on the other, is because you would have to have two tunnels anyway.

Dr. PANOFSKY. That is correct. The savings of constructing both tunnels together would be relatively small and would not justify the fact of having one of them idle for a long period of time.

Senator PASTORE. Yet if you went above ground it would only be one operation.

Dr. PANOFSKY. That is correct. There is another reason and that is the following: in underground construction a large part of the cost is due to the large amount of copper required. The reason you need a lot more copper underground than above ground is because the cooling of the circuit is much better above ground.

OVERHEAD VERSUS UNDERGROUND COSTS—CALIFORNIA PUC

Senator PASTORE. Now, so that the record can have proper continuity, either you or somebody here please give me the cost of going above ground in the one operation and the cost of going underground in the first operation and also what the second operation would cost. Is there anyone here prepared to give that figure at this time?

Representative HOSMER. Mr. Chairman, I have a portion of the California public utility case No. 7871 decided February 9, 1965, in which these costs are specified if I may read it for the purpose of the record. (See app. 2, p. 115.)

Senator PASTORE. Yes; I would like to have it.

Representative HOSMER. The cost of the 300-megawatt overhead line along Junipero Serra Freeway is $1,012,000. In comparison the underground cost of the 180-megawatt line is $2,450,000. The approximate cost of the second line, 180 megawatts in 1973, is a total of $2,450,000, for a total of $4,900,000 to go underground as against the prettified power-pole proposal along the Junipero Serra Freeway of $1,012,000, or a difference in additional cost of $3,888,000 to go underground.[1]

Senator PASTORE. So the question which has to be weighed here as to the esthetic quality of going underground or above ground resolves itself to making the judgment between $4,900,000 and $1,012,000.

Representative HOSMER. Mr. Chairman, may I add further to those comparisons?

Involved in the first 180-megawatt line would be a rate increase of approximately $200,000 annually for the underground line and when the second comes along another $333,000 for a total of $533,000 annual additional rate for the underground scheme.

(See app. 2, p. 119.)

Senator PASTORE. These are not figures that any agency of the Federal Government conjured up. These are figures given by the California Public Utilities Commission.

Representative HOSMER. That is right. Incidentally, I might add this. It was the conclusion, after citing those figures, of the California Public Utilities Commission—

> In view of the foregoing, the Commission is of the opinion that an order directing P.G. & E. to construct underground electrical distribution facilities to

[1] Pacific Gas & Electric Co. had proposed the Junipero Serra Freeway route in lieu of the Searsville route, but this alternative was also rejected by the town. (See p. 78.)

SLAC would be unwarranted. We are not persuaded that any esthetic considerations involved should require the expenditure of an additional $3,888,000 which would be paid for by all the customers of P.G. & E.

POLES PROPOSED IN WOODSIDE

Senator PASTORE. Now, let us get a bit into this esthetic problem. How many poles would be required to stretch out this line through the town of Woodside?

Dr. TAPE. Mr. Chairman, I think Mr. Mohr of our San Francisco office can describe the pole situation.

Senator PASTORE. All right.

Representative HOSMER. While he is coming forward, Mr. Chairman, can I again refer to this decision in which the matter of the number of poles was dealt with in this language—

five of these poles would be located in Woodside and three of these five poles would be on Stanford University property.

Mr. CONWAY. I don't think that is quite correct as of now.

Dr. TAPE. I think the situation has changed a bit, Mr. Chairman. I would like to have Mr. Mohr describe it.

Senator PASTORE. How many poles are in the town of Woodside, and how many of these are on Stanford property?

STATEMENT OF LAWRENCE G. MOHR, AREA MANAGER, PALO ALTO AREA OFFICE, ATOMIC ENERGY COMMISSION

Mr. MOHR. As to Woodside, sir, there are three pole structures in the town of Woodside. One structure is in Woodside on private property, and two structures are on Stanford property within the town of Woodside.

Senator HICKENLOOPER. I wonder if we could have that a little clearer, Mr. Chairman.

Senator PASTORE. In other words, three poles are involved in all, is that correct?

Mr. MOHR. In Woodside; yes, sir.

Senator PASTORE. Two of these poles are on Stanford property within the town of Woodside and one is on private property in Woodside.

Mr. MOHR. That is correct.

Senator PASTORE. Is the university objecting?

POLES AND STRUCTURES

Dr. TAPE. Mr. Chairman, in order that the record be clear I would like to refer to these as structures because the structure that we are talking about is in some cases two poles, with a crossarm across the top. I don't want you to get the notion that it is just a single pole. We do have some sketches here you might like to see.

(See app. 3, p. 123.)

Chairman HOLIFIELD. I would like to see it because in last year's study we have three pictures of the conventional pole, 60 feet tall; a single-circuit pole, 70 feet tall; and the standard dual-circuit tower, 120 feet. (See app. 4, p. 128.)

Representative PRICE. This would be something like the arrangement that the power company used to install a transformer; they have a couple of poles going up.

Dr. TAPE. It is not in connection with a transformer in this case. The problem here is that in carrying any transmission line one does not have a straight through course. These are problems of turning corners, and to look at the structure which is put up in order to carry the forces when moving from one support to another. So, the illustrations which Mr. Holifield has show the three types—the one I just described, the two poles together with the crossarm at the top would be the pi-shaped structure like the Greek letter "π." Another structure which has three poles together for taking the transmission lines around corners, and then the third is just the single structure that you are familiar with, which has the three insulators on each pole. (See app. 3, p. 123.)

SECTION 271 CLARIFICATION

Senator PASTORE. One thing has to be borne in mind. As I was made to understand, the decision rendered by the circuit court of appeals not only affects Woodside but brings into jeopardy this kind of activity on the part of AEC in all parts of the country. This bill we are considering is intended to clarify the law which was the subject of the opinion that was rendered by the court which disputes the authority of the AEC to condemn for this particular activity. We are engaged in these activities in other parts of the country. So, if that decision were to stand as the final decision without any clarification by law, we would cast a shadow upon other activities that AEC is engaged in at the same time without regard to this Woodside controversy. Is that correct?

EFFECT OF COURT INTERPRETATION OF SECTION 271

Dr. TAPE. That is correct, Mr. Chairman. This indeed is the principal issue, as far as the Commission is concerned, in appearing before you today.

As I stated earlier, the issue in terms of the effect of this interpretation of section 271 goes far beyond the situation at SLAC. As Dr. Panofsky has testified here, there are things that can be done. They can limp along from time to time to get work done, not at the levels that we had planned and not at the productivity that we had planned. However, the wider implication is, what does this mean with respect to the whole of the Atomic Energy Commission program, since section 271 is directed at transmission, sale, and generation of electricity. And you know that electrical power consumption is almost at the heart of the Atomic Energy Commission's program as well as its interest in generation. To have this stand as currently interpreted, we think, would be extremely dangerous as far as limiting future operation.

Senator PASTORE. Would this endanger or affect in any way our weapons production?

Dr. TAPE. If we ran into a situation whereby it was necessary for the Commission to undertake the type of action, to let us, say, get

power to a weapons production site, such as we might have done in the Woodside case, in the SLAC case, we would then be going into the courts in condemnation and we would be prevented in a similar way if the local authorities wished to interfere in that way.

A second area which is of concern to us——

Senator PASTORE. Before you get to the second point I think Senator Hickenlooper has a question on the first point.

Senator HICKENLOOPER. This is a technicality but you are dealing with a decision of the circuit court out there, are you not?

Dr. TAPE. That is right.

Senator HICKENLOOPER. That is not necessarily binding on the other circuits in the United States. But you are assuming, I assume, that the precedent of that circuit court decision would have perhaps a controlling influence or very great influence on other circuits in the United States.

Dr. TAPE. I have certainly assumed that this decision——

Senator HICKENLOOPER. It is not stare decisis in other suits.

Dr. TAPE. That could be so.

Senator PASTORE. That if why I said if it were allowed to stand—whether we pass this law or not it should be pursued to the Supreme Court. Personally, I don't mean to be critical, not that it would make any difference if I am, but I would think the court is in gross error. This interpretation given by the court was never intended. But the fact of the matter is that it is the court and it has rendered its opinion. In order to clarify the record—whether or not the Congress decides to go under ground or above ground in Woodside—you feel this law should be passed?

Dr. TAPE. That is correct.

Senator PASTORE. I want to make that clear because there is a shadow that has been cast upon the right of condemnation on the part of AEC in this particular area. If that decision stands as it is, as a precedent, as Senator Hickenlooper pointed out, or if it goes to the Supreme Court and the Supreme Court sustains the circuit court of appeals, the fact of the matter remains that the law should be amended. Is that correct?

STATEMENT OF JOSEPH F. HENNESSEY, GENERAL COUNSEL, ATOMIC ENERGY COMMISSION

EFFECT ON ELECTRICAL OPERATIONS

Mr. HENNESSEY. Yes, it is, sir. I would like to add that our problem goes far beyond the simple cloud that is put over our authority to condemn. This would subject all our electrical operations, the generation of power itself, the transmission of power, the construction of generating plants, to all manner of local and State regulatory enactments, requirements for permits, construction codes, ordinances.

Senator PASTORE. In other words, what you are saying is that any municipality or any State could pass a law tomorrow ordering you to put those wires underground and you would have to.

Mr. HENNESSEY. That is right, sir. Assuming that the decision were respected in that jurisdiction.

EFFECT ON POWER CONTRACTS

Dr. TAPE. Mr. Chairman, I was going to expand on one other area and then I would like Mr. Hennessey to further expand. Without reference to this matter of condemnation or without regard to such things as ordinances for going underground there is the entire question of our contracts for the purchase of power, for example, in which we negotiate with the power suppliers. These negotiations we undertake in the best interest of the Government as you can well appreciate. To what extent the rates that we could negotiate would come under local consideration and regulation is unclear; it would seem to us that this interpretation also might raise questions as to the extent to which the local authorities would enter into rate determinations in respect to our power contracts.

Senator PASTORE. In other words, if it did come to pass, and I would hope it never would come to pass, that you were ordered to go underground it would necessarily mean that the rates would have to be renegotiated upward.

Dr. TAPE. This would be so. My reference was without regard to whether one was going underground or not. It was a question of just a simple negotiation of the power supply contract and the rate at which we could establish power cost.

LEGISLATIVE HISTORY OF SECTION 271

Senator HICKENOOPER. Mr. Chairman, I will say with regard to the rather peculiar circumstances you find yourself in, having had something to do with this particular section that they are referring to, I have been quite surprised to find out that I don't understand what I meant by it, according to the court. It does not comport with my understanding.

Senator PASTORE. Will you state for the record very succinctly, and I know you know how, exactly what was meant by this section.

Senator HICKENLOOPER. Then I get into dispute with the court as to what I mean and what the court says I mean. I will in due time put a statement in the record. (See p. 51.)

Dr. TAPE. Senator Hickenlooper realizes that we have drawn heavily on what he said some years ago in our interpretation.

Senator HICKENLOOPER. I am afraid the court did too.

JUSTICE DEPARTMENT AND BUREAU OF THE BUDGET VIEWS ON PROPOSED AMENDMENT

Chairman HOLIFIELD. What are the views of the Bureau of the Budget and the Justice Department on this proposed legislation?

Dr. TAPE. The Bureau of the Budget has interposed no objection to this legislation, Mr. Chairman, and the same is true with Justice.

Mr. HENNESSEY. The Justice Department supports the enactment of the legislation. They feel that this will permit us to proceed on a timely basis—on a more expedited basis—than pursuing the remedies of seeking a rehearing in the ninth circuit or appeal to the Supreme Court.

LIMITATION OF SECTION 271 ON AEC

Chairman HOLIFIELD. I don't want to try to be a lawyer in this case because I am not a lawyer but if this should be allowed to stand,

the interpretation of the court of appeals in California, would this not, in effect, affect the supremacy clause of the Constitution which gives to the U.S. Government the right of condemnation, the right of eminent domain, you might say?

Mr. HENNESSEY. What the ninth circuit said, Mr. Holifield, was that Congress in enacting section 271 took away from the Commission the immunity that it previously enjoyed from State and local regulation.

Chairman HOLIFIELD. That is right. Maybe I phrased my question poorly but that is what I meant. Other departments of the Federal Government have this right and here the court has made an exception of the AEC, which is also a Federal agency, and denied to it the right which the other Federal agencies have.

Mr. HENNESSEY. That is right. The court specifically recognized that apart from section 271 the Atomic Energy Commission could clearly proceed exactly as it proposes to proceed despite the Woodside order.

Senator PASTORE. You mean if you did not have section 271?

Dr. TAPE. If we did not have section 271 then we would be on the same ground as other agencies.

Senator PASTORE. In other words, it was considered by the court to be a limitation on the right of AEC.

Mr. HENNESSEY. That is right. They interpreted it as being an affirmative restriction on the authority of the Commission.

Senator PASTORE. Which brings us back to Mr. Hickenlooper. I remember this quite well because I participated with other members of the Joint Committee in explaining the original bill on the floor of the Senate. This came up on the question of the transmission or sale of electricity from a nuclear facility. It had no connection at all with what we are trying to do out there in California. However, I repeat, the court is the court. They have the final say.

SENATOR HICKENLOOPER'S VIEW OF SECTION 271

Senator HICKENLOOPER. Mr. Chairman, I will put in a little more formal statement a little later about this but I can assure you, and I thought it was made clear on the floor, at the time of the discussion of section 271, that section 271 was basically an added insurance that this act did not alter or change the regulatory power of the Federal Government or the States or private localities away from the authority which they possessed before. (See p. 51.)

Now as I understand it the court has said the AEC, like other Federal agencies, has the authority, derived from the supremacy clause of the Constitution; except the Congress took away that authority through enactment of section 271 of the Atomic Energy Act. I am not quite sure why the court did say this thing. I have read it but I am going to have to read it again. I do not place the same interpretation on it that the court did. I think that it was merely—and I think that was amply brought out, it was to make doubly sure that the Federal Government by this act did not get into a situation where it was superimposing its own regulatory devices through the Commission over the transmission and distribution of electricity to the diminution of the local, State, or other Federal agencies' powers which they had before-

hand. This was just to leave the status quo the status quo. The court decision has left it in a fuzzed-up condition, I think, as far as other things are concerned.

DENUDING OF EASEMENT FOR CONSTRUCTION OF OVERHEAD LINE

Chairman HOLIFIELD. Mr. Chairman, I understand that the court has said that construction of the overhead powerline involves, and I quote "denuding the 100-foot-wide easement of trees and vegetation." Is this true?

Dr. TAPE. Mr. Holifield, every effort is going to be made to preserve the natural terrain which is there now. We have said on several occasions that in moving from the original proposal of the strip area and towerlines to the present proposal which involves the pole arrangement that we talked about, the natural terrain would be left to every extent possible and, of course, one does have to worry about clearance for actual high-voltage lines. Mr. Mohr, would you like to expand on that?

PLANS AND SPECIFICATIONS FOR CONSTRUCTING OVERHEAD LINE

Mr. MOHR. Yes, sir. On the AEC design the individual pole structures have, to the extent possible, been located to minimize the need to fell large trees. One relocation to the crest of the hill below an FAA station that we have out there was done partly for this reason. The line will be strung by helicopter and corridor clearing is not permitted by the specifications. The construction plans and specifications for the line have clearly delineated the areas to be cleared and these areas are based on the requirements of a California safety ordinance. Where possible, this has been done on a tree-by-tree basis. Also to the extent possible a screen is being maintained within the right-of-way but outside of the line. An aerial survey was made and individual trees were spotted. Only those trees will be removed that interfere with the sway of the line in accord with California General Order No. 95. Our specifications are written to prohibit the creation of cleared corridors. The trees that must be cut are trimmed to irregular side line so that any straight line is avoided. Clearing to ground level is not permitted except at structure sites and for access. Clearing for stringing corridors is not allowed. As I said earlier, stringing will be by helicopter.

We have one requirement for removal and in these areas, and aside from the clearing that I mentioned earlier to ground level, low-growing brush and trees having a mature crown height of 15 feet or less shall not be removed except at the structure sites. We have detailed plans that show exactly what areas are to be cleared and there is not any denuding. (See app. 5, p. 129).

Chairman HOLIFIELD. In January 1964, Mr. Johnson testified on page 52 of our Stanford linear accelerator hearings [1] under questioning by me that it wasn't necessary to cut out a swath of trees and underbrush. He said, "We do not intend to cut any more trees than those which will interfere with the line."

Mr. Hosmer said, "You won't clear a wide path underneath the lines

[1] "Stanford Accelerator Power Supply," JCAE, Jan. 29, 1964.

themselves?" Mr. Johnson said, "No, sir." And other testimony was of the nature that this would be done in such a way as to offend the esthetic sense of the people in the locality as little as possible.

TECHNICAL PROBLEMS OF HIGH-VOLTAGE UNDERGROUND LINES

Now there was another thing that the court said, that there would not be technical difficulties if the powerline was underground.

I would like you to explain to the committee what this involves in putting a high-voltage line underground, the way that you handle the heat problem, and also what you would have to do in case there is an interruption in service, as compared to what you would have to do with an overhead line. For example, finding where the damage was in the underground line and the steps you would have to take to cure the trouble, the amount of time that might be involved in such comparative action, and the amount of expense that would be involved in taking care of a defect in an underground line that might materialize.

Mr. MOHR. I may miss some of your points, sir, but let me start.

We cannot run an underground line along the route we have set up for the overhead line. This is technically not feasible. An underground line would have to be run along existing roads. The Canada-Whisky Hill Road is the route. I think there would be a very small amount of private right-of-way that would have to be acquired here. Essentially it could be put in the shoulder of the road.

The line consists of three conductors each of which is wrapped in a number of layers of fine paper, and then these three conductors are put in a steel pipe. The pipe is filled with oil which is maintained under pressure.

Chairman HOLIFIELD. What pressure?

Mr. MOHR. About 200 pounds.

Chairman HOLIFIELD. Per square inch?

Mr. MOHR. Yes, sir. This oil is circulated slowly and is used to remove the heat. In addition some of the heat goes from the pipe into the soil and it is dissipated that way. If there is a break in the line, the break has to be located, which can be done with available instruments, and then you go in on either side of the break and freeze the oil in the pipe, remove the pipe, splice the failure, and replace it.

Chairman HOLIFIELD. What time does it take to make that kind of repair?

Mr. MOHR. This would take probably, from what I have heard, a week or two to complete such a repair.

Mr. CONWAY. We had testimony from P.G. & E. that it takes about a month.[1]

Chairman HOLIFIELD. If you had a short or a break in an overhead line, what would the task be?

Mr. MOHR. Probably a matter of hours.

Chairman HOLIFIELD. So, we are talking about a possible interruption of service in the underground line supply in addition to the $3,888,000 additional expense, are we not?

Mr. MOHR. A prolonged interruption of service; yes, sir.

Chairman HOLIFIELD. So it is more difficult technically to take care of this situation and the court was in error on that assumption apparently. (See app. 1, p. 113.)

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[1] See "Stanford Linear Accelerator," hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, p. 60.

Mr. MOHR. I don't recall that portion of the decision, sir.
Representative HOSMER. Will the gentleman yield?
Chairman HOLIFIELD. I am through. Go ahead.

WHISKY HILL-CANADA ROAD UNDERGROUND ROUTE

Representative HOSMER. I just want to ask you: You went over the installation of these lines underground along the Whisky Hill-Canada Road, and at the present time there exists along that road a high density of complex overhead powerlines. Would they interfere or be interfered with by the operation and installation of these underground conduits?

Mr. MOHR. I would venture to say that for the first time we would put it on the other side of the road.

Representative HOSMER. We would have on one side of the road the AEC's buried powerlines and on the other side of the road everybody else's power poles sticking into the sky with lines connecting them?

Mr. MOHR. Lower voltage; yes, sir.

Representative HOSMER. A philosophical query: What is the use of the burial?

Senator PASTORE. Would this occur right in the town of Woodside?

Mr. MOHR. Yes, sir.

Senator PASTORE. You mean to tell me that the court said it is better to go underground and you are going to go alongside electricity that is being conducted by poles for the private use of people? Is that correct?

Mr. MOHR. That would be the result of the court's decision; yes, sir.

Senator PASTORE. In other words, they have poles there and they want AEC to go underground alongside the poles because they don't like poles?

EXISTING POLES IN WOODSIDE

Chairman HOLIFIELD. Can you tell us how many above-surface poles are in the city of Woodside at the present time?

Mr. MOHR. No, sir. I have had that number, but I do not have it here. I think 1,700 or 1,500.

Mr. CONWAY. 1,700.[1] And that is only powerlines. There are telephone poles which would make it about 2,500. (See app. 2, p. 119.)

VARIANCES FROM UNDERGROUND ORDINANCE

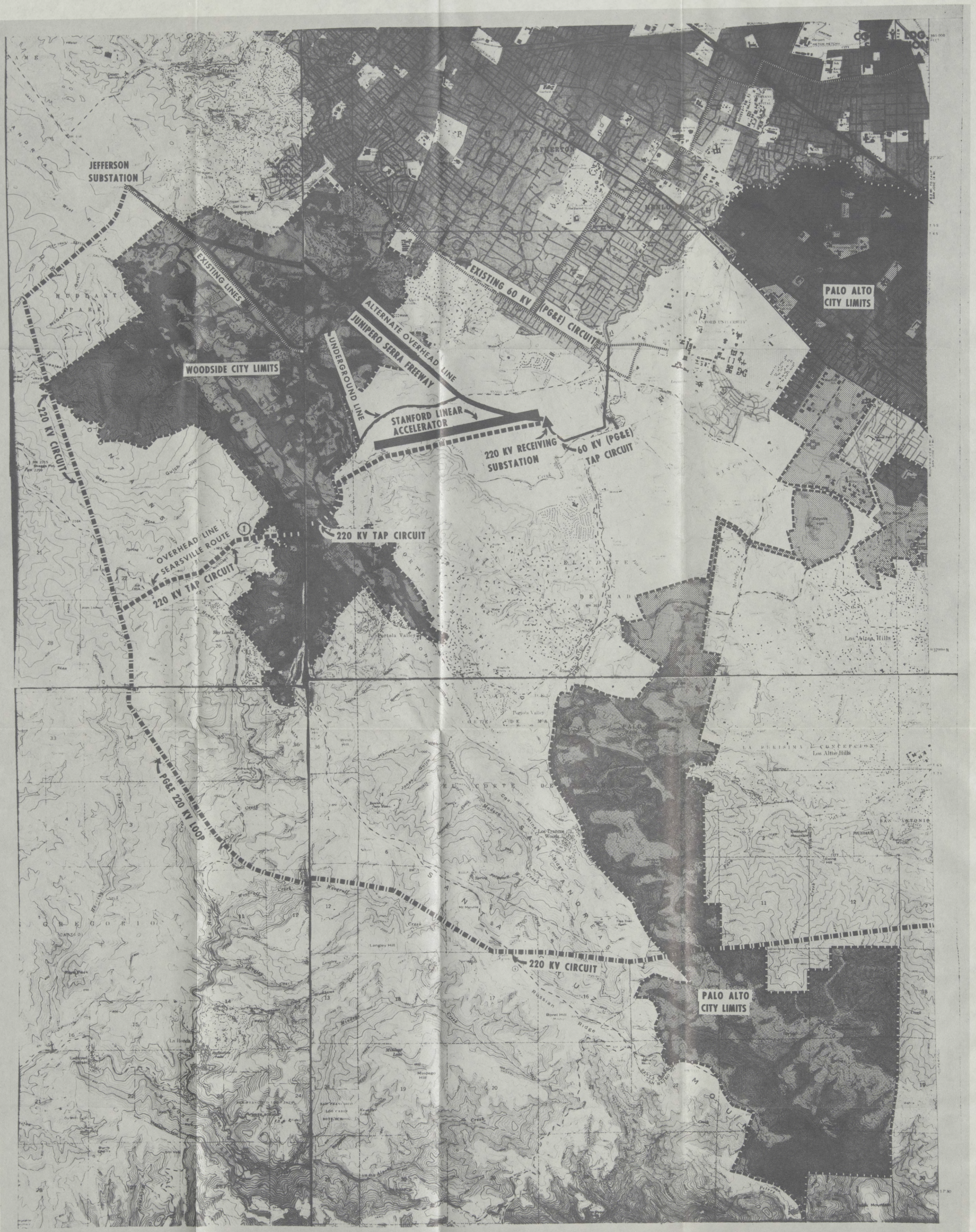
Chairman HOLIFIELD. Are you aware of any waivers that have been made since that ordinance was passed. I suggest the ordinance was possibly passed with this particular problem in view.

Mr. MOHR. I believe there was one waiver involving a cost to the landowner of about $800. I think he had his application in and he had a permit for an overhead line before the ordinance was passed, and it lapsed, and then he renewed his application and received a waiver.

Chairman HOLIFIELD. The AEC had an application in, also, did they not, for an overhead line?

Mr. MOHR. That was never granted, sir.

[1] See "Stanford Linear Accelerator"; hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, p. 176.



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Chairman HOLIFIELD. I know it was never granted.

Senator HICKENLOOPER. Mr. Chairman, do we have a plat or a drawing here?

Senator PASTORE. Of the town?

Senator HICKENLOOPER. Yes, sir. There is one in the book here on page 180, but it is not adequate.[1]

Dr. TAPE. I believe we have one.

Senator HICKENLOOPER. I mean showing the town of Woodside and the distances.

RADIO INTERFERENCE

Senator PASTORE. May I ask a question at this point. Will this interfere in any way with the reception of television?

Mr. MOHR. Our line is designed for a very low radio interference voltage. Our design is much tighter than the Bonneville Power Administration design and the Bonneville has been commended a number of times for their high quality of their design. We expect minimum interference with radio and television.

LOCATION OF SEARSVILLE OVERHEAD LINE

Here is the overhead line. Here is where it comes into Stanford property. The underground line would follow this route. (References are to map facing this page.)

Chairman HOLIFIELD. The dotted line is an existing high-voltage line now?

Mr. MOHR. That is right.

Chairman HOLIFIELD. It goes through the county area and hits the tip of Woodside up there in one spot?

Mr. MOHR. That is right.

Senator HICKENLOOPER. The tie-in there, then, is to the west of Woodside.

Mr. MOHR. That is correct.

Senator HICKENLOOPER. For what distance does the line travel or go from the point of tie-in until it actually strikes the corporate limits? Is Woodside an incorporated town?

Mr. MOHR. That is right, it is.

Senator HICKENLOOPER. The corporate limits of Woodside. Now you pointed to a spot there, and it looks like there is a little bay in there.

Mr. MOHR. That is right.

Senator HICKENLOOPER. Is that little bay outside the territory of Woodside?

Mr. MOHR. We have one structure on this hill and another structure on that hill. The line crosses Woodside, but there are no poles in Woodside.

Chairman HOLIFIELD. You mean at that point there are no poles?

Mr. MOHR. That is right.

Senator HICKENLOOPER. What is the distance between the point where the line first enters the corporate limits of Woodside and where the line leaves the corporate limits of Woodside?

Mr. MOHR. About a half mile.

[1] See "Stanford Linear Accelerator," hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, p. 180.

Senator HICKENLOOPER. Now is it in that little narrow neck there, or does the bend in the line north at the eastern edge of Woodside, is that in Woodside or is that outside the corporate limits of Woodside, do you know?

Mr. MOHR. There is a road that comes through there and constitutes the eastern boundary of Woodside. There is a pole just west of that road, and that is in Woodside, but on Stanford land. That is right there.

Senator PASTORE. May I ask a question at that point. Would it not be technically feasible to run your lines overhead and then when you get to that section of Woodside, for a half mile, go underground?

Mr. MOHR. No, sir.

Senator PASTORE. You can't do so?

Mr. MOHR. No, sir, there is too much change in elevation and the lines can't take the kind of oil pressure you would have to have.

Senator PASTORE. In other words, if you go underground, you would have to go to a different route entirely?

Mr. MOHR. That is correct.

NUMBER OF LANDOWNERS AFFECTED

Senator PASTORE. Now how many people does this affect? I understand you can't build in Woodside unless you have 3 acres of land; is that right?

Mr. MOHR. Yes, sir.

Senator PASTORE. How many people does this affect?

Mr. MOHR. There are 10 landowners along the route, not counting Stanford.

Senator PASTORE. Ten?

Mr. MOHR. Ten. This includes the county.

LOCATION OF ACCELERATOR

Senator HICKENLOOPER. May I ask, Mr. Chairman, again is the green line to the east of Woodside the accelerator?

Mr. MOHR. This line, sir?

Senator HICKENLOOPER. The green line you have your finger on there.

Mr. MOHR. That is the accelerator.

Senator HICKENLOOPER. Your lead-in to the accelerator, is that at the east end?

Mr. MOHR. The master substation for the power feed to the accelerator is near the east end.

Senator HICKENLOOPER. That is where your feed-in point is?

Mr. MOHR. Yes, sir.

RELOCATION OF ROUTE TO AVOID WOODSIDE

Senator HICKENLOOPER. If you draw an arc from that point with the length of the line that you have through there, about where would it come on the red line further south where it turns east, below Woodside? In other words, if you started——

Mr. MOHR. This is the shortest distance.

Senator HICKENLOOPER. I realize it is the shortest distance. I understand that.

Senator PASTORE. Why can't you come right down?

Senator HICKENLOOPER. The point is this. If you start down south just to the right of that map, or maybe a little farther to the east, and run your line right up and miss that point of Woodside on the southeast, what difference would it make in the line or maybe the terrain?

Mr. MOHR. It would make none in the line. This route was chosen because it affected the fewest people. There are only 10 landowners along this line. There is quite a development in here. Since this map was drawn, this whole area has been incorporated as the town of Portola Valley. They, too, have an underground ordinance.

Senator HICKENLOOPER. Your difficulties seem to be compounded as time goes on.

Mr. MOHR. Yes, sir.

DISTANCE OF LINE TO NEAREST RESIDENCES

Senator PASTORE. Let me ask you a question. As you traverse down Woodside there with your proposed line, how close do you come to the nearest house?

Mr. MOHR. I believe there are no improvements on any of this property that we traverse. There are some homes at the lower end, and they would probably be 100 yards or so from the line.

Senator PASTORE. A hundred yards?

Mr. MOHR. I am estimating at this point.

Senator PASTORE. That is pretty close.

Mr. MOHR. Yes, sir; one or two homes would be affected.[1]

EFFECT ON HOUSEHOLD ELECTRICAL EQUIPMENT

Senator HICKENLOOPER. What effect will that powerline through that residential district there have on household appliances and electrical gadgetry in the houses?

Mr. MOHR. Aside from maybe some radio interference during wet weather, none.

Senator HICKENLOOPER. I get mad at trucks and airplanes once in a while myself when they come a little close to the house. I just wondered what a high-powered line like this would do to home appliances.

Mr. MOHR. I think it should do nothing. You are talking about radio and television, I am sure.

Senator HICKENLOOPER. Yes; I don't know what the effect of high voltage would be on——

Mr. MOHR. I think maybe Dr. Panofsky should answer that.

Dr. PANOFSKY. It would have no effect on the appliances.

Senator HICKENLOOPER. So you could run your bread mixer without too much difficulty?

Dr. PANOFSKY. That is right.

Senator HICKENLOOPER. Maybe they don't bake bread in those houses.

Thank you very much.

NUMBER OF POLES IN WOODSIDE

Representative HOSMER. The Public Utility Commission in its decision specified five power poles in the area of Woodside.[2] You specified three. Has there been a change in the design location since then?

[1] The AEC subsequently informed the committee that the distance is more accurately 100 feet and four homes would be affected.

[2] See app. 2, p. 119.

Mr. MOHR. I think the information to the Public Utility Commission went in sometime before the design was firmed up. However, my numbers are based on the final design.

Representative HOSMER. So, it is not five, but actually only three?

Mr. MOHR. Yes, sir.

Representative HOSMER. Two of which would be on Stanford University property?

Mr. MOHR. Right.

Representative HOSMER. Now the one remaining structure on condemned private property, which of the three types would it be?

Mr. MOHR. It would be a two-pole structure, a "pi" structure.

Representative HOSMER. A two-pole T structure?

Mr. MOHR. Yes, sir; it is referred to as a "pi" structure.

Representative HOSMER. This is the $3,888,000 "cause célèbre."

STATUS OF ACCELERATOR CONSTRUCTION

Now Dr. Panofsky, the opponents of this powerline are going around saying that it is premature to even be talking about bringing power in because it is very probable that this linear accelerator is not going to work anyway, you will never be able to get it alined so that you can shoot your electrons for 2 miles down that gun barrel. Would you have any comment on these dire estimates?

Dr. PANOFSKY. As you probably know, the installation of the accelerator in the housing is now almost half complete. In order to get early test we actually activated the first 600 feet ahead of schedule to run it as a separate entity. We have gotten very satisfactory performance out of it.

We have reached the highest energy that has ever been gotten in a linear accelerator; namely, 1.4 Bev. So I believe that, although any construction of this kind cannot be a complete certainty until it works, that as far as the soundness of engineering is concerned, we are in quite good shape, and I believe that we will be able to start working with the final beam sometime next spring.

ALINEMENT SYSTEM OF ACCELERATOR

Representative HOSMER. That is about one-eighteenth of the total 2-mile length in which you have to maintain this constant fine alinement. Have you experienced any misalinements that would predict trouble ahead?

Dr. PANOFSKY. No; we have not. We have put the alinement systems under very extensive tests, and they have performed very well. We have an automatic alinement system which has now been tested so that we can reestablish a straight line in less than a day in case any shift should occur.

Representative HOSMER. Is it a mechanical or electronic system?

Dr. PANOFSKY. It is both, sir. It is a mechanical system which does the realining, but the signal which tells you whether it should be realined operates on a laser beam and electronic detection.

Representative HOSMER. Does that require cessation of operations in order to perform the realinement operation?

Dr. PANOFSKY. As a matter of prudence, the first time or second time we would wish to do that. We would probably cease operation.

After that, once we have confidence in the system, it would not be necessary.

Representative HOSMER. As the head of the project and the man most experienced with it, have you run across any other bugs or potential bugs that throw any reasonable doubt on whether this will, in fact, be a useful scientific tool?

BEAM HANDLING

Dr. PANOFSKY. No; we have not. So far, all the tests carried out have indicated that the project should be successful.

The only unforeseen circumstances which have occurred in the design have been some of the problems in handling the beam once it has been produced at such a high intensity. So it may be necessary that we will have to do some operation at reduced intensity until we get our feel, completely, how to live with the various "scrapers" along the beam and the other devices which stop the beam finally.

HIGH VOLTAGE UNDERGROUND TRANSMISSION FEASIBILITY

Representative HOSMER. Are you familiar, Dr. Panofsky, with the length of this proposed line?

Dr. PANOFSKY. Yes; I am.

Representative HOSMER. What is that length?

Dr. PANOFSKY. It is a little bit over 5 miles. Again, the exact numbers are available.

Representative HOSMER. Joseph C. Swidler, Chairman of the Federal Power Commission, indicates that under the present state of technology, if you tried to transmit power of this nature underground for 25 miles, your line loss would be such that at the end of 25 miles you would end up with zero power. Does that sound like a reasonable estimate?

Dr. PANOFSKY. No; I think that there is probably some misinterpretation. The thing that is true is that the cost of constructing a line for 25 miles to transmit power of this magnitude is roughly the same as the cost of generating it to start with, and, therefore, the power transmission underground at the multi-hundred-megawatt level would not be economical if you went over 25 miles or so, depending on local terrain. As far as losses are concerned, you can make them just about as small as you wish by putting as much copper underground as you need to keep the losses down.

Representative HOSMER. His exact quotation was this:

> The heat built up in underground cables is tremendous because of the lack of ventilation and lack of insulation materials. In transmission of high voltage underground for 25 miles you have lost all your power. (See p. 26.)

Dr. PANOFSKY. I would disagree with that statement because the amount of heat that is generated depends on how much copper you put in. If you are a good engineer, you would put in enough copper so that the heat generated is not excessive.

Representative HOSMER. In other words, you buy copper and overcome resistance if you are willing to pay the high additional costs.

Dr. PANOFSKY. That is correct.

Representative HOSMER. I don't suppose there is a design existing for an underground powerline down the Whisky Hill-Canada Road?

Dr. PANOFSKY. There is no design for that locale, but there is no question that there is enough engineering knowledge from locations elsewhere that a line underground of this kind could be designed within present engineering knowledge.

EFFECT OF CANCELLATION OF PROJECT

Representative HOSMER. Dr. Panofsky, I have one final question.

As you know, there was great enthusiasm among people of this particular area to get Congress to locate the linear accelerator at Stanford, and we hardly anticipated the kind of troubles that we are involved in.

One alternative to underground lines is simply to bury the whole project, give up, and abandon it. How many millions of dollars will we have in there before we are through—$150 million?

Dr. PANOFSKY. The construction authorization is $114 million. In my testimony I gave the figure of slightly over $77 million already costed and committed at this time.

Representative HOSMER. Forgetting this $77 million, then, if we just give up the project, would that have much effect on the United States?

Dr. PANOFSKY. I am obviously a prejudiced witness on this subject.

Representative HOSMER. I assumed that you would be.

Dr. PANOFSKY. I would think that that would really be a very major disaster because this particular installation is unique, there are no other plans like it, and it forms certainly an integral part of our national high-energy program to balance some of our activities elsewhere.

There are many scientists counting on its use both from within Stanford and in other establishments all over the country. I think it would be a very major loss.

Representative HOSMER. I take it you reject this alternative?

Dr. PANOFSKY. I would, sir.

POWER FROM NUCLEAR REACTOR

Representative HOSMER. Another alternative might be putting a nuclear reactor on the borders of Woodside to generate the necessary power. I suppose it won't make any difference to your accelerator how the electricity it consumes is generated, would it?

Dr. PANOFSKY. That is correct. We have actually analyzed both nuclear and nonnuclear power sources. As I mentioned before, the cost of generating the electricity would equal the cost of transmission underground over a distance of 20 to 30 miles.

Over a distance of 4 to 6 miles the underground solution would be considerably less expensive than generating our own power either by nuclear or nonnuclear means.

Representative HOSMER. Maybe we just don't want to put this thing underground. We have a principle at stake here. Now, is there anything about the operation of a nuclear reactor or any of the radiation involved, the arguments about contamination, and all the other things that were brought up when P.G. & E. wanted to go up to Bodega Head, or any of the characteristics of a nuclear power station of such a nature that the efficiency of the operation of the linear accelerator

would be interfered with by the nearby presence of such a power generation facility?

Dr. PANOFSKY. There has been no site study, of course, made as to the safety of the reactor itself.

Representative HOSMER. I am not talking about safety.

Dr. PANOFSKY. If the reactor itself was considered safe, in that case the accelerator would be quite happy wherever the power came from.

CONVENTIONAL GENERATING STATION

Representative HOSMER. That is fine. One other question. As an alternative to a nuclear power generating station we could think of installing a conventional generating station, using coal or oil or gas as a fuel.

Now, is there anything about the nearby presence of such a station, considering the effluent that would come from the stack, the smog, and the other disadvantages that are sometimes present from such conventional power stations—is there anything of that nature that would interfere with the efficient operation of your linear accelerator?

Dr. PANOFSKY. In the narrow sense, no. That is in the sense again of the generated power that could be obtained there. We have actually looked at various technical solutions for local generation of power and they are technically feasible and the power would be of sufficient quality to run the plant.

Representative HOSMER. I suppose this group of a thousand high-priced employees could adjust themselves to the smell and smog and things like that and carry on about as they would otherwise, is that right?

Dr. PANOFSKY. From that point of view, one could design, again at a price, the plant so that it would not be obnoxious.

Representative HOSMER. Thank you, Dr. Panofsky.

PROPOSED AMENDMENT TO SECTION 271

Chairman HOLIFIELD. One last question.

Mr. Hennessey and Dr. Tape, are you satisfied that the language which you now have before you, in H.R. 8443 and the companion bills, will establish beyond any question of doubt the meaning of the Congress?

Mr. HENNESSEY. We have discussed this language informally with the Justice Department. They are satisfied that the language in its present form would accomplish our objective of clarifying the legislation to the extent necessary to take care of the problem in the Ninth Circuit.

They do think that a couple of perfecting changes in the language might be advisable, and I will be happy to furnish these to the staff.

Chairman HOLIFIELD. All right. Please do that so that we can make the amendments on the floor if necessary, or introduce clean bills. (See app. 16, p. 171.)

Gentlemen, that is all. Thank you very much.

Dr. TAPE. Thank you, Mr. Chairman.

Chairman HOLIFIELD. At this time we will recognize our colleague, Congressman Younger, if he will please come forward.[1]

[1] Senator Pastore left the hearing at this point, in response to a legislative call from the floor of the Senate. Congressman Holifield, chairman of the Joint Committee, thereupon assumed chairmanship of this hearing before the Subcommittee on Legislation.

Mr. Younger, we are pleased to have you before the committee again, as well as the mayor of the town of Woodside, Mr. Graham, and the town's special counsel, Mr. McCloskey. You may proceed in any way you wish.

STATEMENT OF HON. J. ARTHUR YOUNGER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA; ACCOMPANIED BY DONALD J. GRAHAM, MAYOR OF THE TOWN OF WOODSIDE, CALIF.; AND PAUL N. McCLOSKEY, JR., SPECIAL COUNSEL FOR THE TOWN OF WOODSIDE

Representative YOUNGER. Thank you, Mr. Chairman. I notice that we do not have the battery of help here that the great Federal Government has. We are just a little poor community out in the Pacific coast, but we have a lot of people out there who are very much interested in this. They are very much interested in the beauty of the hills. The people of San Francisco are just as interested as are the people down on the peninsula.

Representative HOSMER. You do have a very persuasive attorney with you, in the opinion of the circuit court.

Representative YOUNGER. Yes.

Representative HOSMER. I want to congratulate him while he is here.

Representative YOUNGER. The attorney, by the way, a year ago told you that you were wrong and we told you that you were wrong but again, as the AEC said here in the testimony, the Commission had a clear understanding, but they did not have the understanding of the court.

Representative HOSMER. The trial court told them that you were wrong. The score is now one to one.

Representative YOUNGER. It is one to one but the higher court is with us. The referee is on our side. The timekeeper was on your side.

Representative HOSMER. You are on your side which makes your side much stronger than it would otherwise be.

Representative YOUNGER. That is right.

Senator HICKENLOOPER. A couple of nights ago the timekeeper prevailed.

Representative YOUNGER. That is right. And I think, Senator, there is a lot of analogy between what went on the other night and what is going on right here now. I think there is a great similarity.

Now, I would like to read into the record——

Representative HOSMER. It was a kind of phantom punch, I will admit that.

AREA PRESS EDITORIALS

Representative YOUNGER. I would like to read into the record some editorials to show you that this is not just Woodside. Here is an editorial from the Redwood City Tribune:

WOODSIDE DECISION—RIGHT, NOT MIGHT

Cheers for the U.S. district court of appeals decision that the U.S. Atomic Energy Commission cannot ram its overhead powerlines down the throat of unwilling Woodside.

This victory of a rustic little community over the awesome Federal Government should hearten all those who believe right, not might, should prevail in our republic.

The Tribune is particularly pleased that it first brought the story of Woodside's plight to the public's attention early last year. Many times during the 15 months since the first story appeared we had been advised that Woodside was wasting its time in trying to fight "Big Daddy."

But more than a David beating a Goliath is involved. The narrow issues of the case seem to rest on the facts that Woodside had an ordinance requiring powerlines to be placed underground, and that the AEC's chartering legislation forbids it to transmit electricity in violation of Federal, State or local regulations.

More broadly, though, the issue is whether Woodside, as a municipal corporation, has the right to protect its scenery, and whether Uncle Sam, if he would come through Woodside with his tapline to supply power to the Stanford Linear Accelerator Center, must respect that right.

A view has measurable value in Woodside—ask any real estate salesman. It is up to the AEC, like any good neighbor, not to mar the landscape. As we asserted more than a year ago, the contention that the AEC cannot afford to pay more to bury the lines is abusive nonsense. So is the idea that action must be stampeded because the $114 million research tool is almost ready to operate. Delay would be no issue if the AEC had agreed to undergrounding 14 months ago.

In short, there is no basic problem here that money cannot solve. May the U.S. Supreme Court keep these points in mind if the AEC appeals—and may "remember Woodside" become a watchword reminding Washington to remain respectful of local interests.

Here is an editorial in the San Francisco Examiner which is very good. It is on May 24.

A CITY SPARED

You can too fight City Hall—even bigger Government, including the Atomic Energy Commission.

The city of Woodside did.

And won. A battle, that is. Eventually the war, we hope.

A three-judge U.S. court of appeals panel has ruled that AEC cannot build overhead powerlines for its $114 million nuclear accelerator at Stanford University in violation of Woodside and San Mateo County ordinances.

We applaud the appellate court view. Most conservationists will.

To be sure, to put the powerlines underground will involve delay and cost more money, because AEC will have to go back to Congress for an extra appropriation.

But we think delay and the higher cost are justified.

The overhead lines would surely and gravely disfigure the peninsula countryside, one of the most beautiful in the world.

The Woodside victory is in line with President Johnson's crusade for sparing the scenic reasources of America. It is notice to Government that it cannot be insensitive to the public sense of values, which puts high premium on the heritage of natural beauty of which the rolling Woodside hills are invaluable example.

An editorial this morning from the Chronicle which was telephoned to me.

The editorial is:

LBJ FOR BEAUTY—AEC FOR BLIGHT

The White House Conference on Natural Beauty has been followed by a Presidential request for legislation of great importance.

The proposals of President Johnson to Congress would change the face of the Nation by eliminating two disfiguring eyesores from major highways: billboards which block the view and junkyards which outrage it.

In dedicating his administration to the role "a model and a pace-setter" in beautification, the President outlined some stick and some carrot remedies to prod and assist States towards effective roadside programs.

He proposes that States be required to ban billboards within 1,000 feet of interstate and primary roads or lose Federal subsidies. He wants junkyards removed or effectively screened from these roads and offers handsome sub-

sidies if condemnation is required. He urges mandatory allocations of Federal funds for landscaping and wants recreational and scenic roadway development away from the major roadway network.

The present bonus payment system to encourage State regulation of billboards has failed. Only eight States have cooperated and the prohibitions apply on only 183 miles of the 20,000 miles of interstate highway constructed.

Protection of natural beauty should not, however, be limited to areas bordering on highways. It is a matter for just concern that as the President delivered his road message to Congress, one of his major agencies was acting in direct contradiction to the Presidential objectives.

The Atomic Energy Commission, bent on high-tension vandalism in the Woodside-Palo Alto area, is attempting to sidestep a court decision which would require it to place its powerlines underground. The Atomic Energy Commission seeks a change in legislation that would give it exemption from local regulation in such matters.

The Presidential program for beautification will be better understood when the Atomic Energy Commission abandons its attempt to plant ugliness across the Peninsula hillsides.

I read these into the record for the purpose of showing that this is not Woodside. This represents the entire northern part of the State of California.

Now, so far as the roadway is concerned, remember that we have an interstate highway through this area, exactly what the President is talking about. This powerline goes across an interstate highway as it comes into the Stanford property and to the Accelerator.

TOWERS AND POLES

Now, it is not only the people who live alongside this line. It is the people who are looking at the hills passing by on the roadway, people 5, 10 miles away. There are probably 150,000 people that look up to the hillside from whence comes their strength and so forth. They do not like to look at these and I will call them poles because in the record this afternoon, I think there was a misstatement, at least it appeared to me. They said they were going to have short poles, they were going to put in 180 megawatts, but when they put the other line in they are going to have to have towers. That was stated here at this session, that is what I heard the witness testify that they had the short structures for the 180 megawatt and when they put in the large line, if they put the two in they would have to have towers.

Mr. CONWAY. I think I can clarify that. I think originally the plan was to put in towers that would carry double lines. Now, this was considered more objectionable by the town of Woodside, and AEC then agreed to try to accommodate the Federal Government to the city. Not to go with what would be technically better from its point of view and cheaper but to put in poles that are shorter and more pleasing to the eye but that have two disadvantages. One disadvantage was that it was nearly $300,000 more expensive and only half of the load could be carried, only one circuit could be used. I think that is what they were referring to.

Representative YOUNGER. When they put in the other circuit what would they do?

Mr. CONWAY. The double circuit on the towers as I recall was for emergency purposes.

Mr. MOHR. We do not intend to put in a second circuit, sir. We intend to put in one 300-megawatt circuit on the poles that are now planned. There is no intention to put in a second circuit.

Chairman HOLIFIELD. Nor a second pole line.

Mr. MOHR. Nor a second pole line.

Representative YOUNGER. Those are the short ones.

Mr. MOHR. Those are the poles we are talking about; yes, sir.

Chairman HOLIFIELD. What do we mean by short? Let us get the exact height of these poles. The towers were to be 120 feet.

Mr. MOHR. The poles will average 65 feet.

WHITE HOUSE CONFERENCE ON NATUAL BEAUTY—UTILITIES PANEL

Representative HOSMER. As long as we are clearing up things, Mr. Chairman, Mr. Younger's reference to the President's plea for beauty and all that sort of thing, came in coincidence with the White House Conference on Natural Beauty which on Monday, this week, May 24, issued a press release entitled "Utilities Panel Says Underground Wiring of New Subdivision Economical," and it discussed that. Then the press release further along has this to state:

> Putting high-voltage transmission lines underground is another matter, however, according to Joseph C. Swidler, Chairman of the Federal Power Commission. "You're in another ball park," he said, adding that probably "you could carry out everything else recommended at this conference for a fraction of the cost involved in burying transmission lines cross country." [1]

Another quote:

> R. J. McMullin, general manager of the Salt River project, Phoenix, Ariz., labeled underground transmission—as distinguished from residential power distribution—as "definitely impractical except in those metropolitan high-rise areas where it can be justified by extremely high-load density." Pointing out that costs are sometimes 50 times higher for underground transmission, he concluded that "I can offer little hope that this problem can be solved in the near future."

I ask unanimous consent that the entire press release be inserted in the record at this point.

Chairman HOLIFIELD. Without objection, it will be inserted.

Representative YOUNGER. Do you want to add in there the loss of power?

Representative HOSMER. The entire thing goes in.

(The press release follows:)

UTILITIES PANEL SAYS UNDERGROUND WIRING OF NEW SUBDIVISIONS ECONOMICAL

[Press release of the White House Conference on Natural Beauty, Washington, D.C.]

Panelists of the White House Conference on Natural Beauty's "Underground Installation of Utilities" session came here not only to praise utility systems today. They came to bury them—especially in all new residential developments of America's cities.

Panelists were careful to differentiate, however, between underground installation of low-voltage distribution systems in residential areas (eminently feasible today) and high-voltage transmission lines over considerable distances (still extremely costly).

During the past 10 years, panelists pointed out, the cost difference between underground and overhead wiring in new subdivisions has almost disappeared, due to radical improvements in equipment and installation techniques. They expected costs of going underground to drop even further within the next 5 years.

According to one panelist, the added market value of the residential lot more than offsets the underground installation charge.

"In a recent west coast survey, the value added to the lot by mortgagors was $150," said George L. Wilcox, executive vice president of Westinghouse

[1] Mr. Swidler's complete statement appears in app. 9, p. 143.

Electric Corp., Pittsburgh. "This is compared with the average cost to the homeowner of $120 per lot for installing underground utilities today.

"But this only applies to new residential subdivisions," he stressed. "Replacement of existing overhead powerlines with an underground system is still too expensive to receive anything but token consideration." The costs are tremendous in taking down existing lines, and tearing up streets and sewers, he said.

Walker L. Cisler, board chairman of Detroit Edison Co., served as chairman of the panel, one of 15 held during the Natural Beauty Conference.

While it was predicted that conversion of overhead to underground in old subdivisions was far in the future, panelists agreed that existing facilities can be improved in appearance. Samuel B. Nelson, general manager of the Los Angeles Department of Water and Power, pointed to such new improvements as metal poles of graceful design without crossarms, and low-silhouette designs which blend with the background of trees and buildings.

Putting high-voltage transmission lines underground is another matter, however, according to Joseph C. Swidler, Chairman of the Federal Power Commission.

"You're in another ball park," he said, adding that probably "you could carry out everything else recommended at this conference for a fraction of the cost involved in burying transmission lines cross country."

According to Swidler, cost is not the only limiting factor in removing transmission lines from the landscape.

"The heat buildup in underground cables is tremendous," he said, "because of the lack of ventilation and inadequate insulation materials. Transmit high voltages underground for 25 miles and you've lost all your power."

On the optimistic side, however, he predicted that cost and heat problems of underground transmission would be solved "within one generation."

"States should overhaul legislation," he said, "to provide long-range financing of improvements, including the relocation of existing utilities systems that scar or deface scenic areas."

R. J. McMullin, general manager of the Salt River project, Phoenix, Ariz., labeled underground transmission—as distinguished from residential power distribution—as "definitely impractical except in those metropolitan high-rise areas where it can be justified by extremely high load density." Pointing out that costs are sometimes 50 times higher for underground transmission, he concluded that "I can offer little hope that this problem can be solved in the near future."

McMullin suggested, instead, the selection of rights-of-way by utilities "that would tend to hide the line, and blend it into surroundings in order to preserve natural beauty, even in isolated areas.

"Perhaps if we give equal weight to the factor of appearance in our considerations," he said, "the shortest distance between two points isn't a straight line any more."

Ludwig Lischer of Commonwealth Edison Co., Chicago, pointed out that, when underground transmission lines fail, as much as 5 days may be required to locate the failure and make repairs.

"This makes duplicate facilities necessary to avoid long interruptions," he said, "thus adding more to the cost of going underground. Failures would be less frequent but much more costly when they did occur."

Other suggestions for making overhead wiring more acceptable to the public included:

1. Multiple use of rights-of-way by all utilities, thereby reducing the number of "broad swaths" across the landscape;
2. Beautification of rights-of-way by planting low-growing shrubs;
3. Improvement in design of transmission apparatus.

Representative YOUNGER. Because that is where you got the idea that all of the power was lost within 25 miles.

Representative HOSMER. I presume that if you bought one of these things at a price which you could afford to pay you would lose your power in 25 miles. If you buy one that you can't afford to pay for then you would not lose your power.

Representative YOUNGER. The San Mateo County electric engineers state with the proper installation of a high-voltage line underground there would be no appreciable voltage drop for 6 miles of line required by the linear accelerator. That was furnished to us today by the engineers' county consultant.

EXISTING POLES IN WOODSIDE

Senator HICKENLOOPER. What do you propose to do about the 2,488 poles that you now have in Woodside?

Representative YOUNGER. Let the attorney answer that.

Mr. MCCLOSKEY. That is a problem all over the State of California because it was not really until the last 5 years that the question of undergrounding existing wooden pole lines has become a major question in California. The League of California Cities has been working on an ordinance to try to accomplish this in a way in which the public can afford. The best way that has come up thus far is an ordinance I think which the city of Palo Alto adopted last month which provided that the city would create an underground district and that at such time as the city directed all existing lines in that underground district to go underground the cost of putting them underground would become a lien against the property, like an assessment district, and be paid over a period of some 30 years. Many of the cities in the Bay area, Oakland and San Francisco for instance, have agreements with the P.G. & E. where each year a certain percentage or a certain number of miles of existing overhead lines are placed underground. That is a second way. A third way is that when roads are widened or sewers constructed or for some reason there is a trench dug in the area or road widened, then those existing lines can be put under at the expense of the utility or municipality.

Woodside, along with the other cities in this area, has an underground ordinance. It is the hope of all of the cities in the next several years to work out these means.

Senator HICKENLOOPER. That is your purpose.

Mr. MCCLOSKEY. Yes, sir. No question about it. We can't agrue that these poles exist. They exist in every city in California. Also, I think it is true of most cities in California that we have active plans to start putting these lines underground.

Senator HICKENLOOPER. Thank you very much. I just wanted to get an answer to that.

Chairman HOLIFIELD. Proceed, Mr. Younger.

NEGOTIATION OF INCREMENTAL COST OF UNDERGROUND LINE

Representative YOUNGER. One other point is the question of the price. I would like to have you hear this, Senator, because what I am asking is, instead of going ahead with this program which you are proposing now, that the AEC sit down out there with these people and try to work out a plan, because in the last negotiation there was only $300,000 involved as between what was raised locally out there by the various companies and what the AEC would be required to put in. It is not $3 million. It never was $3 million as the difference. Nobody has asked the AEC to put this in, all at their own expense. Nobody has done that. So that those figures, when you put them out that way, are not correct. All we are asking is that the AEC sit down with the people out there and start negotiating as they did before. There is additional help that can be had out there, Senator.[1]

[1] See p. 103, for cost estimate presented by San Mateo County manager.

CLARIFICATION OF SECTION 271

Senator HICKENLOOPER. I don't have any program on this thing one way or the other. My interest is to clarify what I think was the intent of that particular section and I think it has been misinterpreted by the court.

Representative YOUNGER. That may be true——

Senator HICKENLOOPER. Which has nothing to do with this case at all.

Representative YOUNGER. I am not a lawyer either, Senator, but I am not so sure that this proposal you have does not open up a complete can of worms because I think that what the courts will construe now is exactly what was not intended by Congress in the first place, that the AEC can go into the power business.

Senator HICKENLOOPER. From my standpoint I don't intend that but we will take a look at this. This is only the first draft.

Representative YOUNGER. Let us get the cost in perspective here. That is all we are asking out there, is for you to sit down and deal with these people and see if a plan cannot be worked out. I believe that if this bill, which you sent over to me the other day, Mr. Chairman, is passed and I think some of the utility attorneys have so interpreted it, will open up the entire situation so far as AEC is concerned, that they can go into the power business without ever coming back to Congress or anywhere else and generate and sell power according to this amendment. I am not a lawyer but that is a possible interpretation. I think it also ought to be said that in connection with these overhead lines one man has already been killed on this job, electrocuted by the overhead powerline that they have there now, the short one that they are using. He came under it with a crane and was electrocuted. So that ought to go into the record as against these overhead lines.

TELEGRAMS OPPOSING OVERHEAD LINE AND CHANGE IN SECTION 271

I also would like to put in the record a group of telegrams that came in today. I won't take the time of the committee to read them.

Chairman HOLIFIELD. They will be received and printed in the record.

(The telegrams follow:)

SAN MATEO, CALIF., *May 26, 1965.*

Congressman J. ARTHUR YOUNGER,
Rayburn Office Building, Washington, D.C.:

This will confirm that the Junipero Serra Freeway is Federal Interstate Highway No. 280.

GEORGE MCQUEEN, *Field Secretary.*

PALO ALTO, CALIF., *May 26, 1965.*

Hon. J. ARTHUR YOUNGER,
House Office Building, Washington, D.C.:

We urge your vote against amendment bill 271.

PAULINE C. FISHER,
MARSHAL H. FISHER,
Woodside, Calif.

SAN MATEO, CALIF., *May 26, 1965.*

Congressman J. ARTHUR YOUNGER,
House Office Building, Washington, D.C.:

The 1,000 members of Sierra Club, who live in San Mateo County, oppose legislation designed to allow the Atomic Energy Commission to put powerlines through the hills. Please keep fighting.

ELIZABETH REMPEL,
Conservation Chairman, San Mateo County.

REDWOOD CITY, CALIF., *May 26, 1965.*

Re bill concerning AEC-town of Woodside.

Congressman J. ARTHUR YOUNGER,
House Office Building, Washington, D.C.:

We oppose legislation directed against single town acting legally under original congressional intent permitting local control over power transmission. This proposal seems antithesis of conservation bill also introduced.

CHARLES and DOROTHY MCGUIRE,
Portola Valley.

WOODSIDE, CALIF., *May 26, 1965.*

Congressman J. ARTHUR YOUNGER,
House of Representatives,
Washington, D.C.:

Strongly commend your stand on Woodside overhead power issue.

HANK and KATHARINE ZABAN.

WOODSIDE, CALIF., *May 26, 1965.*

Hon. J. ARTHUR YOUNGER,
House of Representatives,
Washington, D.C.:

Urge that you stop proposed sneak amendment of original AEC 1954 act by the Atomic Energy Commission due of hearing by Joint Committee of Congress, May 27. Please don't let the AEC and J. T. Conway's brand of bureaucracy overrule our Federal court decisions and local ordinances. Was the White House Conference on Natural Beauty sham? Top military priority is not truly applicable at this time and in this situation. Stop John T. Conway's power play. His ruse to change a clearly written law is in flagrant violation of the constitutional rights of all citizens, the prerogatives of several court decisions, Federal court decisions, and local governmental functions.

NANCY L. LIEBOWITZ and HARRY L. THURSTON.

WOODSIDE, CALIF., *May 26, 1965.*

Congressman J. ARTHUR YOUNGER,
Washington, D.C.:

It would appear to me and many other citizens that with yours and Mrs. Johnson's present program of beautification that the bill being considered to allow the Atomic Commission permission to condemn and build powerlines anywhere at anytime they see fit, is out of context. This is a direct effort of the power utilities to overrun the courts and the people. Can you or anyone justify the Atomic Energy Commission the power to devastate this or any other area after the courts have agreed that the local council and county supervisors have refused them permission to ruin a beautiful area with overhead powerlines?

HARRY C. and CATHERINE ZABAN,

PORTOLA VALLEY, CALIF., *May 26, 1965.*

Representative J. ARTHUR YOUNGER,
Washington, D.C.:

The town council of Portola Valley wholeheartedly supports the policy of Congress and the President to preserve the natural beauty of our country. The determinations of the AEC to scar Woodside Hills with overhead high tension lines

is contrary to this policy and would be to the permanent detriment of the entire San Francisco Bay area. We urge your support placing the lines underground.

NEVIN K. IESTER, *Mayor.*
L. WILLIAM LANE, Jr.,
SAM H. HALSTED,
ELEANOR BOUSHEY,
ROBERT V. BROWN,
Council, Portola Valley, Calif.

Representative YOUNGER. I think that covers my presentation, Mr. Chairman. I would like to have the attorney for the city of Woodside speak.

Representative HOSMER. Before we get too far away from Mr. Younger's statement I would like to ask this question. Do I conclude from your statement that the installation of these lines underground is not going to cost "nobody nothing."

Representative YOUNGER. No. You were out there and you were there at the negotiations. You know how much was going to be offered by the city, how much the P.G. & E. were going to put in and the difference in what was asked by the AEC and the cost of this line for which they are now committed for a million dollars and there was only about $300,000 difference at that time that would have to be raised.

Representative HOSMER. This was more or less paying for the underground line on the installment plan.

Representative YOUNGER. No, it was not. It was cash in hand paid.

Representative HOSMER. The California Public Utilities Commission concluded that the underground line would force the P.G. & E. to generate $200,000 annual additional revenue on the first line and $333,000 on the second line for a total of $533,000 annually in increased rates that somebody would have to pay on account of putting this line underground. (See app. 2, p. 119.)

Representative YOUNGER. That is if they built it but they are not building it.

Representative HOSMER. You want the Government to put up a lot of money and you want P.G. & E. to put up a lot of money.

Representative YOUNGER. You already are putting up some money. The testimony today was $1 million that the line was going to cost.

Representative HOSMER. $1,012,000 according to the California PUC.

Representative YOUNGER. That is correct.

Representative HOSMER. You want another $1 million or more.

Representative YOUNGER. No, we don't want another $1 million. Nobody has said that.

Representative HOSMER. You wanted money out of somebody.

Representative YOUNGER. All right and it has been promised before.

RECORD OF NEGOTIATION AND CONTRIBUTIONS TO COST OF UNDERGROUND LINE

Chairman HOLIFIELD. The record should be clear that negotiations were carried out and you will find on pages 162 to 167 of our 1964 hearings [1] a series of letters in regard to the willingness of the Com-

[1] "Stanford Accelerator Power Supply," JCAE, Jan. 29, 1964.

mission to sit down and do this on the basis of a cooperative contribution to the cost of it. At this time I would like to know from the Commission, if they are still present, has there been any firm offer of moneys made from the city of Woodside and Stanford University to go in on a cooperative program to pay for this and if so what is the amount and when was it made?

Dr. TAPE. No, Mr. Chairman. We refer to the correspondence of last year when we were trying to see if there were opportunities of this kind, and when we did not experience firm offers that would permit us to go forward with that line, we did proceed with the action which is resulting in the decision today. (See app. 6, p. 130.)

Representative HOSMER. In other words, the proposed deal fell through because the parties could not get together.

Representative YOUNGER. A difference of $300,000.

Representative HOSMER. One factor was the probable inability of the town of Woodside legally to put up any money under its charter.

Chairman HOLIFIELD. As I remember, you were told by the committee to go back to Woodside and find out what you could do and report back to the committee. As far as I know, no such report has ever been made. I am addressing Mr. McCloskey.

Mr. MCCLOSKEY. Mr. Holifield, I don't think the report has been made back to this committee, but lengthy negotiations were conducted with the Atomic Energy Commission representatives. It started out this way, and I think the issue should be clear on this point, that 16 months ago on January 29, I think, we all agreed that the 180-megawatt line was satisfactory for the installation and that it would cost $2,430,000 to install it.

Now P.G. & E. has offered to contribute $1,012,000 toward that total, and the question was that the Atomic Energy Commission did not wish to contribute the additional $1,418,000.

Chairman HOLIFIELD. Who did not wish to?

Mr. MCCLOSKEY. The Atomic Energy Commission did not wish to, and P.G. & E. insisted that Atomic Energy Commission as a customer for electricity would have to do like all other customers in California, pay the incremental cost.

Chairman HOLIFIELD. But your town of Woodside did not come up with the money.

Mr. MCCLOSKEY. I have heard this, that Woodside had not made an offer. I would like to state this is not so. When we returned to the local community after our meeting on January 29, 1964, we went first back to the town of Woodside and at a town meeting I think the vote was something like 150 to 3, that the town would quadruple its tax rate from 24 cents per hundred to $1 per hundred for 1 year to raise the sum of $150,000 to offer toward the cost of undergrounding the line.

The resolution was passed then by the town council that that $150,000 should be offered toward the cost of undergrounding provided that it could legally be done because several of the dissident citizens of Woodside raised the question that this would in effect be a gift of public funds.

Now we were satisfied, and I was personally satisfied, as the special counsel for the town, that the town could validly contribute $150,000, and I so advised the representatives of the Atomic Energy Commission.

Now thereafter we went to the other four interested parties, and the Atomic Energy Commission agreed in correspondence to contribute an additional $350,000. Now that was roughly one-fifth of the total cost. There were four other parties. Now of that $350,000, $130,000 of it would have been required for supplementing the existing 60 kilovolt line which would have made a total of $150,000 from Woodside, $220,000 net from the Atomic Energy Commission, which would reduce the cost remaining to be shared by, hopefully, the other participants, Stanford University, P.G. & E., and the county, to $1,048,000.

So we were $1,048,000 from success at that point.

Now thereafter Stanford, its board of trustees met and recommended, on, I think, February 24, the line go underground but refused to contribute any money despite the fact that some 2½ miles of their campus would be, and will be crossed by this overhead line. We urged, without success, that the damage to 12 acres, at $7,000 per acre or $84,000 per mile—the severance damage, paid 3 to 1 or 4 to 1, would justify a contribution of $500,000.

P.G. & E. had three members on the Stanford board of trustees, and the board contributed no money. The Atomic Energy Commission was left with only Woodside having offered to contribute. It never came to a vote before the county because it was obvious then, without Stanford and P.G. & E. contributing, we were without success. (See app. 6, p. 130.)

Chairman HOLIFIELD. In other words, the only outside money that came up as a result of negotiations was $150,000?

Mr. MCCLOSKEY. That is true, sir. I think that is correct.

Chairman HOLIFIELD. As long as we have it clear that we weren't close to an agreement on the financial requirements.

Mr. MCCLOSKEY. The point Mr. Younger makes, Mr. Holifield, is this, that we were $1,048,000 apart. Now the AEC is spending we think at least that to build its own line. So if it had contributed that $1,048,000 to the underground line instead of building its own overhead, we would have been only $300,000 apart.

Chairman HOLIFIELD. You can't use the money twice.

IF THE AEC BUILDS ITS OWN LINE THEN IT WILL PAY ABOUT $125,000 PER YEAR LESS FOR ITS ELECTRICITY

Mr. MCCLOSKEY. P.G. & E. has always been willing to contribute $1,012,000. That offer was never withdrawn.

Mr. CONWAY. It would have to be paid over a period of time by the U.S. Government.

Mr. MCCLOSKEY. No; they were to get $129,000 a year to be paid back against that $1,012,000, but that was included in the rate. It was not added onto the rate.

Representative HOSMER. So Uncle Sam puts that up, too?

Mr. MCCLOSKEY. No.

Representative HOSMER. The rest by way of increased power rates over the years.

Mr. MCCLOSKEY. Uncle Sam does not put it up at all.

Representative HOSMER. He buys the electricity. He pays $129,000 a year more for it.

Mr. MCCLOSKEY. He does not pay $129,000 a year more. Because that $129,000 is included in the rate. I think counsel will agree with this.

Mr. CONWAY. Someone has to pay for it. It will be either the ratepayers or the Government.

Mr. MCCLOSKEY. No; the rates are set on the same basis as the Ames Laboratory. You will recall you pay a certain rate for the demand charge and a certain rate for the energy charge. Now if you don't use the energy and the demand to a sum of $129,000 a year, then you must pay back to P.G. & E. that sum in order to amortize the investment which it is not using, but the whole purpose of this line is to permit sale of far more electricity.

I think you are talking about a power bill in excess of a million a year. So that $129,000 would always be included in the rates and never be a burden on the Government. I think that P.G. & E. representatives will confirm that. For the same money you are spending for overhead you could have put it underground.

Representative HOSMER. You don't ever take into consideration such things as salvage value of the line or the ownership value of the line and all those things that also accrue to the Government. You are keeping your books not on a debit-credit basis, but on some other basis that I am not familiar with.

SECOND UNDERGROUND LINE

Mr. CONWAY. One other point you don't take into consideration. In about 1972 when the added demand comes on, they have to put in another underground line. Who is going to pay for that?

Mr. MCCLOSKEY. I thought we disposed of that point 16 months ago when it was agreed if this money was going to be put up, this 180 megawatt line was satisfactory.

Mr. CONWAY. Only until about 1971. Then they have to go to another underground line. (See p. 15.)

Representative YOUNGER. They don't know. That is 10 years from now. He said the next decade. He testified that this line would be satisfactory for the next decade.

Representative HOSMER. The correct date that it has to be in and functioning and putting power into the project is about the calendar year 1971.

Chairman HOLIFIELD. Proceed. Do you have further testimony, Mr. McCloskey?

AREA FEELING

Mr. GRAHAM. Could I interrupt just a minute because as the mayor of this community, I have heard a lot of allegations today. With your permission, I hope you will tolerate a few very blunt remarks from me because I am representing people who cannot understand the issues, the narrow mechanics, statistical juggling and all the other mishmash we have had to listen to this afternoon.

In view of your own statement in introducing the meeting when you made your introductory remarks, you indicated that the issue here was not primarily underground versus overhead wire, but whether this amendment, this proposed legislation should be carried through or whether it should not be carried through. Now from the standpoint of my community, we don't like to see disturbed the status quo as the circuit court of appeals has established it.

Chairman HOLIFIELD. That is not the status quo. The status quo was otherwise. The circuit court of appeals misinterpreted the intent of Congress and did not even use all the language of Senator Hickenlooper, which nullified the language of Senator Hickenlooper which they choose to use. So they changed the status quo. We are going to restore the status quo.

Mr. GRAHAM. We take no issue with your feeling that your interests have to be protected in whatever way you do, but the people out here can not understand how an agency of the Government can reach a point where it can ruthlessly disregard the will of the local citizenry. I don't mean just Woodside, I mean the whole of Northern California, the whole Bay region.

Some of the editorials that Congressman Younger has cited are just bare expressions of the feelings of the people. I am deluged with communications. Maybe it is not proper testimony before you people, but as a citizen of the United States I think it is and I feel that I have to make this statement and I would be ashamed to go home without communicating to you people exactly the light in which they view the Government's action in this regard.

Now I think this point that Congressman Hosmer keeps bringing up about the cost, we don't consider this as a really pertinent argument in view of the fact that this accelerator is a scientific experiment admittedly, no one can guarantee that the $114 or $120 million is really going to pay off in dollars and cents. Nor can we argue that the Government is going to get its money's worth, any more money out of an underground installation than we are going to suffer in terms of a blighted community if you put in overhead. These things are matters of opinion. You have heard very sagely the testimony of the experts as far as the experiment is concerned. But I feel that I have to bring to you at least the feeling of the taxpayers in our community, I mean the entire Bay area.

There may have been a half million people involved, not 150,000 or not 5,000 in one little narrow community.

REQUEST FOR ADDITIONAL TIME—WOODSIDE, SAN MATEO COUNTY

I would like to also state that my remarks are very general, of course, but I would like to make the point clear that we did not receive as a community, notice of your intended hearing today until Tuesday night, which did not give us a chance to prepare adequate documents for your consideration. We feel we can document the questions that have been raised here about relative cost very precisely. We feel we have counter-testimony to the quoted statements of the utility experts or executives, and we feel we should have an opportunity to submit this for your panel to consider before you make the final recommendation and request the hearing be continued to some time next week, at your convenience, to permit this testimony to be presented.

Chairman HOLIFIELD. How much time do you think you would need?

Mr. GRAHAM. I would think 2 hours would do it.

Chairman HOLIFIELD. Could you come in tomorrow afternoon?

Mr. GRAHAM. No, it would have to be next week because San Mateo County is also preparing argument. They are a party to this.

Chairman HOLIFIELD. Are they party to the litigation?

Mr. GRAHAM. They are party to the litigation.

Representative YOUNGER. May I also say in order to put your overhead in you still have to get one more permit or else condemn Stanford property because that is county and the county has denied the permit for an overhead.

Chairman HOLIFIELD. Today is Thursday. Could you be prepared by Tuesday afternoon?

Mr. GRAHAM. Yes.

Chairman HOLIFIELD. I am sure you have all this information. You are just fresh from a court suit. We had no warning of the decision of the court, either, I might add. You have heard that the delay is going to cost a million and a half dollars a month. We understand what pressure is, Mr. Mayor. We get pressure all the time to reduce taxes and not to spend the Government's money in an improper manner. We understand what pressure is. We also understand what public interest is.

Mr. GRAHAM. That is what we are trying to bring to your consideration.

Chairman HOLIFIELD. We think you are strictly in your rights. We are glad to have you here.

WOODSIDE NOT APPROACHED BY AEC OR P.G. & E.

Mr. GRAHAM. There is one impression which is very, very prevalent in California, at least the northern section, that is familiar with this problem. That is, that the AEC and the public utility, have in effect conspired to subvert or to get around our ordinance by first of all not being completely honest, and when the plans for the facility were known to the experts no contact was made with the community by either the Atomic Energy Commission or Pacific Gas & Electric Co. for permission to traverse our corporate limits in any fashion, either overhead or underground or any other way.

Chairman HOLIFIELD. As of what date?

Mr. GRAHAM. Before the commitment was made. Before your cost estimates, before your Commission relied on the statement of the P.G. & E. that they could provide power to it.

No exploration was made by the P.G. & E. with the town of Woodside as to whether they could in fact provide the power. No permission was requested, no inquiry was even made. This is how we ended up, how we are all in this bucket.

Chairman HOLIFIELD. I do not follow your line of reasoning. I accept your statement but I don't follow your line of reasoning because this has not been swept under the rug or kept in the dark. We have held hearings on the linear accelerator and the discussion of power was made years ago, several years ago.

Mr. GRAHAM. What I mean, Mr. Chairman, is that no provision was made——

Chairman HOLIFIELD. The people from your area wanted it. We had a lot of people wanting this to come to Stanford. In fact, you can blame some of us Members of Congress from California for getting it for California because the other universities wanted it, it was wanted all over the United States. Other areas of the country would have been pleased to get it and would have been pleased to see these overhead lines coming in.

Here was this great scientific tool, and Stanford University wanted it, offered the lands.

Mr. GRAHAM. What I take issue with is that the plan was not complete. Once the facility was conceived and its location determined, then the financing for the power supply should have been considered as part of that package.

Chairman HOLIFIELD. The financing was considered in the authorization for the facility by the Congress, and money was placed in there for the building of the facility and the lines.

Mr. GRAHAM. But somewhere the staff of the Commission erred in not determining that the utility would have to place this thing in accordance with the local community regulations.

Mr. CONWAY. You did not have an ordinance at that time.

Mr. GRAHAM. We have always required the use permit for the construction of any transmission line.

Mr. CONWAY. At that time you had no ordinance prohibiting overhead transmission. It was only after the Commission came in for a use permit that you then passed this ordinance.

Mr. GRAHAM. Because there had been no intention of ever running service through Woodside.

Chairman HOLIFIELD. Your ordinance was passed for the express reason of stopping the overhead line.

Mr. GRAHAM. That is not the issue I am raising at all.

Representative HOSMER. May I say this: Until such time as the court rendered this decision earlier this week there was no question in anybody's mind except the counsel for Woodside that the Government did not have the power to run this line through there and therefore there was no occasion to get into negotiations with the town of Woodside about it.

Mr. GRAHAM. That is not true, Mr. Hosmer. That is not true. This is an expression of opinion on your part but it is not a true statement.

Representative HOSMER. Let me refine it then, that nobody in AEC or nobody on the JCAE, and essentially but few in the general body of Congress ever questioned or believed that there was a shadow of doubt relative to this authority of Uncle Sam.

Let me say further, Mr. Mayor, I think very properly you are here and pleading on behalf of your citizens and doing it excellently. You have pointed out that they have a certain lack of belief that the Federal Government could be wanting to put a power pole in Woodside. By like token, I think some of us share a disbelief that Woodside people can seriously contend that Uncle Sam should pay $3,888,000 not to have a power pole in the town of Woodside.

EDITORIAL COMMENT

Mr. GRAHAM. How can you understand all the editorial comment which is not just a local thing? It is from all over the country.

Chairman HOLIFIELD. Mr. Mayor, let me tell you something about editorial comment. I have been in politics 23 years. Ninety-eight percent of the editorial comment has been against me and against everything I have ever done. I might add with due respect to editorial comment that we don't run the public business on the basis of editorial comment. We run it on the basis of what we think is equitable for the taxpayers of the United States and for the purpose of research and development.

I was amused a minute ago to hear somebody say we don't know what this Stanford linear accelerator would do. We did not know what the Bevatron at Berkeley would do. We do not know what the $15 billion we in the Federal Government, the U.S. taxpayers are spending on research will do. We do know from past records it has put the United States on top of the world in terms of scientific development and standard of living. That is why we are backing research and development not only in the Bevatron at Berkeley, which brought about some very notable Nobel Prize winners, as you well know, but we have backed research and development throughout the United States from the standpoint of the security of the United States, the security and welfare of its people.

Admittedly we cannot write the blueprint of what this is going to accomplish. If we are going to believe the same scientists that have testified to us before on the other matters, it might bring us something just as important as splitting of the atom or some other great scientific achievement.

BLIGHT OF COMMUNITY

Mr. GRAHAM. That is right. I don't take issue with you on that. If we are willing to go ahead and gamble or risk or invest, whatever you want to term it, these sums of money for unknown gain, then should we not be willing to invest a very small fraction of this cost to keep from blighting a community which has nothing to do with it?

Chairman HOLIFIELD. I deny it will blight the community. The five members of the Atomic Energy Commission including its Chairman, a resident of California, deny it will blight the community. There are powerlines all over the State of California and high voltage lines and there will be more, there are three more going to be built coming down from Bonneville. It is not going to be considered as a blight. It will be considered as a blessing and necessity for the State of California.

If you want to talk about blight talk about the 2,488 telephone poles, old wooden poles you have all over the town of Woodside, because I have been there and in the last year since this question has been before us you and the county of San Mateo have continued to add your own old-fashioned wooden poles. That is where your blight is, not because of three structures that will be ornamental in nature that will be placed in the town of Woodside.

Representative HOSMER. As long as we have editorial comment I think we are entitled to have some poetic comment in this record. This was written by the poet laureate of Stanford Linear Accelerator entitled "Why Doesn't Woodside Like Power Poles?"

"Look, oh, look.
See the powerpole.
See the pretty powerpole.
It is tubular.
It is tapered.
It is green.
It is hard to see against the untrimmed trees.

"Powerpoles are better than steel power towers.

"Power towers have four legs.
A powerpole has only one leg.

"Steel towers are tall.
Steel towers are ugly.
They require extensive tree removal.
They require clearing of underbrush.

"Steel power towers would rape our skyline.
Powerpoles would never do that.

"I like powerpoles.
The JCAE likes powerpoles.
Dr. Seaborg likes powerpoles.

"Powerpoles are nice.
Why doesn't Woodside like powerpoles?"

Mr. McCLOSKEY. You know, Mr. Hosmer, everybody has had a good laugh at Woodside's expense and what appears to you gentlemen to be a ridiculous attitude on our part. I think I would like to quote the circuit court of appeals, three elderly gentlemen like yourselves.

Representative HOSMER. The issue is senility, not age. [Laughter.]

Mr. McCLOSKEY. They said this:

Woodside is not on trial here.

The court said this:

In their effort to preserve the natural integrity of this area Woodside and the county are pursuing the same goal as those sought under established Federal policy as manifested in other acts of Congress.

FEDERAL HOUSING ACT

Now the court cited title VII of the Federal Housing Act and I quote from title 42, section 1500, subsection (B). This is a Federal act:

It is the purpose of this chapter to help provide necessary recreational, conservation and scenic areas by assisting State and local governments in taking prompt action to preserve open space lands which is essential to the proper long-range development and welfare of the Nation's urban areas in accordance with plans for the allocation of sufficient lands for open space purposes.

LOCAL ORDINANCES, ESTHETICS, AND LOCAL PRACTICE

There has been no question. We have an urban area on the peninsula. We expect our population to double. We want to preserve these open space areas. We are pursuing the same goal that many agencies of the Federal Government are. I think what we are concerned with is that a single agency of the Federal Government has come in a community in the middle of Stanford University which is surrounded by five towns. Three of those had underground ordinance before the accelerator came into this area. Woodside adopted theirs later, Portola Valley has since adopted theirs. All of these five communities and Stanford University require all lines to go underground.

What we can't understand is why one agency of the Federal Government insists that they go overhead? This does not seem consistent with other Federal policy and the circuit court so held.

I don't think there is any question that Woodside's position is not reasonable. I don't think that this committee despite the laughter over these maps that have been shown and the number of poles in the town—if the seven members of the Woodside council were here before you gentlemen you would give them every respect they are entitled to, as we do to you, because you are dedicated public servants.

Chairman HOLIFIELD. Have we not given respectful attention to this for years?

Mr. MCCLOSKEY. We have no criticism. All we say is that in your quest to save money you have lost sight of a higher goal in this country, that the people of this State of California are interested in preserving their scenic beauty. This is a higher goal or at least an equivalent goal to the penetration of the atom. This is not a tool to serve the national defense. It is a tool to better our lives.

It was stated in the hearing 16 months ago. Betterment of our lives means taking these miserable wires off the landscape. We think that goal is as high a goal as you gentlemen have. We would like to cooperate with you and put the thing underground.

Representative HOSMER. That is a fine statement. You have made many fine statements all the way through these years of difficulty over this line. I think that perhaps you and many of the other witnesses have failed to establish a fact and that is whether or not these poles and this line actually are an esthetic abhorrence to reasonable people. I think there are a number of people who regard well-designed structures as actually contributing to the esthetic beauty of an area rather than being detrimental to it. Certainly from what I have, myself, seen of the area over which this line is to traverse, the designs that are being proposed for this line are infinitely superior and more esthetic than the tangled mass of poles that exist there at the present time which have been placed there over the years by the local inhabitants without reference to any of the arguments that you have made to this committee from time to time when you have been before us.

Representative YOUNGER. Will the gentleman yield?

Representative HOSMER. Yes; I will be delighted.

Representatives YOUNGER. I am surprised at the arguments you make when you say that two wrongs are going to make a right. You say this is wrong and you want to perpetuate it by making another wrong.

Representative HOSMER. I think I was careful to distinguish between the esthetic characteristics of the proposed line vis-a-vis the lack thereof in the existing lines.

Representative YOUNGER. Your inference was that it was not quite as bad but we ought to perpetuate it.

Representative HOSMER. That was not my inference. I think I have corrected it specifically by stating a good many, including myself, regard this particular line as an addition to or at least not in derogation of the beauty of the area.

COST OF DELAY

Representative YOUNGER. I would like to ask one question of the chairman. Did I understand you to say a while ago this delay is costing a million dollars a month?

Chairman HOLIFIELD. The testimony by Dr. Panofsky was, and we can read it off to you, that it would be a million and a half dollars a month.

Representative YOUNGER. If you will recall, we told you over a year ago exactly what was going to happen. I will prophesy again that you are going into another delay, just the same way and you are going to

lose, instead of putting a million dollars into the program and getting it settled you are going to lose again several million dollars.

Chairman HOLIFIELD. Let me correct that statement. It was Dr. Tape's testimony that the cost of maintaining the staff is about one and a half million dollars a month and it was, I believe, the testimony of Dr. Panofsky that it would be 12 to 18 months' delay. It is obvious that the staff would have to be paid during that time. We are not talking about peanuts here.

Representative YOUNGER. I know.

Representative HOSMER. It is not 18 times a million and a half because there are some benefits they can accomplish. That is to be deducted—the total is somewhat less.

Representative YOUNGER. We are not talking about peanuts when we say all you have to do is put in a million dollars and then settle this thing. I will say this—the people out there are not going to take this lying down, Mr. Chairman. You would not expect them to. Their only chance is to go to court. That is their only chance.

Now if you want to get another court action and go on to court and delay it another 12 months, that difficulty is going to rest again on the committee. It is not going to rest on those people out there. I would not blame them. I don't know that they will. You can look at the testimony. I said a year ago when we were here before you that this would happen. I don't blame the people for trying to protect themselves and you don't.

Chairman HOLIFIELD. Well, I certainly don't. They have access to the courts.

Representative YOUNGER. They have access to the courts. That is their only appeal.

Chairman HOLIFIELD. That is their right.

Representative YOUNGER. Yes.

FURTHER HEARING AND WITNESSES

Chairman HOLIFIELD. There was a discussion a few minutes ago, you wanted Mr. Clapp to appear here.

Mr. MCCLOSKEY. Yes. I think in deference to the compliment that was paid me I should advise the committee it was Mr. Clapp that argued this matter before the circuit court of appeals and he deserves most of the credit for whatever surprise occurred in the decision.

Chairman HOLIFIELD. As I understand it, he would like to come before the committee.

Representative YOUNGER. Yes. If I may ask this, Mr. Chairman: This is a holiday weekend coming up. If we could have 1 week.

Mr. CONWAY. You are asking to be able to come back, as I understand it, in about a week. Mr. Clapp was going to come tomorrow.

Representative YOUNGER. He is presently in another court matter.

Chairman HOLIFIELD. He can be here Tuesday. Isn't that right?

Representative YOUNGER. Yes. Because of the holiday, Mr. Chairman, we thought maybe we could get a full week.

Chairman HOLIFIELD. Let us set a hearing for Tuesday afternoon at 2 o'clock.

COUNTY POSITION IN THIS MATTER

Representative YOUNGER. Could he have Wednesday? Monday is a holiday, Mr. Chairman.

Mr. McCLOSKEY. We will avoid the travel problem.

Chairman HOLIFIELD. We will set it for Wednesday afternoon at 2 o'clock for Mr. Clapp and such other witnesses. We want to be certain that every possible opportunity and consideration is given to the local representatives to justify their opposition to the Federal Government.

Representative YOUNGER. The county manager wants to come also.

Mr. CONWAY. I believe the mayor has indicated that the county was a party to this suit. It was my understanding that they did not participate in the court action. Have I been wrong?

Mr. GRAHAM. The county was party in some capacity.

Mr. CONWAY. The argument before the ninth circuit—my understanding is that the county was not a participant in that case. I'm raising this question in order to clarify the record.

Mr. GRAHAM. That may be true. The county had a definite interest in it.

Chairman HOLIFIELD. The county was an intervenor before the Public Utilities Commission of the State of California but I don't believe they were a party to the suit.

Mr. GRAHAM. That is true. They have an interest in it but not a——

Chairman HOLIFIELD. Yes; because the county does have the red line across it of a high-voltage line and has no ordinance against overhead lines. Is that right?

Mr. McCLOSKEY. That is correct.

Representative YOUNGER. The county has an ordinance now. They will not grant a permit for any subdivision in the county where the utilities are not all underground.

Representative HOSMER. That involves the low-voltage distribution setup and not the high-voltage transmission?

Representative YOUNGER. Yes; but they refused to grant a permit to P.G. & E. to put in the high-voltage line to start with. That is what started the fireworks to begin with.

Chairman HOLIFIELD. All right, gentlemen, thank you very much. We will see you Wednesday afternoon at 2 o'clock.

(Whereupon, at 4:35 p.m., Thursday, May 27, 1965, the committee was recessed, to be reconvened at 2 p.m., Wednesday, June 2, 1965.)

(The statement by Senator Hickenlooper, referred to on pp. 20 and 21, is as follows:)

STATEMENT SUBSEQUENTLY PLACED IN THE RECORD BY SENATOR HICKENLOOPER

Mr. Chairman, I wish to submit a statement concerning S. 2035, the bill which Senator Pastore and I introduced on May 25, 1965, to amend section 271 of the Atomic Energy Act of 1954. The purpose of my statement is to explain why I joined in introducing this bill and what I believe it would accomplish.

As you know, Mr. Chairman, the Stanford linear accelerator project was recommended by the Joint Committee and authorized by Congress in 1961 at a cost of approximately $114 million. When it is completed in 1966 it will be the world's largest electron accelerator. This accelerator will be a tremendously valuable research tool for scientists of our country and should contribute significantly to our understanding of some of the most fundamental questions of nature. The Federal Government has a huge investment in this project. I understand that every day's delay in putting this project into operation would cost the Federal Government many thousands of dollars in interest alone on its investment in this facility.

There has been considerable controversy over the construction of the electric powerline necessary to service the Stanford linear accelerator. I do not feel it would be useful at this time to review the pros and cons of AEC's position on constructing an overhead powerline for this purpose. This committee has explored this subject in great detail. We held a hearing devoted to this matter in January of last year.

As you know there has also been considerable litigation on this subject. The latest development in this litigation is a ruling by the U.S. Court of Appeals sitting in California, on May 20, 1965, to the effect that a provision of the Atomic Energy Act of 1954—section 271—prevents the AEC from constructing or operating an overhead powerline to service this facility. It is because of this decision, and its sweeping effect, that I cosponsored S. 2035.

I have looked over the court's opinion and decision and have discussed it with the staff of the Joint Committee. Frankly, I do not understand why the court has interpreted section 271 the way it has—that is, to subject the AEC, in performance of its statutory responsibilities, to the regulatory authority of a local subdivision of a State. I think section 271 is clear. It says exactly what we intended it to mean at the time I cosponsored the Atomic Energy Act of 1954 which contained this section.

"Nothing in this act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power."

It is clear to me that this language does not confer any authority on any "Federal, State, or local agency." It was intended neither to add to nor detract from any existing power which such a body had. As I said during the Senate debates on the bill containing this section:

> "* * * section 271 of the bill already covers the authority and regulations of the Federal Government through the Federal Power Commission, which already exist over electricity, and its transmission; and it recognizes the rights of the States, where their rights occur, and recognizes the rights of the local agencies where their rights exist. Now, that is already in the bill.
>
> * * * * * * *
>
> "What section 271 does is to make clear that this act does not interfere in any way with the jurisdiction of the Federal Power Commission * * * or with State agencies where they have jurisdiction, or with local agencies where they have jurisdiction.
>
> * * * * * * *
>
> "We say that nothing in this act shall interfere with or affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale or transmission of electric power. We say that this act does not interfere with the rights and the power and the authority of any Federal, State, or local regulatory body whatever; and the power and the authority which may be there now for the transmission of electricity or the generation of electricity or whatever the authority may be is not changed." (100 Congressional Record 11708–11710, July 27, 1954, daily edition.)

I might add, incidentally, that what we were specifically concerned with when we included section 271 in the bill was the regulation of persons producing electric power by nuclear means. Our intent was to make it absolutely clear that the Atomic Energy Act's special provisions on licensing of reactors did not disturb the status quo with respect to the then existing authority of Federal, State, and local bodies to regulate generation, sale, or transmission of electric power.

Notwithstanding what I am convinced was our intent in passing section 271, the court apparently has interpreted this language to confer authority upon local governmental bodies (which they otherwise would not have had), in this particular case, the city of Woodside and the county of San Mateo, Calif., to regulate a Federal agency—the Atomic Energy Commission. The court also says that unless section 271 can be read to confer this authority upon these local bodies, they would not have jurisdiction over the AEC because of the general sovereign immunity of the Federal Government, including its agencies and instrumentalities, from State or local control under the supremacy clause of the Constitution.

Since the court has interpreted section 271 to confer a positive authority upon governmental bodies, I thought it was imperative that I join in introducing S. 2035 which simply restates what section 271 said all along; namely that this section shall not be deemed to confer upon any Federal, State, or local agency

any authority to regulate, control, or restrict any activities including those of the Commission, which authority such Federal, State, or local agency did not otherwise possess.

I think it is important that this bill be adopted, to make it clear that section 271 of the Atomic Energy Act of 1954, as amended, does not confer any authority upon any agency—Federal, State, or local—which such agency did not have before. Moreover, it is important that Congress act quickly on this because the implications of the court's decision go far beyond this particular controversy involving the Stanford linear accelerator powerline. If the court's interpretation of section 271 should be permitted to stand without correction, other vital activities of the AEC, many of them directly related to the national defense and security, would be subjected to the control of local bodies. I don't think we can afford to allow this incorrect interpretation to stand as an open invitation to attempts to regulate Federal defense activities at other installations around the country.

In summary, Mr. Chairman, I urge favorable consideration of the bill which the distinguished senior Senator from Rhode Island and I have introduced.

PROPOSED AMENDMENT TO SECTION 271 OF THE ATOMIC ENERGY ACT OF 1954

WEDNESDAY, JUNE 2, 1965

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON LEGISLATION,
JOINT COMMITTEE ON ATOMIC ENERGY,
Washington, D.C.

The subcommittee met at 2 p.m., pursuant to call, in room AE–1, the Capitol, Senator Pastore (chairman of the subcommittee) presiding.

Present: Representatives Holifield, Hosmer, Aspinall, Bates, and Anderson; Senators Pastore and Bennett.

Also present: John T. Conway, executive director; Edward J. Bauser, assistant director; Leonard M. Trosten, staff counsel; George F. Murphy, Jr., professional staff member; and Jack Rosen, staff consultant.

AMEND SECTION 271, ATOMIC ENERGY ACT OF 1954

Senator PASTORE. The Subcommittee on Legislation of the Joint Congressional Committee on Atomic Energy resumes hearings today on H.R. 8443, H.R. 8444, and S. 2035,[1] identical bills to amend section 271 of the Atomic Energy Act of 1954, as amended. At the conclusion of our hearings on these bills, last Thursday, the representatives of the town of Woodside requested additional time to prepare further testimony. The subcommittee was also told that representatives of the county of San Mateo would like to appear before us concerning this matter. The subcommittee accordingly scheduled this hearing today to provide another opportunity for interested parties to be heard on this matter.

As I pointed out last week the immediate reason for the proposed amendments to section 271 of the Atomic Energy Act was a decision, on May 20, 1965, of the U.S. Court of Appeals for the Ninth Circuit. (See app. 1, p. 109.)

MISINTERPRETATION OF SECTION 271 BY COURT

This decision, in effect, stripped AEC of the powers which normally are possessed by a Federal agency carrying out its duties under the supremacy clause of the U.S. Constitution. The court based its ruling on an interpretation of the intent of Congress as expressed in section 271 of the Atomic Energy Act. It was clear to several members of this committee, who have lived with the act and its modifications since its

[1] See p. 1.

enactment, from both Houses and both sides of the aisle, that the court had seriously misinterpreted the applicability of this section of the Atomic Energy Act. The court's interpretation appeared to us to be contrary to the intent of the Joint Commitee and of the entire Congress, and contrary we believe to the national interest. We therefore believed it was necessary to introduce legislation which would clearly establish the authority of the AEC as originally intended by Congress, and which would make it clear that the AEC is to be treated on an equal basis with other Federal agencies in this respect.

EFFECT ON OTHER ACTIVITIES OF AEC

I would hope that all the parties who are interested in this matter will appreciate that apart from the Woodside matter this decision of the court as it now stands places in jeopardy many other installations of the Federal Government, which would bring about a chaotic result if this court interpretation were allowed to stand. I want to repeat that. That is apart from the Woodside matter.

I want to, therefore, emphasize that these bills would correct this misinterpretation of the Atomic Energy Act which could have far-reaching consequences throughout the AEC's entire program, including AEC's weapons responsibility. If enacted, these bills would also have an immediate effect upon the AEC's plan to arrange for construction of an overhead powerline through the town of Woodside. These bills would make it clear that Congress did not intend to prevent AEC from taking actions such as this.

CONGRESSIONAL HISTORY OF POWER SUPPLY FOR SLAC

This is not the first time that the Joint Committee on Atomic Energy has considered the supply of electric power to the Stanford Accelerator. As early as July 1959, the committee considered the availability and source of the needed power in connection with the proposed authorization of the SLAC project. Again in March and April of 1960, the committee reviewed this subject in connection with authorizing design money for the accelerator. In 1961, another such comprehensive review was undertaken by the committee in the course of consideration of AEC's authorization bill for fiscal year 1962, which provided the full authorization for the SLAC project. At each of these stages in the authorization process, careful attention was devoted to the overall costs of the project including electrical power costs.

In January 1964, after difficulties arose between the AEC and the local communities adjoining Stanford concerning construction of an overhead powerline to SLAC, this committee held a full day of hearings devoted solely to this subject.[1] Included among the witnesses were representatives of the town of Woodside and the County of San Mateo as well as our colleague, Congressman Younger of California. In addition, members of this committee—Chairman Holifield, Mr. Hosmer, and myself—visited the Woodside area to study this subject firsthand. Individual informal meetings were also arranged by committee members to determine possible compromise arrangements. When it proved impossible to arrange a suitable compromise, the litigation ensued

[1] "Stanford Accelerator Power Supply," JCAE, Jan. 29, 1964.

which culminated in the ruling by the Ninth Circuit Court of Appeals which I have already mentioned.

It is plain from the history of this controversy that the local residents and their elected representatives have already been given every opportunity to present their case to Congress and the executive branch concerning construction of the powerline. Today's hearing will afford still another opportunity for this matter to be aired. I have taken the time to review the history of this matter because it is essential to view these bills and the controversy over the SLAC powerline, in the proper perspective.

There have been numerous newspaper articles and editorials that have tended to give a distorted view of this matter. In holding this hearing today, I believe it is important that we clearly establish on the record the facts in this matter. I have requested that representatives of the AEC, Stanford University, and Pacific Gas & Electric Co. be present along with the witnesses from the town of Woodside and the county of San Mateo. We want to know what are the facts and points on which all can agree. We want to know on which points there is disagreement.

This roundtable discussion form of a hearing has been followed on numerous occasions by this committee in the past and we have found it to be most helpful to the committee, to the Congress and to the public.

THE COST ISSUE

Now, I want to make this abundantly clear. The Senator from Rhode Island has complete sympathy with the cause which is being presented here by the townspeople of Woodside and the people of the County of San Mateo. We all realize that if a clear choice were to be made without regard to the expense involved there would be no earthly reason of going overhead rather than going underground. But we are the keepers of the people's treasury. We are confronted with the situation here that we must measure one element as against another element. The problem is very, very serious. The question that confronts us is simply this. Is the institution of this overground structure so abhorrent as to overcome the expenditure of several millions of dollars that the taxpayers of this country will have to foot in order to put these lines underground? It is just as simple as all that.

Now, the Senator from Rhode Island does not find any criticism at all in the fine people who are coming here today to promote what I consider to be their own private interest. They have every right to present it here and to receive every possible consideration and courtesy. On the other hand we would hope too that you don't run off with the idea that we are merely trying to ram something distasteful down the throats of the people of that community. We are confronted here with a very serious problem. If we decide to go underground not only do we involve a question of delay of about 18 months which in my humble opinion is not the primary factor—we have waited from the time of beginning for this accelerator, we can certainly wait 18 months longer, I am not impressed with that argument—but the fact remains if we decide to go underground this will run in the neighborhood of anywhere from $3 to $4 million in the long pull. The question

is can we do this to the taxpayers of this country merely to satisfy what we feel to be in some ways an eccentric esthetic point of view of the people of this community because I understand that every single consideration is being given to doing this in such a way that the esthetic quality of that neighborhood will not be disturbed. I realize that the people of that community would rather have the powerline go underground if they could. On the other hand in the process of doing that you have to realize that the taxpayers of this country will have to come up with $3 to $4 million more. That is our problem. If anybody thinks that is a simple problem, it is not that simple.

Our first witness today I understand is Mr. Austin Clapp who knows this thing from top to bottom, backwards and sideways.

STATEMENT OF AUSTIN CLAPP, SPECIAL COUNSEL FOR THE TOWN OF WOODSIDE, CALIF.

BACKGROUND OF THE PROBLEM

Mr. CLAPP. Thank you, Senator Pastore.

Mr. Holifield and members of the committee, the committee is considering legislation to make more certain the authority of the Atomic Energy Commission, and perhaps other agencies of the U.S. Government to conduct their activities without restrictions imposed by States, counties, and other local units of State government, such as cities and towns, which may be thought to impede Federal activity.

The occasion for the legislation, of course, is the decision of the U.S. Court of Appeals for the Ninth Circuit in the cases of *Maun* v. *United States* and *Adams* v. *United States*, Nos. 19373 and 19374, decided May 20, 1965.

The decision, as the committee knows, came about in condemnation actions filed by the United States at the request of the Atomic Energy Commission to condemn a perpetual and assignable easement for the placement of towers and wires to bring 220,000 volts of electricity to the Stanford Linear Accelerator, a research project of the Commission.

Briefly stated, the action of the Commission was brought about by the requirement of the town of Woodside and the County of San Mateo that any such powerline be placed underground, an action which the local utility, Pacific Gas & Electric Co., insisted must be compensated for by the Commission by an additional payment of $200,000 per year for at least the 10-year life of the contract between the Commission and the utility for the supply of electricity.

Woodside is a town of approximately 5,000 population; the county of San Mateo has a population of approximately 500,000; and the population of the United States, for whose primary benefit the research facility is being built has, of course, a population of close to 200 million. Judging by this standard, it can be seen that the financial contributions of the town and the county to a project of this magnitude should be very small indeed.

It should be pointed out that the powerline in question was necessitated only by the Stanford Linear Accelerator project and served no other customers or facilities either in the town of Woodside or the county of San Mateo.

Concerning the powerline as proposed by the Atomic Energy Commission, the court of appeals had this to say:

* * * The proposed route runs first through unincorporated county territory, then through Woodside, and again through unincorporated territory to its terminus.

* * * * * * *

The described route lies in a scenic mountainside area characterized by steep gradients, a thin crust of soil, heavy rainfall, acute erosion problems, fire hazards, and stands of redwood trees more than 100 years old. Congressman Hosmer told Congress that the area surrounding the campus of Stanford University, where the overhead line would be built, "* * * is one of the loveliest areas of California and perhaps the Nation." He added, "One finds many beautiful homes placed on 3-acre minimum lots."

The court held, of course, that under the circumstances of this particular case, the Atomic Energy Commission did not have the authority to construct and operate a powerline and hence could not condemn an easement to be used for that purpose.

THE COURT DECISION AND THE INTENT OF CONGRESS

The Atomic Energy Commission has and perhaps some members of the committee have expressed the opinion that in deciding this controversy on the basis of its ascertainment of congressional intent, the court was mistaken, because the actual intent of Congress in adopting section 271 of the Atomic Energy Act of 1954 was different from that attributed to it by the court.

Without embarking further on this agrument, which has been settled by the court's decision, it should be remarked that the result reached by the court is not necessarily wrong even if it be assumed that the court was wrong in this particular point.

This would not be the first time in history that a court was right, for the wrong reason.

FEDERAL POWER ACT OF 1935 AND HOUSING ACT OF 1961

Even if section 271 had never been enacted, it would have been entirely possible for the court to conclude that the congressional policies expressed in the Federal Power Act of 1935, leaving to local agencies control over local electrical transmission systems, and in the Housing Act of 1961, stating a policy and appropriating funds to help provide necessary conservation in scenic areas by assisting State and local governments in taking prompt action to preserve open-space land which is essential to the proper long-range development and welfare of the Nation's urban areas were of such relative importance as to control, in a conflict between such policies and the essential and laudable, but subordinate, policy of the Congress to save the taxpayers' money. And to conclude that action by a Federal agency to condemn land in derogation of these controlling policies should not be permitted.

Such conclusion would have been possible even though section 271 had never been enacted, although it must be admitted that the existence of section 271 could be construed as a congressional restatement of the policy set out in the Federal Power Act of 1935.

Senator PASTORE. Are you actually saying at this point that even if the law were amended and AEC were given the right to condemn an easement for the purpose of an overhead powerline the local au-

thorities could still say you carry it out underground rather than above ground and they would have preference?

Mr. CLAPP. No; I am not saying that, because if this committee should act and the Congress should act I think the legislation would probably be construed as a modification of the policies expressed in the Federal Power Act and in the Housing Act of 1961. But I am merely saying that the court's decision resting on those policies did not necessarily involve the interpretation of section 271. I don't think the court should be criticized too much simply because it picked that argument among the other good ones for adopting the attitude that it did.

Senator PASTORE. The reason why I am probing you a little bit on this, is first of all because I recognize you are an excellent lawyer and I was following very closely what you had to say here. You went on to say as I read it here, "Even if section 271 had never been enacted, it would have been entirely possible for the court to conclude that the congressional policies expressed in the Federal Power Act of 1935, leaving to local agencies control over local electrical transmission systems and in the Housing Act of 1961 stating a policy and appropriating funds to help provide for necessary conservation in scenic areas," and so on and so forth, provided a basis for this decision.

Mr. Clapp. I think it is quite possible that the court might have decided that those policies in those acts controlled a rather generalized policy of the Congress to save money.

Chairman HOLIFIELD. Mr. Chairman.

Senator PASTORE. Mr. Holifield.

SUPREMACY CLAUSE OF CONSTITUTION

Chairman HOLIFIELD. The gentleman brings in some extraneous reasons for the court to arrive at a conclusion. This is, no doubt, itself right to do, but we are faced with the decision of the court and a direct reference to section 271 of the act and an interpretation of that act. So, the gentleman is speculating when he goes into the field of some other reasons which the court might have had. I read to you also from the court's decisions:

> Without doubt, the sovereign immunity derived from the supremacy clause, coupled with these statutory provisions, authorized AEC to construct and operate an overhead transmission line in disregard of local authority or regulation absent some statutory provision limiting AEC's authority in this respect. It is equally clear that neither the act nor any other Federal statute called to our attention contains an express limitation of this kind.

If the gentleman believes the court should have used other reasons, why did he not call the other reasons to the court's attention?

Mr. CLAPP. The gentleman did call the other reasons to the court's attention and did not argue the literal interpretation of section 271 at all for the reason that your speaker here at the moment felt that these were better reasons than perhaps the somewhat debatable meaning of section 271.

Gentlemen, just so that you will understand perfectly what we are talking about, the Congress has a policy against slot machines, I believe. Suppose that an Army base were to seek to condemn land adjacent to the Army post for the purpose, and the sole and express purpose, of erecting a building to house slot machines to be used by the officers and men for such amusement as that might afford.

There you have a condemnation for a purpose which is squarely contrary to the congressional policy and, in my opinion, it might well be held that the condemnation is not authorized. That was my point before the court.

Chairman HOLIFIELD. Of course, your basic premise is that the slot machines have been declared to be illegal in the one instance. The right of eminent domain is not illegal and is practiced by every agency of the Government and it is based in the supremacy clause of the Constitution.

Mr. CLAPP. There is no argument about the supremacy clause of the Constitution, but there is equally no argument that the Congress may limit the exercise of the power of eminent domain in any way it sees fit.

One of the cases cited by us to the court was a case involving the condemnation of a building site in the District of Columbia, outside of the so-called taking area, authorized by Congress and without the approval of a congressional committee which was required under the authorizing legislation to be obtained before any such condemnation took place.

Now that agency argued that it had been given an appropriation to build things with, and that was a modification of the declared policy, and the court held that that was not so, that the preexisting policy was to control against any dubious argument that might be made from such appropriations.

Chairman HOLIFIELD. Of course, that was based on a particular area of taking outlined in the action of the Congress, and in the particular instance the gentleman cites, he has already said the action of the people who were condemning went beyond the area of taking.

FEDERAL POWER ACT OF 1935

Mr. CLAPP. Mr. Holifield, the question is, did the Congress, by the Federal Power Act of 1935, intend local agencies to regulate local electrical distribution systems or did it intend Federal agencies to build electrical distribution systems for a quarter of a mile, half mile, 50 miles or a hundred miles. I would say that the Congress in 1935 did not intend to permit Government agencies to build distribution or transmission lines without regulation by the local communities.

Now, this again is a question which, if the court had been forced to reach, it might have been decided one way or another, I don't know.

Senator PASTORE. Now, would you consider this a distribution line in that sense? The distribution is coming from the Pacific Gas & Electric to AEC which is the purchaser. AEC is using this; AEC is not distributing this power; it is buying this power.

Mr. CLAPP. Yes, indeed. It is a distribution line in every sense of the word. The only difference is that the Commission, as a customer, is able to use electrical energy at higher voltages than used by normal customers of the domestic system.

Senator PASTORE. We feel there has been a misinterpretation of the intent of that particular section, section 271.

Mr. CLAPP. Let me say this, gentlemen. I am not really a great lawyer, except that it happens most of my clients are right. I think that in this case, the court felt that the Atomic Energy Commission was doing a thing which was wrong.

EFFECT OF PROPOSED AMENDMENT OF SECTION 271

Senator PASTORE. Which leads me to the question I would like to ask you categorically now. Are you familiar with the bill H.R. 8443?

Mr. CLAPP. Yes; I am, sir.

Senator PASTORE. Do you feel if this is enacted into law we can establish those lines above ground?

Mr. CLAPP. No, sir.

Senator PASTORE. Why not?

Mr. CLAPP. Well, because it says that this language is not to be construed as giving any local agency any authority to regulate which it did not otherwise possess. My opinion is that prior to the enactment of section 271, local agencies possessed the power under circumstances similar or close to the case we are talking about to control local distribution and transmission lines.

Senator PASTORE. In other words, what you are actually saying is that even if H.R. 8443 is passed, it does not supersede the housing law?

Mr. CLAPP. I would say this: That it might be said by a court that there is no question but what the Congress tried to change something but they were unfortunate in their choice of language and, therefore, they did not succeed in doing what they intended to do. This has happened to legislatures before.

Senator PASTORE. All right, Mr. Clapp, you may proceed.

EFFECT OF ANY LEGISLATION ON THIS MATTER

Mr. CLAPP. Now, quite apart from that, and I have been candid with the committee on this subject and expressed my feeling, behind all of this there is a serious question as to whether or not any legislation on the subject of the Woodside Power Line can be successful in the face of the constitutional objection which was raised by the answers in the case and which is present in the case and which will remain in the case, regardless of what legislation is passed, if any.

Now, the situation is simply this: You have a case where a utility applied for permission to build a line to distribute electricity. They were denied this right by the local agencies.

The utility then fled to the arms of its stern parent and said do something for me. The Atomic Energy Commission said, "Yes; we will bail you out of this situation, we will condemn a line for you and build it, ourselves," and then it has since developed, since that decision was made, that negotiations were underway to turn over this line when built, either by lease or by sale to the Pacific Gas & Electric Co. for the purpose of selling electricity and making money. Now, this comes very close to——

Chairman HOLIFIELD. Mr. Chairman?

Senator PASTORE. Let him finish, please.

Mr. CLAPP. This is very close to a condemnation for a private use rather than a public use and what the court would say about that I do not know. I think there is a strong chance that it might say that under the circumstances of this case, and I say this case is unique because I doubt if ever, or ever again, at least, any such state of facts will happen in precisely this way.

But I am saying it is questionable whether or not the court would approve or say that you could now pass legislation to validate that which was improper before, improper in intent and purpose.

Senator PASTORE. Mr. Holifield.

SALE OF LINE TO P.G. & E.

Chairman HOLIFIELD. Now, the witness has made a statement in regard to negotiations to turn this line over to the P.G. & E. I think at this time we should inquire of the AEC representatives and representatives of the Pacific Gas & Electric Co. as to the facts of this charge.

Senator PASTORE. Dr. Tape.

STATEMENT OF DR. GERALD F. TAPE, COMMISSIONER, ACCOMPANIED BY EDWARD J. BLOCH, DEPUTY GENERAL MANAGER, ATOMIC ENERGY COMMISSION

Dr. TAPE. I would like to have Mr. Bloch respond, Mr. Chairman.

Mr. BLOCH. When it became impossible for P.G. & E. to proceed with the line, the AEC assumed responsibility for constructing the transmission line to get power into SLAC. At the same time, we entered into negotiations with P.G. & E. for the purpose of securing a refund to AEC, recognizing the fact that we were making the investment in the line and that they were relieved of this investment.

These negotiations have been underway for some time. One thing which has been considered in the negotiation is the inclusion of a provision that would give the AEC the option, if it so chose, to sell the line to P.G. & E. at some later date.

However, any such sale would have to be conditioned on P.G. & E. securing the necessary local permits and whatever else might be necessary for it to own the line.

There are no plans for sale of the line. This was simply put in as a provision, a contingency that might at some later date prove to be desirable, not only from the standpoint of the Government, but also from the standpoint of the local people.

Senator PASTORE. But Mr. Clapp is correct when he did state that originally it was contemplated that the public utility would actually negotiate with the authorities for the building of the line and then when they were refused this permission, for reasons best known to the communities involved, then the AEC took it over and began to exercise its right of condemnation; is that right?

Mr. BLOCH. That is correct.

Senator PASTORE. That is all Mr. Clapp said.

TAX REVENUES FROM SALE OF LINE TO P.G. & E.

Chairman HOLIFIELD. May I ask this question, Mr. Chairman? Is it not true that the officials of the county of San Mateo inquired about the possibility of selling the line to P.G. & E. in order that they might be able to tax the line? Is this not true, Mr. Bloch? Are you aware of that?

Mr. BLOCH. I have no direct knowledge of that, Mr. Holifield.

Chairman HOLIFIELD. Is there any other member of the Commission here that has? Does the San Francisco office man have any knowledge of that?

Mr. MOHR. I think the county is represented here, sir. They can speak to it better than I can.

Chairman HOLIFIELD. Who is here representing the county of San Mateo? Will you please identify yourself for the record and be responsive to the question?

STATEMENT OF E. R. STALLINGS, COUNTY MANAGER, SAN MATEO COUNTY, CALIF.

Mr. STALLINGS. Yes, Mr. Chairman. I am E. R. Stallings, county manager, San Mateo County, appearing here today at the request of the Board of Supervisors of San Mateo County.

As I understand the question, Mr. Holifield, it was relative to whether or not the county of San Mateo had any desire or any knowledge of the sale of the line, once it was constructed, to P.G. & E. for purposes of obtaining taxes. Am I correct in that?

Chairman HOLIFIELD. No, my question was, did any of the officials of San Mateo County suggest that the line be sold to the P.G. & E. so that they could tax the line and get tax revenue from it.

Mr. STALLINGS. If they did, sir, it was done without authorization of the board of supervisors.

Chairman HOLIFIELD. Do you have any knowledge of its being done?

Mr. STALLINGS. I have no knowledge whatsoever of any such suggestion ever having been made. Suggestion was made that perhaps the county should contribute financially because then it would remain on the tax rolls and be taxable. But the amount of ad valorem tax from the overhead powerline would amount to something like, estimated at around $37,000 a year. The county would receive approximately 20 percent of that, or a little less than $7,000. I don't think that the principle here involved would be compromised with that small amount of tax revenue.

Senator PASTORE. Are there any further questions on this point before we ask Mr. Clapp to proceed?

There being none, please proceed, Mr. Clapp.

NATURAL BEAUTY OF AREA

Mr. CLAPP. Now, let us examine briefly what was the cause of this controversy. Woodside and the county want the line underground because as designed, it would tend to destroy the rural residential character of the town and would adversely affect what the U.S. Court of Appeals described as a scenic, mountainside area.

The area which can be seen on the photograph on the easel to my left is an area which about 100,000 San Francisco Bay area citizens from as far as 50 or 60 miles away each year frequent for outdoor recreation at Searsville Lake Park, a park which is traversed by the line, in fact, one of the poles, or towers would be just adjacent to the entrance of this particular park. This is also an area outside of the park and adjacent to the park to which each weekend an additional 50,000 to 100,000 citizens drive just for the purpose of enjoying the

scenery. They normally come down from San Francisco along the Skyline Drive, past the 11 miles of lakes, the shores of which are covered with pines and other types of trees, which is preserved in its natural state because the lakes are the water system for the city and county of San Francisco.

Passing that, they enter the valley in which Woodside sits and after passing through that and going up the mountain, they can drive as far as Santa Cruz, a beach recreation area through about 50 miles of practically virgin forest.

It is a beautiful area.

SCENIC EASEMENTS

The action of the town and county, of course, in this matter in attempting to preserve this area is in line with the policy of the Housing Act of 1961. It seems somewhat incongruous to us that an area such as the county of San Mateo, a local community such as the county of San Mateo and the town of Woodside could apply to the Housing Administrator for a 30-percent grant for the purpose of securing scenic easements to preserve the natural beauty of this area out of an appropriation of $50 million for this purpose made to the Housing Administartor, not, of course, all allocated to the county of San Mateo, but there was that much money appropriated to grants to the various parts of the United States. Then, who knows, we might get a $5 million grant from the Housing Administrator to preserve the scenic characteristics of this area and now the committee says that you have an obligation to save as much as $5 million by putting this line overhead instead of underground. The two actions don't seem consistent.

Senator PASTORE. Provided, of course, the factual situation is as positive as you state it. In other words, if this does destroy the scenic beauty of that area that is one thing. But aren't we trying to prove that? You are assuming that as a fact. Will it do precisely that?

Mr. CLAPP. Gentleman, all I can say is that all you have to do is to look at the picture at my left and behind me and I will say to you that any commercial intrusion upon an area of that kind tends to destroy its character. (See app. 10, p. 146.)

The fight over what is going into Yosemite Park every year and what change is going to be made there is a constant battle between the desire of people to exploit and visit the scenic areas and to provide accommodations for them and the trails and roads and that sort of thing and the fight of those who want to preserve it in as nearly a natural state as possible.

EXISTING POLES IN WOODSIDE

Senator PASTORE. Don't you have other poles in that area?

Mr. CLAPP. Senator, I think the estimate is that there are a couple of thousand. Let me say this about it: In the first place, most of those poles were put in a number of years ago when we were not as conscious as we are now of a beautiful America.

The second thing is that when you do take any sort of zoning action, you take it largely because you do not like what exists and you want to stop that action for the future and you are left with 10 corrugated iron factories with no parking space, with no setbacks, with no planting, with no shrubbery, and all those sort of things which, until just

a year or so ago, the court would have held it was constitutionally impossible to remove.

I do not know anything about the situation in other States. I know that in the State of California, since 1946, there have been a number of decisions which say you may remove these nonconforming, existing structures or other conditions which you are zoning against for the future, but the principle which has been employed is that of saying that this particular nonconforming use has an economic life remain- of x years, whatever it may be, and that at the end of that time, it must be discontinued.

The courts have upheld that.

Now, the difficulty with power poles is that the utilities all tell us, their accounting systems at least, that these transmisison systems have an economic life of 40 to 50 years. So that when you put this transmission line up here you are faced with the fact that at the very best, you cannot get rid of it for 50 years, a task for our grandchildren, because they will say, and rightfully so, "The line is up, you cannot constitutionally take away its remaining economic value." Contrary to the statement that there are only three poles involved in this, there are 68 poles in 36 locations; on each one of those poles because they are 30 inches wide at the base in diameter, there is ample room to put on each one of those poles a bronze tablet containing the name and history of each Member of Congress, of this Commission and of anybody else who is responsible for those poles being there.

If anybody wants a 50-year memorial, this is the place to put it.

Senator PASTORE. Of course, that is funny, but it does not prove anything. The point I mean to make is this: What is it that is objectionable, the installation of the pole or the line itself? We are trying to get this thing crystallized in our own mind. I think you have a feeling here that there is a certain antagonism toward this whole matter by the members of this committee.

Our job here is to be as openminded as possible. I think I stated the case. It is true some members of the committee have been there and have formulated an opinion, just as you have. But there are many members here who have an open mind on this and would like to get the facts. What we are trying to determine here is to get the facts of the situation. We are all trying to achieve the public good.

There is an airport right next to my home. There is not a plane that goes up or down that I don't hear every hour of the day. I would prefer that they put that airfield some place else. Somebody has to listen to that noise. We cannot have everything the way we want it because you have to serve the public convenience as well.

We are trying to determine what is the best thing to do. That is why you have been asked to come here, sir. I hope we don't indulge in facetiousness and frivolousness. I hope we can stick to serious business. Nobody is suggesting that anybody's tablet be put up there with anybody's name. I don't think that the Members of Congress who are here to do a public service care very much about their name being on a tablet at the bottom of any pole. At least I don't.

There are only three pole structures involved in the town of Woodside. What is objectionable, the pole itself, the line or combination of both.

Mr. CLAPP. It does not involve only three poles.

Senator PASTORE. I am talking about Woodside.

Mr. CLAPP. Let me ask you this: If there is an objectionable incinerator near someone's home, does it matter in what political jurisdiction the base of that incinerator happens to sit?

Senator PASTORE. Not at all.

Mr. CLAPP. All right. There are, therefore, 68 poles, some of which, I don't know whether it is 3 or 5 or 10, that are within the peninsula of Woodside which happens to jut out and be surrounded by the territory of the county of San Mateo. The poles, themselves, will be visible from a distance of 7 to 10 miles in either direction. I don't think it makes any difference whether the person who looks at it and is annoyed by it and offended by it and made slightly sad by the fact that nature has been altered, whether he is sitting, watching that pole from the county of San Mateo, from the neighboring county of Santa Clara, from the town of Woodside, Redwood City or where; now the existing power poles of the Pacific Gas and Electric Co. which are at the top of the ridge and constitute the main line from which this tap line would run are plainly visible from the city of Redwood City, from the courthouse where Mr. Stallings has his office and where the board of supervisors of San Mateo County hold their meetings.

They are to anyone who has any regard for natural beauty an offense. Now, there may be some who are not offended by these. There may be engineers who admire the clean, functional design of these structures. But there are a great many people who prefer the somewhat asymmetrical and erratic structures of trees which grew there because God put them there. It is those people for whom I speak.

Now, more objectionable than the poles themselves are the wires which go from pole to pole. Just to give you an example, when the main P. G. & E. transmission line went in there was an unfortunate citizen who had, after many years searching, found a location and he had a three-sided picture window all across the front of his house which went at an angle this way, an angle that way and straight ahead. From the left-hand picture window, he could see Mount Tamalpais, which is one of the scenic features of the bay area. Straight across, he could see Mount Diablo, which is one of the features of the landscape, which was first remarked by the people who came to California in the days of 1849. It was visible all the way from the Sierras. It was the landmark by which the early people who came to California were directed.

On the right-hand side of the picture window was a view of Mount Hamilton on which there is an observatory which probably may be offensive to the hypercritical, I would not venture to say that, but, at least, it is not too bad and it was done a long time ago.

Now, with consummate genius, the designer of that powerline placed the power tower immediately in front of the center picture window and the wires, six of them, hang to the left and right, in front of the left and right picture windows. I don't know. These people are relatively young people and I could not, for one, stand the thought of sitting there for the next 40 years looking at those very useful, practical wires. I say those are worse than the poles themselves in all probability.

HISTORY OF SLAC AUTHORIZATION AND POWER REQUIREMENTS

Now, let me tell the committee what the basic fault was in this situation. Now, I am quoting one of the representatives of Stanford University, who, in the settlement negotiations that we had over these matters a year ago, was around and I asked him, "What happened when you planned this project? How does it happen that this particular line comes overhead over this hill and down this beautiful mountain?"

He said, "We were so busy trying to get the project approved that we merely assumed that power would be available. We were not concerned with power." They were concerned with your approval, gentlemen, of the $114 million laboratory that was going to be built.

All right, there is some indication in the 1959 hearings that the powerline proposed was much smaller, of a 110,000 volt capacity and some indication, although I cannot be sure of this, that it was coming in from a more southerly or easterly direction and not upon this route.

Sometime between May of 1960, when you approved this project in principle, and September of 1961, when you appropriated the $114 million for it, there was a change. Now, whether this was due to the fact that the scientists wanted more power and said now that the project is approved, we can do more startling and bigger things or what, I am not prepared to say. But for the first time, in October 1961, was there any indication that the tapline was going to come down this general route where you have it.

Now in October 1961, if the Pacific Gas & Electric Co. had come in and applied for this route, they would have been turned down just as they were in 1964. Then, we would not be approaching January 1, 1966, with 18 months to build a powerline or run out of scientists or something.

All of this controversy would be over and things would have been done properly. But, instead of that—now, let me go back to the 1959 hearings again. In the hearings, General Luedecke testified and the committee was rather critical of General Luedecke because on projects in the past, he seemed to have run over his budget 25 percent or thereabouts and he was asked on a number of occasions by members of this committee, "How about this one? This is $114 million. If you are going to run 25 percent over this one, this is a lot of money".

And it is. It is nearly $30 million. So, the committee was rightly concerned. General Luedecke said, and his representative said, "This is tightly budgeted. It has been figured down to the last comma and semicolon and this one we are not going to come back and ask you for any money".

Now, when it suddenly developed that they had not included the cost of this underground line in their budget, they were just plain scared to come back and ask you people for $2½ million or whatever was necessary to do this thing. They recommended against it because they did not want to ask you for more money.

In my opinion, that is my reading of what actually happened here. Now, should the residents of Woodside and the residents of San Mateo County and the 100,000 visitors a year to Searsville Lake and the 50,000 people a week who drive through there suffer because of the basic planning mistake? I don't think so. You may think so, and you may be right.

Chairman HOLIFIELD. Mr. Chairman, the gentleman has characterized the AEC as being afraid to come in for money and expressed his opinion of their attitude on this matter. I would like to hear from Mr. Bloch, who was here at that time, if Mr. Clapp's reasoning on this matter is in accord with the views of the Atomic Energy Commission as you understand them.

AEC VIEW ON PUTTING SLAC LINE UNDERGROUND

Mr. BLOCH. I think we have pointed out our problem before. It is not any fear of coming before this committee, but really, whether we could justify, as a Government agency, the expenditure of the additional funds to put a line underground to accommodate a small group as opposed to our general responsibility for prudent expenditure of the taxpayers' money.

Dr. TAPE. Mr. Chairman, may I add to that that in our discussion within the Commission the issue has been on the cost of the underground line versus what we felt was being bought for that added cost. I would just like to reiterate and confirm what Mr. Bloch has said about our decision.

The decision was not based on any fear or any reluctance to come before you. If we had felt this was a justified expenditure, we would have been in there to say so.

HISTORY OF PROVISION OF POWER FOR SLAC PROJECT

Senator PASTORE. When did this thinking and consideration begin with reference to the powerline in connection with the genesis of the accelerator, itself?

Dr. TAPE. Are you talking about going underground?

Senator PASTORE. I mean the whole business. You said you considered it at the time—aboveground as against underground—and the cost that might have been involved. Now, Mr. Clapp brings up the point—of course, he admits he is only speculating as to what might have happened, he does not state it as a fact—he does state as a fact that the committee was very cautious and careful about whether or not we were going to overrun the estimate of $114 million.

I was at that meeting. I think maybe I am the fellow whom he has been quoting. We wanted to make sure that this was a firm figure and we would not have to be appropriating any further money. The question here is: At that time, did the Commission analyze this question of aboveground and underground?

Dr. TAPE. Mr. Chairman, I personally joined the Commission in July of 1963, and at that time, this issue was already under consideration and at that time I participated in discussions with respect to the underground versus overhead. I would have to defer to Mr. Bloch to precede that time.

Senator PASTORE. All right, Mr. Bloch. In other words, when we considered the $114 million, were we talking then to about how we were going to get the power there?

Mr. BLOCH. No, sir; we were not. Everyone assumed that in connection with this project, which involved a high-voltage transmission line, that as a matter of course, the power would be brought in overhead in accordance with normal practice.

We were not aware of any problems or any suggestions of putting this type of line underground. We did not become aware of it until P.G. & E., in their efforts to secure use permits, met opposition from the town of Woodside and then the county.

Senator PASTORE. That answers the question.

Senator BENNETT. Mr. Chairman, may I ask another question to further nail it down?

Senator PASTORE. Yes.

Senator BENNETT. Was it not assumed, when we authorized this project, that the power would be delivered to the site by a contractor and that we would have no responsibility to provide any funds for getting the power in?

Mr. BLOCH. As I recall, the $114 million estimate which was the basis for the authorization included some funds for an overhead transmission line. At that time, it was not clear but as it developed, we followed our normal practice of contracting for the power supplier to deliver power to the site. That was our hope.

Senator BENNETT. So, even though the original estimate included such funds, as you went along you assumed that those funds for investment would not be required.

Mr. BLOCH. That is right.

Mr. CLAPP. If I may speak to this point, Senator Pastore?

Senator PASTORE. All right, Mr. Clapp, you go ahead.

AEC POWER CONTRACT WITH P.G. & E., JANUARY 1963

Mr. CLAPP. There was no consideration of funds for investment one way or the other because it was assumed at all times that the Pacific Gas & Electric Co. would make such investment as was required and the contract between P.G. & E. and the Commission in January 1963 provided that the contract would be filed with and approved by the Public Utilities Commission of the State of California, which is the regulatory body governing rates, and presumably, although the commission reserved the right to contest the rate that the commission fixed, nevertheless if the commission fixed a rate, based upon a certain amount of investment within a range of reasonableness it was contemplated that the Commission would pay those rates. Now, when the underground matter came up, the public utilities commission ruling on the matter for underground was simply this: That the company was required to invest in what would be considered normal, productive or transmission facilities, that if anything else was required which was out of the ordinary and unusual, that the customer, under California law and regulations of the commission, would have to pay in one way or another for that particular surplus investment if you want to call it that, additional investment, or whatever it was. That is the reason for the request by the Pacific Gas & Electric Co. for an additional $200,000 a year for this surplus investment which represents only 15 percent of the investment per year for interest, carrying charges, taxes, maintenance, and other indispensable items, if that was to be made.

So that actually AEC, it looks to us as if they went into the store and didn't like the price of the merchandise and then took drastic action to try to get the price down.

Senator PASTORE. Does that not shade a little bit what you previously said? You said in the beginning that the mistake was made

at the outset because when they talked about the installation of this linear accelerator, they should have, at that time, negotiated with the authorities as to how the power was going to come in.

Mr. CLAPP. Yes.

Senator PASTORE. That is what you said first. Now you are saying they proceeded with normal considerations and expectations that that was going to be left up to the Pacific Gas & Electric Co., who was going to furnish the power.

They had a right to assume that they would do it the cheapest and best way.

CHANGE FROM 110 TO 220 KILOVOLTS

Mr. CLAPP. My point is that somewhere between the 1959 hearings and 1963, when they entered into this contract, it is my belief that the demand for power or the plans for power changed from a 110,000-volt line coming in from the south and east where there would not necessarily have been this problem, to the 220,000-volt line coming over the mountain where everybody, including P.G. & E., knew that there was going to be trouble coming over the mountain.

MINUTES OF P.G. & E. ELECTRICAL ADVISORY COMMITTEE

We have records of the minutes of the electrical committee of the Pacific Gas & Electric Co., in January of 1962, in which the opinion was expressed within the company that this tapline could not be acquired overhead, that the line which they were talking about, the major line from Monta Vista to Jefferson could be, but it would be the last overhead line which they would be able to acquire in the area.

Senator PASTORE. All right, is P.G. & E. here? Go ahead, please.

STATEMENT OF F. T. SEARLS, PACIFIC GAS & ELECTRIC CO.

Mr. SEARLS. I think Mr. Clapp extricated himself at the end. An opinion was expressed in the electrical advisory committee of the company that the Monta Vista-Jefferson line would be the last line to be built through that territory. But I think to draw from that the conclusion that anybody was expressing an opinion or thinking about the tapline is an extrapolation that really is not warranted.

Mr. CLAPP. Well, I will add another factor——

Senator PASTORE. Of course, Mr. Clapp's clients are always right now, don't forget that.

Mr. CLAPP. Fortunately for me.

P.G. & E. REQUEST FOR USE PERMITS FOR 220-KILOVOLT LOOP

I will add just one other fact and that is, there were some additional problems that had to be solved by P.G. & E. in getting the Monta Vista-Jefferson line because it had to be beefed up from the 1950 or 1951 plans for 110,000 volts to 220,000.

They came in sometime in 1962, the exact date I do not recall, but it was after this particular meeting that Mr. Searls and I have referred to, they came into the San Mateo County Planning Commission for application for that. It would have been very logical for them to come in simultaneously for the tapline down the mountain.

They did not present any such application at that time, nor for approximately 9 or 10 months later.

Comment was made when the representative of the P.G. & E. left the office, about this situation, and Mr. Skillman, then the director of the Planning Commission of San Mateo County said, "All hell will break loose when they come in for the tapline." So, it was known that the attitude of Woodside would be adverse to the proposal. But what happened? They wait and they wait and they wait, they come along in June of 1963 to Woodside, then there is this hurry-up business that we are getting today again, that this time the line had to be in early in 1964, I think, or everything would fall out of the ceiling, and they are very surprised, appear very surprised, that there is adverse action.

It was no secret that there would be adverse action. The only secret was to the people of the town of Woodside, who had displayed before their eyes the exact route of the tapline in June of 1963, a little late, in my opinion.

ESTHETIC DESIGN FOR SEARSVILLE TAP LINE

Senator PASTORE. At this point, could we hear from the representative of the P.G. & E. exactly what kind of structure this is and what this will do to the esthetic qualities of this natural resource which has been pointed out here?

Mr. SEARLS. Well, the kind of structure that P.G. & E. contemplated and which, I believe, has been adopted by the AEC is a tubular steel pole with rigid insulators. This is a relatively new development in this field. There are pictures of an installation of this type in Nebraska in the report of the hearings of this committee on January 29, 1964,[1] and comparative drawings of this type of structure, the steel lattice type of tower which is the type of structure that Mr. Clapp has been describing more recently, and a comparison with a conventional wooden pole of a common type.

This appears on page 183 of the record.[1]

P.G. & E.'s plans contemplated 34 such structures. A few of these structures involved more than one pole. I am not sure of the exact total number of poles. I believe the AEC plans are essentially of this type, although they may have made some modifications.

These structures would carry only three wires. The heights of the poles would be much lower than that of the ordinary steel tower. I think that this is, of course, a subjective area as to what the effect of structures of this type would be, but I would just like to quote the opinion of the California Public Utility Commission which went into this at great length, as a result of a complaint by the town of Woodside, which was joined by the county of San Mateo and the Commission considered just about every aspect of the case that has been raised before this committee previously, and again today.

CALIFORNIA PUC ON ESTHETICS

On the subject of esthetics, the California Commission said:

> We are not persuaded that any esthetic considerations involved should require the expenditure of an additional $3,888,000, which would be paid for by all the customers of P.G. & E.

[1] See Joint Committee on Atomic Energy hearing, "Stanford Accelerator Power Supply," Jan. 29, 1964, pp. 182, 183. See also p. 128.

Also, the commission said:

Putting aside questions of law and jurisdiction, the commission is not disposed in this proceeding to hold that the alleged esthetic considerations involved should compel the general ratepayers of P.G. & E. to provide sums to offset the expense and carrying charges on $3,888,000, which represents the cost for the additional facilities which would be required to provide underground transmission to SLAC. This would also increase power cost to the facility.

I think it is worth noting that one of the concurring commissioners was Mr. William Bennett, who has been rather active in this field of esthetics and has urged that the California Commission give esthetics even more consideration than it has. (See app. 2, p. 115.)

It is a subjective matter and it is difficult for anybody who has not seen the situation to form a judgment. I really don't feel that P.G. & E. is the organization to render a final decision in this matter. But this is what we have been going on.

Senator PASTORE. Are you familiar with the structures?

Mr. SEARLS. Yes.

Senator PASTORE. Do you agree with Mr. Clapp that we are going to ruin the esthetic quality of that ridge?

Mr. SEARLS. I would have to say that my opinion is a personal one, but I don't agree with him.

Senator PASTORE. You don't agree with him. All right, Mr. Clapp, you may proceed.

FEDERAL POLICIES AND LOCAL POLICIES

Mr. CLAPP. I have one brief statement in conclusion. I have already expressed the opinion that the legislation which is immediately pending before the committee might well fail to accomplish the result intended. So far as the legislation is concerned on a prospective basis I think it fails to take into consideration present-day conditions.

Now there was a time when the Federal Government was so modern and advanced in its ideas that anything it proposed to do was probably superior to what few policies there were of local legislation. This situation has changed. Today in many communities planning commissions and legislative bodies professionally staffed and assisted are miles ahead of Federal architects. It is certainly desirable that the Federal Government should not be coerced by whim or fancy, and I concur heartily with the committee on that. It is equally desirable that local policy, based upon an intimate knowledge of local conditions, should not be brushed aside by Federal whim or fancy in the pursuit of what may be a parochial policy peculiar to a single Government agency.

Just what should be the interrelationship of Federal and local policies? Which should control under given circumstances? What Federal policy should brook no time for consultation or delay? These questions ought to be the subject of serious exploration eventually to produce a statute or a statute implemented by appropriate regulations which would not, like the proposal before this committee, be subject to criticism as the product of improvisation and expediency.

We feel sure that all national agencies concerned with conservation will support our position in this matter. We feel sure that all local units of government which do or will face similar problems will support us and hopefully that the administration which talks of beauty and conservation will take effective action to prevent the Atomic Energy Commission from accomplishing its purpose in this matter.

NATIONAL VERSUS LOCAL POSITION

Senator PASTORE. Well, the only trouble with that is—I quite agree with what you have said, but here we are—we are just as far apart as the North Pole is from the South Pole on this aboveground and underground controversy. We are confronted with the situation here that by accurate estimates this involves about $3,888,000 difference in expense. There is some dispute about this. But where you don't agree, who gives in to whom?

If you are in my position, you can realize how difficult our job is at this point. Here we are, we are being told by P.G. & E., we are being told by the commission, itself, that the proper way of doing it, considering the national interest, is to go above ground. Now the people from that particular locality say that is not right, that disturbs the esthetic qualities of this region and you should go underground.

Where does that put us? Who is going to give in to whom? Who is going to resolve this? What is the answer to it?

Mr. CLAPP. Instead of giving in in this particular instance, Senator, immediately after the court decision, we strove to reestablish negotiations for the settlement of this financial crisis on some basis of equitable contribution. I think in principle we are only as far apart as Stanford University, itself, let us be apart because I think the Pacific Gas & Electric Co. is disposed to be generous, I think the commission is disposed to be a little more liberal now that the court decision has given it problems, the town of Woodside has consistently offered the sum of $150,000 as a participation in this matter which is $30 per man, woman, child, and dog in the town of Woodside, as compared with a national expenditure of about a cent and a half per person if the Government were to do it all.

Senator PASTORE. I don't think that is a good measuring rod. You are saying that because we have 190 million Americans it is going to come to a cent apiece, and for that reason we ought to spend $3,888,000 to do a job where you could save it. I can't follow that logic, Mr. Clapp.

Mr. CLAPP. I am only saying that the people of Woodside have been willing to contribute out of proportion to what I would think would be the proper thing to do. Now you understand sir, that it is one thing to bring something upon yourself and ardently desire something which you will participate in, in some direct way, such as a powerline which might serve some part of your own community. But to have this inflicted upon you to come from beyond your boundaries, pass over your territory, ruin your scenery and vanish into some other portion of the county or State, seems a little too much.

STANFORD UNIVERSITY AND WOODSIDE

Senator PASTORE. Yes, but Stanford University is a great asset to the town of Woodside, it is a great institution, it is a great cultural and educational center. It is going to be the best and biggest and most modern linear accelerator that was ever built in any place in the world. Isn't there some Woodside pride in this?

Mr. CLAPP. I think on the contrary Woodside may well be Stanford's greatest asset. I think in the last fund-raising campaign the

citizens of Woodside contributed more proportionately than anybody else.

Senator PASTORE. I heard the same thing, only said in a different way "what is good for General Motors is good for the Nation."

Mr. CLAPP. The difficulty is, Senator, that Stanford had a policy of not permitting overhead structures of this kind to mar the natural beauty of its campus. It surrendered that policy because it was getting $114 million worth of laboratory and has made weak and feeble cries since then that it can't possibly do anything in the matter by way of contribution. We think it could and should make such a contribution. If it would, as it should, we think this could be solved to the satisfaction of all concerned.

Senator PASTORE. Your plan is this, that P.G. & E. is going to pass it on to the Stanford University, and they, in turn, will pass it on to the AEC, and the AEC, in turn, will pass it on to the taxpayers of this country, who will put up the million dollars. Then you expect the AEC to put up a million of taxpayers' money. Then you are going to put up $150,000. Well, I am overwhelmed with that generosity.

Mr. CLAPP. Sir, this represents the complete extension to the limit of the taxing capacity of the town of Woodside in a single year and a quadrupling of its existing tax rate. Greater love has no taxpayer than this.

Senator PASTORE. Do you have some questions, Mr. Conway?

Mr. CONWAY. I would like to develop a few lines of questions so that the record may be clear.

HISTORY OF USE PERMITS FOR OVERHEAD LINES, WOODSIDE

As I understand it, P.G. & E. made application in 1963 for overhead lines and the town of Woodside denied them a use permit. Am I correct?

Mr. CLAPP. That is correct.

Mr. CONWAY. Then they came back in 1964 with an agreement to come in with poles in lieu of the original towers at an added cost to the government which the government agreed to in order to enhance the beauty or the esthetic value of the area. That was in 1964. Am I correct on that, sir?

Mr. CLAPP. That is correct. The final decision was made in 1964 on that subject.

Mr. CONWAY. At the time, first in 1963 or later in 1964, when the P.G. & E. came in on either application, did you have any ordinance in your town prohibiting overhead distribution or transmission lines?

Mr. CLAPP. In effect, yes, because the use permit provisions of the existing ordinance said that utilities who wanted to put in this type of lines must apply for a use permit and must prove their case and the necessity beyond a reasonable doubt. Now that is a pretty tough test.

Mr. CONWAY. Has that test been in effect since the town was incorporated?

Mr. CLAPP. Absolutely, sir.

Mr. CONWAY. That was in 1956?

Mr. CLAPP. Right.

Mr. CONWAY. How many overhead lines and poles did you permit to come in from 1956 when the town was incorporated?

Mr. CLAPP. I would say a couple of hundred probably.

Mr. CONWAY. I think the record shows 277 of your own poles that for your own use you permitted in that period of time. Am I correct on that, sir.[1]

CRITERIA USED BY WOODSIDE IN GRANTING USE PERMITS FOR POLES

Mr. CLAPP. Yes. One of the criteria for granting a use permit is that the utility installation must be intended to serve some citizens of Woodside and, of course, that was one condition that the P.G. & E. could not meet as far as the powerline is concerned.

Mr. CONWAY. But for the lines that would go up in the city of Woodside, the local citizens would have had to pay for them if the distribution lines went underground. Am I correct on that, sir?

Mr. CLAPP. That is probably correct under the Public Utilities Commission regulations.

COST OF PUTTING TRANSMISSION LINES VERSUS DISTRIBUTION LINES UNDERGROUND

Mr. CONWAY. Do you know that it is about 20 times more expensive to put a transmission underground as it is a distribution line?

Mr. CLAPP. Just a minute until I consult my technical expert.

Mr. MCCLOSKEY. I think it ought to be clear that this is not correct in this case. The line overhead will cost $1,012,000. A full 300-megawatt single circuit will cost $3,000,600. That is 3 times as much, not 20 times.

Mr. CONWAY. We have testimony from Dr. Panofsky and other testimony which has been submitted to the committee here that for a transmission line, 220 kilovolts, it is approximately 16 to 20 times more expensive per mile to put it underground than it is for a 60-kilovolt line which is a normal distribution line. (See p. 12.)

Mr. MCCLOSKEY. I don't know about his testimony, but I think it is clear on this record that the underground line, 300 megawatts, single circuit, will cost $3,644,000. That is 3½ times a single circuit of overhead line which will cost $1,012,000.[2]

LOCAL BENEFIT AND NATIONAL PUBLIC BENEFIT

Senator PASTORE. Isn't this a telling situation? Here we have an admission that about 275 poles have been installed since 1956 and Mr. Clapp said they can afford, esthetically, to look at these poles because it serves them, but they cannot afford esthetically to look at a pole that serves a basic, fundamental science that means a benefit to mankind and possibly the survival of mankind?

I can't follow this logic. You are telling me you can afford to look at 275 poles that have been installed since 1956, you can afford to do this because it serves you, serves your people. But you cannot afford to look at another pole, esthetically, because it serves this accelerator at Stanford University which is a basic science to help all mankind? I can't accept that as good logic.

Mr. MCCLOSKEY. Senator, you have a situation in Washington, D.C., which is exactly parallel. You have no overhead powerlines,

[1] See "Stanford Accelerator Power Supply": hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, p. 83.

[2] See "Stanford Accelerator Power Supply": hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, p. 9.

distribution or transmission around the White House, or scenic areas of the District. You go out on the northern edge of the District, you will find a plethora of wires blackening the landscape. It is not an argument to say that because one area that is scenic to a town—that poles in one area justify putting poles in the scenic area.

Senator PASTORE. They are more or less in the same area, aren't they?

Chairman HOLIFIELD. It is not the same argument at all. We have pictures of poles all over Woodside.

Mr. Chairman, at this time I think some of those pictures ought to be shown. (See app. 10, p. 146.)

Mr. CONWAY. I want to go back to this point because you did not get the import of my question. I am talking about 60 kilovolts. That is what your distribution lines are. I was not referring to the relative cost to put this one underground versus overhead. You could put 20 times more distribution lines underground per dollar than you can for the money you have to spend here in this case. Referring to those 277 poles you permitted to go in—with the same amount of contribution as this $150,000 which I understand you are offering to pay to get rid of these poles, you could get 20 times more distribution line underground if you spend that money getting rid of the poles you have there today because they are much lower voltage. Those are much less expensive to put underground and maintain underground than the overhead 220-kilovolt transmission lines.

Mr. Swidler of the FPC has pointed this out in conferences at the White House on the problems of beautification, that you have to differentiate between transmission lines and distribution lines because transmission lines of 220 kilovolts are much more difficult, much more expensive to put underground than your 60-kilovolt lines that you have all over the town of Woodside today.

Mr. CLAPP. Mr. Stallings says he has some remarks to make on this point.

Mr. SEARLS. Could I make a brief correction? The distribution voltage would be 12,000 volts and not 60,000 volts.

Mr. CONWAY. Of your lines?

Mr. SEARLS. Yes. Generally speaking, I think probably what you are referring to would be 12,000 as against 220,000.

Mr. CONWAY. Thank you.

ESTHETICS OF LOW VOLTAGE AND HIGH VOLTAGE LINES

Mr. STALLINGS. Mr. Chairman, on the question of esthetics I think we are dealing with two different vehicles here of carrying lines. One, we are dealing with a high tension overhead line that will come right down through the middle of a wooded area. The powerlines that you speak of in Woodside traverse principally along the roads and the streets. Already a program is being worked out—I had the privilege of attending the Vice President's conference with the city managers 2 weeks ago, I had long discussions with Commissioner Slayton of the HHFA, relative to a program of assisting local government in placing existing utilities underground.

I have information to the effect that the P.G. & E. has already submitted a proposal to the Public Utilities Commission for an orderly program of placing existing lines underground. I think we are talk-

ing about a little different type of situation here. There is one other thing which has not been mentioned insofar as the transmission, the high tension transmission line is concerned, and that is that it requires trimming rights. This is not necessarily true of the power-lines or the pole lines that go along the highway except insofar as the abutting branches are concerned. But as these high tension lines go through a wooded area, severe cutting is required.

We experienced that in one of the county parks, and we have probably one of the most ambitious park programs and open space programs of any county in the Nation, when they traversed through Hunter Park with the Jefferson-Montevista line, the tremendous amount of slashing that was done in that area to provide the trimming rights, the trimming areas required between the lines and the trees, and this same thing will take place here. This comes right down through the middle of the wooded area.

Mr. CONWAY. The testimony we had was that they were going to top the trees, they were not going to clear a swath, as the Court had indicated, a hundred-foot swath. This is not the testimony we had. They were going to place them by helicopter amongst the woods and just topping some of the trees and particularly selecting the trees so it would not hurt the overall appearance. (See p. 129.)

JUNIPERO SERRA ALTERNATE FREEWAY ROUTE

Let me get back to the other thing. The Government and the utility offered to go along the freeway instead of coming down over the hill and the town of Woodside refused to grant permission to go along the freeway. Am I correct?

Mr. CLAPP. The line of the freeway would have been 4 miles of lines with wires standing in front of probably a greater number of residents of Woodside than would be affected by this line.

Mr. CONWAY. That is why all thought it would be the least offensive and the most accommodating to the town of Woodside to come over the hill.

SCENIC BEAUTY OF WOODSIDE AND WEEKEND VISITORS

Mr. CLAPP. It is not entirely an accommodation to the city of Woodside. Now I want to emphasize this over and over again, that there are 50,000 to 100,000 citizens who drive down to Woodside every Saturday and Sunday who enjoy this area. It is not just offensive to the 5,000 citizens of Woodside. It deprives those people who go out for a drive of the full opportunity of enjoying what they came for. Now to have a policy——

Representative HOSMER. Mr. Clapp, does that not happen every time the city of Woodside issues a building permit and somebody puts a house up on the side of those hills, put a street in to the house, and so forth? Does that not offend somebody? Would they not rather see a hill that is not scarred by a house?

Mr. CLAPP. There is rather severe architectural control of any residences in Woodside, and I doubt if any house in Woodside is one-tenth as offensive as any one of these power poles and the lines which go from one pole to another.

Representative HOSMER. To you or to the 5,000 people that come down there every weakend?

Mr. CLAPP. To the people who come down there over the weekend, who would like very much to live in houses of this kind.

Representative HOSMER. Do you know who those people are, Mr. Clapp?

Mr. CLAPP. Those people are the average citizens of San Francisco and communities between San Francisco and Woodside who want to get out of the rectangular housing projects in which they live in the cities in which they live and get out in the country.

Representative HOSMER. Now you state that they would be offended by these poles. Of the 5,000 that have come down on any particular weekend, how many of them would you say you had discussed this subject with and got their opinion?

Mr. CLAPP. Mr. Hosmer, since you apparently entertain a different opinion of it, I would ask you how many of them have you discussed it with?

Representative HOSMER. Mr. Clapp, I am asking the question.

Mr. CLAPP. I make it a rule not to answer hypothetical questions, Mr. Hosmer.

Representative HOSMER. It was not a hypothetical question. I ask you, of the 5,000 that came down every weekend, how many did you talk with and get their opinion? We must find out if they are really up in arms about this thing. They either have an adverse opinion or they don't care, which is what I rather suspect.

Mr. CLAPP. Let me tell you that there is a strong undercurrent of public opinion in favor of the stand taken by the county of San Mateo and the town of Woodside among the ordinary people. Now whether they express their opinions while driving along the road or in bars or when they get home, I don't know, but they do spend the gasoline to come down in the country and that is because they appreciate the country, and I am quite sure they would appreciate it less if the power poles were there.

Representative YOUNGER. May I ask a question?

Senator PASTORE. Of course.

Representative YOUNGER. If it is of value to the committee and to Mr. Hosmer, I tell you we will make an offer to the committee. If you send a delegation out there, we will get the Stanford Stadium and we will show you how many people are interested in this case. That is the best test. We will make that deal with you.

EXISTING CONDITIONS IN WOODSIDE

Representative HOSMER. I think the Chairman indicated that some of us have been out there. I was with a group of people. We drove up to the top of the hill and looked down through a veritable forest of the very poles you see pictured here in these large photographs. No one was offended by any one of these poles. They were only offended by some poles that were not even there.

Senator BENNETT. Mr. Chairman.

Senator PASTORE. Mr. Bennett.

CURRENT REQUIREMENTS FOR POWER LINES IN WOODSIDE

Senator BENNETT. A little while ago we were on the question of what was necessary to get permission to extend existing powerlines within the city of Woodside.

Do you currently require people who wish to extend power service to a new building to put their service underground or are you still issuing permits for poles?

Mr. CLAPP. All service must now be underground including telephone service and the cost is running from approximately $400 per home on up.

Senator BENNETT. You mean the additional cost.

Mr. CLAPP. The additional cost, yes.

Mr. CONWAY. May I develop that further?

Senator BENNETT. I was going to ask you, how long has that order been in effect?

HISTORY OF WOODSIDE UNDERGROUND ORDINANCE

Mr. CLAPP. That ordinance was adopted substantially contemporaneously with denial of the use permit to the Pacific Gas & Electric Co. The chronology was this: Faced with the problem of power-transmission poles and after the use-permit hearings were concluded, an immediate urgency ordinance was adopted prohibiting all high-voltage transmission. The planning commission and the council of Woodside felt that in the course of the use-permit hearings they had developed sufficient information to justify the passing of a temporary ordinance.

They did not at that time have sufficient information to justify the passing of an ordinance which would affect ordinary distribution of 12,000 volts that Mr. Searles referred to or telephone lines. Within 2 or 3 months those studies were made, and the emergency ordinance was expanded to include all forms of transmission and communication.

POSSIBLE PERMANENT WOODSIDE ORDINANCE PROHIBITING OVERHEAD LINES

Presently there is in the final stages of completion a permanent ordinance which will continue those provisions for the indefinite future, which was not quite ready of adoption in the last council meeting or two.

Senator BENNETT. When you say time was required to complete studies, those studies did not take the esthetic values into consideration because no time would have been required if you are going to put the transmission lines underground for esthetic reasons.

Mr. CLAPP. Sir, there is still no opinion of the U.S. Supreme Court which says that esthetic reasons alone are sufficient to justify a zoning ordinance. I expect such a decision within the next couple of years, but so far the Court has not reached that. So that in addition to your esthetic considerations you have to make studies of the effect on the tax rate, the effect on the safety, and the effect on a lot of things so that your ordinance will be sure to stand up, because if there is one thing that at least the Woodside legislative body wishes to do, it is not to pass legislation which is going to be thrown out of the window by the first court that it comes to. Other legislators may feel differently about this.

Senator BENNETT. This is a very interesting, backhanded appraisal of the judgment of the members of this committee.

Mr. CLAPP. I had no such intention, sir.

LOCATION OF TOWN OF WOODSIDE

Senator BENNETT. The other question which has been in my mind, I have not completely got Woodside placed, but I assume it is on the inland side of the skyline range.

Mr. CLAPP. That is right, between the bay and the summit of Skyline Ridge.

Senator BENNETT. Between the bay and the summit of the Skyline Ridge?

Mr. CLAPP. That is right.

FIREBREAKS

Senator BENNETT. Do you have any firebreaks cut in the woods in those hills?

Mr. CLAPP. We do.

Senator BENNETT. Are they so offensive that the people of San Francisco decline to come down because you have interfered with the natural pattern of growth in the trees?

Mr. CLAPP. Sir, they are pretty offensive, but fire seems to be the one thing that justifies everything. I have had cases in which I had the fire chief on the stand and I say, "Really, when you sum up, your opinion is that fire should not have been invented?" and he agrees with me. So that is the kind of pressure you get to protect against fire.

Senator BENNETT. One reason for destroying natural beauty is accepted. Another reason which may be even more practical in terms of the economy and the scientific development of the country, is not accepted. But the effect of the two so far as its esthetic value is essentially the same.

Mr. CLAPP. I would not use the word "accepted," sir. I would use rather the word "suffered."

OBJECTIVE OF STANFORD LINEAR ACCELERATOR PROJECT

Senator PASTORE. It all depends on what you are looking at. For instance, this is a linear accelerator. It is going to cost the people of this country about $114 million to build it. We have been told time and time again in the process of these hearings that this gives primacy to the United States in the scientific area which is so important for the survival of mankind. I don't know of anything worthier or more noble than that. Certainly the obective is good. I only wish this. I only wish this had started long before we had appropriated the $114 million, because I would have made a bid in Rhode Island, and I would have let them put those wires above ground if they had built the accelerator in Rhode Island, but they wanted to go to Stanford because Stanford is a great cultural center, a great institution of learning.

Now I am told that Stanford owes more to Woodside than Woodside owes to Stanford.

Mr. CLAPP. I don't think that Stanford is as great an institution now as it was when Mr. McCloskey and I graduated from it.

I think, Mr. Chairman, Senator Kuchel is here and would like to speak, if we are finished with this subject.

Senator PASTORE. If Mr. Kuchel will bear with me, and when Mr. Conway gets through, you can address yourself at any length you want.

CHRONOLOGY OF WOODSIDE TEMPORARY UNDERGROUND ORDINANCE

Mr. CONWAY. I would like to go back to the chronology as to when the city of Woodside instituted this new ordinance prohibiting overhead lines. The record submitted to the committee here reflects it was on March 9, 1964, about a year after the P.G. & E. had made first application for an overhead line.

Mr. CLAPP. That is correct.

Mr. CONWAY. At first your temporary zoning ordinance would have prohibited overhead lines capable of 50,000 volts or greater?

Mr. CLAPP. That is correct.

Mr. CONWAY. Within a month thereafter in April of 1964 you passed a temporary ordinance prohibiting all overhead lines?

Mr. CLAPP. That is correct.

Mr. CONWAY. Now that temporary ordinance was good for only 1 year?

Mr. CLAPP. Yes, sir.

Mr. CONWAY. During that 1-year period did you permit anybody in that town to put in a pole or an overhead line?

VARIANCES GRANTED FOR WOODSIDE RESIDENTS

Mr. CLAPP. There may have been somewhere the application for a building permit had been either completed, issued or substantially completed before the passage of the temporary ordinance. It was felt that under those conditions the court might well say that their plans had advanced sufficiently far that they could not be constitutionally denied the right to complete their application.

Mr. CONWAY. You did permit the people for some reason to go ahead after passage of a temporary ordinance to put in poles or overhead lines within the city of Woodside?

Mr. CLAPP. When you say "you," put some of the blame on the Constitutions of California and the United States.

Mr. CONWAY. Your interpretation of it.

Mr. CLAPP. That is correct.

Mr. CONWAY. Why was the ordinance made temporary for only 1 year? Why was it not made permanent at that time?

Mr. CLAPP. For the simple reason, sir, that the passage of an ordinance under the planning statutes of the State of California requires reference of the matter and hearings before the planning commission, followed by action by the local legislative bodies. It also provides that pending such studies that temporary ordinances may be enacted so that people will not rush in and change the landscape, knowing that a permanent ordinance is coming.

Mr. CONWAY. But over a year has gone by; apparently some people did come in and for one reason or another in that period of time put in poles. Have you made that ordinance permanent as yet?

POSSIBLE PERMANENT WOODSIDE ORDINANCE PROHIBITING OVERHEAD WIRES

Mr. CLAPP. The temporary ordinance was renewed on the anniversary date as is permitted by California law. The permanent ordinance was in a final drafting stage and just exactly the status of it

at this moment I do not know. Such an ordinance is in preparation, will be presented, and I believe will be passed for the future, very shortly.

Mr. CONWAY. I am just wondering, in view of the strong feelings we have heard about this, why over a year has gone by and you have not made it permanent. Within a year from last April again you renewed it. If you do not see fit to extend it or put through a permanent ordinance, perhaps you can go back to letting people in Woodside put in poles and overhead lines again.

Mr. CLAPP. This is like saying, sir, if you don't go fishing, you won't catch any fish. I confidently expect that the permanent ordinance will be passed within a month or two from now. I do not know its exact status at this time. But the intention certainly is to pass such an ordinance and leave it there until a change of local politics or something produces a nonesthetic council which might conceivably repeal it entirely just as the Congress might conceivably prohibit the installation of overhead transmission lines by a Federal agency. The vagaries of legislation are quite beyond me, sir.

Senator PASTORE. But it is a fact that the genesis of all this was just about the time that this controversy arose on the installation of these overhead wires and poles.

Mr. CLAPP. There is no question about it, Senator. You don't have an ordinance against pig farms until somebody drives a herd of pigs in.

Senator PASTORE. Mr. Kuchel.

STATEMENT OF HON. THOMAS H. KUCHEL, A U.S. SENATOR FROM THE STATE OF CALIFORNIA

Senator KUCHEL. Mr. Chairman and members of the committee, I am honored to appear before this committee which is heavily burdened with great public questions and whose members I know and respect. My respect, Mr. Chairman, for you and for my California colleague, Chet Holifield, is completely unbounded. I appear here in opposition to the legislation which you sponsor.

OPPOSITION TO PROPOSED AMENDMENT OF SECTION 271

I think stripped of all the verbiage surrounding this argument the simple facts are that the city of Woodside did adopt an ordinance and that ordinance required that the new powerlines be placed underground.

I think it is true that the Atomic Energy Commission intended and continues to intend to purchase electricity for the nuclear accelerator to be located at Stanford from the Pacific Gas & Electric Co. Indeed, as has been said here today, the P.G. & E. entered into negotiations with the city of Woodside relative to running certain types of powerlines through that community. Because it was subject to the laws of California and the full impact of the municipal ordinances of Woodside and because Woodside wanted these new installations to be underground, the Atomic Energy Commission entered the picture and began to litigate the problem.

In my judgment that decision of the Atomic Energy Commission was wrong as a matter of policy and wrong as a matter of law. At any rate, the circuit court of appeals has ruled against the Government of the United States.

NINTH CIRCUIT COURT OF APPEALS DECISION

I want to read two short paragraphs from the opinion of the circuit court of appeals:

> Had the construction of this transmission line been left with P.G. & E., that company would have been obliged to comply with the ordinance in question, notwithstanding the fact that the line is to serve AEC. The Government concedes this much. Had P.G. & E. built underground lines in conformity with the local authority and regulation, it could have recovered the cost thereof from the AEC. The Federal agency proposes to avoid this cost by constructing the line, itself. Since the easements being acquired are assignable, that agency will be able to turn the operation of the line over to the P.G. & E. At the oral argument counsel for the Government stated that it was hoped that such an arrangement could be made.
>
> In the process and solely for that purpose there will have been accomplished a complete disregard of local ordinance pertaining to the character and operation of the electric power transmission lines. We hold that section 271 precludes the Atomic Energy Commission from in this manner proceeding in defiance of the ordinance of Woodside and the county, ordinances not challenged as to validity, and operative as to any other public utilities operating in the area.

I think simply as part of my testimony I will read section 271 as it exists today.

> Nothing in this act shall be construed to affect the authority or regulations of any Federal, State, or local agency to the generation, sale, or transmission of electric power.

Mr. Chairman, I am proud of California. I was born there. My father was born there. I am grateful that the Atomic Energy Commission saw fit to place this wonderful installation in my State. But I do not want my State to overlook its beauty and I think its duty is to preserve that beauty to the highest extent.

My State increases in population, Mr. Chairman, each year by some 600,000 new people. We are now on our way to 19 million. We have highways and superhighways running all over the State. I think it is to the credit of the cities of California that one by one they have adopted this kind of ordinance in order more to sustain, to maintain, and to enhance the beauty of their own municipalities where people live.

I would like to raise this question, Mr. Chairman. On the 20th of May this circuit court of appeals decision was handed down. A small municipality was pitted against the might and power of the Government of the United States and the Government lost. And within 4 days the Government has requested some of my colleagues to introduce a piece of legislation to overrule the decision of the second highest court in this land. I do not believe that legislation is in the interest of fairness or fair play.

POLICY OF UNITED STATES ON NATURAL BEAUTY

What, Mr. Chairman, would you say is the policy of the United States respecting the maintenance of the natural beauty of this country? Is it not to protect it, to enhance it? That at least is the policy of the interstate highway legislation. The court quotes in its opinion part of the interstate highway legislation. I recall that I happened to be the coauthor of that language with the late Senator Richard Neuberger of Oregon.

We introduced an amendment in the U.S. Senate to provide that States in the American Union might be given an incentive to protect the natural beauty through which the interhighway would thereafter travel. One by one, States have acceded to the policy of the Federal Government as enunciated in that legislation and I think it has been in the interest of this country. At any rate, just last week the President of the United States, referring to that legislation, asked this Congress to appropriate moneys not in millions, not in tens of millions, but in hundreds of millions of dollars in an attempt to further a program of beautification in this Nation. I support that kind of legislation and I think the members of this committee likewise do.

I must say and I have said it earlier this week, in my mind, I think it is ludicrous at the same time the administration with one hand recommends a greatly enlarged policy by the Congress of beautifying this country and preventing its despoliation, another agency comes here and attempts to have the Congress shear away a decision which was rendered just a few days earlier by the circuit court of appeals.

I recognize the supremacy of the Federal Government but I suggest that if we are about ready to come of age in this land, if we are to think of something more than building great buildings and great superhighways, if we are about to embark on a program of keeping what nature has given to us, if we are, in the interest of mankind and science, undertaking the expenditure of $114 million to construct a wonderful, great, scientific, 2-mile-long nuclear accelerator, I suggest that the people of the United States will not begrudge the appropriation of that small percentage of additional dollars by which we will respect the local ordinance of a local city which is following and which has been following and which tries now to follow the same policy which the President laid down just a few days ago.

SLAC POWER TO BE FURNISHED BY P.G. & E.

I was interested in the question, Mr. Chairman, which was raised here earlier by the distinguished Senator from Utah when he asked the counsel appearing here for the city whether or not as a matter of fact it was contemplated in this legislation that a private utility would furnish the electricity to a Government agency. Of course it did. This legislation which we passed did not place the Government of the United States, so far as the Stanford nuclear reactor is concerned, in the power business or in the transmission business. It was contemplated in my judgment that this great undertaking would purchase its power from the Pacific Gas & Electric Co.

I hope that this committee will consider not simply the problem of Woodside, not simply the problem which the people of the cities in my State have faced and have tried to solve, but will recognize that the passage of this legislation, gentlemen, could and in my judgment would be a serious mistake. To that extent I would urge you, Mr. Chairman, and my very able friend from California who likewise has been chairman of this committee, to put aside their proposals urged by the AEC which would do considerable violence to my idea of the theory of American government. You don't come along, Mr. Chairman, a few days after a court has rendered an opinion and say, we will go around you. It shocks my sense of fair play.

I have one more thing. If the chairman and members of this committee would be interested, I have a number of very carefuly written letters and a shelf of telegrams from people in northern California who agree with this decision. I will be glad to offer them.

CONGRESSIONAL INTENT OF SECTION 271

Senator PASTORE. Senator Kuchel, there is no man in the Senate for whom I have a higher degree of respect, regard and admiration than my distinguished colleague from California. Of course, we do have a serious problem here. We, like yourself, of course, are protective of the taxpayers' dollars whether it is going to be spent in Rhode Island, Stanford, or any place else in the country. We don't assume that responsibility any too lightly as you well know. We have a very delicate situation here. There is no question about it. It has to be resolved one way or the other.

The reason why we acted quickly to introduce bills to bring about a change here, or modification or clarification of the law—you call it by whatever name you want—is because of the fact that we are the ones who drafted that legislation and we knew what it meant. We knew what we wanted it to mean. Certainly it was never intended—and this has been substantiated by every member of this committee that had anything to do with it—it was never intended to give it the meaning that the court gave it.

EFFECT OF COURT DECISION ON AEC

Now, it is true that a circuit court of appeals, of course, has made this decision, and when it made this decision, it overruled another Federal court, the district court, that decided the case initially in favor of the Commission. Of course, this was a higher court, and I have suggested here that in all probability this should be pursued to the highest court in the land where you would get the ultimate decision from which there is no further appeal. But the fact still remains that if this interpretation of the court is allowed to stand, we cast a very serious shadow of jeopardy over many, many installations which are responsible for the military posture of this country which, in turn, of course, does involve the security of our Nation. That is the reason why we were precipitous, not because we want to ram anything down the throats of the people of Woodside. We have a very serious responsibility. If this thing begins to mushroom and this court interpretation is allowed to stand, either without being overruled by the highest court in the land or some correction being made by the Congress of the United States, which indeed represents the people, then we would be in a very, very serious position. Now that is the only reason.

Now there is no intention here to outskirt the court or to show the court that we have more power to hit them over the head than they have power to hit us over the head. I hope that no one runs off with that impression. Now, we have had several members of this committee visit that site. I realize the sensitivity of these people, they would rather not have these wires there if these wires could go underground, even if it cost the people of this country $10 or $15 million more.

As far as the people of Woodside are concerned, they say, "Let them go underground." I can understand that because, after all, they

live there, and they have a very private interest in this. But our situation here is a little different. We have to measure what little bit you take away from the esthetics here as against the expenditure of $4 million. That is not easy to do. The Senator knows that. It is not easy to get these things passed. Now, that is the question we have to resolve.

Senator KUCHEL. Will the chairman yield?

Senator PASTORE. I yield.

SENATOR HICKENLOOPER'S INTENT IN DRAFTING SECTION 271

Senator KUCHEL. Mr. Chairman, in connection with the first part of your comment, I again refer to the written decision of the circuit court which quotes from a distinguished member of this committee, Senator Hickenlooper, of Iowa.

Senator PASTORE. Yes, and he was here, and he says the court quotes him wrong.

Senator KUCHEL. That ought to be easy to ascertain.

Senator PASTORE. He made the statement the other day. He is going to put a statement in the record. (See p. 51.) That is what I am bringing out here. There is no question at all, so far as this committee is concerned—does anyone disagree with me on this statement—that the intent of this committee was clear on the subject, that it did not include this?

Senator KUCHEL. But is there some question about the integrity of the words which the court uses?

Senator PASTORE. I am not talking about anybody's integrity. I am talking about interpretation and meaning.

Chairman HOLIFIELD. May I respond to this question, Mr. Chairman?

AEC RIGHT OF EMINENT DOMAIN

First, I want to say I have no dearer friend in the House or Senate than my friend Senator Kuchel. I have no higher respect for anyone than I do have for him. I think he is properly here to do what he can for the State of California and put their case forward. I want to say this in a very considerate way. The court did quote Senator Hickenlooper but they quoted excerpts from what Senator Hickenlooper said. I will be glad to either read or point out other statements of Senator Hickenlooper which contradict the ones which the court quoted. Now, let us get to the real basic problem, and I subscribe to what Senator Pastore said. Before this case came up in the court the AEC, like other Federal agencies, had the right of eminent domain. This interpretation of the court, in effect, takes away from the AEC the right of eminent domain——

Senator KUCHEL. Is that so?

Chairman HOLIFIELD. I believe it.

Senator KUCHEL. I would disagree with that.

Representative HOSMER. It places a severe limitation to the extent that any local body, with authority to impose restrictions, may by those restrictions nullify the power of the AEC.

Senator KUCHEL. In the field of generation, sale, and transmission of electric power. Would not you confine it to that?

Representative HOSMER. That is what the court decision says.

Senator KUCHEL. That is what the statute says.

Representative HOSMER. The statute we are talking about, actually referred to power going out, not power coming in.

SENATOR HICKENLOOPER'S INTENT

Chairman HOLIFIELD. I believe I state this correctly when I say that the problem at that time—and I hesitate to say what was in Senator Hickenlooper's mind because there are other things he said there—was that the powers of the FPC not be changed, that Federal, State, and local powers not be changed, that affirmative law not be passed, and I am quoting his term, which would change the situation as it then existed and as it would now exist if it had not been for the court's interpretation. Let me read some of his further remarks. This was in the floor debate. Mr. Chairman, I think that all of this debate to this section should be included in the record of our hearings. (See app. 7, p. 134.)

Let me quote:

SECTION 271 RELATIONSHIP TO EXISTING LAW

We say in this act that the same rules, regulations, power, and authority of the Federal Government or of the local and State agencies that exist now over the transmission of electric energy in interstate commerce shall obtain so far as any licensee is concerned. That is only a precaution. It would obtain if we never had that provision in the law. Even with the provision of section 271, is not the Federal Government to assume jurisdiction over the transmission of interstate commerce by licensee? We put section 271 in there as an assurance that the existing authority is not disturbed.

AEC RIGHT OF EMINENT DOMAIN

Now, there is no controversy that the AEC has built transmission lines for its own purposes to receive electricity into its various and sundry types of facilities. It has done this time and time again.[1] It has the right of condemnation for this purpose. If the court's interpretation of the language, which they carefully selected from Senator Hickenlooper's many statements on this subject, had not obtained, had not been made, then the right of the AEC to condemn for the purposes of building a line would not have been changed. But their interpretation changed the status quo as it existed. Now, we find ourselves in this position. The AEC is denied the right of condemnation, the right of exercise of eminent domain and condemnation. The Defense Department has it, Navy has it, other agencies of Government have it. But the AEC does not have it any more. We consider, and this includes Senator Hickenlooper's thinking, because he introduced the bill the same as Senator Pastore and Mr. Hosmer and I introduced it, it is necessary to restore the status quo as it was before the court's interpretation. This is the problem we are up against. It is not the Woodside community alone that we are thinking about. We are faced with a court decision taking away power from one Federal agency, limiting its power, and leaving unlimited power, you might say, with other agencies within the bounds of the supremacy clause. That is our problem.

Now I would say this, that this law, it seems to me, has to be passed from the broad national standpoint. If there are negotiations or adjustments in this particular case that can be made in equity, this is another problem. But whether there are adjustments made or not I think this law has to be passed.

[1] See app. 18, p. 178.

AEC HISTORY IN CONDEMNING AND CONSTRUCTING TRANSMISSION LINES

Senator KUCHEL. I would like to ask this question, and perhaps the record can reflect, if the information is not readily available. In those other instances where the Atomic Energy Commission has constructed and used public money to construct its own transmission lines, I would like to raise the question whether or not there ever has been a question of compliance with any State or local statute, whether or not the condemnation has included property not under the jurisdiction of the Atomic Energy Commission and so forth.

Senator PASTORE. I don't know of any. Does the AEC know of any?

Dr. TAPE. I believe we would have to check the record on that, Mr. Chairman. (See app. 18, p. 178.)

COST OF UNDERGROUND VERSUS ESTHETICS

Senator PASTORE. I can say most assuredly it has never come to my attention. That does not preclude the fact that maybe something did happen. I have been a member of this committee since 1953. I am not familiar with any such. It usually has been worked out. I don't think we have had this trouble before. But you have a very unique situation here. This thing has grown. I think a molehill has become a mountain now. Now, it has become a battle of the Titans. The big battle here is who is going to win that? The lines are drawn. Woodside says you go underground. The AEC feels they should go above ground. The proper situation has been made to compromise this thing. I don't know that you can do it under law. The fact remains we have the judgment to make. We have the judgment to make whether or not we are going to tax the taxpayers of this country $4 million to go underground to satisfy these people.

The big question is, Is all this esthetic quality involved really? You raised it on another question. You make this almost the overriding of a local ordinance. I really think the genesis of this ordinance was, of course, to prevent this particular project from going through. I am not quarreling with that. I think maybe if I was a town selectman I would have done the same thing in order to win the case but there you are, we have this judgment to make. The question is, it does not make any difference to me whether they go above ground or whether they go underground but it does make a lot of difference to the taxpayers. That is the question I have to decide. If we could go underground at the same cost I would say let us do it now, but that is not the question. You go underground by spending $4 million more.

ESTHETICS AND DESPOLIATION

Representative HOSMER. Mr. Chairman, I was particularly touched by Senator Kuchel's statements relative to the very issue of maintaining the esthetics of the landscape and natural beauty and not to involve any despoliation. I say this is my friend and former Navy buddy and fraternity brother and so on, he does feel that there has to be some reasonable compromises in relation to this subject, does he not?

Senator KUCHEL. You are an able man, a fair man and an excellent Member of the House of Representatives, and obviously all that all of

us are trying to search for fairness but in my judgment, and I say this most respectfully so far as this one city is concerned, to its credit it passed an ordinance. It disagreed with the Government. The Government took it to court. The court ruled with the city.

Representative HOSMER. I was relating specifically to your arguments relative to the maintenance of the esthetic beauty of an area. You really believe in that from what you have said. I am trying to find out if you believe there are some compromises that happen to be made with that kind of concept.

Senator KUCHEL. I think we have to apply the rule of reason in everything we do.

Representative HOSMER. Of course. Now, when somebody built the bay bridge they despoiled the natural Golden Gate but there was a reason and it was reasonable to do so. Is that right?

Senator KUCHEL. I am not so sure that I would say the Golden Gate is a matter of spoliation.

BRIDGE CANYON DAM

Representative HOSMER. Let us take one that has been established as a matter of spoliation in the minds of the Sierra Club and a number of other groups of similar nature. I make specific reference to the gentlemen's pending legislation, the Pacific-Southwest water plan. It proposes to build Bridge Canyon Dam and back a lake 13 miles up into the Grand Canyon National Monument. Now, how does the Senator reconcile that proposal of his own as against this proposal just to put in a small number of power poles to carry lines into a necessary Government installation?

Senator KUCHEL. I will say and I am not talking in jest, I know of no city or county ordinance in the State of California which would interfere with your and my going forward on building the Bridge Canyon Dam.

Representative HOSMER. You were emphasizing the matter of despoliation of natural beauty. It was alleged in both of these cases this would occur. The Senator opposes it in one case and he is for it in the other case. I am trying to find the consistency if any.

Senator KUCHEL. I would disagree with your conclusion. I would say with respect to the legislation before you the problem of maintaining to as great a degree as may be possible the natural beauty of this particular city is a problem in which the city sought a solution by local ordinance.

Senator PASTORE. Even though it is inimical to the national interest? Isn't that the question? That is what we are deciding here.

Senator KUCHEL. I am not so sure that your own legal staff would say that this decision is inimical to the national interest.

Senator PASTORE. I am talking about the ordinance now. As far as the court interpretation is concerned that is not final. The Congress many, many times has passed clarifying legislation. We did that on offshore oil. I think California was a party to that.

Representative HOSMER. I also think if Senator Kuchel's thesis was carried out, that anywhere along over this 100-mile lake that is proposed to back up behind Bridge Canyon Dam, if some local body passed an ordinance against lakes, then the whole plan would have to be scrubbed.

Senator KUCHEL. I would simply disagree that there is an analogy between the question of constructing a dam at Bridge Canyon on the one hand and the section where you are going to put these high-voltage transmission lines above ground or below ground, whether you are going to comply with the local ordinance or whether you are going to disregard it. I would say I do not see an analogy between those two situations.

Representative HOSMER. As the Senator knows, I have a companion bill on the Pacific Southwest water plan calling for the same dam. I don't see an analogy here but I don't know why.

Senator KUCHEL. That is another reason why I am your friend.

Chairman HOLIFIELD. Mr. Chairman.

Senator PASTORE. Mr. Holifield.

EXISTING POLES AND DESIGN PROPOSED FOR AEC TAP LINE

Chairman HOLIFIELD. Senator, before you leave, and I am afraid you don't have all the information on this that we have, I want you to take a look at the two pictures there. The one on the left is a structure of poles and other paraphernalia in Woodside. (See app. 10, p. 147.) The other one I believe is in San Mateo County and both are here today protesting this. (See app. 10, p. 150.) I want to give you some figures. This comes from the California Public Utility Commission, case No. 7871, *Town of Woodside* v. *P.G. & E.* I am reading this excerpt and I would like to put this whole sheet in the record because it has other valuable information. (See app. 2, p. 119.) There are presently in Woodside 275 piles, wholly owned by P.G. & E., and 2,213 poles owned jointly by P.G. & E. and the telephone company, a total of 2,488 poles. I would call the Senator's attention to the poles going along the street, one of the main streets in this neighborhood, with a powerline crossing, swinging overhead across the street. (See app. 10, p. 149.) Then if he will look over here at the two pictures on the wall, the first one there is a tower—and this was the original cheap way to do it—we could have put in 300,000 megawatts on a tower for $668,000 and got double circuits. (See app. 4, p. 128.) The Government finally went to a pole structure which you will see on the right, which is 70 feet high in place of 120 feet high, and I call attention to the fact that most of the poles you see on the right, that are in Woodside now are an average height of about 60 feet, local public utility poles. (See app. 4, p. 128.) So we are going from 60- to a 70-foot pole and three of these poles would be located in Woodside and two of these three would be on Stanford University property.

When I say poles I am talking about a structure like you see on the right where some are actually two poles with a T-bar across it and the lines that you see there. I ask anybody who is interested in esthetics to look at that 70-foot structure there and figure the number that there would be in the town of Woodside and then look at the 2,488 poles that now exist there and see where the sensibilities of those claiming esthetic values should be.

Representative YOUNGER. Will the gentleman yield for one point?

Chairman HOLIFIELD. This is Woodside as it is. This is the addition we would give to it, either this type of pole or the two types over there. In some instances it might be this, in some instances it might be that. (See app. 3, p. 123.) We do not intend to cut a strip through

for the line. It is just a small area around each pole. Then wherever the line dips, where some limbs of the trees would have to come off the top, AEC would trim the trees. We are doing everything in the world we can. (See app. 5, p. 129.) I just wanted the Senator to see that before he left.

Representative YOUNGER. Would the gentleman yield?

Chairman HOLIFIELD. Yes.

Representative YOUNGER. I am sure you do not want to convey to the audience that all of the poles you are talking about that exist in Woodside are anything like those. (See app. 10, p. 146.)

Chairman HOLIFIELD. No. There are all kinds of poles. We have some other pictures we can show.

Representative YOUNGER. Sure, but the great majority of them are small.

Chairman HOLIFIELD. There are some. The average one is about 60 feet tall.[1]

Representative YOUNGER. No, they don't average 60 feet. They are small poles like you would have in the neighborhood. I just wanted to make sure that you do not convey something that is not true.

Chairman HOLIFIELD. I do not want to convey something that is not true. I am willing to stand corrected if I am wrong but I have been there and looked at these poles. Here are pictures of them. No one has challenged the pictures.

Representative YOUNGER. I am also sure you do not want to perpetuate something of that kind. What we are trying to do is get rid of them, not perpetuate them.

Senator KUCHEL. I was most impressed by what my able colleague, Mr. Younger, has to say. It would take the football stadium at Stanford to hold the people who object to this thing. They speak for the community and they live there.

SPECIFICATIONS FOR CONSTRUCTION OF 220-KILOVOLT AEC TAP LINE

Representative HOSMER. Mr. Chairman, at this point I have here an extract from specifications for construction of the 220 kv. SLAC transmission line prepared by Rogers Engineering Co. of San Francisco dated March 6, describing the precautions relative to removal, trimming, trees, and everything else that is to be taken in the installation of this line to insure that the minimum disturbance of the landscape is involved. I would ask unanimous consent that it be put in the record so that the public may be aware of the tremendous precautions that are being taken.

Representative YOUNGER. It was put in at the last hearing. It was inserted in the last hearing I think.

Representative HOSMER. If it was not I would like unanimous consent that it go in at this point.

Chairman HOLIFIELD. Without objection it is accepted. (See app. 5, p. 129.)

Representative HOSMER. Such an effort has been made from the very beginning to make this line as compatible as physically possible in every sense, that the AEC, the Government, has no bargaining posi-

[1] See "Stanford Accelerator Power Supply," hearings before the Joint Committee on Atomic Energy, Jan. 29, 1964, pp. 176, 183.

tion. We could have stood out for power towers of the most ugly construction and then settled on these prettified power poles that are being contemplated now. But in good faith the Government came up in the beginning with a proposal to do everything that was within reason in relation to economics to put this in with the least disturbance. As a result, it is being criticized rather than complimented.

Chairman HOLIFIELD (presiding). Our next witness is Mr. McCloskey.

Mr. McCloskey, do you have a statement?

Mr. MCCLOSKEY. Mr. Chairman, you have heard me before. Since many of my remarks have been said by Mr. Clapp and Senator Kuchel I would like to be very brief. Before doing so——

Chairman HOLIFIELD. Would you like to have them inserted in the record in their entirety at this point?

Mr. MCCLOSKEY. Yes, I would appreciate that. (See app. 14, p. 163.)

Chairman HOLIFIELD. It may be done in that manner.

Now, the young lady with you will be a witness.

Mr. MCCLOSKEY. Yes.

Chairman HOLIFIELD. Now, the amount of her time she has for her testimony will depend on the briefness of your remarks.

LEAGUE OF CALIFORNIA CITIES

Mr. MCCLOSKEY. All right, sir. I want to say two things. First, from a report of the League of California Cities, I think it has been apparent that there is a considerable feeling by the members of the Joint Committee if not the Atomic Energy Commission that Woodside took an unusual step to specifically defeat a powerline to be constructed by the Government in the national interest. As long as the gentlemen of this committee feel that Woodside is somehow in bad faith and is doing an unusual thing to protect its scenic beauty, it is quite clear that the committee is justified in considering that the imposition of the overhead lines is justified. I would like to quote an excerpt from a report of the League of California Cities of September 16, 1964.

The first excerpt is as follows:

> There appears to be no valid reason why any city or county should not now require underground distribution systems in all new residential areas.
>
> Secondly, no matter how many programs we undertake in order to restore and preserve the beauty of California and its local communities there can be no real success until an active undergrounding program is undertaken in every county and city.

HIGH-VOLTAGE TRANSMISSION VERSUS LOW-VOLTAGE DISTRIBUTION LINES

Chairman HOLIFIELD. Let me stop the gentleman right there and ask him if he also includes in that philosophy transmission lines, multikilovolt transmission lines as well as the distribution lines in subdivisions and in cities? There is a difference, you know.

Mr. MCCLOSKEY. There certainly is, Mr. Chairman.

Chairman HOLIFIELD. And has the League of California Cities put down any such ruling or any such wish for the future as to put every heavy duty transmission line in the State of California underground?

Mr. MCCLOSKEY. Certainly not.

Chairman HOLIFIELD. We are talking about a transmission line, and not distribution lines to bungalows and stores and churches and schools.

Mr. MCCLOSKEY. There is no question about that.

Chairman HOLIFIELD. So your quotation is immaterial and does not pertain to the particular point in question.

Mr. MCCLOSKEY. Mr. Chairman, it does refer to the 2,800 poles in the town of Woodside which this committee has pointed out in evidence here as evidence as to why this overhead powerline can be justified. I wish to say, Mr. Chairman, that those 2,700 poles would probably not be a source of reference within the next decade because probably every city in the State of California will follow these procedures of attempting in the near future to underground existing overhead lines.

Chairman HOLIFIELD. And at a great deal less expense per mile for the local distribution lines than to bury a 220-kilovolt line which has to be put in a steel pipe and oil pumped through it at 200-pounds-per-square-inch pressure in order to cool it when it is placed in that kind of underground structure, with all of the attendant problems of repairs and maintenance which are involved in that type of line.

Mr. MCCLOSKEY. Yes, sir. I merely want to point out that these distribution lines are rapidly going underground in California.

HIGH-VOLTAGE TRANSMISSION LINES IN URBAN AREAS

Now, with respect to transmission lines that also is proceeding. The Department of Water and Power of the City of Los Angeles has put 5 miles of 220-kilovolt line underground. The Pacific Gas & Electric Co. in the San Francisco Bay area has been putting transmission lines underground since the 1940's.

Representative HOSMER. Were those put in for the purpose of beautification of a naturally wooded area, the preservation of a skyline or are they put in downtown locations of high density where there are other considerations such as safety and so forth that are involved?

Mr. MCCLOSKEY. To date they have been urban areas, Mr. Hosmer.

Representative HOSMER. They have been installed downtown in heavily concentrated areas.

Mr. MCCLOSKEY. I think it is clear in Califiornia that there will be three types of areas that will justify the undergrounding of transmission lines, urban area, suburban areas, and areas of great scenic beauty. This area qualifies on two of those counts.

Chairman HOLIFIELD. Neither of those counts apply to the two lines you have already mentioned because they are both in heavily populated city areas.

Mr. MCCLOSKEY. The existing underground transmission lines are.

Chairman HOLIFIELD. That is right. The Woodside area is different, of course, from the two places where the underground lines are put in.

Mr. MCCLOSKEY. This argument can be made, Mr. Holifield, but as Senator Pastore formulated the question before this committee I don't think this committee can test the desire of Woodside and other cities of California to put its lines underground. That is not at issue. The question is how much money can be spent for any given esthetics question? I think that is the sole question.

NORTHWEST INTERTIE

Chairman HOLIFIELD. One must be careful to distinguish between transmission and distribution lines. If you are going to start the putting of high voltage lines underground we are building three lines now, high voltage lines, that will come down across the face of California from Oregon, bringing Bonneville power down as far as Los Angeles and San Diego and Phoenix, and they cross mountains and they cross valleys. If everywhere they cross a mountain or valley someone is going to say that is a desecration of the esthetic value of that view, if a local ordinance can be put up against it, why, you stop it there.

Mr. MCCLOSKEY. I don't think there is any question, sir—that outside of the Atomic Energy Commission the agencies that are charged with constructing transmission lines in this country are not going to be subject to local ordinance.

Chairman HOLIFIELD. Why should the AEC be subject to local ordinance when other agencies of Government are not?

Mr. MCCLOSKEY. You gentlemen wrote the statute.

Chairman HOLIFIELD. Yes, we wrote the statute and we have two interpretations of it, one by one Federal court and one by another one. There is still another one to be heard from.

INTERSTATE HIGHWAY ACT

Mr. MCCLOSKEY. The issue is how much money should be spent here? If that is the case, if that is the real case, is the esthetics here worth what the expenditure should be, then I think there is a guide in a Federal statute, the Interstate Highway Act which has said 3½ percent of Federal funds used for highways should be spent to preserve the scenic right-of-way along those highways and the particular ludicrous problem here is that you do have an interstate highway crossing the accelerator where the Federal Government will spend $114 million of which $4 million can be spent to preserve the beauty of the area. That highway goes right over the accelerator.

Representative HOSMER. Do you mean to say that billboards, auto junkyards, and items of that kind are in the same category as power poles?

Mr. MCCLOSKEY. That is not what the Highway Act says. The Highway Act says to preserve scenic views of the highway, that the enjoyment of the user of the highways is worth 3 percent of the money spent to build the highway itself.

Representative HOSMER. We went through this last year and we were willing to put up the 3 percent of the cost of the line which is $1,012,000 which we more than did by shifting from the power towers to the power poles. You are trying to apply the 3 percent to the entire project which is an incorrect application.

Mr. MCCLOSKEY. I think out of the entire project of $114 million there is only $200,000 allocated to esthetics. If you allocated $3½ million to esthetics it would be enough to underground the line. That is the only parallel.

I think that rather than continue this discussion that I would refer to the next witness, Mrs. Jean Fassler, who may have something further to say from the standpoint of the County Board of Supervisors of San Mateo County.

STATEMENT OF MRS. JEAN FASSLER, ON BEHALF OF THE COUNTY BOARD OF SUPERVISORS OF SAN MATEO COUNTY

Mrs. FASSLER. Thank you, Mr. Chairman.

Chairman HOLIFIELD. Will you please give your name?

Mrs. FASSLER. Mrs. Jean Fassler, member of the Board of Supervisors, San Mateo County representing our board today. So much has already been said that I will attempt not to be repetitious. I think my time limit is way down.

Chairman HOLIFIELD. We are going to let you talk as long as you want to. We believe a lady should have the last word.

Mrs. FASSLER. Thank you so much.

Chairman HOLIFIELD. Go right ahead.

SAN MATEO COUNTY BACKGROUND

Mrs. FASSLER. It is a real pleasure for me to be here today. I have learned quite a bit about some of your activities that I was not aware of in the past. As the chairman said, you do have a responsibility and I too have a responsibility. I represent over a quarter of a million people in my county and in the county that I represent, quite different from many other areas in the United States we are elected at large. So, I really do represent the entire county. It was stated that you represent the Treasury and this I too understand. But I wonder if we stopped to think of the additional responsibilities that we have and that is the responsibility of attempting to preserve the natural beauty that we have heard so much about today. When I was appointed by Governor Brown the first of the year he talked to me at length about the real need to continue to program and look toward helping to preserve the natural resources and the natural heritages that we have in our county. He was very, very much concerned about the scenic highway programs, parkways, and regional planning. For these reasons, as recently I should say as last week the San Mateo County Council of Mayors passed a resolution supporting the position of the county and of the city of Woodside and it has been the feeling of our county that this is not an area apart from the rest of us.

We think of our county as a unit. We all enjoy this particular section as well as many people from San Francisco. There has been very strong support against any kind of facility that will detract from this particular section of our country.

CONCERN FOR BEAUTY

I think that we also could point out that we have 7 applications for open-space grants and 3 of them are pending now, making a total of 10 applications along the interstate highway as Senator Kuchel mentioned here. One of the real problems of trying to program for open space and beautification and interstate freeways is certainly a very big part of this entire scheme of planning. I think that if you believe in the precedent setting such as our county has attempted to do in trying to maintain a status quo at least in the areas that we are able to, that you will fully understand our real concern and we look to you for assistance in this because as recently as the 2d of March the President also made a statement that certainly would support our point of view.

I just happened to bring it along. It says, and I will only read a small portion of it:

> I intend to take further steps to insure that Federal construction does not continue to promote an ugly architecture but in this field as in so many others most of our hopes rest on the concern and worth of local governments and private citizens.

That is why I am here today helping to support a position of a very small area, yes, we admit this, but very very meaningful to the rest of our entire Bay area.

I might add that if the ladies speak last, Mr. Chairman, maybe I should send this to President Johnson's wife, Lady Bird, perhaps you will get a little action.

Thank you.

Chairman HOLIFIELD. You are certainly welcome, Mrs. Fassler. We appreciate your coming so far to bring your message to us.

I took the Chair in the absence of Senator Pastore and I notice we have two other people on the list, Mr. Donald Graham, mayor of the town of Woodside, who has already testified and Mr. E. R. Stallings, San Mateo County Manager. Have I overlooked you gentlemen and do you wish to say something?

Mr. STALLINGS. Mr. Chairman, Mr. Graham, I believe, is not here today.

Chairman HOLIFIELD. He has already testified.

UNDERGROUND COST AND BENEFITS

Mr. STALLINGS. I made a couple of statements in response to questions. I have a few other remarks which I would like to make including a request that the National Association of County Officials be permitted to submit a statement tomorrow for the record on this question. (See app. 12, p. 158.) A lot of exposition of cost involved and its relation to esthetics has taken place this afternoon. The PUC was quoted as questioning the esthetic value of the additional money required for undergrounding. I think the record should state that the public utilities commission of California I believe is not charged with the responsibility of determining esthetics and that this is more properly determined by planning agencies and local governmental bodies as it may relate to cost and this is purely a matter of relativity.

We have here an installation that is going to serve all of the people of the United States. That is why it is there. It is going to serve the people in New York just as much as it is the people in San Mateo County. We have a utility that is going to provide service to this facility which stands to benefit greatly more than the contribution to the county of San Mateo from the accelerator except perhaps from the standpoint of a little publicity, and I think we have gotten a little of that lately in this regard. Thirdly, we have Stanford University that is going to benefit materially by this installation. We are being asked to permit an installation of overhead powerlines, which is contrary to our ordinance, which is contrary to our program of undergrounding all existing powerlines in scenic or urban areas for the benefiit of the people all over the United States, the P.G. & E., and Stanford. I think if we could concede, and I believe we reached this point last year, that a 180-megawatt line would be acceptable at the start, and we have cost figures that would bring that somewhere in the

neighborhood of $2,400-something-thousand, and we have certain concessions which have been made by——

SECOND UNDERGROUND CIRCUIT

Chairman HOLIFIELD. Of course, when you talk about the power necessary during the early years of operation of the facility you postpone the planning and the inevitable utilization, and while the cost of the underground line would run about $2.6 million in round figures, that is the one line, the testimony from Dr. Panofsky has been that we will probably need another one by 1971, which is about 6 years from now, which will cost another $2.6 million, which will bring the total cost up to at least $5.2 million and possibly higher with the escalation of cost if we wait to put in the second line.

And one overhead line will take care of all of this at a cost of about a million dollars. So we can't look only at what Stanford is going to use in the next 2 or 3 years. It is what the ultimate capacity of the accelerator is.

The installation will last many years. What we put in now will either be adequate or inadequate. If it is inadequate it will double the cost to us. So we can't look at 2.6 million. We have to look at 5.2 million when we consider this problem.

Mr. STALLINGS. I appreciate that, Mr. Chairman, and it is recognized that perhaps in 1971 it will be needed, the additional power will be needed. I am very much in hopes that with all of the technology that we have at work in the various agencies and private research, that rapidly a method of transmitting power underground in high voltage at a much more economical rate will be forthcoming.

COST OF DELAY

Chairman HOLIFIELD. But you understand we cannot deal in futures. We are faced with the problem today. We have been delayed on this by litigation, and it is certainly the right of the people to protest and we don't quarrel with that. But we have been delayed several months. It is possible that we will be delayed further. In the meantime we are delaying not only the utilization of the device but we are delaying the expenditure of from $20 to $30 million annually in your community. That is what it is going to cost in terms of operating this facility and paying the salaries of all the people who will work there and do the work pertaining thereto, bringing many famous scientists into your units to work and to live and to visit. This is not a project without benefit to the local community and to the State of California as well as to the Nation.

COMMITMENTS TO FUND UNDERGROUND LINE

Mr. STALLINGS. I appreciate your remarks are quite true, Mr. Chairman. I am attempting to arrive at a suggestion for an immediate compromise solution so that you can get the accelerator in operation and even though it is going to cost more money and perhaps even more in the future I think it will help resolve the problem that so far we seem to be just at loggerheads with. My suggestion was that if, as we arrived at last year, an agreement could be reached to go ahead with the 180 megawatt line now, we are about a million dollars away in cost from the previous commitments.

Chairman HOLIFIELD. Now, we have had a lot of figures thrown around. The Chair is going to ask at this time for someone who is competent to utilize the blackboard over there and put this down in black and white. We have listened to figures for 18 months. Everybody says we will put in so many dollars. When we go to the people who are going to put in the dollars they say we think we might, or if the law allows us to we might. Let us put the figures on the blackboard and check them to see if we are indulging in conversation or if you have some real figures to put up that are meaningful to this committee.

There is the blackboard. Mr. McCloskey is an expert in this matter. If he is there maybe he will write them for you. Or get the county manager.

Mr. STALLINGS. I don't think you could read my writing, Mr. Holifield. Aside from the substation that is required——

Senator PASTORE. Let us not do any of this "aside" business. Let us include everything that is involved.

Mr. STALLINGS. $2,430,000. The latest cost estimate that I have from P.G. & E. for the installation of 180-megawatt line underground plus perhaps 3½ percent for escalation cost, and an additional $210,000 for the substation. That is $2,640,000.

Chairman HOLIFIELD. Now that is single circuit.

Mr. STALLINGS. Single circuit, 180 megawatts.

Chairman HOLIFIELD. That is right.

Mr. STALLINGS. We have committed already by P.G. & E.——

Mr. CONWAY. You have to have another $130,000 for beefing up your present line. Have you included that? $130,000 is necessary to beef up the 60-kilovolt line because the 180-megawatt underground line is a single circuit. In case it goes out the whole accelerator is down and it can be damaged. It is not a double circuit. You have to beef up an existing line there as a safety measure to keep the entire accelerator from being permanently damaged.

Chairman HOLIFIELD. Isn't that true, Commissioner Tape? Isn't it necessary to have this backup 60-kilovolt line beefed up in order to keep the accelerator running at a low level, at a nondamage level?

Dr. TAPE. That is correct, Mr. Chairman. We want the 60-kilovolt line beefed up to where we have an assured 30 megawatts there.[1]

Mr. CONWAY. That is an extra $130,000 expense.

Dr. TAPE. We had anticipated this action would cost about $130,000.

Chairman HOLIFIELD. That will make it $2,770,000.

P.G. & E. COMMITMENT

Mr. STALLINGS. $2,770,000. Offsetting that we have now committed by P.G. & E., $1,012,000.

Chairman HOLIFIELD. Mr. Searls, is that the correct figure?

Mr. SEARLS. That is correct. That is the commitment we have made before and we will stand by it.

Chairman HOLIFIELD. You will stand by it. All right.

WOODSIDE COMMITMENT

Mr. STALLINGS. We have committed $150,000 from the town of Woodside.

[1] Although the 60-kilovolt line does have to be beefed up, this would be paid for by P.G. & E. The $130,000 of AEC expense is for additional SLAC terminal facilities that would be required so that the 60-kilovolt line could serve as a backup to any larger single-circuit line.

Chairman HOLIFIELD. Let us hear about that now. Has that been passed by ordinance? Does it come from the general fund or is that a bond issue?

Mr. CLAPP. That is committed to come from the general fund by the passage of an ordinance which will quadruple the tax rate to the maximum allowed by law so that the money can be paid in a single year.

Chairman HOLIFIELD. Has that been passed?

Mr. CLAPP. It has not been passed.

Chairman HOLIFIELD. Then this is a promise and we are indulging in conversation on this point.

Mr. CLAPP. We are not indulging——

Chairman HOLIFIELD. Can you legally commit the city of Woodside to this?

Mr. CLAPP. I can commit the city of Woodside to this.

Mr. CONWAY. Has your city attorney questioned your legal capability of committing the city for this specific purpose?

SCENIC EASEMENTS

Mr. CLAPP. The participation of the city of Woodside will have to be done by means of purchasing from the United States its now useless easements which we are prepared to do because we cannot purchase part of the line, itself. But if we put $150,000 back in one pocket of the Federal Government we feel that this is the best that we can do.

Representative HOSMER. Mr. Clapp, you don't mean to state that the city of Woodside has the legal authority to pay $150,000 for an easement that did not cost that much?

Mr. CLAPP. We have the legal authority to purchase scenic easements. The U.S. Government——

Representative HOSMER. Without reference to the reasonableness of the cost?

Mr. CLAPP. I think the cost can be justified, Mr. Hosmer, very easily.

Chairman HOLIFIELD. Is this your personal opinion or is this an adjudicated opinion?

Mr. CLAPP. Sir, I have been practicing law for 28 years. Most of my efforts have been directed toward defeating the Government. In this case I am employed as special counsel for the town of Woodside. I have carefully examined the problem and we are convinced that we can, under the provisions of the Government code, spend money for scenic easements. Now, fortunately, as this litigation has turned out, the basic location of this scenic easement is the powerline easement which the United States has taken in the condemnation action. We feel that we can purchase that and pay the Government of the United States for that easement.

Representative HOSMER. Can you purchase easements outside your city boundaries or just those inside?

Mr. CLAPP. No, sir; we would be limited probably to purchases inside but we feel that the county of San Mateo, for which Mr. Stallings speaks, will also agree to a similar participation.

LAND CONDEMNATION ESTIMATES

Representative HOSMER. Do you know how much was deposited in the court by the Government to cover the estimated cost of the entire easement?

Mr. CLAPP. $259,000, sir.

Representative HOSMER. There were some 60 different sites proposed?

Mr. CLAPP. I don't recall what the total number was.

Representative HOSMER. Only three of those sites are in Woodside.

Mr. CLAPP. There are probably more than that, Mr. Hosmer.

Representative HOSMER. The testimony in the record shows that three of those sites are in the city boundaries of Woodside.

Mr. CLAPP. There are approximately 3,500 feet within the city limits of Woodside, give or take a few feet.

Representative HOSMER. I doubt very much if you can get away with spending $150,000 for those three sites, two of which are on Stanford property anyway.

Mr. CLAPP. I wish people would stop this irrelevancy about Stanford property. Stanford is not a principality by itself, nor is it a State or local subdivision of the State. It is a part of the county of San Mateo and part of the city of Woodside.

Representative HOSMER. Let us get back to the relevancy of the city being able to put up $150,000 for these three pole locations—the legal authority to pay an unreasonable amount in relation to a price that has just been established in condemnation proceedings.

Mr. CLAPP. There has been no price established in the condemnation proceedings.

Representative HOSMER. The evidence is in that that is the estimated value to the Government. Three qualified appraisers made these estimates. That is fairly well established. The information is available to the city of Woodside.

Mr. CLAPP. Mr. Hosmer, appraisers presenting testimony for the city of Woodside testified that the cost of this easement to the Government might be as much as a million dollars, perhaps more. Now you have qualified appraisers, we have appraisers. What a condemnation suit is all about is which appraiser the jury is going to buy the opinion of, that is all. Many times the results are very shocking to the Government appraisers and sometimes they are shocking to the attorney for the condemnee.

Representative HOSMER. Let me correct this. The amount deposited in court was $231,950. We are trying if we can and I would like a unanimous consent to put in the record the amount of that attributable to property in the city of Woodside.

Chairman HOLIFIELD. It will be so accepted.

Representative HOSMER. It is $42,800 in the city of Woodside.

Mr. CLAPP. I have no objection to Mr. Renda's statement. He is the man who deposited the money in court. I was merely saying it was about $250,000 from my recollection.[1]

Representative HOSMER. I have just been informed that the amount for property in the city of Woodside is $42,800.

Mr. CLAPP. For $150,000 and $42,800.

FIRMNESS OF WOODSIDE COMMITMENT

Representative HOSMER. Do you really think you could get away with that against a writ of prohibition or whatever other procedure that a taxpayer of the city of Woodside might initiate? And I understand not all people in Woodside approve of this scheme?

[1] The amount deposited in court was provided to the committee by Mr. Charles R. Renda, assistant U.S. attorney, San Francisco, Calif.

Mr. CLAPP. Mr. Hosmer, as nearly unanimous an opinion as you can find in any city anywhere or in any electorate anywhere. I have never seen such unanimity of opinion on any subject in the course of 28 years of dealing with local administrative government.

Representative HOSMER. You are aware there are certain property-owning citizens of Woodside who did make an objection to this scheme?

Mr. CLAPP. Three out of 250 present at a meeting.

Representative HOSMER. How many people does it take to start a lawsuit?

Mr. CLAPP. One and a half I think. You sometimes need a guardian.

Chairman HOLIFIELD. In order to get along let us put a small question mark next to the town's proposed $150,000 contribution, for my benefit, it for nobody else's benefit.

Mr. STALLINGS. For purposes of my example I will leave out Woodside's participation.

Chairman HOLIFIELD. All right.

SAN MATEO COUNTY COMMITMENT

Now, how much is the county going to put in that?

Mr. STALLINGS. I am going to leave that out, too, for the same reason.

Representative HOSMER. How much is Stanford going to put in?

Mr. STALLINGS. I won't leave that out.

Representative HOLIFIELD. At that point I am going to ask Mr. Nelson, who is here representing Stanford, what has been the action of your board of directors, Mr. Nelson, and can you enlighten the committee on this point?

STATEMENT OF LYLE NELSON, DIRECTOR OF UNIVERSITY RELATIONS, STANFORD UNIVERSITY

STANFORD UNIVERSITY COMMITMENT

Mr. NELSON. I am Lyle Nelson, Director of University Relations at Stanford University.

The latest action of the board of trustees of Stanford on this subject was dated February 20, 1964.[1] It reads as follows:

> The trustees supported the university's proposal for a linear accelerator project on Stanford property upon the clear understanding and agreement that the university would not realize financial gain or loss from the installation or operation of the project. The trustees have always made it unequivocally clear that the University cannot justify devoting its own funds held in trust for other educational purposes to a national facility of this kind.

Mr. CONWAY. How much are you going to put in?

Mr. NELSON. I think that makes it pretty clear.

Chairman HOLIFIELD. Mr. Nelson, do you consider that the present stand of the board of directors of the Stanford University?

Mr. NELSON. That is the last action taken by the board, sir. There has been no action superseding that since that date.

Chairman HOLIFIELD. All right, Mr. Stallings, you may proceed.

Mr. STALLINGS. Thank you, Mr. Chairman.

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[1] See app. 19, p. 179, for subsequent resolution of board of trustees of Stanford University, dated June 17, 1965.

AEC COMMITMENT

The next one—obviously Mr. Nelson has not given us very much—but the AEC has previously agreed to $220,000.

Dr. TAPE. Mr. Chairman, if you put the $130,000 where Mr. Stallings has, then this $220,000 would be $350,000 on the other side; $130,000 and $220,000 together for the $350,000. We are trying to keep the accounting straight. If you had taken it against the $2,640,000 you would have been right.

SUMMARY OF COMMITMENTS

Mr. STALLINGS. So we come up with $1,362,000 as against $2,770,000. This is not new to you, Mr. Chairman, we have gone over this before but I think we are closer to it. There is $1,408,000 difference.[1]

Representative HOSMER. Would you add to that another $2,770,000 for the second line.

Mr. STALLINGS. Yes, but I am not quite there yet. I am trying to work out something whereby we can get this accelerator going as soon as possible on known factors. It is presumed you are going to need more juice later but that may be problematical. My suggestion is that, and because this is the only legally convened body here today, the only one that can make any commitment today, that somebody is going to have to make the first commitment. Either P.G. & E., Stanford, or the Federal Government.

Chairman HOLIFIELD. We have been waiting 16 months, Mr. Stallings. Sixteen months ago when I was in the chair I suggested that if there could be some kind of compromise contribution solution to this thing that it be evolved. Sixteen months has now gone by and all we have had is conversation.

Mr. STALLINGS. We have been working on P.G. & E. consistently.

Chairman HOLIFIELD. Mr. Stallings, P.G. & E. has been working on us, too. They say if they put any more money into it that the State of California, the utility commission will require that they change the rates—they prohibited them from charging it to the general ratepayers of the P.G. & E.—they have by inference at least specifically said that you will have to charge the Federal Government $200,000 a year for a period of 10 years, which mounts up to $2 million if you do this job of putting this line underground.

Mr. STALLINGS. If they do the whole job this may be the case.

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[1] The figures drawn by Mr. Stallings are as follows:

(1) Totals:	
	$2,430,000
	210,000
	2,640,000
	130,000
Cost of underground line	2,770,000
(2) Contributions:	
P.G. & E.	1,012,000
AEC	350,000
Total	1,362,000
(3) Totals:	
Cost of underground line	2,770,000
Contributions	1,362,000
Amount to be raised	1,408,000

P.G. & E. FOR UNDERGROUNDING ITS LINES

I mentioned earlier, but very briefly, that the P.G. & E. has a proposal before the Public Utility Commission for an orderly program of undergrounding its lines and that this amount would not be taken out of the general rate structure but from an apportionment of the net profits before taxes.

Chairman HOLIFIELD. Now, let us hear from the P.G. & E. on this. We want to take this step by step.

Mr. Searls.

Mr. SEARLS. Well, the company is working on a plan for undergrounding distribution lines as distinguished from high-voltage lines because the difference here is basically one of cost. The company's plan is being considered. It is being discussed with the Public Utilities Commission and we certainly hope to go forward with it. But it does not encompass any undergrounding of high-voltage lines because that from a cost standpoint is not a very economical way to spend dollars for esthetic purposes.

Mr. STALLINGS. Mr. Chairman, if the concept is good in one instance it is probably good in another, particularly if the cost can be brought down by 66⅔ percent through participation of other agencies. The point I am attempting to make, Mr. Chairman, is that we are a million four hundred thousand dollars apart on this project. Stanford has consistently refused to agree that it could participate to any extent because of the statement Mr. Nelson read to the effect that they could not either gain nor lose by virtue of this installation. Without question Stanford is going to lose considerably by having an overhead power transmission system 2 miles along the length of the accelerator. The depreciation in adjacent land values is going to drop far more than one-third of this one million four. I believe that you will find that when the board of directors, board of trustees of Stanford meets on June 15 that an entirely different concept or different opinion of this matter will be expressed.[1]

I believe that you will find that Stanford will now agree that it would be greatly to their economic advantage to have the facility underground. As I mentioned before, we have been working on P.G. & E. consistently.

Chairman HOLIFIELD. I ask at this time, Mr. Nelson, if you share the same enthusiasm or optimism that Mr. Stallings shares on this particular point?

Mr. NELSON. This is a matter on which I refuse to speculate. I don't know what the attitude of the board of trustees will be. I will only say that they considered the question that Mr. Stallings has raised about the effect on property values and rejected that as an argument in the previous action.

PLAN FOR COMPROMISE

Mr. STALLINGS. Mr. Chairman, if I could conclude by making an appeal for some type of arbitration or some kind of compromise. If your committee could see justification to get this project rolling by committing not to exceed a half million dollars more for undergrounding, you would then give us the first tangible bit of compromise dollar value that we could go to P.G. & E. with and we could go to Stanford with. This is speculation but I would say that P.G. & E. would go

[1] See app. 19, p. 179, for subsequent resolution of board of trustees of Stanford University, dated June 17, 1965.

along and put up their one-third of the share of the cost. If then Stanford does not wish to go with that, let us take the lesser of two evils, let us go overground at Stanford and underground the rest of the way through the urban community.

COST OF SECOND UNDERGROUND CIRCUIT

Representative HOSMER. Mr. Stallings, will you now do me the favor of putting down that extra $2,770,000 because even though you don't think that other line will have to go in we have to contemplate the possibility. Give us the total.

Mr. STALLINGS. What was that?

Representative HOSMER. $2,770,000 which is without escalation. Make it $2,640,000. What does that total out at?

Mr. STALLINGS. $4,048,000.

Representative HOSMER. Thank you.

HISTORY OF NEGOTIATION

Mr. CONWAY. The committee heard from representatives from the county and also from the city in January of 1964. At that time you came in and asked the committee to give you time to go back and work up some kind of arrangement which you would negotiate for compromise contributions. At that time the committee said, and I remember Dr. Seaborg wrote letters to the county and to the city saying he would take any kind of offer that you could come in with provided it did not cause delay and requesting you to move ahead. Now we have waited a year and a half and you have never come back here. You come back now and we heard you were down to $300,000 apart, but we have never seen it. You never came back to the committee as to what the compromise would be except now we gather you are going to ask the Federal Government to put up this money. (See app. 6, p. 130.)

Representative YOUNGER. Mr. Chairman.

Chairman HOLIFIELD. Mr. Younger?

Representative YOUNGER. A correction on that. You are intimating that all of this delay was on account of this offer but a year ago you broke off negotiations because you said you had to have the power within 6 months. Here a year later it was testified the other day, they said they would need it within 6 months. Now, that is exactly the testimony that we had at the last meeting. (See app. 6, p. 130.)

Chairman HOLIFIELD. You are referring to the Commission representative, not the committee.

Representative YOUNGER. Yes, I mean the Commission. You are their representative. They are still here. They are doing a job. I just want to make one other statement because I have to go to another meeting.

The President is going to be in San Francisco on the 24th and 25th and 26th of this month attending the 20th anniversary of the United Nations. I have written to him today to set aside at least a couple of hours during those 3 days in which we can take him down there and show him this site. I hope that we can convince him and I am sure when he comes back if he is convinced the committee will be convinced.

So if you will excuse me I will go, Mr. Holifield.

Chairman HOLIFIELD. Thank you, Mr. Younger.

LEGAL ABILITY OF COUNTY TO CONTRIBUTE

Mr. STALLINGS. I will make one more brief statement, Mr. Holifield. I am not much in this field of negotiating other people's money. This is what I have been up against. We have never been able to get a commitment out of any one of the three. I say if we could get a commitment starting someplace I am confident that we will be able to get yes or no answers within 45 days as to the rest of it.

I am fearful that if we don't come up with some kind of compromise that you are going and we are going to suffer delay after delay after delay because even with new legislation there are people who will go in and test new legislation and this I don't think any of us wants. This is the best I can do. The county has the same legal problem as the town of Woodside insofar as participating. But as far as this additional $2,640,000, perhaps by the time we get ready for that maybe the cost will have gone down by increased technological advances or maybe we can get it under the beautification program. This overhead line will cross Skyline Boulevard, which is designated in the State's scenic highway system and it will be in the clear view of the Junipero Serra Boulevard which is in the interstate system and has been designed with this extra 3½ percent from the standpoint of esthetics. As a matter of fact, the State has even added to that.

So we are talking about something that perhaps we are a little bit more sensitive than our views of nature and what not, but the people are sincere in this. I wish that the county was in a position legally to offer financial assistance, but we are not. We will offer our full cooperation and earnest efforts to arrive at a compromise if we have something from one of the three to go on.

Chairman HOLIFIELD. I recognize the earnestness and the sincerity of your presentation, Mr. Stallings, but I must say this, and I speak as an individual and it will be up to the committee of course, that I believe that this clarification of the law has to go forward.

NEED FOR AMENDING SECTION 271

Now, this does not preclude any kind of negotiation that you and your friends wish to engage in. But we cannot further delay the clarification of this language which has implications far wider than Woodside. The court's interpretation of section 271 takes away from one Federal agency basic inherent powers, given to it by the Constitution under the Supremacy Clause, and we have to correct what all of us, including Senator Hickenlooper, who was quoted in part by the court, believe to be a misinterpretation of the intent of the Congress in the putting of section 271 into the act. We have to go forward with this regardless of the problem involving the city of Woodside. As to what the city can do and what the county will do in the way of negotiation, why I would say it is rather late.

You have had 16 months now since we had you before us before. You will have to admit that the presentation you have made is not a firm presentation. It is based on good intentions on your part and on hope but it certainly is not a firm presentation as far as participation is concerned.

BARGAINING POSITION

Mr. STALLINGS. Mr. Chairman, if I could make a firm presentation for a compromise we would not have to be here all afternoon. I am trying to arrive at one. I would like to point this other factor out, that I am not speaking——

Chairman HOLIFIELD. Of course, the only firm results from last year have been that of the AEC. They have offered to go up some $350,000 and P.G. & E. has offered to go up to $1,012,000.

Mr. STALLINGS. That was last year. You have to admit you are in a much different position now than you were then. We were appealing to you then when you thought you had the authority to put in this overhead. Now you find that the court says you don't have that authority.

Chairman HOLIFIELD. One court says that.

Mr. STALLINGS. I think from our standpoint we are in a better bargaining position. Don't you?

Chairman HOLIFIELD. No, there is still another court and there is still the Congress of the United States to be reckoned with. One Federal court found for the Commission. One Federal court found for the other litigants.

Mr. STALLINGS. Sir, even if you did have the authority to go overhead we would still be in here pitching to get it underground.

Mr. CONWAY. Mr. Stallings, are you saying that if this court found otherwise you would be willing to come in with a better proposition to save your skyline but now, because you are in a better bargaining position you are going to drive a hard bargain?

Mr. STALLINGS. No, I am stating that the situation is quite different than it was 16 months ago. Sixteen months has gone by. We are faced with a dilemma now of further delays.

Mr. CONWAY. The same dilemma as last year.

Mr. STALLINGS. We are still making the same proposition we made before.

Mr. CONWAY. You are in a better bargaining position than you were 16 months ago is what you implied.

Mr. STALLINGS. I think time is more of the essence now than it was then.

Chairman HOLIFIELD. Are there any further questions?

AMERICAN INSTITUTE OF ARCHITECTS REPRESENTATIVES

Mr. CLAPP. Mr. Chairman, Mr. John Dawson of the American Institute of Architects has come from South Carolina to speak to you on this proposition. We request that he be given a few minutes at this time.

Chairman HOLIFIELD. I might say that the other members have appointments in their offices. I have people waiting in my offices since 5 o'clock.

Mr. CONWAY. Mr. Dawson has left. He has asked us to take his prepared statement which he has submitted. (See app. 11, p. 157.)

Chairman HOLIFIELD. We will be glad to accept his statement.

Mr. CLAPP. Thank you, Mr. Chairman. He should have tapped me on the shoulder when he left. I thought he was behind me.

(Whereupon, at 5:10 p.m., Wednesday, June 2, 1965, the hearing was concluded.)

APPENDIXES

APPENDIX 1

DECISION OF NINTH CIRCUIT COURT OF APPEALS, MAY 20, 1965

In the United States Court of Appeals for the Ninth Circuit

No. 19373

JOSEPH A. MAUN, AS TRUSTEE, 1962 TRUST FOR ALYS WUNDERLICH BACHLER, TOWN OF WOODSIDE, ET AL., APPELLANTS *v.* UNITED STATES OF AMERICA, APPELLEE

No. 19374

WILLIAM J. ADAMS AND JANET K. ADAMS, ET AL., APPELLANTS *v.* UNITED STATES OF AMERICA, APPELLEE

Appeal from the United States District Court for the Northern District of California, Southern Division

Before: HAMLEY and MERRILL, Circuit Judges, and MATHES, District Judge

HAMLEY, *Circuit Judge:* This is an interlocutory appeal from an order entered in consolidated condemnation proceedings brought by the United States to acquire electric transmission line easements in Woodside, California and adjacent unincorporated areas in San Mateo County. The appellants are the Town of Woodside, County of San Mateo, and certain of the affected landowners, all of whom are defendants in the condemnation proceedings.

On May 13, 1960, Congress authorized an Atomic Energy Commission (AEC) research project known as the Stanford Linear Accelerator Center (SLAC). 74 Stat. 120. The sum of $114,000,000 was subsequently authorized for the construction of this plant. Act of September 26, 1961. 75 Stat. 676. This AEC project is intended and designed for basic research in high energy physics and not as a plant for the production of electrical energy by nuclear means.

One of the essential requisites of the project is the availability of a sufficient quantity of conventionally generated electricity to operate the complex equipment. AEC plans to obtain a part of this supply from the United States Bureau of Reclamation, delivery to be made over lines to be constructed by Pacific Gas and Electric Company (P.G. & E.). The balance of the required electric energy is to be generated by P.G. & E. and transmitted to SLAC over the same lines.

In January 1963, AEC and P.G. & E. entered into a contract designed to effectuate this plan. The contract provides that P.G. & E. would obtain such permits as were necessary, and that the contract would be filed subject to the approval of the California Public Utilities Commission.

In fulfillment of its obligations under this contract, P.G. & E., in June 1963, applied to the planning commissions of Woodside and the county for the necessary use permits. In these applications the company proposed a tie line from its main Monte Vista-Jefferson transmission line to SLAC. This tie line would consist of two three-cable 220,000-volt circuits suspended from standard towers to be located on a one-hundred foot strip of land cleared of trees and vegetation. The proposed route runs first through unincorporated county territory, then through Woodside, and again through unincorporated territory to its terminus.

At least as early as 1950, San Mateo County had a zoning ordinance which required a public utility to secure a conditional use permit from its planning commission and board of supervisors if it sought to construct power transmission lines. Upon its incorporation in 1956, Woodside continued the county pattern of regulation. In 1958, the town adopted a zoning ordinance prescribing the same regulatory procedure.

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Upon filing its application, P.G. & E. was met with demands from the county and town that the line be placed underground as a condition to the issuance of the necessary use permits. P.G. & E. and AEC took the position that an underground transmission line would not be as serviceable or desirable from a service point of view and that it would entail a substantial additional cost over and above the estimated cost of an overhead line. Several conferences were then had but no agreement was reached.

On March 7, 1964, the chairman of AEC notified the County of San Mateo and Woodside that, although AEC was willing to attempt to find a mutually agreeable solution, time was of the essence since SLAC was nearing completion. The chairman advised the county and town that if P.G. & E. was unable to obtain the necessary use permits, AEC would be forced, in the national interest, to intervene directly by instituting eminent domain proceedings and to construct its own line.

In spite of this warning, Woodside and the county subsequently denied use permits to build an overhead transmission line, as applied for by P.G. & E. Contemporaneously with this action, Woodside adopted an ordinance prohibiting construction of an overhead electrical transmission line of fifty thousand volts or greater capacity. Woodside followed this with a general ordinance prohibiting the overhead installation of transmission, distribution or communication lines. The County of San Mateo did not enact ordinances of this kind.

On March 24, 1964, at the request of AEC, the United States Attorney filed on behalf of the United States in the district court a complaint in condemnation. It essence, the Government sought to condemn a one hundred foot wide perpetual and assignable easement over approximately 4.92 acres of land located within the boundaries of Woodside. The county, town and several individual property owners were named defendants.

This complaint was followed by a declaration of taking on April 30, 1964. Also on April 30, 1964, the United States filed a second complaint in condemnation against the State of California, County of San Mateo and several individual property owners. In this proceeding the Government sought to acquire a similar easement consisting of approximately 24.57 acres located within the county but outside the boundaries of Woodside. On the same day a declaration of taking was entered in this second condemnation suit.

Being aware that certain objections would be interposed, counsel for the Government, concurrently with the filing of the declarations of taking, requested of the court that the Government be granted modified orders of possession limited to permission to conduct field surveys and design inspections. The district court granted this request and also granted the Government's further request that all objections and motions filed in both cases be consolidated and heard at one time.

The various defendants filed answers, motions to dismiss and, in the first proceeding, a motion for summary judgment. The Government thereupon filed a motion to strike defendants' motions to dismiss and for summary judgment, and all of the objections and alleged defenses raised in the answers.

Resisting the Government's motion, defendants contended at the hearing in the district court that section 271 of the Atomic Energy Act of 1954 (Act), 68 Stat. 960, 42 U.S.C. § 2018 (1958), deprived the Government of authority to condemn the tracts in question for the purposes and uses intended. Section 271 reads:

"Nothing in this chapter shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power."

Following this hearing the district court, on June 12, 1964, entered an order granting the Government's motion. The court struck defendants' motions to dismiss, and motion for summary judgment, on the ground that Rule 71A(e), Federal Rules of Civil Procedure, precludes any pleading or motion by a defendant in a condemnation proceeding other than an answer. It struck all objections and alleged defenses in defendants' answers on the ground that:

"* * * Congress did not intend 42 U.S.C. 2018 [Section 271 of the Act], upon which defendants ground their defenses, to prevent the A.E.C. from condemning the easement in question. Under the circumstances of this case, the Court has further concluded that plaintiff has not violated any rights of defendants by such taking."

On June 16, 1964, an order was entered by the district court giving the Government complete possession of the easement concerned, to the extent of the estate condemned. The district court thereafter amended its order of June 12, 1964, to include a recitation of the kind required under 28 U.S.C. § 1292(b) (1958), in

order to enable defendants to apply to this court for leave to take an interlocutory appeal. Such an application was filed in this court and was granted.[1]

We do not understand that appellants challenge the action of the district court in striking their motions to dismiss and the motion for summary judgment. In any event the court did not err in so doing. Under Rule 71A(e), Federal Rules of Civil Procedure, the only response which a defendant may make to a complaint in condemnation filed in a district court is an answer. *Atlantic Seaboard Corp.* v. *Van Sterkenburg*, 4 Cir., 318 F. 2d 455, 458; notes of Advisory Committee on Rules, following Rule 71A, 28 U.S.C.A., page 389. It need only be added that appellants are not prejudiced by the striking of these motions because the same objections and alleged defenses sought to be raised thereby were also raised in the answers.

The action of the district court in dismissing the answers amounted to a determination that the facts therein pleaded do not constitute a defense to the condemnation suit insofar as the Governments right to acquire the easements is concerned.

The essential facts pleaded in these answers are that: (1) the purpose of the United States in acquiring the easements is so that AEC may construct and operate an overhead transmission line for the purpose of receiving conventionally-generated electricity from P. G. & E. for use in operating SLAC; and (2) the Town of Woodside and the County of San Mateo have declined to issue use permits required under their respective zoning ordinances for the construction and operation of such line, and the same would also be in disregard of ordinances of the Town of Woodside prohibiting such overhead lines.

Appellants argue that these allegations state a defense insofar as the Government's right to acquire the easements is concerned, because they bring into play a statutory limitation upon the function of AEC which, in this context, establishes lack of statutory authority to make the acquisition. The principal statutory limitation relied upon is section 271 of the Act, quoted above. Appellants also rely upon section 274(k) of the Act, 42 U.S.C. § 2021(k) (1958), added by the amendatory Act of September 23, 1959, 73 Stat. 688, 691. Section 274(k) reads:

"Nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards."

The Government calls attention to the fact that an argument could be advanced to the effect that, even if AEC is precluded under sections 271 and 274(k) from constructing and operating a transmission line in disregard of the ordinances and regulations of Woodside and the county, this would not be a defense to an action in eminent domain. But the Government advises that it expressly foregoes this argument because it is most anxious to obtain a final judicial determination on the merits as to its power to construct and operate such an overhead line. In a further effort to direct our attention to the merits, the Government indicates it willingness to make, *arguendo*, the assumptions set out in the margin.[2]

We therefore turn to a consideration of whether AEC may construct and operate an overhead electric transmission line in disregard of local authority and regulations governing the character and location of such lines. It is our understanding that, in the special posture of the case as the parties submit it to us, if we hold that AEC may not do so, then it is agreed that the Government is without statutory power to condemn the easements, and the order is to be reversed. If we hold otherwise, affirmance is indicated.

The general sovereign immunity of the federal Government, its agencies and instrumentalities, from state or local control of its governmental functions, is established under the Supremacy Clause of Article VI of the Constitution. *Mayo* v. *United States*, 319 U.S. 441.[3] It follows that the activities of AEC in connec-

[1] In the absence of leave to appeal under 28 U.S.C. § 1292(b), the appeal could not have been entertained because it is not taken from a final order. See *Catlin* v. *United States*, 324 U.S. 230, 233.

[2] "(1) The AEC will proceed to construct this transmission line without applying for a use permit from either the County of San Mateo or the Town of Woodside. [Footnote omitted.]

"(2) That AEC will construct an overhead transmission line on the easement condemned; and

"(3) That the actions of the Town of Woodside in effecting a temporary ordinance immediately prior to this condemnation prohibiting overhead transmission lines and that of the County of San Mateo in revoking a use permit previously approved for this line, were in good faith and not solely for the purpose of attempting to come within the purview of Section 2018." [Footnote omitted.]

[3] In view of the special issues which the parties have asked us to adjudicate, we do not take into account the Federal Government's sovereign power of eminent domain, as enunciated in such cases as *Kohl* v. *United States*, 91 U.S. 367, 371; and *United States* v. *Carmack*, 329 U.S. 230.

tion with the construction and operation of the transmission line in question, are wholly immune from local control, unless it can be established that Congress has directed that AEC subject itself thereto.

The Act provides that the federal Government, through AEC, is to exercise exclusive control over the development and use of atomic energy and special nuclear material for all purposes. Sections 1 and 2 of the Act, 42 U.S.C. §§ 2011–2013. To effectuate this purpose, Congress conferred upon AEC authority to, among other things, license the use of nuclear energy for industrial or commercial purposes (sections 101–103 of the Act, 42 U.S.C. §§ 2131–2133) and further, Congress not only authorized AEC to promote and conduct research in the nuclear field, but directed that AEC do so. Sections 31–33 of the Act, 42 U.S.C. §§ 2051–2053.

For the purpose of enabling AEC to fulfill these duties and perform these functions, the Act gives that agency specific authority to acquire such material, property, equipment, and facilities, establish or construct such buildings and facilities, and modify such buildings and facilities, as it may deem necessary. AEC is also expressly authorized to acquire, purchase, lease, and hold real and personal property, as agent to and on behalf of the United States. Section 161 of the Act, as amended, 42 U.S.C. § 2201(e) and (g).[4]

Without doubt the sovereign immunity derived from the Supremacy Clause, coupled with these statutory provisions, authorize AEC to construct and operate an overhead transmission line in disregard of local authority or regulation, absent some statutory provision limiting AEC's authority in this regard. It is equally clear that neither the Act, nor any other federal statutes called to our attention, contains an express limitation of this kind.

The question remains whether sections 271 or 274(k) of the Act, relied upon by appellants, constitute, by necessary implication, such a limitation.

Section 271 requires AEC to accede to the authority or regulations of any federal, state, or local agency with respect to the "* * * generation, sale, or transmission of electric power." The line which AEC proposes to construct and operate in Woodside and adjacent San Maeo County, is for the transmission of electric power. The zoning and other ordinances of Woodside and the county, here in question, pertain to the transmission of electric power, for if they are complied with AEC may not transmit such power through an overhead line. Looking at the face of the statute, then, it would appear that section 271, by necessary implication, precludes AEC from constructing and operating this overhead line.

But the Government argues that, read in the light of its legislative history, section 271 is seen to relate only to the generation, sale, or transmission of electric energy produced by nuclear means. Our attention is called to comments made by Senator Bourke B. Hickenlooper, Senate sponsor of the Atomic Energy Act of 1954, made during Senate consideration of section 271. Among other things, Senator Hickenlooper told the Senate, in explanation of section 271:

"We take the position that electricity is electricity. Once it is produced it should be subject to the proper regulatory body, whether it be the Federal Power Commission in the case of interstate transmission, or State regulatory bodies if such exist, or municipal regulatory bodies. We feel that there is no difference and that it should be treated as all other electricity which is regulated by the public. * * *

"That [section 271] is designed to keep the regulatory authority exactly as it is now, traditionally and under the law." (100 Cong. Rec. 11567, July 26, 1954. Leg. History of Atomic Energy Act of 1954, page 3760)

"What section 271 does is to make clear that this act does not interfere in any way with the jurisdiction of the Federal Power Commission over such activities, or with State agencies where they have jurisdiction, or with local agencies where they have jurisdiction.

"It is not an authority given in a negative way. It is a positive negation of any intent by this statute to interfere with the existing laws and the existing authorities, State and Federal, that have to do with electricity." (100 Cong. Rec. 11709, July 27, 1954, Leg. History of Atomic Energy Act of 1954, page 3834)

We think these, and like remarks made by the sponsor of the 1954 legislation during the Senate debate, fairly indicate that the prime purpose of Congress in adding section 271 to the Act, was to make it clear that the generation, sale or transmission of electric power produced by nuclear means was to be subject to federal, state and local authority and regulation to the same extent that electric

[4] For the reason stated in note 3, we do not take into account the provisions of the Act, and of other statutes authorizing condemnation proceedings.

power produced by conventional means is subject to such authority and regulation.

We are not convinced, however, that Congress meant to confine the limitation imposed by section 271 to the generation, sale or transmission of electric power produced by nuclear means. Had this been the intent it would have been easy to express it by including, in section 271, a specific reference to nuclear production of electric power. Absent such a reference we are left with Senator Hickenlooper's perceptive observation that "electricity is electricity." It might be added that transmission is transmission, whether the electric power is going to or coming from an AEC installation.

It also seems to us that there is less reason to place emphasis upon legislative history in a case such as this where the statute to be construed is not ambiguous, than where the words of the statute give rise to a legitimate doubt as to the meaning intended. Moreover, as the Government concedes, the legislative history of section 271 is relatively sparse, apparently consisting principally of Senator Hickenlooper's statement along the lines referred to above.

There is no indication from anything that has been presented to us on this appeal, that if AEC is required to conform to local authority and regulations governing the character and operation of electric transmission lines, any overall objectives of the Act will be defeated or impaired. According to a statement which Congressman Craig Hosmer, a member of the Joint Committee on Atomic Energy, made in Congress following a hearing which the committee held on this Woodside matter in January, 1964, the only real AEC objection to constructing an underground transmission line is because of the substantially greater cost.

Congressman Hosmer indicated that AEC was willing to consider an underground line of 180 megawatts, which would satisfy the minimum needs of the project for the first few years of its operation. AEC, he stated, was also willing to contribute to the estimated extra cost of such a line ($2,640,000 as compared to a cost of from $668,000 to $922,000 for the overhead line), but only if others would also bear a substantial part of the additional cost. Since such a compromise was not acceptable to the officials of Woodside and San Mateo County, AEC insisted upon proceeding with the plan for an overhead line. This cost consideration is apparently what the AEC chairman had in mind when he warned Woodside and the county that AEC may be forced to condemn "in the national interest."

Considering the magnitude of the SLAC project as a whole, and the fact that no engineering or other practical difficulty seems to be involved, the two million dollars or so (possibly five million) of additional money which would have to be expended to go underground can hardly be regarded as consituting a substantial impediment to this AEC research program. On the other hand, if sights are raised above the specific objecives of the Atomic Energy Act itself, to encompass national policy generally, there is good reason for believing that Congress meant what it said when it enacted section 271.

The described route lies in a scenic mountainside area characterized by steep gradients, a thin crust of soil, heavy rainfall, acute erosion problems, fire hazards and stands of redwood trees more than one hundred years old. Congressman Hosmer told Congress that the area surrounding the campus of Stanford University, where the overhead line would be built, "* * * is one of the loveliest areas of California and perhaps the Nation." He added, "One finds many beautiful homes placed on 3-acre minimum lots."[5] As before stated, utilization of the easements contemplates not only erection of power transmission lines but the denuding of the one hundred foot wide easement of trees and vegetation.

In their effort to preserve the natural integrity of this area, Woodside and the county are pursuing the same goals as those sought under established federal

[5] Congressman Hosmer's remarks are to be found in the Congressional Record—House, issue of May 7, 1964, pages 9,974 through 9,976. It should be added that he was not opposed to the construction of an overhead AEC line. His opinion in this regard appears to be predicated on the following factors: (1) in his view, and apparently that of some others, the idea that overhead lines would "debauch" or "desecrate" the landscape was not substantiated; (2) there are already numreous wooden power poles in the area, many of which have been erected in the last six years; (3) in his view there is no conservation issue; (4) under the AEC plan there will be only five additional "poles" (transmission towers?) through the Town of Woodside; (5) no one other than AEC is willing to contribute to the additional cost of going underground; and (6) if the Government were to pay the added expense of going underground it would create an undesirable precedent.

policy, as manifested in other acts of Congress.[6] What both the federal Government and these local units of government are striving for in this direction is in the highest tradition of forward-looking government and fully compatible with, if not compelled by, the general public interest. As the Supreme Court said, in *Berman* v. *Parker*, 348 U.S. 26, 33, in speaking of the legitimate purposes of federal condemnation:

"The concept of the public welfare is broad and inclusive * * *. The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled."

The Government argues that the fact that Congress approved AEC's 1964–65 appropriations after being advised by Congressman Hosmer that AEC proposed to condemn these easements for an overhead transmission line, constitutes ratification of AEC's interpretation of section 271 as not precluding such action.

There are circumstances under which deliberate Congressional action by way of appropriations or other enactments may constitute ratification of an agency's construction of a federal statute. See *United States* v. *Kennedy*, 9 Cir., 278 F. 2d 121, 126. Ordinarily, however, this can occur only when the agency interpretation is of long standing, and so well-established in administrative practice. This was certainly the situation in the *Kennedy* case, and also in *Brooks* v. *Dewar*, 313 U.S. 354, 361, upon which *Kennedy* relied. We do not believe that an isolated instance of agency interpretation brought to the attention of Congress on one occasion in the course of considering a general appropriation bill, ought to be given that effect.

Had the construction of this transmission line been left with P.G. & E., that company would have been obliged to comply with the ordinances in question, notwithstanding the fact that the line is to serve AEC. The Government concedes this much. Had P.G. & E. built underground lines in conformity with the local authority and regulations, it could have recovered the cost thereof from AEC. The federal agency proposes to avoid this cost by constructing the line itself.

Since the easements being acquired are assignable, that agency will be able to turn the operation of the line over to P.G. & E. At the oral argument, counsel for the Government stated that it was hoped that such an arrangement could be made. In the process, and solely for that purpose, there will have been accomplished a complete disregard of local ordinances pertaining to the character and operation of electric power transmission lines.

We hold that section 271 precludes AEC from, in this manner, proceeding in defiance of the ordinances of Woodside and the county, ordinances not challenged as to validity and operative as to any other public utility operating in the area.

Reversed and remanded for further proceedings consistent with this opinion.

FREDERICK G. HAMLEY,
CHARLES C. MERRILL,
U.S. Circuit Judges,
(S) WM. C. MATHES,
U.S. District Judge.

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[6] Title VII of the Federal Housing Act of 1961 contains sections which are now found in Title 42, § 1500 et seq., U.S.C. From section 1500(b):

"It is the purpose of this chapter * * * to help provide necessary recreational, conservation, and scenic areas by assisting State and local governments in taking prompt action to preserve open-space land which is essential to the proper long-range development and welfare of the Nation's urban areas in accordance with plans for the allocation of such land for open-space purposes." (Public Law 87–70.)

With respect to highways, and the recently approved Interstate Defense System (23 U.S.C. § 131 et seq.) Congress provided not only for the safety and convenience of public travel, but for its enjoyment, declaring:

"It is declared to be in the public interest to encourage and assist the States to control the use of and to improve areas adjacent to the Interstate System. * * * It is declared to be a national policy that the erection and maintenance of outdoor advertising signs, * * * should be regulated. * * *

"The Secretary of Commerce is authorized to enter into agreements with State highway departments * * * Any such agreement * * * may include, among other things, provisions for preservation of natural beauty, prevention of erosion, landscaping, reforestation, development of view points for scenic attractions that are accessible to the public without charge. * * * (Section 131)

"Such construction likewise may include the purchase of such adjacent strips of land of limited width and primary importance for the preservation of the natural beauty through which highways are constructed. * * * Not to exceed 3 per centum of such sums, apportioned to a State in any fiscal year in accordance with section 104 of this title may be used by it for the purchase of such adjacent strips of land without being matched by such State. (Section 319).

APPENDIX 2

California Public Utility Commission Decision

Decision No. 68556 Before the Public Utilities Commission of the State of California

Case No. 7871

Town of Woodside, Donald J. Scofield, Eleanor J. Wood, Robert Lee Sims, Jane L. Sims, Samuel O. Pond, Dorothy L. Pond, Barbara Donald, Malcolm Donald, T. H. Holbrook, Betty Wynn Holbrook, R. J. Elkus, Eugene Elkus, Jr., Janet K. Adams, William J. Adams, Jr., Gail B. Rathbun, Berta F. Rathbun, MacLean Ulrich, Mary Virginia Ulrich, Alexander Donald, Frances Park Pillsbury, Parker F. Wood, Jr., Caroline R. Chickering, Ethel Savage, Charles Savage, Mrs. Keith C. Elliott, Mrs. Gordon Reynolds, Mrs. Alex Saunders, Ruth L. Hart, A. C. Wright, Mrs. Edward G. Russell, Harold V. Kallerup, Howell C. Jones, Edith M. Jones, Complainants, v. *Pacific Gas and Electric Company, Defendant.*

Paul N. McCloskey, Jr., Theodore C. Carlstrom, and Austin Clapp, for the Town of Woodside and other complainants.

Howard E. Gawthrop, for the County of San Mateo, intervenor.

F. T. Searls, John C. Morrissey, and John A. Sproul, for Pacific Gas and Electric Company, defendant.

Charles A. Louderback and Franklin G. Campbell, for the Commission staff.

OPINION

This is a complaint by the Town of Woodside (hereinafter referred to as Woodside) and thirty-three named individuals against Pacific Gas and Electric Company (hereinafter referred to as P.G. & E.). The County of San Mateo (hereinafter referred to as County) was granted leave to intervene in behalf of complainants. The primary purpose of the complaint is to secure an order from this Commission which, it is hoped, would compel underground rather than overhead construction of a 220 kv. transmission line designed to serve the Stanford Linear Accelerator Center (hereinafter referred to as SLAC). It is claimed that aesthetic considerations require that the transmission line be placed underground. A complaint by other parties seeking similar relief was before the Commission in *Ligda* v. *P.G. & E.*, 61 Cal. P.U.C. 1.

A duly noticed public hearing was held in this matter before Commissioner Bennett and Examiner Jarvis at San Francisco on July 27, 29, 30, 31 and August 5, 7, and 19, 1964. The matter was submitted subject to the filing of briefs which have been received.

The first hurdle which complainants and County must surmount is that of jurisdiction. The defendant in this matter is P.G. & E., but the complaint alleges that the Atomic Energy Commission (hereinafter referred to as AEC) "has threatened and now threatens to exercise the sovereign rights of the government of the United States to condemn a right-of-way through the Town of Woodside and over, or adjacent to, the lands of complainants and to construct thereon an overhead 220-kv. transmission line on towers averaging 120 feet in height. A condemnation action for a 100-foot easement and right-of-way through Woodside was filed by AEC on March 24, 1964, Action No. 42214 in the United States District Court in and for the Northern District of California, Southern Division." The AEC is not a party to this proceeding.

Complainants and County contend that Woodside Ordinance No. 1964–144, enacted on March 11, 1964, prohibits the construction or erection of the proposed overhead 220-kv. transmission line and that P.G. & E., a utility subject to the jurisdiction of the Commission, should be restrained from delivering electric power to AEC unless it constructs an underground line in conformity with the ordinance. It is argued that Section 2018 of Title 42 of the United States Code makes the AEC subject to the ordinance. That section provides as follows:

"Nothing in this chapter shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power."

The record discloses that the United States of America filed two actions in the United States District Court for the Northern District of California, Southern Division, seeking to condemn portions of the right-of-way for the proposed *overhead* 220-kv. transmission line. These actions are Civil Nos. 42214 and 42323. Woodside appeared in said actions and moved that they be dismissed on the ground that the AEC was precluded from condemning the overhead right-of-way under the provisions of 42 U.S.C. § 2018, in the light of Woodside Ordinance No. 1964–144. On June 12, 1964, the United States District Court entered an order striking the motions to dismiss and granted a summary judgment to the AEC. On June 17, 1964, the United States District Court entered a further order granting the AEC the right of immediate possession to the property involved in the two actions. These matters are now on appeal before the United States Court of Appeals for the Ninth Circuit.[1]

The Federal courts are the primary expositors of the meaning of Federal statutes. (*Boyd* v. *Thayer*, 143 U.S. 135, 180; *Calhoun Gold M. Co. v. Ajax Gold M. Co.*, 182 U.S. 499; *Downey* v. *City of Yonkers*, 23 F. Supp. 1018, 1023, affirmed 309 U.S. 590; see also *United States* v. *Waddill*, 323 U.S. 353, 356; *Clearfield Trust Co.* v. *United States of America*, 318 U.S. 363.) There are presently orders of the United States District Court which impliedly hold that section 2018 of title 42 of the United States Code does not make AEC subject to the Woodside Ordinance. Casting aside questions of res judicata or collateral estoppel, the Commission should follow the holding of the United States District Court unless it is reversed. Furthermore, if the holding is reversed by the Court of Appeals or the U.S. Supreme Court, there would be no need for the Commission to act in this proceeding because the AEC would not be permitted to build an overhead line in the light of the woodside Ordinance.

Complainants and county next contend that, under sections 701, 761, 762, and 768 of the Public Utilities Code, the Commission should order the proposed transmission line to be built underground. P.G. & E. argues that these sections are not applicable to this proceeding because they deal with the Commission's jurisdiction over public utilities; that the sections do not give the Commission jurisdiction to regulate the construction of transmission or distribution lines by private customers and that, in any event, the Commission has no jurisdiction to tell the AEC how to construct a power line on Federal lands. Complainants and County reply that the above-cited sections of the Public Utilities Code apply to non-utilities including the AEC and that, by virtue of 42 U.S.C. § 2018, the Federal Government has made the AEC subject to the jurisdiction of the Commission.

As indicated, the AEC is not a party to this proceeding. Complainants and County seek an order against P.G. & E. which would, it is hoped, indirectly compel the AEC to place the transmission line underground. Sections 701, 761, 762, and 768 of the Public Utilities Code all deal with regulation of public utilities and not private power users:

"701. The commission may supervise and regulate *every public utility* in the State and may do all things, whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction." [Emphasis added.]

"761. Whenever the commission, after a hearing, finds that the rules, practices, equipment, appliances, facilities, or service of *any public utility*, or the methods of manufacture, distribution, transmission, storage, or supply employed by it, are unjust, unreasonable, unsafe, improper, inadequate, or insufficient, the commission shall determine and, by order or rule, fix the rules, practices, equipment, appliances, facilities, service, or methods to be observed, furnished, constructed, enforced, or employed. The commission shall prescribe rules for the performance of any service or the furnishing of any commodity of the character furnished or supplied by *any public utility*, and, on proper demand and tender of rates, *such public utility* shall furnish such commodity or render such service within the time and upon the conditions provided in such rules." [Emphasis added.]

[1] The Federal Court actions were alluded to by counsel for the parties on many occasions during the hearing. Copies of the orders were not offered or received in evidence. On June 29, 1964, P.G. & E. forwarded to the Commission copies of the orders entered by the United District Court, which P.G. & E. urged supported its motion to dismiss, which had been previously filed. Copies were sent to complainants and County. The Commission is of the opinion that these orders should be part of the formal record of this proceeding, so that the orders themselves, rather than secondary evidence, may be referred to when appropriate. The Commission has ordered that they be included in the record and designated Exhibits Nos. 60 and 61. These orders are public acts of the judicial department of the United States and are also the proper subject of official notice. (Code Civ. Proc. § 1875(3); Rules of Procedure, Rule 64.)

"762. Whenever the commission, after a hearing, finds that additions, extensions, repairs, or improvements to, or changes in, the existing plant, equipment, apparatus, facilities, or other physical property of *any public utility or of any two or more public utilities* ought reasonably to be made, or that new structures should be erected, to promote the security or convenience of its employees or the public, or in any other way to secure adequate service or facilities, the commission shall make and serve an order directing that such additions, extensions, repairs, improvements, or changes be made or such structures be erected in the manner and within the time specified in the order. If the commission orders the erection of a new structure, it may also fix the site thereof. If the order requires joint action by two or more public utilities, the commission shall so notify them and shall fix a reasonable time within which they may agree upon the portion or division of the cost which each shall bear. If at the expiration of such time the public utilities fail to file with the commission a statement that an agreement has been made for a division or apportionment of the cost, the commission may, after further hearing, make an order fixing the proportion of such cost to be borne by each public utility and the manner in which payment shall be made or secured." [Emphasis added.]

"768. The commission may, after a hearing, by general or special orders, rules, or otherwise, require *every public utility* to construct, maintain, and operate its line, plant, system, equipment, apparatus, tracks, and premises in such manner as to promote and safeguard the health and safety of its employees, passengers, customers, and the public, and may prescribe, among other things, the installation, use, maintenance, and operation of appropriate safety or other devices or appliances, including interlocking and other protective devices at grade crossings or junctions and block or other systems of signaling, establish uniform or other standards of construction and equipment, and require the performance of any other act which the health or safety of its employees, passengers, customers, or the public may demand." [Italics added.]

A reading of the aforesaid Code sections indicates that, on their face, they do not attempt to confer upon the Commission the authority to regulate the construction of facilities by nonutilities who may be customers of regulated public utilities. However, even if it be assumed, for the sake of argument only, that the Commission has jurisdiction over the construction of facilities by nonutility customers of public utilities, we are not here dealing with an ordinary customer. The AEC is an instrumentality of the Federal Government and the transmission line, if constructed, will be owned by the United States. When Congress has expressed a policy, no state or state agency has the power to impose conditions upon which the Federal Government may effectuate that policy. (*U.S. Constit.*, Art. VI, Cl. 2; *United States* v. *Georgia Pub. Serv. Comm.*, 371 U.S. 285, 292; *Paul* v. *United States*, 371 U.S. 245; *Kohl* v. *United States*, 91 U.S. 367; *McCulloch* v. *Maryland*, 17 U.S. 316.) It has previously been noted that complainants and County contend that Congress has subjected the AEC to the jurisdiction of the Commission by virtue of 42 U.S.C. § 2018. However, the Commission deems the holding of the United States District Court in the aforesaid condemnation cases controlling on this point.

Unless the holding of the United States District Court is reversed, this Commission has no jurisdiction to determine how the AEC should construct a transmission line on Federal property to one of its facilities. This Commission cannot, and will not, under the guise of making an order against P.G. & E., attempt to assert jurisdiction over the AEC. It is clear that, on the present state of the record, complainants and County must be denied relief because of lack of jurisdiction by this Commission to grant any of the relief requested.

Wholly aside from the propriety of any action by this Commission which would be contrary to the decision of the Federal District Court, there is yet another ground for refusing the relief requested by complainants. Even if the Federal District Court had not acted, or even if we felt free to ignore its judgment, we would be compelled to deny the relief sought herein for the more fundamental reason that complainants *have failed*, on the merits, *to prove their case.*

Complainants and County contend that the Commission has jurisdiction over the rates which P.G. & E. may charge for furnishing electric energy to AEC; that under the rates proposed in the contract entered into between P.G. & E. and AEC on January 10, 1963, an underground line could be constructed to SLAC and P.G. & E. still make a profit on the service; that P.G. & E. and AEC are presently renegotiating said contract and that the Commission should hold that it will not approve any contract between the parties unless it provides for an underground transmission line and charges at the rates specified in the

January 10, 1963, contract. P.G. & E. responds that there is presently no contract before the Commission; that there is a question whether the Commission has jurisdiction to regulate the rates charged to the AEC; that there are no rates presently before the Commission; that P.G. & E. could not construst an underground transmission line to SLAC, furnish energy to the AEC at the rates provided for in the contract of January 10, 1963 and make a profit; that if such action were compelled it would burden the general ratepayers of the system for the benefit of a select few and that P.G. & E. has no way of compelling AEC to agree to any suggested contractual provisions.

We turn first to the question of our jurisdiction over rates. P.G. & E., in a footnote in its brief, suggested that this Commission may not have jurisdiction to pass upon the rates it proposes to charge AEC for furnishing electric energy for SLAC. It cites the *Paul* and *Georgia Public Utilities Commission* cases in support of this proposition. These cases have been previously considered herein. They hold that when Congress has expressed a policy, no state or stage agency has the power to impose conditions upon which the Federal Government may effectuate that policy. We construe 42 U.S.C. § 2018 as authorizing state regulation of rates with respect to local sales of electric energy to the AEC. The conduct of AEC and P.G. & E. indicates that this is the construction placed upon Section 2018 by those entities. The contract of January 10, 1963 contained a provision that the service furnished and rates charged thereunder were subject to regulation by this Commission and that it would not become effective until approved by this Commission. At the hearing, P.G. & E. indicated that it would submit any revised contract to the Commission for approval before rendering service thereunder. The Commission finds and concludes that it has jurisdiction over the rates to be charged AEC by P.G. & E. for furnishing electric energy to SLAC. (See also, *United States* v. *Oklahoma Gas & Electric Co.* 297 Fed. 575.)

Complainants and County contend that AEC has indicated it would accept an underground line having less captcity (180 mw) than the proposed overhead line (300 mw) if the charges for electric energy were the same as those provided for in the contract of January 10, 1963. It is argued that P.G. & E.'s estimates for constructing an underground line having the capacity to transmit 180 mw of electric energy are too high; that an underground line could be constructed for approximately $675,000 more than the proposed overhead line and that the rate schedule in the January 10, 1963 contract would give P.G. & E. a reasonable return on such underground facility. It is also argued that AEC agreed to absorb some of the difference in cost and that Woodside would, if legally possible, contribute $150,000.

The record discloses that, prior to the time AEC decided to condemn a right-of-way and itself build the transmission line to SLAC, AEC indicated that, in lieu of the overhead 220 kv line capable of delivering 300 mw of electric energy, it would accept as a temporary expendient an underground line capable of delivering 180 mw of electric energy. It was contemplated that, as the energy demands of SLAC increased, by 1973 it would be necessary to have another underground line to meet the SLAC power needs. The cost of the additional line is estimated to be approximately $2,500,000. The overhead line AEC proposes to construct would follow a different route than the suggested underground line. Since AEC is in the process of condemning a right-of-way for the overhead line, there is some doubt as to whether it would accept an underground line at this time. For the purpose of analyzing complainants' and County's position on the point under consideration we assume that AEC would still accept service by an underground 180 mw line.

An electrical engineer called by complainants testified that a 180 mw underground line could be built at a cost of $1,687,500. This engineer testified that the line could be built at the cost of $47 a foot. P.G. & E.'s senior electrical engineer testified that the cost of such a line would be $2,430,000, which did not include substation costs. P.G. & E. also called as a witness a consulting engineer, who, prior to his retirement on December 1, 1963, had been the electrical engineer in charge of underground high voltage transmission and distribution system design for the Department of Water and Power of the City of Los Angeles. This witness had extensive experience supervising engineering design, layout, layout of routes, preparing specifications for the type of equipment and cable and estimates of construction costs for underground high voltage transmission and distribution systems, including a 230 kv transmission line presently operating in Los Angeles. He testified that he had no knowledge of any estimates prepared by P.G. & E.; that he had prepared an independent estimate of

the cost of an underground 180 mw transmission line to SLAC; that the cost of such a line would be $2,474,220 and that the cost of construction would be $68.80 per foot.

A discussion of the various estimates for constructing a 180 mw line would unnecessarily encumber this decision. The Commission finds that such a line cannot be constructed for $1,687,500 and that the cost of construction would be approximately $2,450,000. The record indicates that, at the P.G. & E. estimate, it would be necessary for P.G. & E. to charge AEC approximately $200,000 per year more than the rates provided for in the contract of January 10, 1963 if P.G & E. constructed the line. The Commission finds that complainants and County have failed to establish that the rates under the January 10, 1963, contract would be compensatory for a 180 mw underground line costing $2,450,000.

Complainants contend that if AEC constructs the overhead line, P.G. & E. will lower the proposed rate by giving AEC a "kickback" of $125,000 per year. It is argued that if the Commission disapproves the alleged "kickback" AEC will be disinclined to construct the overhead line. The Commission finds no merit in this contention. The proposed payment under consideration can, in no way, shape, or form be considered a "kickback". The record discloses that the rates provided for in the contract of January 10, 1963, contemplated that P.G. & E. would construct the overhead line. These rates included an increment for the cost of constructing the line. The proposed payment of $125,000 per year represents the refunding to AEC of that portion of the rate designed to compensate P.G. & E. for the cost of constructing the transmission line. Since P.G. & E. will not build the line we see nothing wrong with this arrangement. In fact, it would be unreasonable for P.G & E. to charge for costs it did not incur.

County contends that, assuming the cost of undergrounding the transmission line to SLAC will be substantially greater than the cost of an overhead line, and further assuming that AEC will not pay a rate for electric energy which will include an increment for an underground line and cannot be compelled to do so, the Commission should order P.G. & E. to construct an underground line and pass the additional costs on to the general ratepayers of the utility. It is argued that aesthetic considerations command such a result, and that this proceeding should be a point of departure from which the Commission should require higher rates, generally, so that all transmission and distribution systems installed in the future will be designed and built in accordance with aesthetic considerations.

P.G. & E. argues that the overhead line, which AEC proposes to build, does take aesthetics into consideration; that the design of the line was changed to provide for the use of tubular steel poles rather than towers; that the overhead line is aesthetically acceptable; that it has been Commission policy to have the customer, rather than ratepayers generally, pay any additional costs which are required because of aesthetic considerations; that if the Commission wants to raise rates for the benefit of aesthetics, general public would benefit more if the money were used in connection with distribution rather than transmission systems and that, in the present case, undergrounding would bring little aesthetic benefit and any aesthetic benefit would be for a relatively few people.

The record discloses that the proposed overhead power line would have a total of 34 tubular steel poles. Five of these poles would be located in Woodside, and three of these five poles would be on Stanford University property. A substantial portion of the remaining poles would be located on the lands of an individual who proposes to subdivide his property. A few of the poles would be located in or near a privately owned and operated recreation area known as Searsville Lake. There are presently in Woodside 275 poles wholly owned by P.G. & E. and 2,213 poles jointly owned by P.G. & E. and the telephone company—a total of 2,488 poles.

The difference in cost between an overhead and underground service to SLAC would be as follows:

Cost of 300 mw overhead line	$1,012,000	Cost of 180 mw line[1]	$2,450,000
		Approximate cost of additional 180 mw line in 1973[1]	2,450,000
		Total	4,900,000
		Difference	3,888,000

[1] Not including substation facilities.

In addition to the extra $3,888,000 which would eventually have to be spent for undergrounding the transmission of electrical energy to SLAC the record shows that if P.G. & E. constructs the underground lines it would be necessary to raise the rate approximately $200,000 per year just to pay for the additional costs of undergrounding one 180 mw line. When the second 180 mw line is required in 1973, a higher rate is inevitable because the entire cost of that line would not have been required if the proposed overhead line had been built. P.G. & E. estimates the fixed charges and cost of maintenance and operation of one underground 180 mw transmission line to be approximately $333,000. Thus, after 1973, at the rates presently proposed, underground facilities would require rates generating $533,000 per year more in revenues.

In view of the foregoing, the Commission is of the opinion that an order directing P.G. & E. to construct underground electrical distribution facilities to SLAC would be unwarranted. We are not persuaded that any aesthetic considerations involved should require the expenditure of an additional $3,888,000, which would be paid for by all the customers of P.G. & E.

It is clear that complainants and County have failed to establish in this record that the rates proposed are unreasonable in that they would burden other ratepayers for the service. While complainants and County talk in terms of the rate for the proposed overhead line being unreasonable, what they really mean is that, in their opinion, overhead construction is unreasonable. We do not agree with this contention. Putting aside questions of law and jurisdiction, the Commission is not disposed in this proceeding to hold that the alleged aesthetic considerations involved should compel the general ratepayers of P.G. & E. to provide sums to offset the expenses and carrying charges on $3,888,000, which represents the cost for the additional facilities which would be required to provide underground transmission to SLAC. This would also increase power costs to the facility.

The Commission is of the opinion that complainants and County are entitled to no relief in this proceeding.

No other points require discussion.

In addition to the various findings herein made, the Commission makes the following findings and conclusions:

Findings of fact

1. AEC is constructing a linear accelerator at Stanford University, Stanford, San Mateo County, California. The accelerator is called SLAC.

2. SLAC will require substantial amounts of electric energy on or about January 1, 1966. In order to provide such energy additional transmission facilities must be constructed to serve SLAC.

3. On December 10, 1963, AEC and P.G. & E. entered into a contract which provided for the furnishing of electric energy to SLAC by P.G. & E. at specified rates. The contract also provided that P.G. & E. would construct the requisite transmission facilities to serve SLAC. Said contract, by its own terms, has not gone into effect, and AEC and P.G. & E. are presently renegotiating the contract.

4. P.G. & E. is not presently attempting, and does not now propose, to construct any transmission facilities to serve SLAC.

5. AEC has indicated that it will construct the requisite transmission facilities to serve SLAC. AEC has brought actions in the United States District Court for the Northern District of California to condemn a right-of-way for said transmission facilities.

6. The United States District Court has held that the manner in which AEC constructs said transmission facilities on the aforesaid right-of-way is not subject to local regulation under 42 U.S.C. § 2018. Said holding is now on appeal in the United States Court of Appeals for the Ninth Circuit.

7. The immediate power requirements for SLAC are 180 mw. of electric energy. By 1973, SLAC will require 300 mw. of electric energy.

8. An overhead 220 kv. transmission line to serve SLAC which will furnish 300 mw. of electric energy can be constructed for $1,012,000. If two underground lines are constructed to serve SLAC, it would be necessary to provide two 180 mw. lines for the delivery of 300 mw. of energy. An underground transmission line to serve SLAC, which will furnish 180 mw. of electric energy, can be constructed

for $2,450,000, not including substation facilities. Two separate underground 180 mw. transmission lines to serve SLAC could presently be built for $4,900,000, not including substation facilities.

9. If two 180 mw. underground transmission lines were constructed by P.G. & E. to serve SLAC, the rate charged SLAC for electric energy would have to generate an additional amount of approximately $200,000 per year upon completion of the first line and $533,000 per year upon completion of the second one.

10. Any esthetic considerations here involved do not justify this Commission requiring the expenditure of an additional $1,438,000, not including substation costs, to construct one 180 mw. underground line and eventually a total of $4,900,000, not including substation costs, to construct two underground 180 mw. lines to serve SLAC.

11. It would take 15 to 18 months to construct one underground 180 mw. transmission line to serve SLAC, utilizing normal construction procedures. An underground line cannot be constructed, utilizing normal construction procedures, in time to meet the January 1966 power needs of SLAC. If extraordinary construction procedures were utilized the costs for constructing such a line would be greatly increased.

12. Complainants and County have failed to establish that the rates P.G. & E. proposes to charge AEC for service to SLAC are unreasonable or that said rates would unjustly burden any other ratepayers.

Conclusion of law

Complainants and County are not entitled to any relief in this proceeding.

ORDER

IT IS ORDERED that complainants and County are entitled to no relief in this proceeding and the complaint is denied.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 9th day of February, 1965.

FREDERICK B. HOLOBOFF, *President.*
GEORGE G. GROVER, *Commissioner.*

Commissioner Peter E. Mitchell, being necessarily absent, did not participate in the disposition of this proceeding.

I concur with the instant opinion; however my views as to aesthetics and public utlities shall be set forth separately.

WILLIAM M. BENNETT.

BENNETT, WILLIAM M., COMMISSIONER, CONCURRING OPINION

There is much more to regulation than rates and charges. One of the critical problems facing California comes from an ever increasing public awareness of the necessity for planning and conservation of resources. More and more the public dialogue is concerned with the issue of conservation whether pertaining to freeways, billboards, the siting of nuclear plants or the undergrounding of utilities. And this is proper since Californians have a special heritage of beauty and apparently more and more of them are becoming gravely concerned over its spoilage.

The public utilities of our state are among the great builders. Their construction budgets are enormous and their impact upon cities and towns and open spaces is likewise enormous. The assertion of the vast authority of this Commission over the planning and the construction of public utility projects in terms of total public good, or in short, esthetics, is, in my opinion, absolutely required and indeed, so far as I am concerned, somewhat overdue. Presently, without statewide directive applicable to public utilities generally, utility planning and construction now proceeds upon a piecemeal basis. It varies from county to county and if the end result is a state where utility construction is designed to produce an overall beneficial result in terms of need and esthetics, this will merely be by chance. And the chance of this occurring is, in my judgment, exceedingly slight.

I note that the League of California Cities at its recent 1964 Annual Conference held in Los Angeles, California, took note that looking ahead twenty years at the problem of housing alone, five million additional residences will have to be provided for fifteen million people. The League properly asks: "How, with five million more homes and fifteen million more people, can we preserve and enhance the esthetic environment?" The brief document entitled "Report of the League Committee on the Future: shows an awareness of the problems posed by population growth in terms of preservation of beauty and it specifically touches upon undergrounding so far as utility facilities are concerned. In the words of the report it states "it now seems feasible for cities to demand that the developers remove the ugliness of overhead wire. Many cities are passing ordinances requiring undergrounding in new subdivisions." By the same token and from the same basic controversy has arisen a quarrel between some subdividers and some public utilities as to the burden of the cost. One local planning commissioner, Commissioner Felix Warburg of Marin County, is reported in the press as urging "that the decision as to cost bearing is one of polcy which should be set at the highest level by the State Public Utilities Commission, as it is of general statewide interest." To which I heartily agree.

It cannot have escaped general notice, including that of the Commission, that in President Johnson's Special Message to Congress on Natural Beauty, that he referred, among other things, to "the question of whether utility transmission lines can be laid underground."

A committee of the California Legislature has recently spoken out quite strongly in favor of some planning in terms of construction in California, and indeed throughout California local bodies are quite concerned as to this problem. Most of them are quite articulate in demanding that something be done.

No man proposes easy answers to difficult problems since the cold hand of economics is laid upon the ideal of esthetics. Costs cannot be ignored but this is the very reason, among many others, why I have urged that a statewide investigation be called bringing forth all of the public utilities who make substantial capital additions and betterments, together with interested public officials and ratepayers, to the end that an evaluation may be had of public utility efforts at this time in terms of the true public interest.

This proceeding has focused attention on the problem of esthetics with respect to construction of facilities by utilities. The issue of esthetics suggests many questions which cannot be answered in an adversary proceeding, with limited parties such as this, because there are persons and interests who may be affected that are unrepresented. For example: Are there Commission rules which prohibit the use of techniques, by utilities, which provide more esthetically pleasing construction at the same or lower cost than presently used types of construction? Should subdividers or general ratepayers pay the additional costs of undergrounding facilities in subdivisions? Should existing useful facilities be replaced by those which are more esthetically pleasing? In new construction, should ratepayers in one area of the State pay for esthetics in another area? What are the costs and benefits of an emphasis on esthetics in construction of utility plant? How will this affect the average customer's monthly utility bills? I believe that these and other question relating to esthetics should be explored in a proceeding with utilities, consumers, conservationists, municipalities, planners, subdividers, builders, and all interested groups.

That this Commission has the authority to conduct such proceedings is beyond question. That there is the urgency to do so is also beyond question in my mind. The failure of the Commission to respond to so large a challenge is a thing of disappointment to me and will result inevitably in this task being performed either by a legislative committee or by a directve in statute form that we get on with business which is obviously ours. The hard fact is that there is no agency in the State of California other than this Commission which has the necessary powers and scope of authority to deal with the vexing problem of the preservation of beauty in California so far as public utilities are concerned. And if the Commission continues in its course of inaction then inevitably by default our proper function will flow to some other place. I suspect

that the public utilities of California, which themselves are being confronted with local demands are becoming more aware than is this Commission apparently of the public desire for some proper planning. The pace of undergrounding for example cannot be left to the tempo established by public utilities. I am sure that it could be expedited and that the question of the quantum of research and development by public utilities in this field would be most interesting to explore.

What is less enchanting than a view of the hills of the Bay Area, of the blue of the bay, of the endlessness of the Pacific, and its being marred by an intervening utility pole? At the risk of being flippant, it occurs to me that it is like nothing so much as a school boy mustache painted upon the Mona Lisa. And yet until utilities are given clear directives—and none exist presently from this Commission—until a timetable for undergrounding present facilities is imposed, until a policy with respect to new subdivisions is laid down, then with reasonably certainty it can be stated that utility pole is a permanent part of the California landscape and indeed may have a longevity which will become the envy of the vanishing redwoods.

WILLIAM M. BENNETT.

SAN FRANCISCO, CALIF. February 9, 1965.

APPENDIX 3

DESCRIPTION OF POLES FOR OVERHEAD LINE TO SLAC

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., March 4, 1965.

Hon. CHET HOLIFIELD,
Chairman, Joint Committee on Atomic Energy,
Congress of the United States.

DEAR MR. HOLIFIELD: This is to advise you that final design has been completed of the 220-kilovolt single-circuit transmission line over the Searsville rout to supply electric power to the Stanford Linear Accelerator Center (SLAC). This design utilizes tubular steel poles with rigid-type insulators (see sketch 1) along that portion of the line paralleling the accelerator where the terrain is gently rolling, few trees, and no public access to poles. At the remaining locations, tubular poles (see sketches 2 and 3) and "pi" structures (see sketch 4) with strain or suspension-type insulators are used. Three structures will be located in Woodside's city limits; a "pi" structure, a three-pole dead-end structure and a single-pole running-angle structure, the latter two of these being on Stanford land. The final design does not include the three-pole tangent structures with single vertical-post insulators at the top of the pole, sketch of which was included in a letter to JCAE dated July 17, 1964; this increases the strength, reliability, and safety of the line. Pole heights will average 65 feet.

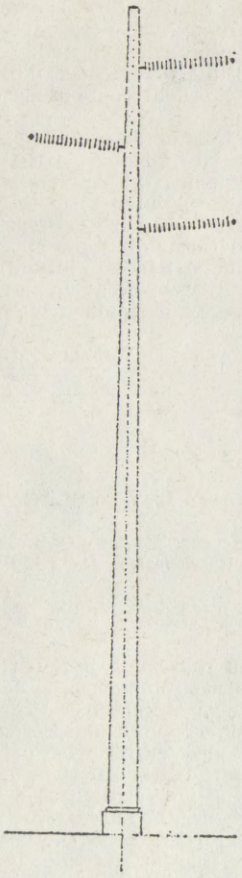
The followling table shows the number of structures used in the final design

Structure	*Number of pole structures*
Single pole, tangent (3 post insulators). (See sketch 1)	11
3 pole, dead-end (suspension insulators). (See sketch 2)	12
Single pole, running angle (suspension insulators). (See sketch 3)	5
"Pi" structures, tangent, 2 poles (suspension insulators). (See sketch 4)	8

A hearing on the appeal of the favorable decision by the Federal district court last June is expected to be held by the Ninth Circuit Court of Appeals in early April 1965. We will continue to keep the committee fully informed on this matter.

Sincerely,

JOHN V. VINCIGUERRA
(For General Manager).

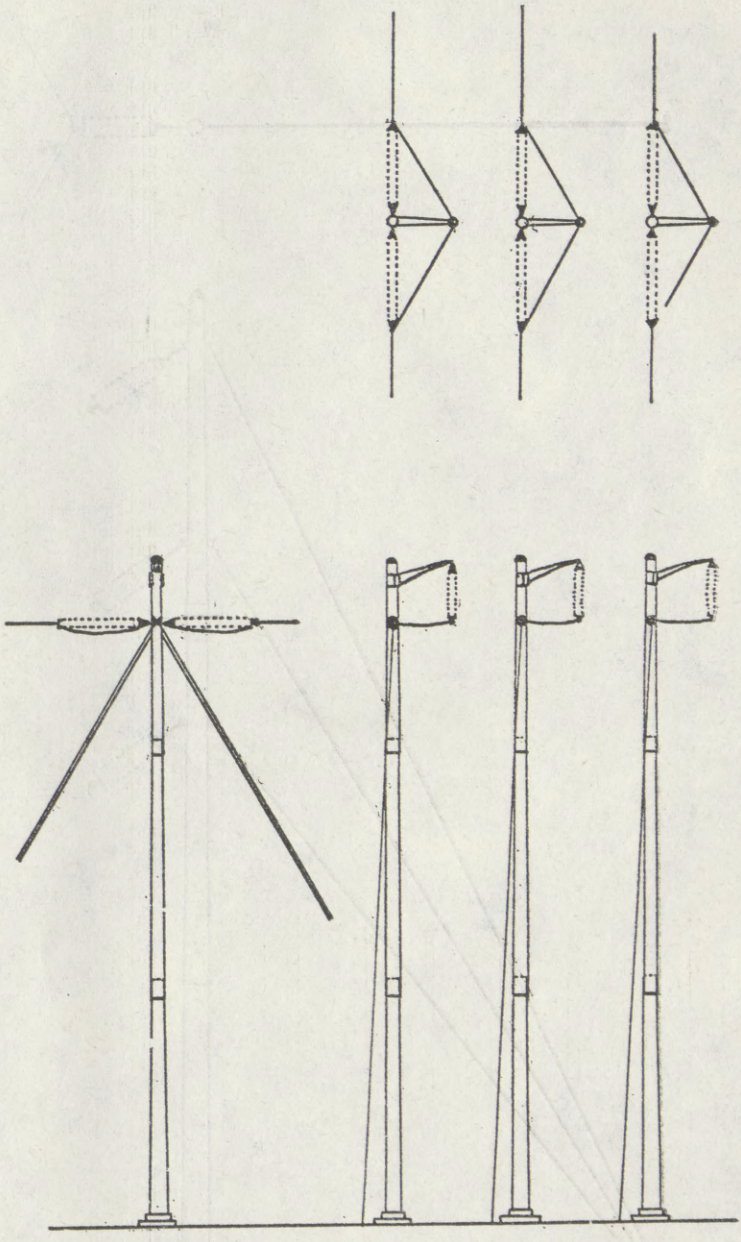


S.L.A.C. TRANSMISSION LINE
PLAN C
S.C. TANGENT STRUCTURE
WOODSIDE TO S.L.A.C. SUBSTATION

Sketch 1

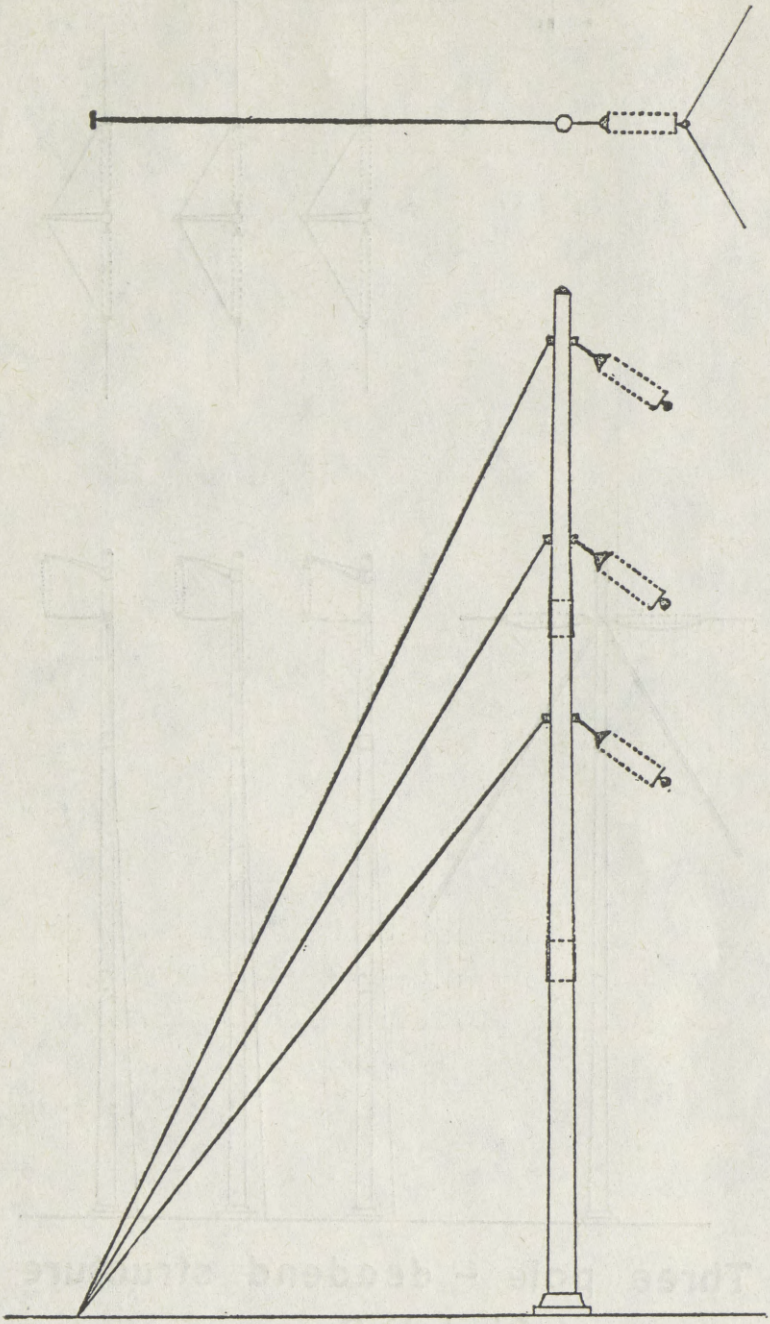
SVERDRUP & PARCEL AND ASSOCIATES, INC.

ENGINEERS — ARCHITECTS



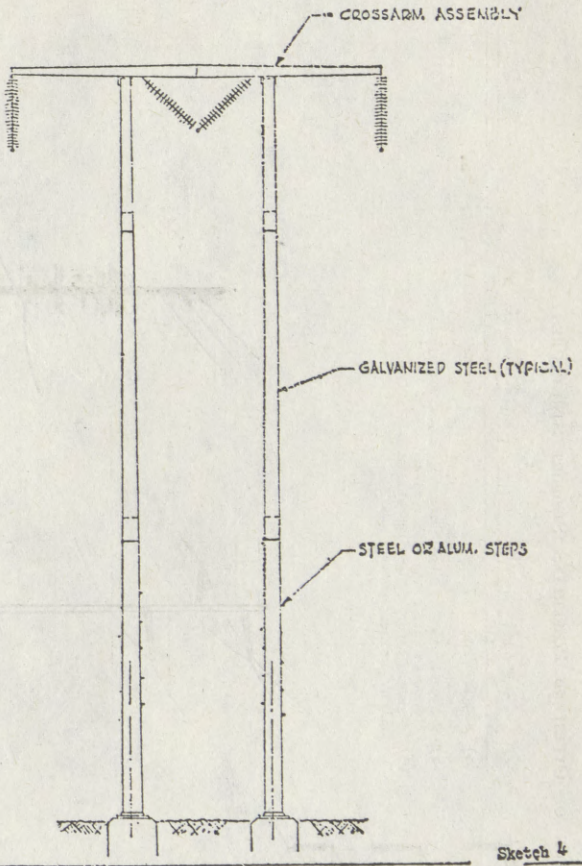
Three pole - deadend structure
Sketch 2

48-712—65——9



Single Pole - Running Angle Sketch 3

U. S. ATOMIC ENERGY COMMISSION
SKETCH SHEET

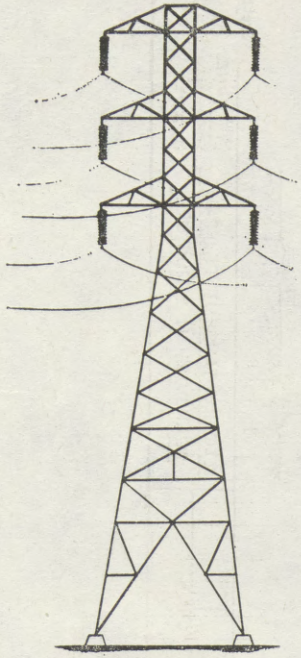


Sketch 4

DRAWN BY / CHECKED BY	220 KV TANGENT PI FRAME	SCALE NONE
DEC. 21, 1954	TRANSMISSION STRUCTURE	SHEET NO. 1
		JOB NO.

APPENDIX 4

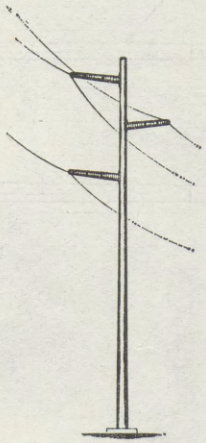
Comparison of Overhead Powerline Support Structures



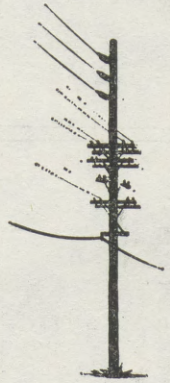
STANDARD DUAL CIRCUIT TOWER
120 FEET
(c)

Types of power poles involved in the current discussions on supplying power to the Stanford Linear Accelerator Center

(a) Single-circuit pole proposed by Pacific Gas and Electric to supply power at 220 kv to SLAC
(b) Conventional wooden pole carrying lower voltage circuits common in California communities
(c) Standard tower used by the utilities for transmitting 220 kv overhead power



SINGLE CIRCUIT POLE
70 FEET
(a)



CONVENTIONAL WOODEN POLE
60 FEET
(b)

APPENDIX 5

EXCERPT FROM SPECIFICATIONS FOR CONSTRUCTION OF 220-KILOVOLT SLAC TRANSMISSION LINE (PREPARED BY ROGERS ENGINEERING CO., INC., OF SAN FRANCISCO FOR THE AEC, MARCH 1965)

SECTION 4—CLEARING

1. General

The contractor shall do all clearing, and cutting and felling and trimming of trees, and dispose of debris as required to provide clearance for conductors, working space and access to and along the rights-of-way. Contractor shall comply with applicable Federal, State and local laws and regulations, and shall obtain any necessary permits. The work shall be accomplished so as to minimize the disturbance of natural features. The creation of cleared corridors shall be avoided by cutting or trimming to irregular sidelines, and clearing to ground level shall not be permitted except at structure sites and for access. The contractor shall avoid needless damage to ground cover, crops, other plant growth, standing timber, soil and other property. He shall restore to a satisfactory condition, as directed by the Commission's representative, any land which he has disturbed to the extent that erosion or damage to property will result. Ruts shall be filled or smoothed after completion of work on each tract.

2. Division of work

The work is described in three parts; removal, trimming, and danger trees. The minimum areas to be cleared by removal or trimming are indicated on the drawings. Additional removal or trimming shall be done as required to establish the clearances indicated. Contractor shall not be entitled to additional compensation for this additional removal or trimming work, and contractor shall inform Commission's representative as to the scope of additional work required. Clearing work, other than that required for access, should not be done until after the structures are erected. Clearing for stringing corridors shall not be allowed; instead, pulling lines shall be stung by helicopter, or by equivalent methods. Final trimming shall be done after the conductors are strung. High lead, winch line, back guys and similar methods shall be used during final clearing to prevent limbs, branches, lines and materials or items from contacting or damaging the conductor.

3. Removal

Removal consists of cutting and felling all trees and brush, except low-growing brush and trees having a mature crown height of 15 feet or less and except that structure sites, access ways and minimum work areas may be cleared to ground level. All dead trees, snags, and dead brush over 3 inches in diameter shall be cleared from removal areas.

Growth to be removed shall be cut to a stump height not more than the stump diameter. Stumps larger than 3 inches in minimum diameter shall be killed by an approved chemical means. Trees, brush or stumps shall not be pushed over, nor stumps pulled out, except where necessary to clear to ground level for access roads or working areas.

4. Trimming

Trimming shall consist of topping or head-back trimming, side trimming or spot trimming of trees as required to obtain clearance or for safety purposes. Where a doubt exists as to whether trimming will be adequate or removal necessary, the tree shall first be trimmed and then removed if required. All trimming cuts shall be made in a manner which will limit damage to the tree and promote healing. Cutting tools shall be sharp so that an unabraded cambium edge will be left on final cuts. Climbing spurs or spike shoes shall not be used, nor other methods which will cause damage to bark. Pruning cuts shall be as small as practicable and made in a manner to favor the earliest possible covering with callus growth. Pruning cuts over 2-inches in diameter and other abrasions or bark damage where insects may lodge shall be painted with an approved pruning compound, except that where necessary to prevent the spread of a recognized disease, pruning cuts shall be left unpainted. In such cases, cutting tools and the cut surfaces shall be disinfected as prescribed for the disease involved. A topping or head-back trim shall consist of removing the top half or third of the tree by drop-crotch pruning such that a natural appearing foilage margin will be preserved.

Side trimming or spot trimming consists of removing limbs or branches as required for clearance, or that in falling may endanger the line, and all large dead branches and other limbs as required to reestablish the natural framework and balance of the tree.

5. Danger trees

Danger trees are trees outside the normal clearing limits which, in overturning would come within 10 feet of the conductor in its normal position. Contractor shall remove unsound danger trees and trim sound trees as required to minimize the possibility of overturning toward the line.

Contractor shall remove sound danger trees within the right-of-way as directed by the Commission's representative. Contractor shall remove or trim danger trees outside the right-of-way as directed by the Commission's representative. Payment for removing or trimming danger trees outside the right-of-way shall be at the unit prices quoted. No additional amounts will be allowed for delay in trimming or felling danger trees due to delayed acquisition by the Government or for other reasons.

6. Disposal of waste material and cleanup

Waste material includes tops, limbs, brush, uprooted stumps, logs, including merchantable logs, and other debris resulting from the clearing operations. Waste material shall not be buried or burned on or in the vicinity of the right-of-way. All waste material shall be removed from clear or open areas. Disposable material in wooded areas shall be removed, or reduced to chips and spread over the right-of-way. Chipped material shall not be allowed to accumulate in piles or otherwise be subject to possible ignition by spontaneous combustion. Subject to the approval of the Commission's representative, waste material in wooded areas difficult of access may be left on the right-of-way provided that all limb and branches 2 inches or larger in diameter shall be severed from larger branches or limbs, material shall not be windrowed or piled under the line, and cut branches and limbs shall not be left suspended in trees or brush.

7. Payment

For purposes of determining progress for payment, where partial payments are otherwise allowed, the following relative values are established:

	Percent
For cutting, felling, and piling	40
For disposal of waste material and cleanup	60

APPENDIX 6

Correspondence on Powerline Negotiations

Congress of the United States,
Joint Committee on Atomic Energy,
June 3, 1965.

Mr. Robert E. Hollingsworth,
General Manager, U.S. Atomic Energy Commission,
Washington, D.C.

Dear Mr. Hollingsworth: During the hearing yesterday, on the proposed bill to amend section 271 of the Atomic Energy Act of 1954, Congressman J. Arthur Younger testified that the Commission broke off negotiations concerning the powerline for SLAC. The point of his testimony appeared to be that negotiations were broken off by the AEC over a year ago and therefore the local communities concerned were precluded from developing a cost-sharing agreement for the installation of the SLAC power line.

To the best of my knowledge, the committee had not been informed that the Commission had, over a year ago, terminated negotiations. Please supply your comments concerning this matter to the committee as soon as possible in order that they may be made a part of the hearing record.

Thank you for your cooperation in this matter.

Sincerely yours,

John T. Conway, *Executive Director.*

ATOMIC ENERGY COMMISSION,
June 10, 1965.

Mr. JOHN T. CONWAY,
Executive Director, Joint Committee on Atomic Energy,
Congress of the United States.

DEAR Mr. CONWAY: I refer to your letter of June 3, 1965, asking for our comments on Congressman Younger's remark, at the hearing on June 2, 1965, before the Subcommittee on Legislation of the Joint Committee on Atomic Energy on H.R. 8443 and companion bills, to the effect that negotiations were broken off by AEC over a year ago, thereby preventing the possibility of a cost-sharing agreement.

We were surprised by this statement from Mr. Younger. No negotiations respecting a compromise solution of the problem of sharing the cost of placing a transmission line for SLAC underground were ever broken off by the AEC.

It will be recalled that in Dr. Seaborg's letters of March 7, 1964, to the mayor of Woodside and the county manager of San Mateo County (see pp. 158–165, record of January 1964 hearing), it was stated: "We are prepared to go along with an underground line notwithstanding the fact that the interests of the project would be better served by an overhead installation. We are willing to contribute up to the amount of $350,000, recommended by staff—as an approximate five-way sharing of the added costs of burying a 180-megawatt capacity line—toward the total additional costs involved. In addition, as previously mentioned, AEC would be absorbing the amount of $668,000 in the power rates presently stipulated in the P.G. & E. contract."

These letters of March 7, 1964, further stated: "If, contrary to all indications in the remote or recent past, an offer is received by the Commission, which presents without a built-in delaying or contingency factor, a contribution of substantially all the remaining costs entailed in burying the line, the Commission would be prepared to consider it carefully. Should such an offer be submitted subsequent to the initiation of eminent domain proceedings, the Commission would nevertheless give it due consideration, if the practicalities involved, considering the Government's acquisition posture and the other existing circumstances, permitted."

When the AEC publicly announced that it had requested the Department of Justice to proceed with legal action to condemn the right-of-way, the press release on that announcement (copy attached) also reiterated AEC's willingness to consider proposals "that might be received in regard to supplying power to the facility by an underground line." It mentioned Chairman Seaborg's letters of March 7 and 16 to Mayor Graham and County Manager Stallings. The announcement concluded by citing that portion of the letters which "indicated that even if such an offer was submitted subsequent to the initiation of eminent domain proceedings, the Commission would nevertheless give it due consideration * * *."

No firm offer toward such a compromise solution was ever received at any time. Further, AEC never closed the door to its willingness to consider any such offer that might be submitted, and it was always prepared to participate in meaningful discussions toward that end.

On July 30, 1964, after the condemnation action was instituted, the mayor of Woodside inquired of the Commission whether AEC would accept an underground 180 megawatt line if no additional cost to the AEC beyond its previous offer of $220,000 were involved. By return wire the same day, Commissioner Ramey reaffirmed the statement in Dr. Seaborg's letter of March 7 to the effect that AEC would be prepared to consider any firm offer if the practicalities involved. permitted. No offer was received. As late as September 10, 1964, Commissioner Bunting again had occasion to reply to an inquiry from the mayor of Woodside. In this letter she reminded the mayor that "* * * no compromise offer, for which AEC tried to leave the door open, has ever been made." Dr. Bunting's letter also stated that "although considerable Government expense has been incurred in acquiring the right-of-way and design of overhead installation, it may still be barely possible that the practicalities could permit a reversal of AEC direction if an eligible offer were to be received without delay."

No offer was made. No negotiation was requested. Copies of the above mentioned correspondence are attached.

If there is any further information that we can provide, please do not hesitate to ask.

Sincerely yours,

JOHN V. VINCIGUERRA,
(For General Manager).

Attachments:

1. Wire from mayor of Woodside.
2. Wire from Commissioner Ramey.
3. Ltr from mayor of Woodside.
4. Ltr from Commissioner Bunting.
5. Press release.

WOODSIDE, CALIF., *July 30, 1964.*

GLENN SEABORG,
Atomic Energy Commission,
Washington, D.C.:

Ref your letter of March 16 CMM 1964 offering reconsideration P.G. & E. underground line on terms acceptable to AEC.

In event underground CMM 180 Megawatt CMM line can be constructed to P.G. & E. specifications by July 1965 at no cost to AEC beyond your previous offer of $220,000. CMM will AEC accept line at rates under present contract PD.

Please wire conditions under which AEC will accept P.G. & E. 180 Megawatt underground lines to William Bennet CMM California Public Utilities Commission CMM, San Francisco, as soon as possible.

DONALD GRAHAM, *Mayor of Woodside.*

July 30, 1964.

DONALD GRAHAM,
Mayor of Woodside, Woodside, Calif.:

Reference your TWX to Chairman Seaborg dated July 30. As stated in our letter of March 7 and reaffirmed in our letter of March 16, if an offer were to be submitted to the commission which presents, without a built-in delaying or contingency factor, a contribution of substantially all the remaining costs entailed in burying the line, the commission would be prepared to give it due consideration if the practicalities involved, considering the Government's acquisition posture and the other existing circumstances permitted. No such offer has been received. If such an offer were to be submitted, the commission would give it due consideration in the light of the circumstances then existing, including the status of the Government's commitments at that time.

JAMES T. RAMEY, *Acting Chairman.*

TOWN OF WOODSIDE,
Woodside, Calif., September 3, 1964.

DR. GLENN SEABORG,
Chairman, Atomic Energy Commission,
Washington, D.C.

DEAR DR. SEABORG: I have received copies of the letters of Senators Kuchel and Salinger to you of August 22, 1964, together with a copy of your reply indicating that the door is still open for an underground line if an offer acceptable to the Commission can be made.

The town of Woodside has asked the California Public Utilities Commission (PUC) to require alternatively that P.G. & E. construct an underground line at no increase in present contract rates to AEC, or, to indicate its disapproval of contract rates which would not suffice to build such a line as required by local ordinances.

Should the PUC order the underground line to be constructed P.G. & E. with no additional cost to AEC, we believe that this order should suffice in the place of the offer which you have requested.

If so, will AEC accept such a line rather than proceed with the contemplated construction of the overhead line?

As you know, the town of Woodside has previously offered $150,000 toward the cost of undergrounding the line. If the PUC should order the underground line, please be advised that the town of Woodside stands ready to contribute a reasonable sum toward any nonreimbursable expenses to AEC by reason of the acquisition of right-of-way for the overhead line, provided that the terms of such contribution meet requirements of California law relating to general law

cities. We are advised by counsel that the town can validly contribute funds for the preservation of its scenic environment.

We understand that only a very small portion of the right-of-way acquisition funds of some $232,000 deposited in court has thus far been withdrawn, and that the majority of the private property owners involved are more than willing to release the funds on deposit in return for a reconveyance of their property.

In view of the need for haste, however, if the underground line is to meet SLAC demands for power by September 1965, it would be helpful if you could give us an idea of the magnitude of expenditure which AEC feels Woodside should contribute in the event the underground line is ordered by the California commission under the terms described above.

I look forward to your early reply.

Respectfully,

DONALD GRAHAM.

U.S. ATOMIC ENERGY COMMISSION,
Washington, D.C., September 10, 1964.

Mr. DONALD GRAHAM,
Mayor, Town of Woodside, Woodside, Calif.

DEAR Mr. GRAHAM: This is in reply to your letter of September 3, which poses questions similar to the inquiry in your wire of July 30 to which we replied by return wire the same day.

We believe we have made AEC's views clear in numerous correspondence. Our recent letters to Senator Kuchel and Senator Salinger, copies of which are in your hands, accurately indicate AEC's present position.

As you know, AEC is not a party to the complaint lodged against the Pacific Gas & Electric Co., by the town of Woodside and others, and it is inappropriate for us to intrude in any way in the hearings and deliberations of the California Public Utilities Commission.

As we wrote to Senator Kuchel and Senator Salinger, no compromise offer, for which AEC tried to leave the door open, has ever been made, and, although considerable Government expense has been incurred in acquiring the right-of-way and design of overhead installation, it may still be barely possible that the practicalities could permit a reversal of AEC direction if an eligible offer were to be received without delay.

Sincerely yours,

MARY I. BUNTING, *Acting Chairman.*

APRIL 24, 1964.

(Released in San Francisco, Apr. 27, 1964)

The Atomic Energy Commission has requested the Department of Justice to proceed with legal action to condemn the entire right-of-way necessary to provide electric power to the Stanford linear electron accelerator, E. C. Shute, manager of the AEC's San Francisco Operations Office, said today.

The condemnation action for the entire route has been made necessary because of withdrawal by the San Mateo County Board of Supervisors of a use permit previously granted the Pacific Gas & Electric Co., by the county planning commission for portions of the right-of-way on unincorporated land within the county. The board of supervisors acted on April 21. Previously, the Commission had initiated condemnation proceedings involving the portion of the right-of-way within the town of Woodside.

With respect to the type of overhead line which might be built, the AEC is favorably disposed toward a tubular pole line and is carefully considering justification for such a line.

The condemnation actions do not preclude AEC consideration of proposals that might be received in regard to supplying power to the facility by an underground line. In letters of March 7 and March 16, to Mayor Donald J. Graham, of Woodside, and County Manager E. R. Stallings, of San Mateo County, AEC Chairman Glenn T. Seaborg stated that the Commission is still prepared to receive an offer which would provide for construction of an underground line provided it does not contain any built-in delaying of contingency factors and provided it contains an appropriate cost-sharing provision for this construction. His letters also indicated that even if such an offer was submitted subsequent to the initiation of eminent domain proceedings, the Commission would nevertheless give it due consideration if the practicalities involved, considering the Government's acquisition posture and the other existing circumstance, permitted. This is still the Commission's position.

APPENDIX 7

EXCERPTS FROM SENATE DEBATES RELATIVE TO SECTION 271

During July 1954, the Joint Committee bills which became the Atomic Energy Act of 1954 (H.R. 9757 and S. 3690) were debated on the floors of both House and Senate. The following are pertinent excerpts:

"Mr. HUMPHREY. Mr. President, I send one further amendment to the desk. I hope it will be received as generously. It is 7-16-54-G.

"The PRESIDING OFFICER. The clerk will state the amendment.

"The LEGISLATIVE CLERK. On page 87, after line 20, it is proposed to add a new section, as follows:

"'e. Every licensee under this act, holding a license from the Commission for a utilization or production facility for the generation of commercial power under section 103, shall be subject to the regulatory provisions of the Federal Power Act applicable to licensees under that act as established by sections 301, 302, 304, and 306 thereof and to such other provisions of the Federal Power Act as provide for the enforcement of the regulatory authority of the Federal Power Commission with respect to licensees for development of waterpower."

"Mr. HUMPHREY. Mr. President, the purpose of this amendment is, I think, rather succinctly and clearly stated in the language of the amendment. It simply says we have here in atomic energy a Federal resource just as much as we have in falling water or in what we call hydroelectric generation potentiality. We have in atomic energy material the complete Federal monopoly, a Government monopoly completely owned by the people of the United States without question of doubt.

"This is a matter of investment, since every dollar's worth and pound of material has been paid for by the people of the United States without question of doubt.

"This amendment clearly says in view of the complete Federal ownership of atomic materials or fissionable materials or nuclear energy that when and if licenses are granted for the express purpose of generating power—in other words, licenses are granted for the use of a fuel which is federally owned to generate power—then the sections 301, 302, 304, and 306 of the Federal Power Act, which relate primarily to the accounting and reporting, apply to the atomically generated electricity."

* * * * * * *

"Mr. HICKENLOOPER. Mr. President, I should like to say that we will have to resist this amendment as vigorously as we can, because this amendment says the Federal Power Commission shall move in and control the rates and utility of electricity, even intrastate, in spite of the State regulatory bodies or municipal regulatory bodies. It is the old fight as to how far the Federal Power Commission shall move into the sovereignty of the States and local regulatory bodies.

"We take the position that electricity is electricity. Once it is produced it should be subject to the proper regulatory body, whether it be the Federal Power Commission in the case of interstate transmission, or State regulatory bodies if such exist, or municipal regulatory bodies. We feel that there is no difference and that it should be treated as all other electricity which is regulated by the public.

"I call special attention to section 271 of the proposed act, which says:

"'SEC. 271. Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power.'

"That is designed to keep the regulatory authority exactly as it is now, traditionally and under the law. I merely call that to the attention of the Senator.

"I earnestly hope the Senator will not press this amendment because I feel it is an alteration of the present concept of regulation of electric power.

"Mr. HUMPHREY. I may say to my friend, the distinguished chairman: He has stated the case. What the Senator says is that there should not be any more regulation upon this kind of power than there is upon other forms. I agree.

"What we are really talking about here are different kinds of fuels which produce the same kind of power. It makes no difference whether electricity is produced from thermal fuel or from hydropower. The fact is it becomes electricity.

* * * * * * *

"Mr. BUSH. Would the power generated from atomic energy not be automatically subject to the regulation of the Federal Power Commission if it came under the law? It seems to me the Senator's amendment is quite unnecessary.

"Mr. HUMPHREY. No. The Federal Power Act, part III, section 301, is involved. One section is 'accounts, records, and memoranda.'

"That relates, as it says here: 'Every licensee and public utility shall make, keep, and preserve for such periods, such accounts, records of cost-accounting procedures, correspondence, memoranda, papers, books, and other records as the Commission may by rules and regulations prescribe as necessary * * *.'

"That language may very well not be included under this bill.

"Mr. BUSH. Why would it not apply to any source of new power?

"Mr. HUMPHREY. Because this bill does not refer by cross-reference to the Federal Power Act.

"Mr. BUSH. Why should it do so?

"Mr. HUMPHREY. It should for the simple reason that this is a Government-held resource. This atomic matter is Government-owned more so than the rivers and the streams and waterfalls. At least God can claim those, and this we must take credit for. I say, on that basis, maybe we had better apply manmade law.

* * * * * * *

"Mr. HUMPHREY. * * * .

"All I am trying to make sure is that in this bill—which I say is the heart of it—once the license has been granted, unless the same rules and regulations are applied to the generation, distribution, and sale of electrical energy which is the product of atomic energy, as is done with hydropower, then there is set up a special category of power and a competing source of power which is not regulated with the same rules and the same powers as the other.

"Mr. FERGUSON. Mr. President, will the Senator yield?

"Mr. HUMPHREY. I now yield to the Senator from Michigan.

"Mr. FERGUSON. I now read section 271:

" 'Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power.'

"Mr. HUMPHREY. I understand that.

"Mr. FERGUSON. Does that not apply?

"Mr. HUMPHREY. No.

"Mr. FERGUSON. Why not?

"Mr. HUMPHREY. What that really means, I may say to my distinguished friend, is that there is nothing in this act that denies the Federal Power Commission the right to regulate. That is what it means, but it does not say how, and what the Senator from Minnesota wants to be sure is that the 'how' on electrical energy created by atomic matter is the same 'how' that is on hydrogenerated electricity; that is all.

"Of course, the act says that there shall be nothing in the act to deny the Federal Government, the State, or the local government to regulate, but what kind of regulation concerning reports and accounting? is the question.

"What the Senator from Minnesota says is that he does not want one set of standards for electrical energy generated by the use of a fuel known as a fissionable material or atomic matter, and another set of rules under the Federal Power Commission that is for hydrogenerated power.

"Mr. FERGUSON. Mr. President, will the Senator yield?

"Mr. HUMPHREY. I yield to the Senator from Michigan.

"Mr. FERGUSON. Is it not true that if there is nothing in this act that can be construed to affect the authority of the Federal Power Commission, then everything can be done by the Federal Power Commission that the Senator would provide for?

"Mr. HUMPHREY. No. May the Senator from Minnesota say that what he wants to do is to convey the authority specifically in the act. What the act provides now is a broad grant, saying that there is nothing in the act that will deny a Federal agency from regulating it. That is not good enough; that is what the Senator from Minnesota calls a negative authorization of potential authority.

"What the Senator from Minnesota wants is to say specifically in this act that the authority is there, that there has been a conveyance of authority, and that the same authority and the same rules and regulations apply in this instance as apply under what is now known as conventional power.

"(Mr. Long and Mr. Pastore addressed the Chair.)

"Mr. HUMPHREY. I yield to the Senator from Louisiana and then to the Senator from Rhode Island, if he will just be patient.

"Mr. LONG. Does the Senator from Louisiana correctly understand the argument of the Senator from Minnesota, that he feels it is not adequate simply to say in the bill that 'nothing herein affects the authority of the Federal Power Commission,' but that he feels it is necessary to affirmatively convey the authority to the Federal Power Commisison to regulate interstate transmission of electricity transmitted by atomic power?

"Mr. HUMPHREY. May the Senator from Minnesota say to the Senator from Louisiana that what the amendment which the Senator from Minnesota has offered does, it applies to accounting procedure, rates of depreciation, reports and periodic memoranda. In other words, the Senator from Minnesota wants the same form of accounting precedures, the same depreciation schedule that applies to other units that create electrical energy to apply to the nuclear-created electrical energy.

* * * * * * *

"Mr. BUSH. Does not the Senator believe that the language in the bill completely covers what he is talking about? I refer the Senator to section 271, which consists of only four lines, and reads as follows:

" 'SEC. 271. Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power.'

"Mr. HUMPHREY. What the Senator is saying refers to the subject in a negative way, that the Federal Government has the right to regulate that which it owns. What I am saying is that the Federal Government has a right to regulate what it owns, and must and shall regulate it. That is what I am saying.

"Mr. BUSH. It seems to me that that section gives the Senator everything he is asking for.

"Mr. HUMPHREY. It says that nothing in the act shall be construed to affect the authority. What I am saying is not only that nothing in the act shall be construed that way, but that the same authority that applies—I am not now talking about the rate structures—to accounts and records and rates of depreciation and reports and other requirements applicable to the agencies of the United States, and I say that that same authority not only should be included in the act in a negative way, but should be affirmatively stated." [100 Congressional Record, pp. 11567–70, July 26, 1954; 3 Losee, Legislative History, pp. 3760–3.]

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"Mr. HUMPHREY. Mr. President, I trust we are merely going through another formality, because my amendment was discussed at great length last evening. It has now been modified to meet some of the objections that were registered by some of my distinguished colleagues on both sides of the aisle.

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"Mr. HUMPHREY. * * *.

"What I have done, Mr. President, is to take the amendment I presented last night, which was defeated on a yea-and-nay vote, make substantial alterations and modifications, and present it as a new amendment.

"My amendment now reads, and I ask the indulgence of my colleagues:

" 'e. Every licensee under this Act engaged in interstate commerce, holding a license from the Commission for a utilization or production facility for the generation, marketing, and distribution of commercial power under section 103, shall be subject to the regulatory provisions of the Federal Power Act applicable to licensees, under that Act as established by sections 301, 302, 304, and 306 thereof.'

"In other words, the amendment would limit the Federal Power Commission's regulations, insofar as reporting, accounting, depreciation schedules, and the filing of consumer complaints or competitor complaints to those installations licensed by the Atomic Energy Commission that will be producing power for sale and transmission in interstate commerce.

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"Mr. HUMPHREY. * * * It appears to me, as was pointed out last evening, that while the act as it is now written says that 'nothing herein shall deny any Federal, State, or local regulatory agency from issuing whatever rules or regulations may be necessary,' this is a much more affirmative proposal, and it limits

the application to the Federal Power Act, insofar only as the gathering of statistical evidence is concerned, and section 306 which pertains to the right of complaint and the machinery established for consumer or competitive groups to register a complaint with the Federal Power Commission, on the part of any utility that may be licensed by the Atomic Energy Commission.

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"Mr. HICKENLOOPER. Is it not a fact that section 271 of the bill already covers the authority and regulations of the Federal Government through the Federal Power Commission, which already exist over electricity, and its transmission; and it recognizes the rights of the States, where their rights occur, and recognizes the rights of the local agencies, where their rights exist. Now, that is already in the bill.

"I see no necessity, in the first place, for the amendment.

"In the second place, the amendment goes further than the Federal Power Act goes.

"Mr. HUMPHREY. I may say to my friend, it surely does not do so, under my interpretation of the language.

"Secondly, because it applies specifically to those sections of the Federal Power Act which I read into the record last night, and need not do so again today.

"Mr. HICKENLOOPER. They are in the amendment?

"Mr. HUMPHREY. That is correct. They are listed as sections 301, 302, 304, and 306.

"The junior Senator from Minnesota read salient portions of those sections of the Federal Power Act into the record last evening.

"My only argument with the Senator from Iowa is, once again I may say, the application and interpretation of language. Section 271 of this bill reads as follows:

" 'Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to generation, sale, or transmission of electric power.'

"I agree with the Senator in his point of view, that it is possible that, under that section, to say not only is it possible for a Federal agency to regulate, but so can a State, and so can a local agency.

"What my amendment simply does is to say that not only can it be done, but it shall be done, in exactly the same way as it is done for other forms of the generation of electrical power.

"Mr. PASTORE. Mr. President, will the Senator yield?

"Mr. HICKENLOOPER. Mr. President, will the Senator yield?

"Mr. HUMPHREY. I yield to the Senator from Rhode Island.

"Mr. PASTORE. As I understand the amendment of the distinguished Senator from Minnesota, it says in a positive way what, in my opinion, section 271 says in a negative way.

"I think they both mean the same thing. I think the distinguished Senator from Minnesota intended that they should mean the same thing.

"Mr. HUMPHREY. That is what I want to spell out.

"Mr. PASTORE. The Senator wants to see that it shall come under the Federal Power Commission, positively.

"Mr. HUMPHREY. That is correct.

"Mr. PASTORE. And section 271 states that no Federal authority or Federal regulation; that is, 'nothing in this Act shall be construed to affect the authority'?

"Mr. HUMPHREY. That is correct.

"Mr. HICKENLOOPER. What section 271 does is to make clear that this act does not interfere in any way with the jurisdiction of the Federal Power Commission over such activities, or with State agencies where they have jurisdiction, or with local agencies where they have jurisdiction.

"It is not an authority given in a negative way. It is a positive negation of any intent by this statute to interfere with the existing laws and the existing authorities, State and Federal, that have to do with electricity.

"Mr. PASTORE. Mr. President, will the Senator yield at that point?

"Mr. HICKENLOOPER. Yes.

"Mr. PASTORE. Is it not a fact that the Federal Power Commission has authority over all interstate public utilities; and would that power not be the same? This would come under it, and that would be all.

"Mr. HICKENLOOPER. It has authority over the transmission of electric energy in interstate commerce, and the sale of such energy at wholesale in interstate commerce.

"Mr. PASTORE. Therefore, all public utilities engaged in interstate commerce come under section 301 of the Federal Power Act; and that is all the Senator from Minnesota [Mr. Humphrey] is now trying to say.

"Mr. HUMPHREY. Except that I want to make sure the rules and regulations which may be set up for reporting, for accounting, for depreciation of schedules, or the right of the complainant to be heard are the same in this instance as they are in the traditional or conventional form of electrical power production.

"It seems to me, may I say to the chairman of the committee, if the bill means what the Senator says it means, why not say it? Why do we have to have this rather nebulous or rather negative approach? Why back into it? Why not march into it?

"Mr. HICKENLOOPER. We do not back into it. We are very careful in this bill not to attempt to write into it affirmative law which may have to be interpreted by the courts, but merely to say that the present existing authority shall not in any way be interfered with in the regulation of interstate transmission of electric energy, in that general field. We make it very clear that we do not disturb existing law.

"If the Senator will indulge me for a moment, I will say this: There is a reason for saying it this way, as we have said it in the bill. Every time a State legislature or the U.S. Congress passed a bill on a subject, giving affirmative relief or containing affirmative provisions, that new legislation is bound to be subject at some time or other to interpretation as to what it means. Does it mean to change? Does it mean to alter? Does it create any new situations?

"We have attempted in this bill to eliminate such questions as that by merely saying the existing authority for the regulation of the flow of interstate power—whatever those regulations may be or whatever the authority which now exists in the Federal Power Commission is—remains the same.

"Mr. HUMPHREY. They have the authority.

"Mr. HICKENLOOPER. They have the authority.

"Mr. HUMPHREY. But do they necessarily apply the authority? What the Senator from Minnesota is saying is that not only must they have the authority, but as to every licensee holding a license from the Atomic Energy Commission for the production of commercial power, which power is distributed or sold in interstate commerce, the provisions of the Federal Power Act—not just the blanket authority but the specific provisions of sections 301, 302, 304, and 306—shall apply.

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"Mr. HICKENLOOPER. Is there any question in the Senator's mind that the Federal Power Commission has authority over the transmission of electrical energy in interstate commerce?

"Mr. HUMPHREY. Not insofar as hydroenergy is concerned, no.

"Mr. HICKENLOOPER. Hydropower does not flow over the lines.

"Mr. HUMPHREY. That is right.

"Mr. HICKENLOOPER. It is electrical energy which flows over the lines.

"Mr. HUMPHREY. That is correct.

"Mr. HICKENLOOPER. It is electrical energy which flows in interstate commerce.

"Mr. HUMPHREY. That is correct.

"Mr. HICKENLOOPER. I think the Senator from Nebraska [Mr. Reynolds] made a very pertinent point when he said it does not make any difference whether the energy is produced from oil, coal, or corn cobs. It is the energy which is under the jurisdiction of the Federal Power Commission, when it flows in interstate commerce.

"Mr. HUMPHREY. There is a difference, I may say.

"Mr. HICKENLOOPER. If I may pursue this for a moment? These licensees are private operators. They produce electric energy. Whether they produce it partly with uranium, partly with corn cobs, or partly with coal does not make any difference. So far as the fact that they produce electric energy is concerned, that electric energy which goes into interstate commerce is under the control and jurisdiction and regulation of the Federal Power Commission under the proposed act, under section 271.

"The Senator's amendment goes further than section 271, in my judgment.

"Mr. HUMPHREY. Yes. It is supposed to.

"Mr. HICKENLOOPER. It refers to distribution all the way through. The Federal Power Act refers to the wholesale distribution under the Federal Power Commission; and the local distribution, so far as I know, is under the jurisdiction of the local regulatory body, either the State, or municipal or other local regulatory body. The distribution to the consumer from the wholesale point of purchase is up to the local body.

"Under the Senator's amendment the Federal Power Commission would follow it right straight through to the cook stove.

"Mr. HUMPHREY. To reply to the Senator I am more than happy to take out the word 'distribution,' if that is what bothers the Senator. I inserted the word in order to placate and please those who complained about it when I did not have it in the amendment. Last night, I did not have the word 'distribution' in and that made it wrong. Now I have that word in and it is wrong.

"What I want to say to my friend from Iowa is this: Hydropower, under the Federal Power Commission Act sections I referred to, is that hydropower generation licensed by the Federal Power Commission. It is licensed by the Federal Power Commission.

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"Mr. HUMPHREY. * * * I want to make quite sure that when the Atomic Energy Commission does the licensing of the fuel, insofar as this amendment applies to the areas of accounting, reports, statistical evidence, memorandums, depreciation rates, and the right of complainants to be heard are concerned, the rules and regulations are not set up by the AEC under their types of regulation, but are set up by the Federal Power Commission just as they are for other types of fuel. That is what my amendment does.

"Mr. HICKENLOOPER. Mr. President, if the Senator will yield that is exactly what section 271 of the pending bill does.

"Mr. HUMPHREY. Let me ask the Senator: If it is what section 271 of the bill does, why does it not refer to the one act of Congress which regulates electrical energy; wholesale, sale, and generation? What act is it which regulates that?

"Mr. HICKENLOOPER. In interstate commerce?

"Mr. HUMPHREY. Yes.

"Mr. HICKENLOOPER. It is the Federal Power Act.

"Mr. HUMPHREY. Then why does the bill not say so?

"Mr. HICKENLOOPER. We go further than that. We say that nothing in this act shall interfere with or affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale or transmission of electric power. We say that this act does not interfere with the rights and the power and the authority of any Federal, State, or local regulatory body whatever; and the power and the authority which may be there now for the transmission of electricity or the generation of electricity or whatever the authority may be is not changed.

"Mr. HUMPHREY. What the Senator's interpretation is, I take it, is that all of the body of law of the Federal Power Act, which pertains to licensing, which pertains to the rate structure, which pertains to reporting, which pertains to any form of regulation whatsoever under the Federal Power Act and the rules and regulations of the Federal Power Commission, are applicable to every line and every passage of this act insofar as the production of power is concerned.

"Mr. HICKENLOOPER. Whenever the Federal law—any Federal law; all of them—applies today to electric energy in interstate commerce, that would apply to the licensee under this bill exactly the same as to the licensee who makes electric energy with coal or with oil or with anything else. There is no change.

"Mr. HUMPHREY. May I say that the Federal Power Commission does not believe that to be correct. That is the point I am trying to get across.

"I did not offer this amendment just as a whim of fancy. The fact is that in the testimony before the Joint Committee on Atomic Energy the Federal Power Commission stated it felt it needed this precise language.

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"Mr. HICKENLOOPER. There was a move on the part of the committee to put this section 271 in the bill as a safeguard and as an assurance that the existing authority of the Federal Power Commission or the Federal law or agency and the existing authority of the State agencies and the existing authority of local

agencies, whatever they may be in connection with the transmission of electric energy, would not be disturbed or interfered with in any way.

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"Mr. HUMPHREY. Now you have got a license granted by the Atomic Energy Commission. We go back to the license section of this bill, and we find what reasons that license was granted for. There are many reasons, and there are many controlling factors under the granting of that license.

"You see, I do not want a separate set of records distinct from that which are used ordinarily, and which regulation is applied ordinarily to an electrical energy production unit, to be applied to the atomic production unit and thereby have two sets of records, two housekeeping units, and two ways of measuring statistical evidence.

"Mr. HICKENLOOPER. It would not be.

"Mr. HUMPHREY. Well, I hope not.

"Mr. HICKENLOOPER. Under the present act, it could not be. Whatever is in existence now would continue to be in existence after this act. This is only another kind of a fuel for the production of energy, and it is not the fuel that is being regulated; it is the transmission.

"Mr. HUMPRHEY. That is correct.

"Mr. HICKENLOOPER. In interstate commerce.

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"Mr. HICKENLOOPER. * * *

"I think the Senator's amendment is not only not needed, but it is an affirmative statutory creation, which will lend itself to the necessity of interpretation again, and the body of Federal power law which has already been through the courts which has been interpreted in many of its facets may be altered.

"In what way I do not know. It may be altered by the Senator's amendment. There is no use disturbing that interpretive body of law.

"We say in this act that the same rules and regulations, power and authority of the Federal Government, or of the local and State agencies, that exist now over the transmission of electric energy in interstate commerce shall obtain so far as any licensee is concerned. That is only a precaution. It would obtain if we never had that provision in the law. Even the provision of section 271 is not necessary in the law, in my opinion, for the Federal Government to assume jurisdiction over the transmission of electricity in interstate commerce by a licensee. We put section 271 in there as an assurance that the existing authority is not disturbed.

"So I think the Senator's amendment is fully covered by the present provision in the law, and an affirmative enactment of a new mandate, regardless of how much it may seem to be like the present power, can very well create new areas of dispute and disagreement and difficulty and legal interpretation.

"Mr. HUMPHREY. That is exactly what I am trying to avoid, may I say, by my amendment. I want to be sure that there is not these areas of dispute and disagreement and misunderstanding, but that the same body of rules and regulations apply to all forms of electrical energy. That is exactly what I am trying to provide.

"Mr. HICKENLOOPER. There cannot be any dispute under the language of the present bill because it specifically says that this bill does not in any way touch existing authority. That goes right on, and it exists just as it was before. We have gone to the trouble in this act—though I do not think it is necessary—of so stating for clarification.

"That is the reason why I resist the Senator's amendment. I am not just sure what it will do.

"Mr. HUMPHREY. May I say to my friend that the Federal Power Act, if you read into its preamble, pertains, insofar as electrical energy is concerned in its licensing provisions, to water power. The Federal Power Act, insofar as licensing is concerned, and generation and wholesale distribution is concerned, pertains to water power. We are talking now about another Federal resource—atomic power. We want to be sure both of these resources are treated alike.

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"Mr. PASTORE. I address myself now to the distinguished Senator from Iowa [Mr. Hickenlooper]. I understand the intention of the distinguished Senator from Minnesota is to do nothing more in this case than to preserve the present jurisdiction that the Federal Power Commission has over interstate commerce of public utility companies.

"Mr. HUMPHREY. That is correct.

"Mr. PASTORE. If this amendment does any more than that, could not all that be ironed out in conference? Could we not take it to conference? If there is anything in there that goes beyond that point, then it could be taken out and ironed out.

"Mr. HICKENLOOPER. I will say to the Senator that what the Senator from Rhode Island [Mr. Pastore] just stated is exactly what section 271 does.

"Mr. PASTORE. If that is the case, we are saying it in a more positive way. If we are doing it, anyway, in the act, that can be straightened out in conference.

"Mr. HICKENLOOPER. I raised the point to the Senator from Minnesota [Mr. Humphrey] just a minute ago that he proposes to pass affirmative legislation here which touches the Federal Power Commission's authority in its regulatory ability and power.

"Mr. HUMPHREY. It does not change it.

"Mr. HICKENLOOPER. Well, I certainly would not want to say here on this floor that it does not.

"Mr. HUMPHREY. It is my understanding that it does not change it.

"Mr. HICKENLOOPER. I say if we pass affirmative law here now which in some way alters the situation a bit, then you will have to take this amendment through the courts, establish what it means by interpretation, and it is entirely possible it might disturb existing holdings and findings.

Mr. PASTORE. Mr. President, will the Senator yield?

"Mr. HICKENLOOPER. I yield to the Senator from Rhode Island.

"Mr. PASTORE. Perhaps in conference we can rewrite section 271 and put it in positive language, rather than negative language, but I think it is pretty clear what the distinguished Senator from Minnesota [Mr. Humphrey] intends to do, and what he intends to do, as I understand from the distinguished Senator from Iowa, the law already provides. If that is the case, cannot that be straightened out without wasting all this time?

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"Mr. HICKENLOOPER. I think the amendment is dangerous in view of the fact that we do not know what it will do, and in view of the fact that the present act in section 271 protects fully the power of the Federal Government, the power of the State and local authorities.

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"Mr. HUMPHREY. Mr. President, I have been consulting with members of the staff of the committee, and also with the distinguished chairman, and I would like to offer the following language as a substitute for my amendment which I think will clarify some of the misunderstandings we have had, and meet the purposes that both the Senator from Iowa and the junior Senator from Minnesota have in mind. It reads as follows:

" 'Every licensee under this act holding a license from the Commission for a utilization or production facility for the generation of commercial power under section 103 which will be transmitted in interstate commerce or marketed at wholesale in interstate commerce, shall be subject to the regulatory provisions of the Federal Power Act.'

"I have discussed this with the Senator from Iowa. He has been most helpful on the matter, and I would ask the Senator what his reaction to it is.

"Mr. HICKENLOOPER. Mr. President, the Senator from Minnesota and I have discussed the modification which he is now offering.

"I think we both agree that it does what he wants to be done; and what the bill presently provides, but it says it in a little bit better way. I believe it does not cause any confusion, and probably adds to the bill.

"Mr. CORDON. Will the Senator yield?

"Mr. HICKENLOOPER. I yield.

"Mr. CORDON. I suggest we further modify the amendment and substitute for the two words 'commercial power' the words 'electrical energy.'

"The Federal Power Commission deals with that.

"Mr. HUMPHREY. 'Electrical energy,' that is an appropriate clarification.

"The PRESIDING OFFICER. The question is on the amendment of the Senator from Minnesota, as modified.

"The amendment was agreed to" [100 Congressional Record 11708–11713, July 27, 1954, daily edition].

APPENDIX 8

LETTER CONCERNING OVERHEAD VERSUS UNDERGROUND LINE FOR SLAC, JUNE 7, 1965

ELECTRIC POWER SYSTEMS,
Palo Alto, Calif., June 7, 1965.

Mr. CHARLES DE YOUNG THIERIOT,
Editor and Publisher,
San Francisco Chronicle,
San Francisco, Calif.

Subject: Power Supply to Stanford Linear Accelerator Center.

DEAR MR. THIERIOT: On May 26 I telephoned the Chronicle to correct some misstatements that had been appearing in your news accounts on the proposed electric power supply to the Stanford Linear Accelerator Center. The operator connected me with Mr. Lyman. After I had made my points, Mr. Lyman suggested that I write a letter to the editor.

Upon return from a trip, I found on my desk your editorial of June 2, which contains some serious errors of fact and some charges that appear to me to be unwarranted. I am therefore submitting below a letter that you may use as you see fit.

EDITOR OF THE CHRONICLE: In the discussions on the manner of supplying electric power to the Stanford Linear Accelerator Center, a number of serious errors of fact and highly questionable opinions have unfortunately crept into statements by the Chronicle and others.

As a consultant to SLAC, but with no assignment on power supply, I developed in late 1963 on my own initiative the compromise plan to install a single steel-pole line, instead of the two lines previously being considered for installation either on ordinary steel towers or underground. Because of my familiarity with this situation and as one who has been active in the field of underground cable systems for 44 years, I should like to set forth the following facts:

1. The use of underground construction for transmission lines has been increasing only gradually and for only very special situations because the costs per mile are 7 to 25 times the cost of overhead. This situation applies both in this country and abroad. Since the installation in 1927, under my engineering supervision, of the first extra high voltage underground transmission line (138,000 volts), unit costs have decreased some 60 percent.

2. The original plan for supply to the Stanford accelerator called for two 220,000-volt overhead lines to be installed on one set of large latticed steel towers, along the route. This construction is commonly used all over the world. Some residents of Woodside then proposed instead the installation of two underground lines, which would have increased the cost by more than $5 million.

3. It was at this point that I evolved the compromise based on taking advantage of recent technical advances to use slender tapered camouflaged steel poles, special insulators to be attached directly to the poles, omission of steps, etc. Also the height of the poles would average only half the height of towers.

4. Furthermore, I proposed the installation of only one line instead of two 220,000-volt lines, and some strengthening of the existing 60,000-volt supply to take care of lights and minor operations during emergencies. SLAC and AEC eventually agreed to make the sacrifice of having only one 220,000-volt line.

5. Less than half the route of the line passes through wooded areas. As a result of careful studies by Stanford, AEC, and outside engineers (other than myself), and the use of helicopters and other modern methods, it would be necessary to remove only some short stretches of trees from the wooded areas.

6. The proposed line (not lines) would be unobtrusive and far more attractive than the wood poles and appurtenances that have been installed all over Woodside. Even in the past few years, the residents there (as well as elsewhere) could have obtained underground distribution lines at an incremental cost in excess of that for overhead construction, but have not seen fit to do so.

7. The cost of the steel-pole line would be greater than that for the combination use of steel towers and wood-pole structures for one line.

8. If AEC installs the one underground line instead of the steel-pole overhead line, the excess cost of the underground line would be about $1.9 million, not $1.6 million as mentioned in your editorial. (My cost estimates are $2,800,000 and $900,000, respectively, for the underground and overhead line.)

9. The proposed underground line would have to be supplemented by another such line about 1972, while the single overhead line would have adequate capacity throughout the load growth of the project. The excess cost of the underground supply with its two lines would then become about $4.8 million, or three times the figure so frequently mentioned.

10. The San Mateo Planning Commission at a well-attended public hearing held in March 1964 approved unanimously the steel-pole construction. One commissioner went so far as to say that there were overhead lines in the heavily populated section where he lived, and it would certainly be nice if somebody would spend a few million dollars to install underground instead.

11. Wherever it has seemed justifiable, I have been actively promoting the use of underground construction. This has been increasing particularly for distribution facilities in new residential subdivisions where the cost is only about twice that of overhead construction.

12. It is expected that electric-line facilities for both distribution and transmission will double within the next 15 years. If underground construction were to be employed in cases where overhead has heretofore been used, the extra cost to the people of this country would be well over $100 billion and there would be many serious technical problems, some of them insurmountable, in connection with transmission lines. If only the facilities for urban territories and scenic areas were placed underground, the extra cost would be of the order of $50 billion, or more.

13. It seems to me that underground construction should be encouraged and that its use will continue to grow as our growing economy and other competing demands for our funds permit. However, it appears unwarranted and not in the public interest for the general public to pay the extra $4.8 million for the power supply to the Stanford accelerator nor an extra $50 billion for undergrounding in more or less similar "special" situations throughout the country.

Sincerely your,

HERMAN HALPERN, *Consulting Engineer.*

P.S.—I am taking the liberty of sending a copy to the editor of the Palo Alto Times, Mr. Alexander Bodi, who has also displayed much interest in the subject matter.

APPENDIX 9

PANEL ON UNDERGROUND INSTALLATION OF UTILITIES, WHITE HOUSE CONFERENCE ON NATURAL BEAUTY

(Remarks of Joseph C. Swidler, Chairman, Federal Power Commission, May 24, 1965)

UNDERGROUND TRANSMISSION AND NATURAL BEAUTY

In 5 minutes it will be possible only to make a few simple points and I will need to make them concisely.

(1) We must distinguish sharply between undergrounding of distribution lines and underground transmission lines. The distribution lines, say of 33 kilovolts or less, and generally for short distances, do not pose the technical or economic problems which are presented by the high-voltage transmission lines and especially by the extra-high-voltage (or ehv.) lines, those of 230 kilovolts and above, which are now coming increasingly into use in the power industry.

(2) There has been truly revolutionary change in the use of underground distribution in the last decade. Ten years ago underground distribution costs were about 10 times as much as overhead. Today, with the use of new materials, direct burial of cables and consequent elimination of conduits, improved trenching equipment, and the integration of distribution lines construction with the house construction programs in new residential areas, the ratio has been reduced to perhaps 1½ to 1 for new installations. Replacement of existing distribution is another matter. Utilities have a present investment in overhead distribution lines and services of roughly $10 billion, far too much to scrap. The costs involved where communities have adjusted their residential and service facilities to the overhead lines would be very great. Actually, the upheavals which would be caused by the necessary trenching in yards and streets, pavement cutting, street patching, resodding, reseeding, sewer line adjustments, and so forth, would be very taxing to the communities involved and many might well doubt whether the change was worth the cost to them let alone the cost to the utilities. In areas of special scenic interest or of concentrated population, however, there is every reason to push for early elimination of overhead distribution.

(3) I am assuming for purposes of this discussion that overhead transmission lines are disfiguring and that we are justified in undertaking comprehensive and expensive programs to put them underground. Of course, what is beautiful is a subjective matter. Nature in the raw is not always beautiful, as witness the effects of forest fires started by lightning and the devastation caused by tornadoes and floods. The works of man as well as nature may have beauty, and transmission lines are simple and functional expressions of the engineer and architect. They are uniformly well maintained, and do not impair the environment except by the initial construction and their visibility afterward. Just as the rural electric lines were things of beauty indeed to the farmers who had hungered for electricity to help bring an end to the drudgery and poverty of farm life, transmission towers may seem beautiful in the early periods of national economic growth. Nevertheless, although our national means are not unlimited, we are an affluent society and if the majority of our population want to get overhead lines out of sight, it becomes an obligation of the industry and of the public administrators associated with the industry to work toward this goal.

(4) I am not an engineer but on information and belief, as we lawyers say, let me present to you the technological challenges of underground transmission. In the first place the transmission of electricity in cables generates heat. In overhead lines this is not much of a problem because the heat is readily dissipated in the atmosphere, but the ground is a good thermal insulator which does not readily dissipate heat. Moreover, because of the earth's electrical conductivity, it would be impossible to put bare cable underground and hence it must be electrically insulated. The electric insulation is a fair thermal insulator also, but will not tolerate high temperatures, hence the electrical insulation tends to aggravate the problem of heat dissipation. As the heat in the cable increases more rapidly than the load on the line, in order to avoid temperatures which would destroy the insulation the capacity of the line is inherently limited under present technology. What this means is that it takes several underground cables to do the work of a single overhead line.

(5) In alternating current lines the pulsing of the current itself generates heat. Since the pulsing current increases with the length of the cable, the longer the line the greater the heat. As a matter of fact the heat occasioned by the pulsing increases as the square of the distance. Thus the longer the cable the less its useful capacity. In fact if a 345-kilovolt underground cable were 25 or 30 miles long, the heat generation problem under present technology would result in reducing the power transmission capacity of the cable to zero. The entire heat tolerance of the cable would be consumed in nonuseful purposes.

(6) Because of the problem of heat dissipation, cables cannot be bundled or laid side by side when additional cables are necessary. They must be put in separate trenches with sufficient spacing so that one cable does not heat up the other. This makes clear that there is no economy of scale as the loads grow, as there is in overhead transmission.

(7) From what I have said, you can understand that the ground for several feet on either side of a buried cable will be uncomfortably hot. Since several

well-separated cables would be necessary to do the work of a single overhead transmission line, with underground transmission there would still be a strip of land from which it would be necessary to clear vegetation in order to lay the cable and which thereafter would be inhospitable to the growth of vegetation. From the point of view of interfering with natural growth, therefore, putting a line underground is not a complete solution, although the impact would be less visible than in the case of overhead lines. This means that the additional costs of undergrounding in areas of natural beauty must be justified by the relative difference in scenic impact rather than on the assumption that undergrounding is a total solution of the scenic problem.

(8) I should like to say a brief word about costs. There is, of course, no fixed ratio of costs of underground as compared with overhead construction. In present technology the ratio would vary from a minimum of several to 1, to 15 to 1, or more, depending on the length of the line, its capacity, and other factors. A broad program of substitution would require a drastic upward revision in power costs. In practice, if underground were required for new construction the Nation would be compelled to revert to isolated generating plants within or close to metropolitan areas in order to minimize transmission investment. This would entail great sacrifices of economy in power system operation as well as accentuate the air pollution problems which confront our metropolitan areas today. In my judgment, this would not be progress but retrogression.

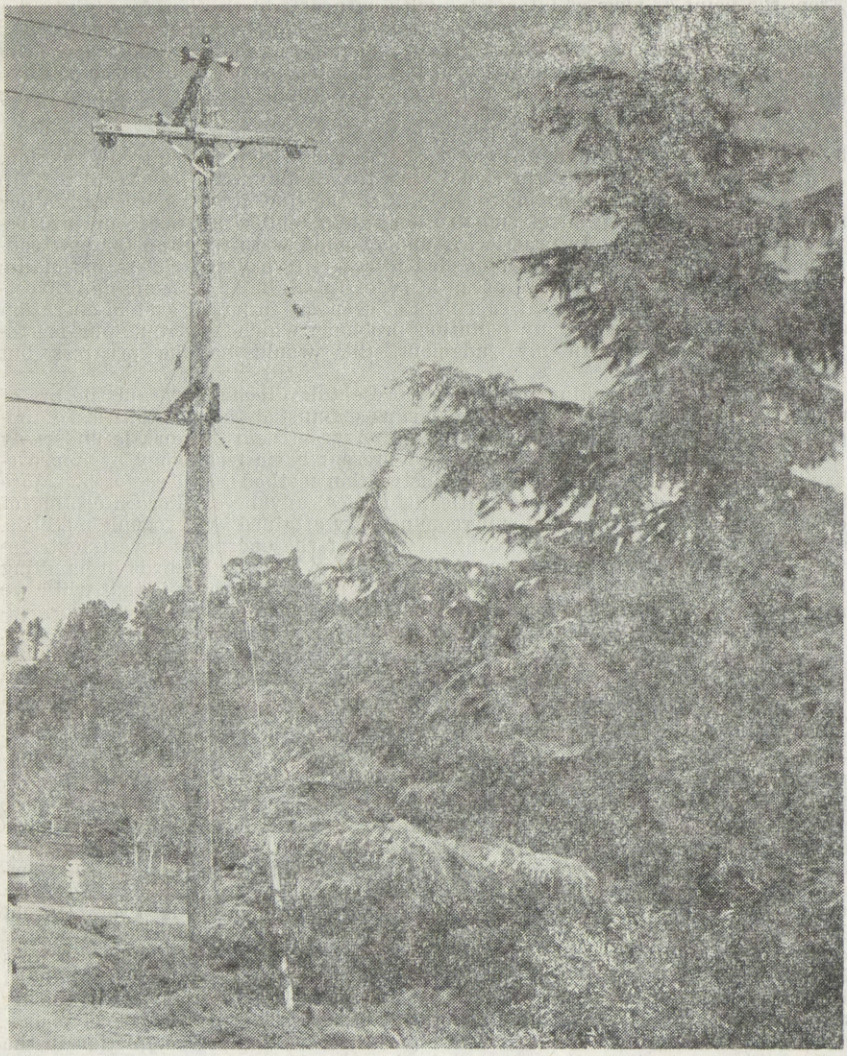
(9) I have been speaking in terms of present-day technology, but the art of underground transmission has by no means exhausted the possibilities of improvement both in performance and costs. A great deal of work is underway to realize incremental advantages in the present basic technology by improvement in insulation, improvement in construction methods, and so forth. More important, there are many possibilities of radical advances. Forced cooling of cables, gaseous insulators, and superconductivity attained by cryogenic methods, are only a few examples. However, in view of the enormous investments involved, the great dependence upon electric service, and the hazards in handling large amounts of electric current at high voltages, my judgment is that while we shall see enormous improvement from experimental and development work already underway, these will not be commercially available in the next few years.

(10) I do not think that we can expect in the foreseeable future that the big high-capacity overhead transmission lines will disappear from the face of the land. We shall need to build many more of them to care for the Nation's electric power needs. However, they can be improved in appearance, and the industry should exercise more care than ever before to route the lines in such a way as to avoid scenic areas and minimize adverse scenic impact. As to placing lines underground, what we may reasonably expect and what the FPC plans to help accomplish is the adoption of a course of action which will reduce the cost and increase the capacity of underground transmission circuits so that more advantage can be taken of them when lines must pass through areas of relatively high population density or of exceptional scenic beauty. To this end the Commission 2 weeks ago announced the establishment of an Industry Advisory Committee on Underground Transmission. The Chairman is Prof. Harold Peterson, chairman of the Department of Electrical Engineering of the University of Wisconsin, and its membership includes some of the most distinguished figures in the electric power and cable manufacturing industries who have specialized in this field. The Committee will report comprehensively on the state of the art and make recommendations for accelerating progress in research, development, and testing of improved cables. The report is scheduled for completion in the fall of this year. Since direct current underground transmission offers promise of heavier loading of circuits as well as longer circuits than the types of cable now in use, the Committee will also explore fully the possibilities of underground transmission by direct current cables. I assume that most of you know that the use of direct current involves massive problems in the necessary terminal and control equipment as well as in integrating direct current with alternating current networks. We have confidence that these problems are not beyond solution at a price, and we have every expectation that the Committee's report will make a solid contribution to the available fund of information on the problems of underground transmission and will serve as a spur to progress in solving those problems.

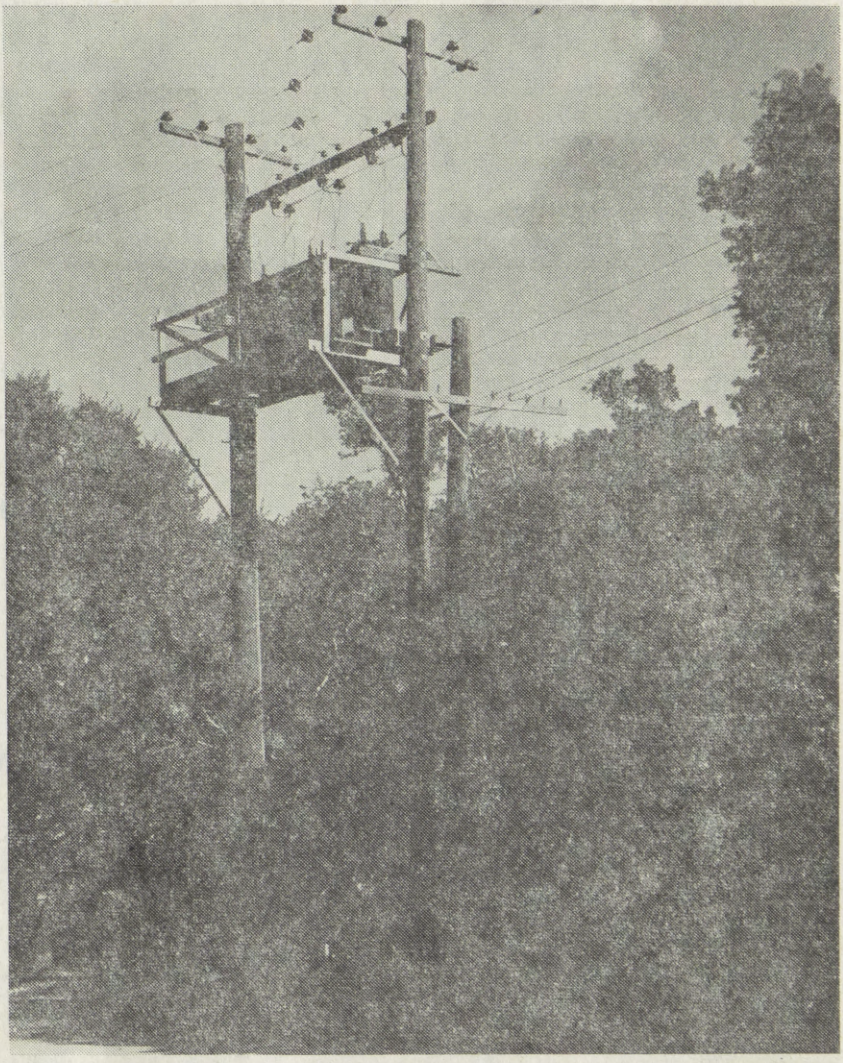
48-712—65——11

APPENDIX 10

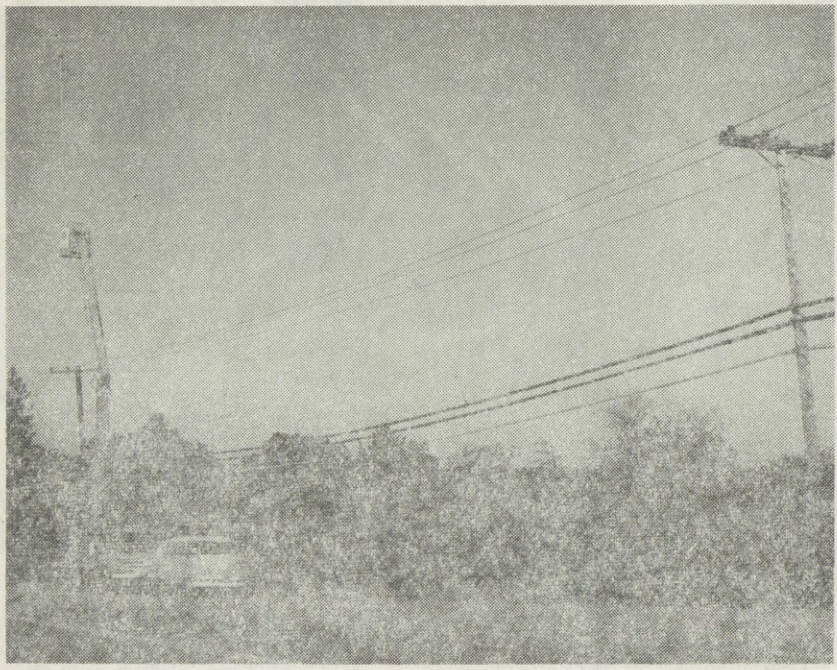
PHOTOGRAPHS OF WOODSIDE AND SAN MATEO COUNTY AREAS



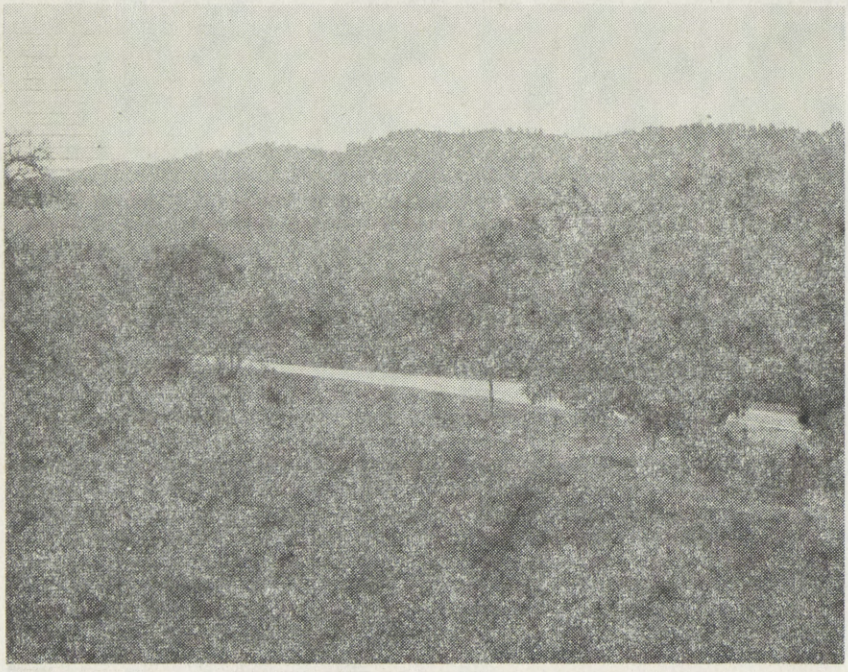
Philip Road off the lower southern end of La Honda Road, looking west (adjacent to the town of Woodside).



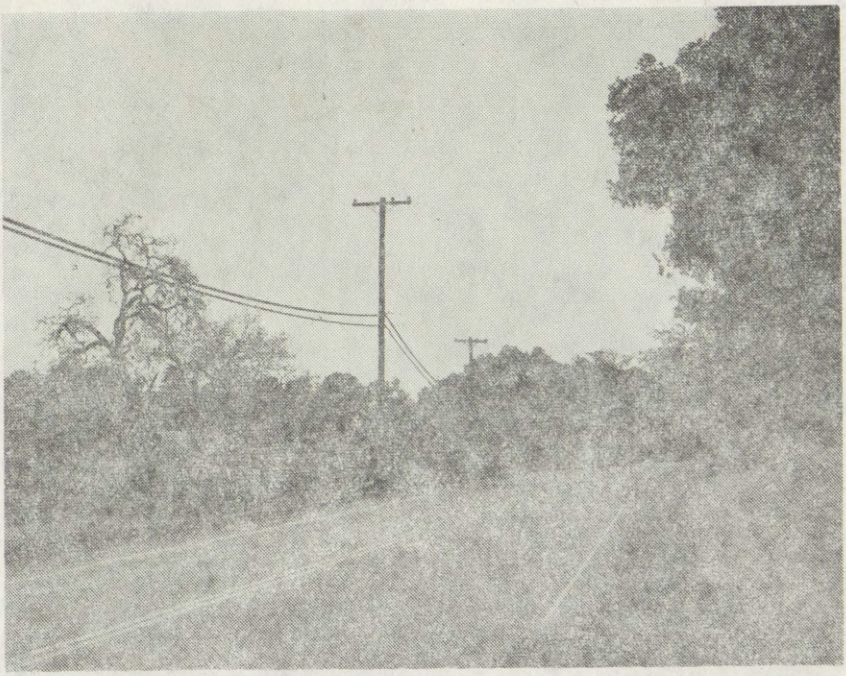
La Honda Road 2 miles below Skyline Boulevard, looking east (in Woodside).



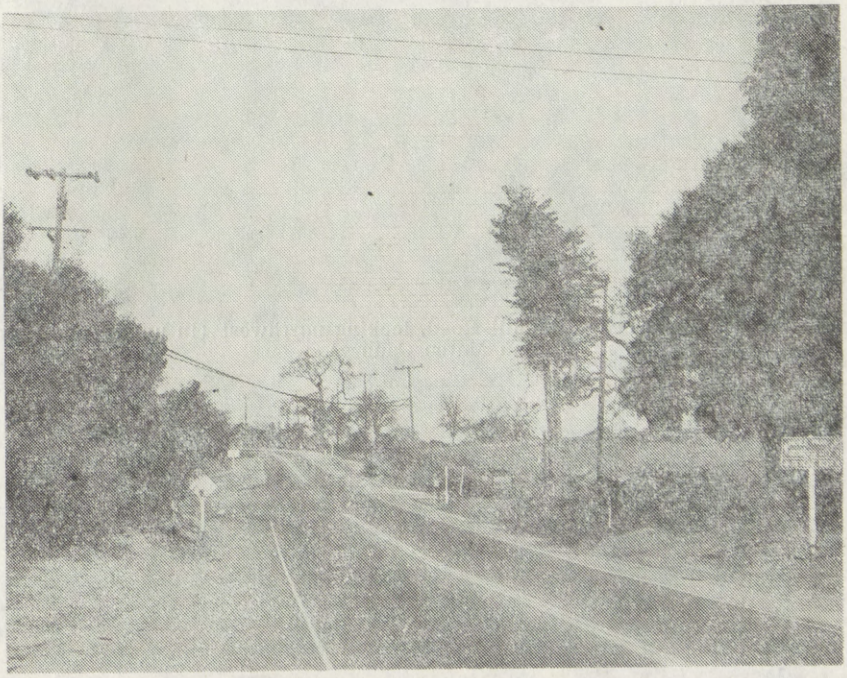
Portola Road south of Searsville Lake, looking north (in Woodside).



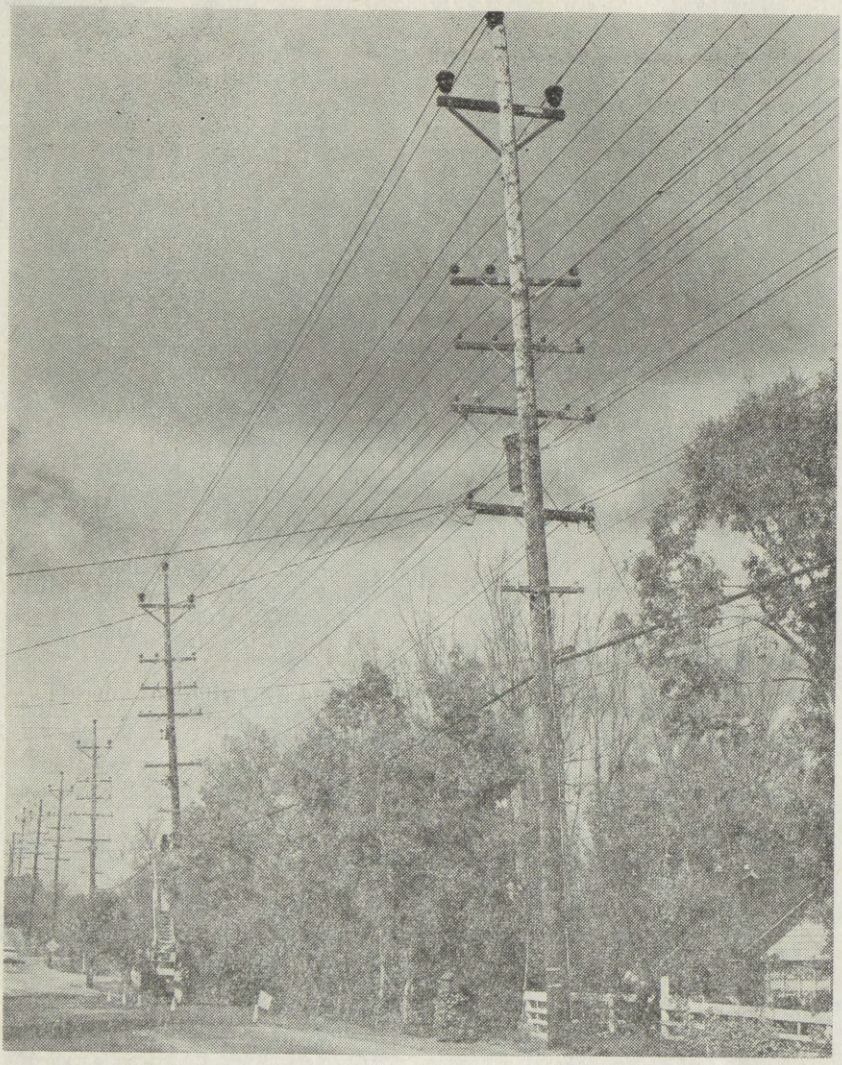
Sandhill Road between Whiskey Hill Road and Searsville Lake, looking south (in Woodside).



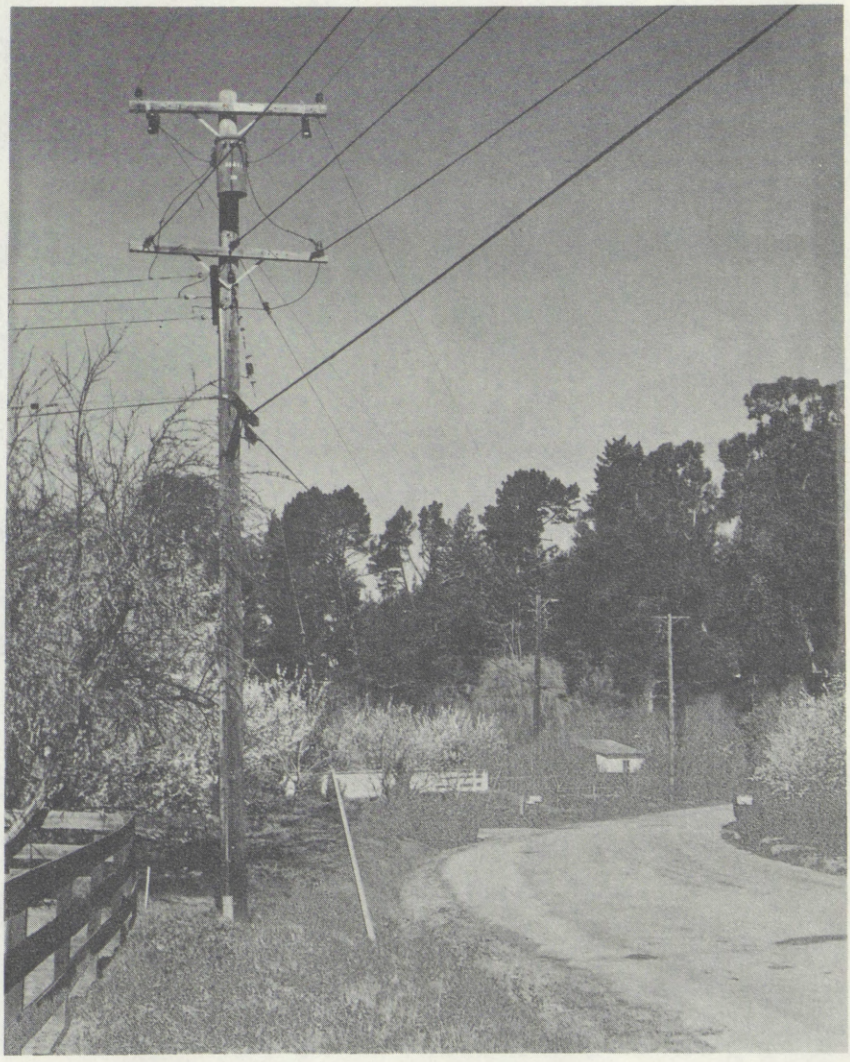
Sandhill Road between Whiskey Hill Road and Searsville Lake, looking southeast (in Woodside).



Sandhill and Portola Roads, looking northeast (in Woodside).

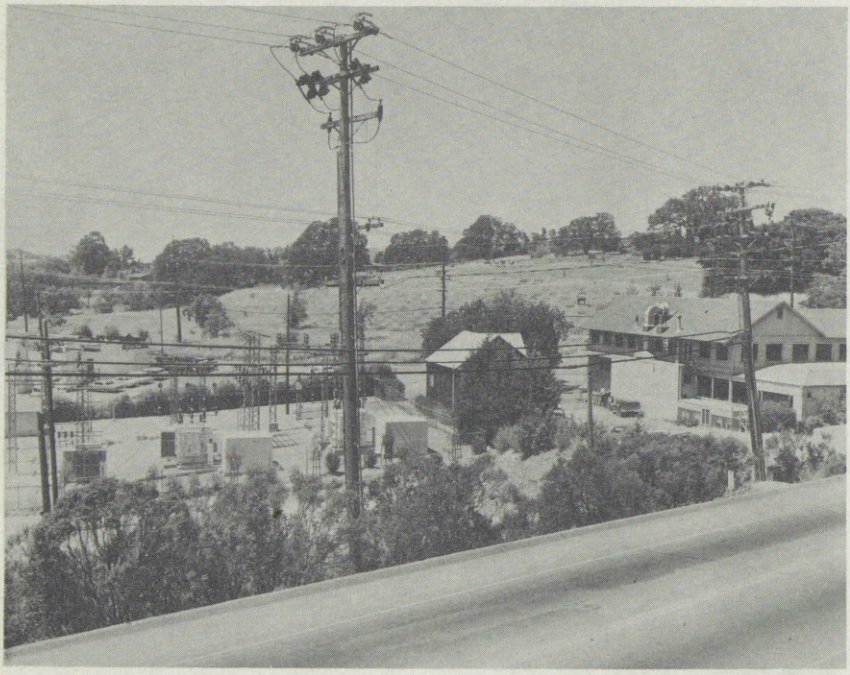


Santa Cruz Avenue near Sandhill Road, looking northwest (in unincorporated San Mateo County).

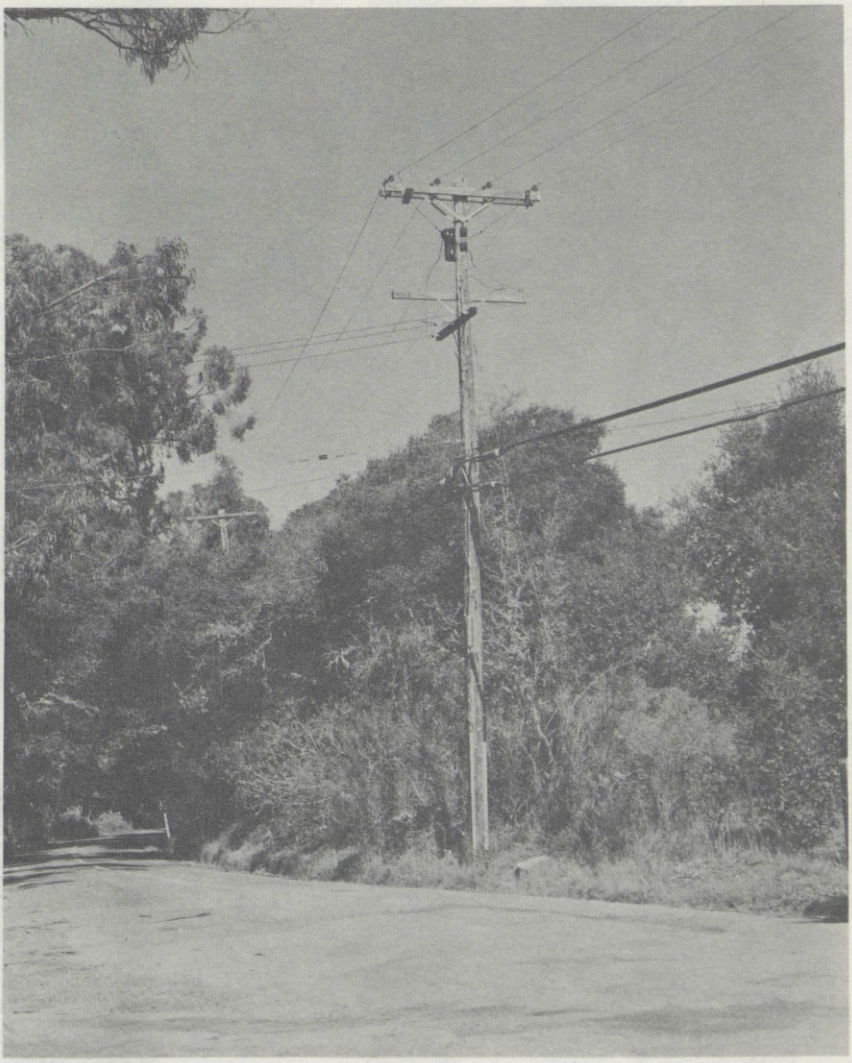


Philips Road looking north toward Portola Road about 100 yards from Portola Road (in the town of Woodside).

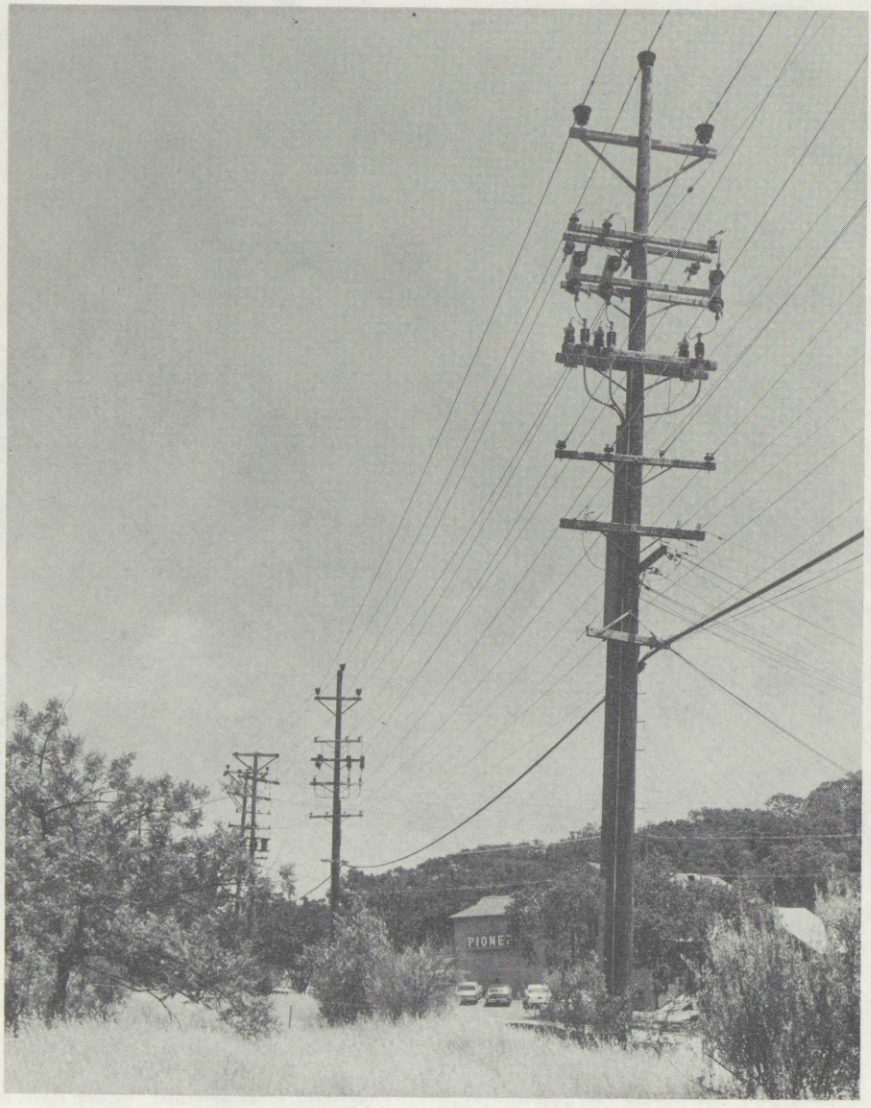
48-712 O—65——12



Woodside Town Center—the underground line would come through the town center or very close by.

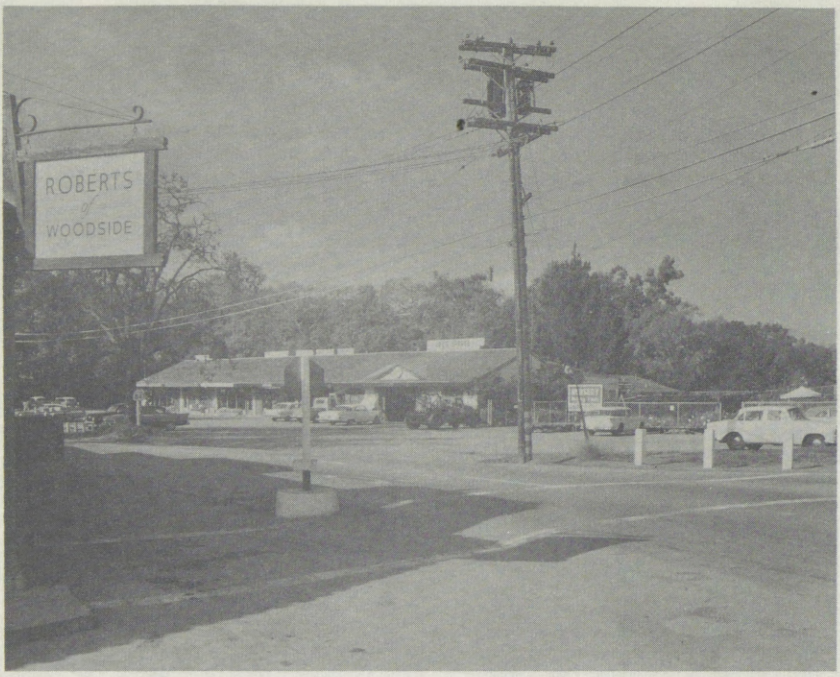


Mountain Home Road at junction with Portola Road looking north (in the town of Woodside).

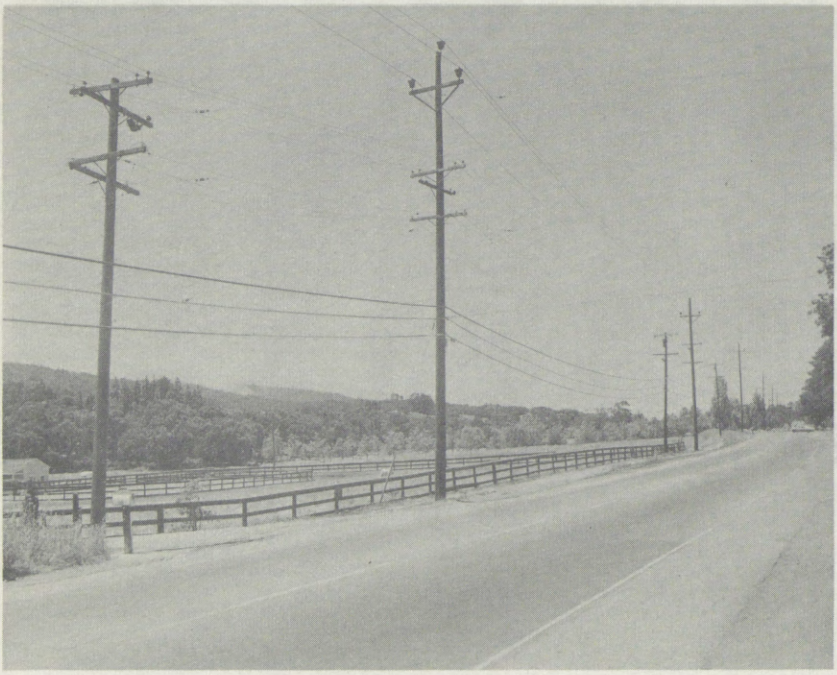


Woodside Town Center.

Woodside Town Center.



Woodside Town Center.



La Canada Road in the town of Woodside showing the existing 60-kilovolt transmission lines (view 1).

APPENDIX 11

STATEMENT OF THE AMERICAN INSTITUTE OF ARCHITECTS SUBMITTED TO JOINT COMMITTEE ON ATOMIC ENERGY, ON THE BILLS H.R. 8443, H.R. 8444, AND S. 2035, JUNE 2, 1965

Mr. Chairman and member of the Joint Committee, my name is John Dawson. I am director of governmental affiairs of the American Institute of Architects headquarters staff with offices here in Washington and appear before you today at the direction of AIA President Arthur Gould Odell, Jr., FAIA of Charlotte, N.C. In speaking for the American Institute of Architects, I am expressing the concerns and interests of the over 17,000 licensed architects in the United States who are affiliated with the AIA through 159 local chapters in all States of the Union. These concerns and interests are focused primarly on seeking the means to improve the physical environment of America. With this background of competence, it is my purpose today to point up the disparities evident in the apparent impact of the subject legislation as it directly refutes the stated purpose of the current administration to pursue the cause of achieving a beautiful America. This cause is shared by the architects of our country.

The President of the United States has declared himself unequivocally on the issue of preserving our Nation's natural beauty and enhancing the urban environment. In his message to Congress on natural beauty of our country, the President described the challenge:

"Beauty is not an easy thing to measure. It does not show up in the gross national product, in a weekly paycheck, or in profit-and-loss statements. But these things are not ends in themselves. They are a road to satisfaction and pleasure and the good life. Beauty makes its own direct contribution to these ends. Therefore, it is one of the most important components of our true national income, not to be left out because statisticians cannot calculate its worth."

He went on to note:

"But a beautiful America will require the effort of government at every level, of business, and of private groups."

With such strength of conviction emanating from the highest office in the land, we are caused to wonder at the paradox at issue here today. The AIA does not care to argue the point of law, but it does argue the cause of human satisfaction and enjoyment. How can the Federal Government on the one hand conduct programs to encourage communities to acquire open space and programs to subsidize the acquisition of highway right-of-ways to preserve natural beauty and, on the other hand, move to blemish the scenic beauty of Woodside, Calif., and similar communities throughout the Nation?

The AIA, in its pursuit of a war on community ugliness has learned of the existence of a surprisingly large number of communities which have ordinances requiring below-grade installation of utility lines. The number of these ordinances continues to grow in reaction to the unsightliness of the overhead clutter. Can the desires and aspirations of the citizens of these communities be ignored? We think not.

The town of Woodside, like many other communities, has undoubtedly labored long and hard to achieve underground powerlines at some expense to the citizens. It has found a cooperative utility company willing to share further expense with the community to protect the investment in community esthetics. Yet the AEC seems determined to thwart the desires of the community on the justification that beauty does have a cost; a cost which, in this case, appears to be an exceedingly small percentage of the total cost of the installation.

If the purpose of the subject legislation is to allow the Atomic Energy Commission to despoil the Woodside landscape, the AIA is unalterably opposed. If the effect of the subject legislation is to oppose the President's intent to preserve natural beauty, the AIA will muster every available resource to urge the President to back his words with appropriate action. Gentlemen, the Federal Government cannot be going in opposite directions at the same time on the same issue. The issue is not whether the Government has the right and authority to destroy the scenic beauty of Woodside, Calif.; it is clearly whether the Government is going to be a cooperative partner in preserving our Nation's bountiful natural beauty. Our President has said—

"The beauty of our land is a natural resource. Its preservation is linked to the inner prosperity of the human spirit."

In conclusion, the AIA strongly supports the statement of the U.S. Court of Appeals for the Ninth Circuit concerning the Woodside issue:

"In their effort to preserve the natural integrity of this area, Woodside and the county are pursuing the same goals as those sought under established Federal policy, as manifested in other acts of Congress. What both the Federal Government and these local unities of government are striving for in this direction is in the highest tradition of forward-looking government and fully compatible with, if not compelled by, the general public interest."

APPENDIX 12

STATEMENT OF THE NATIONAL ASSOCIATION OF COUNTIES, SUBMITTED TO THE JOINT COMMITTEE ON ATOMIC ENERGY, JUNE 3, 1965

Hon. JOHN O. PASTORE,
Chairman, Joint Committee on Atomic Energy,
The Capitol,
Washington, D.C.

DEAR MR. CHAIRMAN: The National Association of Counties strongly supports the position of San Mateo County, Calif., in opposition to H.R. 8443 and related bills designed to nullify the recent ruling of the Court of Appeals of the Ninth Circuit in giving the Atomic Energy Commission authority to disregard State and local ordinances with respect to beautification.

We would also like to suggest a new approach to the solution of the issues involved.

Our comments are of a general nature with respect to the whole question of both the right of local communities to pass ordinances to preserve or to increase the beauty of their area and to require the Federal agencies to respect these programs.

We were especially impressed with the thoroughness of the committee's deliberations and the obvious desire to try to find an equitable solution; protecting the interest of the AEC and our national security, the Federal taxpayer, and the localities involved.

We also agree with your conclusion that this boils down to a question of money. To put the powerlines underground will cost, in this case, nearly $4 million extra and, if this precedent sticks nationally, the final bill could run into many millions more.

We believe, however, that the American public is ready to absorb the additional cost in the interest of improving our national beauty. Indeed, hundreds of American communities are spending large sums to acquire and preserve open space; to purchase scenic easements; to eliminate open dumping; to landscape public facilities; and, in general, to make this an even more beautiful country

Certainly, in the case in point, there is no threat to national security because it is technically feasible to run the powerlines underground.

We appreciate that no American would tolerate for an instant the idea that a community or group of communities should be given the right to, in any way, compromise the national defense.

We also believe that time is running out on ugliness. We believe that when the only consideration is increased cost, the American public will come down hard on the side of both preserving and enhancing beauty.

The people in Woodside have certainly shown their willingness to cooperate by a levy of $30 per capita to pay their part of the additional cost of the underground route.

We would like to suggest that it would be very worthwhile if all the Federal agencies involved in power transmission or large-scale use meet with representatives of Congress, the States, cities, counties, and public utilities, and start working out some new ideas on how to meet this problem.

Certainly, we in local government do not want to be in the position of requiring higher standards for Federal installations than for our own community facilities. On the other hand, we do not believe that because a community is ugly now that it should be precluded from raising its standards and imposing them equally on everyone, Federal agencies included.

Mr. Chairman, if you think well of this idea of a conference, you can be assured of the complete support of this association.

Sincerely yours,

BERNARD F. HILLENBRAND,
Executive Director.

APPENDIX 13

STATEMENT SUBMITTED TO JOINT COMMITTEE ON ATOMIC ENERGY BY AUSTIN CLAPP, SPECIAL COUNSEL TO THE TOWN OF WOODSIDE, JUNE 2, 1965

To the Honorable Chet Hollifield, Representative from California, Chairman; the Honorable John O. Pastore, Senator from Rhode Island, Vice Chairman; and the Members of the Committee:

This statement is by Austin Clapp, appearing before this committee as special counsel for the town of Woodside, San Mateo County, Calif.

The committee is considering legislation to make more certain the authority of the Atomic Energy Commission, and perhaps other agencies of the U.S. Government to conduct their activities without restrictions imposed by States, counties, and other local units of State government, such as cities and towns, which may be thought to impede Federal activity.

The occasion for the legislation, of course, is the decision of the U.S. Court of Appeals for the Ninth Circuit in the cases of *Maun* v. *U.S.* and *Adams* v. *U.S.*, Nos. 19373 and 19374, decided May 20, 1965.

The decision, as the committee knows, came about in condemnation actions filed by the United States at the request of the Atomic Energy Commission to condemn a perpetual and assignable easement for the placement of towers and wires to bring 220,000 volts of electricity to the Standford linear accelerator, a research project of the Commission.

Briefly stated, the action of the Commission was brought about by the requirement of the town of Woodside and the county of San Mateo that any such powerline be placed underground, an action which the local utility, Pacific Gas & Electric Co., insisted must be compensated for by the Commission by an additional payment of $200,000 per year for at least the 10-year life of the contract between the Commission and the utility for the supply of electricity.

A prior hearing with respect to this situation had been held before a subcommittee of this committee on January 29, 1964, subsequent to which at the suggestion of Mr. Holifield, attempts had been made to settle the controversy on a financial basis.

Woodside is a town of approximately 5,000 population; the county of San Mateo has a population of approximately 500,000; and the population of the United States, for whose primary benefit the research facility is being built has, of course, a population of close to 200 million. Judging by this standard, it can be seen that the financial contributions of the town and the county to a project of this magnitude should be very small indeed.

It should be pointed out that the powerline in question was necessitated only by the Stanford linear accelerator project and served no other customers or facilities either in the town of Woodside or the county of San Mateo.

Concerning the powerline as proposed by the Atomic Energy Commission, the court of appeals had this to say:

"* * * The proposed route runs first through unincorporated county territory, then through Woodside, and again through unincorporated territory to its terminus."

* * * * * * *

"The described route lies in a scenic mountainside area characterized by steep gradients, a thin crust of soil, heavy rainfall, acute erosion problems, fire hazards, and stands of redwood trees more than 100 years old. Congressman Hosmer told Congress that the area surrounding the campus of Stanford University, where the overhead line would be built, '* * * is one of the loveliest areas of California and perhaps the Nation.' He added, 'One finds many beautiful homes placed on 3-acre minimum lots.'"

The court held, of course, that under the circumstances of this particular case, the Atomic Energy Commission did not have the authority to construct and operate a powerline and hence could not condemn an easement to be used for that purpose.

THE COURT DECISION

The Atomic Energy Commission has and perhaps some members of the committee have expressed the opinion that in deciding this controversy on the basis of its ascertainment of congressional intent, the court was mistaken, because the actual intent of Congress in adopting section 271 of the Atomic Energy Act of 1954 was different from that attributed to it by the court.

Without embarking further on this argument, which has been settled by the court's decision, it should be remarked that the result reached by the court is not necessarily wrong even if it be assumed that the court was wrong in this particular point.

This would not be the first time in history that a court was right, for the wrong reason.

Even if section 271 had never been enacted, it would have been entirely possible for the court to conclude that the congressional policies expressed in the Federal Power Act of 1935, leaving to local agencies control over local electrical transmission systems, and in the Housing Act of 1961, stating a policy and appropriating funds to help provide necessary conservation in scenic areas by assisting State and local governments in taking prompt action to preserve open-space land which is essential to the proper long-range development and welfare of the Nation's urban areas, were of such relative importance as to control, in a conflict between such policies and the essential and laudable, but subordinate, policy of the Congress to save the taxpayers' money. And to conclude that action by a Federal agency to condemn land in derogation of these controlling policies should not be permitted.

Such conclusion would have been possible even though section 271 had never been enacted, although it must be admitted that the existence of section 271 could be construed as a congressional restatement of the policy set out in the Federal Power Act of 1935.

Further than this, there was present and still is present in this case a constitutional question arising under the 5th and 14th amendments to the U.S. Constitution which prevent the taking of property by eminent domain either for a private use or without due process of law.

The constitutional question was briefly mentioned during the oral argument in the court of appeals, it being agreed by counsel, in response to a question from the court that the constitutional question should not be decided if there were available some other basis for decision.

It is the presence of this underlying constitutional question which raises a considerable doubt as to whether or not the legislation pending before the committee can possibly be made applicable to sanction the condemnation for the Woodside powerline, regardless of its effect in other situations, either existing or prospective.

The facts before the court of appeals showed that AEC, as a customer for electricity made a contract with the local utility company based upon the construction of an overhead line, the utility applied for construction permits which were denied except on condition that the line be placed underground, the utility was willing to build it that way, but wanted $200,000 per year, "cost of ownership" for investing the additional capital. The Atomic Energy Commission refused to pay this amount and sought to solve the problem by condemning an easement and building the overhead line itself, meanwhile negotiating with the utility to lease it or sell it the line, when built, so that the utility could sell its electricity to the Atomic Energy Commission.

This we feel amounts to a condemnation for private use which violates the Constitution.

THE CONTROVERSY AND ITS CAUSES

Woodside and the county want the line underground because as designed it would tend to destroy the rural residential character of the town, would adversely affect what the U.S. court of appeals described as a "scenic mountainside area."

It is an area which about 100,000 San Francisco Bay area citizens every year frequent for outdoor recreation at Searsville Lake Park, a park which is traversed by the line, and an area through which, each weekend, an additional 50,000 to 100,000 citizens drive just for the purpose of enjoying the scenery.

The action of the town and county in attempting to preserve this area is in line with the policy expressed in the Housing Act of 1961 which, in addition to encouraging local bodies to preseve open spaces by zoning and other restrictions, offered grants to a total of $50 million to local communities to purchase scenic easements and otherwise preserve open space which could not be preserved by ordinary municipal legislation and control.

The controversy is occasioned by the fact that to underground the line would cost from $1.5 to $3.5 million extra, over and above the cost of the overhead line, and, it is now asserted, that it would take 18 months to build the line, the power is needed in January 1966, and nonuse of the accelerator during the construction would cost perhaps $1.5 million per month.

All of this overlooks the fact that the problem was caused by Stanford University and the Atomic Energy Commission in the first palce:

1. They assumed, without asking, that power would be available at cheap rates based upon archaic methods of transmission.

In this connection Stanford's attitude is best exemplified by a letter from James F. Crafts, one of Stanford's trustees, also a director of the utility, P.G. & E., to Dr. Seaborg, Chairman of the Atomic Energy Commission, in which he said:

"* * * The Commission is * * * aware of the increasing unfavorable local public reaction * * *."

"I am convinced that if the Commission * * * follows a normal course where condemnation is required within a relatively short period of time the controversy will be forgotten * * *."

2. That they did not have P.G. & E. apply for a route in October, 1961, when they finally made up their minds as to what they wanted, when, if all of this had to be gone through, there would still be time to begin and finish the line by January, 1966.

3. They paid no attention to the opponents' legal contentions and made no preparations for taking alternate courses of action in the event that the legal contentions were upheld.

4. Stanford was unwilling to offer to contribute, although it would seem that if the linear accelerator serves an educational purpose, its accessories would also, and that Stanford has deprived itself of funds from other land developments by contributing the accelerator land to the project.

5. That the Atomic Energy Commission instead of being willing to pay the rates that any other consumer of electricity would pay if the utility were required to put a line underground, again, in the interest of saving $200,000 per year in operating costs, refused to pay it, and tried to bail the utility out by using the power of condemnation.

If the proposed legislation goes through, the Atomic Energy Commission and other governmental agencies, pointing to it, will be enabled to pay even less attention to local efforts to maintain a reasonable environment than they do now.

This would make a mockery of the hundreds of hours spent every year by local planning commissions and city councils, and by county governing bodies, engaged in pursuing what had been assumed to be, until now, national goals as well.

THE PROPOSED LEGISLATION

The proposed legislation seems ill designed to accomplish its immediate purpose, or the legitimate aims expressing general, considered policy, which might be supposed to be under serious consideration here.

As the proposal presently stands it makes the statute even more ambiguous than it was before the court decision. It is not even clear that it is designed to be retroactive although there is a faint suspicion that that is the case.

As prospective legislation, it fails to recognize present day conditions. There was a time when the Federal Government was so modern and advanced in its ideas that anything it proposed to do was probably superior to the policies of local legislation.

Today, in many communities planning commissions and legislative bodies, professionally staffed and assisted, are miles ahead of Federal architects.

It is certainly desirable that the Federal Government should not be coerced by whim or fancy. It is equally desirable that local policy, based upon intimate knowledge of local conditions should not be brushed aside by Federal whim or fancy in the pursuit of what may be a parochial policy peculiar to a single government agency.

Just what should be the interrelationship of Federal and local policies, which should control under given circumstances, what Federal policies should brook no time for consultation or delay ought to be the subject of serious exploration eventually to produce a statute; or a statute implemented by appropriate regulations, which would not, like the proposal before this committee, be subject to criticism as the product of improvisation and expediency.

We feel sure that all national agencies concerned with conservation will support us. We feel sure that all local units of government which do or will face similar problems will support us, and hopefully, that the Johnson administration, which talks of beauty and conservation, will take effective action to stop the Atomic Energy Commission.

WOODSIDE—ATOMIC ENERGY COMMISSION POWERLINE FACT SHEET

1956: Woodside was incorporated out of unincorporated territory of San Mateo County, Calif. Purpose was to preserve the rural residential character of the community, threatened by the influx into California and the general desire of subdividers to crowd the most possible construction onto the land.

After incorporation, immediate adoption of zoning, limiting land not already subdivided into 3- and 5-acre residential conservation areas, with a limit of 10 percent coverage, even for homes.

1957: Serious discussion between Stanford University and the AEC about the construction of a linear accelerator, somewhere on the Stanford lands, which cover roughly 10,000 acres in Santa Clara and San Mateo Counties, Calif. The earliest proposals did not contemplate that the accelerator would be anywhere near Woodside.

1959: Engineering studies presented to the Joint Congressional Committee on Atomic Energy and extensive hearings. During these hearings it was indicated that power sources were to be from the east or south of the accelerator, rather than through Woodside, and the maximum source of power appeared to be a single 110,000-volt line.

1960: Approval of the project by Congress. Slightly more than $300,000 appropriated for design studies.

1961: Full appropriation of $114 million for accelerator project.

In about October 1961, a booklet describing the accelerator and its use was published by Stanford, which included a generalized map which, for the first time, showed a powerline route through Woodside. No formal application was made to the town, nor was the distribution of the booklet such as to make anyone in Woodside aware that power was proposed to come down the hillside, on standard steel, lattice type, heavy power towers.

1962: Pacific Gas & Electric (P.G. & E.) participates in hearings before the San Mateo County Board of Supervisors and Planning Commission in which it was sought to revoke a 1951 permit for a powerline (for a single 110,000-volt line) from the company's Monte Vista substation to Jefferson substation, just outside of Woodside. This line easement ran around the town of Woodside, most of it along the skyline. In these proceedings, P.G. & E. sought also to increase the size of the proposed line to two 220,000-volt lines.

The company was granted the right to keep its permit, and to expand the proposed use primarily on the basis that it had, because of the 1951 action, a reasonable expectation that it could plan along these lines. In addition, many of Woodside residents would not oppose the line because of a "gentlemen's agreement" reached in 1951 if the company would stay out of Woodside proper.

P.G. & E. did not raise the question in these proceedings of the tapline from the Monte Vista-Jefferson line down the hill through Woodside. The reason for this was succinctly expressed by Frank Skillman, then planning director for San Mateo County, when he said: "All hell will break loose when they come in for the tap line."

1963, *Jan. 10:* P.G. & E. and AEC enter into a contract for the company to supply electricity to the accelerator, the contract providing that P.G. & E. is to obtain all necessary permits, that the contract is to be filed with and subject to California Public Utilities Commission, but significantly providing that the contract is subject to the condition precedent that P.G & E. is able to get a route without litigation other than eminent domain.

1963, *June:* P.G. & E. files nearly simultaneous applications with the county planning commission and the Woodside Planning Commission for a route for the tap line, proposed as an overhead route from the Monte Vista-Jefferson main line to the linear accelerator, through unincorporated county territory to its terminus. Part of this is on Stanford land, but the Stanford land is in unincorporated county territory, and therefore falls under county zoning legislation.

1964: The various applications moved along through the ordinary channels through Woodside and the county, with both the P.G. & E. and the opponents asking for continuances from time to time to present additional information, or to meet new arguments, or new proposals. Early in 1964 a series of meetings was held with the county, Woodside, Stanford, and the AEC being represented. Some difficulty was encountered because the conferring parties did not have much authority and everything had to be referred, sometimes even before discussion could be had.

During this period Woodside's City Council expressed its intention, backed by a meeting of the citizens, to contribute $150,000 to a settlement, to be raised by quadrupling the taxes for 1 year, provided others would contribute appropriate amounts. Stanford flatly refused, stating that its funds were in trust for educational purposes. The county expressed legal doubts as to its ability to contribute. The AEC agreed to contribute about $350,000 and P.G. & E. offered to up its own investment.

These settlement negotiations had been preceded by a hearing before the California members of the Joint Atomic Energy Committee of the House and Senate, on January 29, 1964; namely, Congressmen Hosmer and Holifield, who strongly suggested that the parties try to settle the dispute.

APPENDIX 14

STATEMENT OF PAUL N. McCLOSKEY, JR., SPECIAL COUNSEL TO THE TOWN OF WOODSIDE, SUBMITTED TO THE JOINT COMMITTEE ON ATOMIC ENERGY ON THE PROPOSED AMENDMENT TO SECTION 271 OF THE ATOMIC ENERGY ACT OF 1954, AS AMENDED, JUNE 2, 1965

I speak in opposition to the proposed amendment of section 271 of the Atomic Energy Act of 1954.

Although the Atomic Energy Commission is concededly one of the most powerful agencies of the executive branch of Government, the law from which the Atomic Energy Commission's powers are derived has specified unequivocally for 11 years that the Atomic Energy Commission shall have no right to interfere with the otherwise lawful regulation of electric power by other governmental agencies.

Section 271, significantly entitled "Agency Jurisdiction," reads:

"Nothing in this chapter shall be construed to affect the authority or regulation of any Federal, State, or local agency with respect to the generation, sale or transmission of electric power."

The language could not be plainer. A child, unschooled in legal matters, might infer that the Atomic Energy Commission is without jurisdiction to challenge reasonable regulation of electric transmission by a local agency. Since 1812, when a U.S. mail stagecoach careened through Philadelphia at a speed in excess of 8 miles an hour, it has been clear that a Federal postman could be required to comply with local traffic laws.

Likewise, since 1954, it has been clear that the Atomic Energy Commission was required to comply with local laws relating to electricity. This was no accident, as the prior Atomic Energy Commission testimony would seem to infer. Among the lengthy remarks of Senator Hickenlooper he quite plainly said the act was not intended to interfere with local agencies having jurisdiction over electricity. The addition of section 2021 to title 42 of the United States Code gave further demonstration of an intent of Congress to have the Atomic Energy Commission cooperate with rather than dominate the States in the peaceful uses of atomic energy.

Consider the following portions of section 2021, title 42 United States Code, entitled "Cooperation With States—Purpose."

"(a) It is the purpose of this section * * *

(1) To recognize the interests of the States in the peaceful uses of atomic energy, and to clarify the respective responsibilities under this chapter of the States and the Commission with respect to the regulation of byproduct, source, and special nuclear materials * * *"

and most important, the reiteration of the authorities of local agencies in this field embraced in section 2021(k).

"Nothing in this section shall be contrued to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards."

Thus wholly apart from any legislative history, the Atomic Energy Act itself, as amended, presently preserves to local agencies authority in at least two fields, electric generation, sale and transmission, and authority over purposes other than radiation hazard.

The Atomic Energy Commission, powerful as it is, has thus been directed by Congress to cooperate with, rather than override, the States and local governments.

Now, however, the Atomic Energy Commission seeks to remove the restriction on its powers as to electricity. The agency does this because of a judicial decision upholding the law of one small town.

The haste with which the amendment has been prepared and presented makes it abundantly clear that the agency is hurriedly reacting to the decision of the Circuit Court of Appeals for the Ninth Circuit on May 20, 1965, holding that section 271 means exactly what it says. Given a reasonable local regulation over the transmission of electricity, the plain language of the section deprives the Atomic Energy Commission of the jurisdiction to interfere with such regulation. At least one member of this committee has characterized the court's decision as "gross error." The objections of the Atomic Energy Commission and this committee apparently go, not to the language of the statute, but to the fact of the Atomic Energy Commission's own miscalculation of its meaning a year and a half ago.

Since the proposed legislation patently seeks to overturn the court's decision, let us first examine the decision itself. With regard to the Woodside ordinance, and the area of great natural beauty which it seeks to preserve, the court held as follows:

"In their effort to preserve the natural integrity of this area, Woodside and the county are pursuing the same goals as those sought under established Federal policy, as manifested in other acts of Congress. What both the Federal Government and these local units of government are striving for in this direction is in the highest tradition of forward-looking government and fully compatible with, if not compelled by, the general public interest."

In seeking a general amendment of the law for the specific narrow purpose of overturning the court decision, the Commission not only challenges the legal basis for the court's interpretation of the law but also challenges the findings of fact contained in the court's opinion that the Woodside ordinance was reasonable and in the court's words, "fully compatible with, if not compelled by, the general public interest."

It appears somewhat unseemly for an administrative agency to bitterly attack an appellate court's findings of fact based on a complete record presented to that court by able counsel representing the Commission and the U.S. Department of Justice.

If the agency holds disrespect for the judicial determination, however, it can scarcely ignore the fact that the Chief Executive, in his message to Congress on highway beautification a week ago, used language which strongly parallels the court's. The President, in his May 26 message, stated:

"Today's new conservation must shift from the classic role of protecting threatened nature. It must restore beauty where it has already been destroyed. It must deal with the dangers which urbanization and growth and technology offer to the world we live in. It must make an effort to put beauty within reach of those who live in our cities, and make it part of the daily life of every American * * * It means we must transform those activities which menace nature into instruments for the enjoyment of beauty."

The President was speaking of the beauty of the Nation's highways. In the proposed bills tendered to this Congress, the President sought to make mandatory the very provisions in title 23 of the United States Code which were cited by the circuit court of appeals in justifying a national policy of which the Woodside orderground ordinance was part and parcel.

On the same date, May 26, 1965, House Concurrent Resolution No. 427 was offered in the House of Representatives by Congressman Patten, stating:

"Americans are revealing an increasing intolerance of urban blight and defacement of the natural beauty in and around their towns and cities. A new yearning for beautiful surroundings and an enriching environmet characterizes the Nation."

The ideal of preservation of scenic beauty has thus been expressed not only by the executive and judicial branches but by the legislative branch as well. Examined in this light, it would seem there are good reasons for proceeding with caution in this hastily conceived request for unlimited power for the Atomic Energy Commission.

There can be no doubt but that the area to be crossed by the Atomic Energy Commission's proposed overhead line is one of the great scenic open spaces of the peninsula. If Congressman Hosmer's words confirming this fact are not sufficient, this committee may perhaps take notice of the following description which appeared over 4 years ago in the January 1961 issue of Architectural forum.

In describing the open spaces of the Stanford campus on which the accelerator is located, it stated:

"* * * one of the finest tracts of open space remaining within a densely populated metropolitan region * * *"

"* * * possibly it will occur to the city and the university that the hills, so precious now, will be incalculably more precious in another half century, that they constitute not only a regional, but in a strict sense, a national treasure, and, if the people of Palo Alto and Stanford are not able to save them, perhaps the governments of California and the United States can."

Bearing in mind the tremendous population growth in the San Francisco Bay area, the Searsville Lake-Skyline Ridge area of Woodside would seem to fit precisely the concept Congress had in mind when it enacted title 7 of the Federal Housing Act of 1961, and section 1500(b) thereof:

"It is the purpose of this chapter to help provide necessary recreational, conservation and scenic areas by assisting State and local governments to take prompt action to preserve open space land which is essential to the long range development and welfare of the Nation's urban areas * * *"

For the enjoyment of the some-100,000 people who annually picnic, swim and enjoy the out of doors within several hundred yards of the proposed powerline, there would seem ample reason to bury it.

In a community where every new customer for electricity must pay the additional cost of underground distribution lines, it seems a small thing to ask the owner of a $114 million facility to pay less than 1 percent of its capital expenditure to maintain a horizon free from artificial and ugly works of man.

Dr. Seaborg has said that the Atomic Energy Commission in this case is merely a customer for electricity. To our knowledge, no other Federal agency has ever before, as a customer for electricity, declined to adhere to reasonable local regulations over the transmission of such electricity to the Government installation. If this legislation is approved, for the specific purpose of granting to the Atomic Energy Commission the right to do what no Federal agency has ever done before, a precedent will be set which makes a mockery of the concept of Federal, State, and local cooperation for the preservation of scenic beauty.

There is a present trend to underground ordinances in nearly every progressive city in the United States. If this legislation is enacted for the special purpose here proposed, the Federal Government will stand alone in its requirement that the cost of underground facilities is not worth the scenic beauty which overhead facilities will permanently destroy.

Where desecration of scenic beauty has appeared in the past, it has generally been because of inaction or negligence of local or State government. The Federal Government has traditionally been the leader in conservation efforts. Only recently, the President spoke of cooperation between the various levels of government, stating, on January 4, 1965:

"In a fruitful new partnership with the States and cities, the next decade should be a conservation milestone."

It seems inconceivable that one of the administration's largest executive agencies, with a budget in exess of $2.2 billion annually, should not only decline to consider local conservation ordinances, but also should seek actively to override them in the face of near-unanimous public opinion, as well as the reasoned judgment of the Nation's second highest court.

As the court pointed out, the Atomic Energy Commission's sole argument to support its unique conduct on this case, is that the expenditure of $1.5 million cannot be justified solely for esthetics. In pointing to the hundreds of wooden poles which undeniably exist in other areas of Woodside, the Government makes an argument which is beneath its dignity. Certainly no citizen of the District of Columbia would contend that the added cost of underground transmission and distribution lines around the White House, Connecticut Avenue, and the Rock Creek Parkway, is unjustified merely because of the plethora of overhead transmission wires and ugly towers and poles to be found on the approaches to the District on U.S. Highway 1, from Baltimore.

Many cities in the United States are plagued with overhead wires and ugly wooden poles of one kind or another. This has been because only recently has there been a scientific breakthrough to reduce the cost of underground distribution lines to a point where they can be afforded by the general public. We now have concrete evidence that it is actually cheaper to put distribution lines

underground, since the property values are increased by a sum greater than the increment in cost required above the cost of overhead lines. In a recent survey in a California tract of $25,000 homes, where underground wiring added a cost of approximately $400 per lot, 110 homeowners were queried as to the price they would pay to underground existing overhead wires. The average figure was $535. I have offered here, for inclusion in the record, the September 1964, statement of the League of California Cities.

Two comments might be specifically mentioned.

"There appears to be no valid reason why any city or county should not now require underground distribution systems in all new residential areas.

"No matter how many programs we undertake in order to restore and preserve the beauty of California and its local communities, there can be no real success until an active undergrounding program is undertaken in every county and city."

The Federal Government should not abdicate its responsibility to cooperate with this type of local conservation effort.

I respectfully urge this committee to abandon the proposed legislation, and, instead, authorize the appropriation of the additional $1½ million to put the powerline underground.

Development of rate for Ames Laboratory (Excerpt C, Ames application)

The onpeak demand charge is based on the annual cost on transmission facilities devoted to the service and certain fixed production costs as follows:

Capital:	
Direct transmission	$1,224,600.00
San Mateo bank No. 3	1,601,000.00
Ames-Monte Vista line	249,000.00
Monte Vista switching	138,000.00
Allocation of Metcalf (½ of 108 millivolt-amperes)	1,233,500.00
Common utility plant	57,800.00
Total	4,503,900.00
Annual costs, at 15 percent	675,585.00
Onpeak kilowatts	125,000.00
Cost per kilowatt per year	5.40
Cost per kilowatt per month	.45
Production cost (based on Contra Costa powerplant):	
No load fuel	1,003,000.00
Fixed operating cost	406,000.00
Total	1,409,000.00
Installed capacity kilowatts	575,000.00
Cost per kilowatt per year	2.45
Cost per kilowatt per month	.20
Onpeak cost per kilowatt per month, capacity charge	.65

The offpeak charge of 15 cents per kilowatt per month is equal to the three-fourths of the onpeak production cost.

The energy rate of $0.00576 is the terminal rate of schedule A–13, less 4 percent for delivery at above 11 kilovolts.

(Attachments to statement of Mr. Paul N. McCloskey, Jr., follow:)

STATEMENT BY R. W. JOYCE, VICE PRESIDENT, COMMERCIAL OPERATIONS, PACIFIC GAS & ELECTRIC CO.

EXCERPTS FROM PREPARED STATEMENT

"The rate for interruptible service is similar to, and the demand and energy charges are identical with, the special rate authorized by the California Public Utilities Commission for Ames Laboratory where such service is sold to the National Aeronautics and Space Administration.

"The contract provides a minimum charge for billing purposes to protect the P.G. & E. investment in facilities installed to supply only the SLAC load. The minimum charge would not be effective unless SLAC's use of power falls far below expectations."

FROM PAGE 58, HEARING REPORT

"Representative HOLIFIELD. Do you have any other customers with an energy requirement comparable to the AEC requirement at the Stanford linear accelerator? I am speaking now of a requirement that would involve up to 180,000 kilowatts.

"Mr. JOYCE. We supply, as I have referred to in my testimony so far, the Ames Laboratory service to the Government for loads that—I can't quote them exactly, but as I recall the onpeak is about 120 megawatts, offpeak runs up to 260 megawatts, interruptible. It is a larger load than 180 megawatts; it approaches the 300 megawatts we are discussing here."

FROM PAGE 63, HEARING REPORT

"The rate for interruptible service is similar to, and the demand and energy charges are identical with, the special rate authorized by the California Public Utilities Commission for Ames Laboratory where such service is sold to the National Aeronautics and Space Administration.

"The contract provides a minimum charge for billing purposes to protect the P.G. & E. investment in facilities installed to supply only the SLAC load. The minimum charge would not be effective unless SLAC's use of power falls far below expectations."

EXCERPT—P.G. & E. LETTER TO AEC, DATED NOVEMBER 19, 1962

"In our letter of October 29, we pointed out that the SLAC installation and the Ames Laboratory installation were roughly comparable in a number of respects and that the cost of service should be considered as being generally the same."

FROM THE DEPOSITION OF R. W. JOYCE, JUNE 12, 1964

"QUESTION. If to serve SLAC you build a facility that cost $3,168,000, then you would have the same rate of return under the SLAC contract as under the Ames contract, assuming identical use of power?

"ANSWER. Yes.

"Mr. MCCLOSKEY. That is all."

Page 21–A.

FROM THE TESTIMONY OF JOHN ROBERTS BEFORE THE CALIFORNIA PUBLIC UTILITIES COMMISSION, AUGUST 7, 1964

"QUESTION. Well, in the SLAC situation, Mr. Roberts, the same rate of 65 cents, with that same allocation of 20 cents per generation that you showed the Commission in 1957, that would permit $4,500,000 of transmission facility to be built to SLAC at the present time, would it not?

"ANSWER. This is absolutely correct * * *.

"QUESTION. So looking at the demand portion and allocating 20 cents to production costs, you were still able to satisfy yourself at that first time that from the demand rate alone there would be sufficient revenue over costs to make a contribution to the system as a whole, were you not, sir?

"ANSWER. To pay those costs that were shown as transmission costs.

"QUESTION. So that the demand rate would have covered $4,500,000 worth of transmission facilities in 1957, would it not?

"ANSWER. Only if the demand were sufficiently high that the application of the rate would produce the dollars.

"QUESTION. And for the 10 years of the contract the total demand will be greater than for the Ames equivalent 10-year period, will it not?

"ANSWER. Yes; it will. We must also, of course, consider the energy.

"QUESTION. The costs of service of energy to Ames are nearly the same as the costs of service of energy to SLAC, are they not?

"ANSWER. Yes; they are.

"QUESTION. And the rate for the service of energy to SLAC is the same as the rate for the service of energy to Ames, is it not?

"ANSWER. Yes; it is."

Reporter's transcript, pages 684, 685, 686–7.

FROM THE DEPOSITION OF JOHN ROBERTS, JUNE 12, 1964

"QUESTION. Under the Ames contract what has been your rate of return?

"ANSWER. I have not determined that.

"QUESTION. Has anybody in the company ever determined it?

"ANSWER. I believe not. See, it isn't easy to determine a rate of return, particularly on interruptible business. It is a meaningless thing. You figure out your incremental costs and if you more than cover those you have something to contribute for the use of the system which is really, in effect, established for all the rest of the customers.

"QUESTION. Has your Ames contract enabled you to contribute something else to the system?

"ANSWER. I sincerely hope it has. Otherwise, I don't think the contract would have been approved and it was approved."

Comparison—Ames and SLAC contracts with P.G. & E.

	Ames	SLAC
1. Date of execution	Feb. 12, 1957	Jan. 10, 1963.
2. Annual revenue	1,100,000 (1963)	1,400,000, (Bloch testimony Jan. 29, 1964 hearings).
3. Maximum anticipated demand	260 megawatts	300 megawatts.
4. 10-year revenue (anticipated)	SLAC will have greater revenues.	
5. Costs of service	Roughly the same	
6. Demand rate (interruptible)	Identical ($0.683 per kilowatt-hour).	
7. Energy rate (interruptible)	Identical (6.2 mils)	
8. Firm power rate	Identical (schedule A–13.)	
9. Annual minimum charge	$480,000	$129,000.
10. Initial transmission expenditures	$4,503,000 [1]	$853,000.

[1] The transmission facilities initially built to serve Ames are described on exhibit A, an exhibit submitted by P.G. & E. to the California Public Utilities Commission in 1957.

The other facts noted above are described in exhibits B and C, and in the derivation of the SLAC minimum charge attached hereto.

Conclusion.—Without changing the rates under the existing contract, P.G. & E. can easily afford to build up to 4½ million in transmission facilities to serve SLAC. Only the monthly contract minimum charge need be increased, and this increase should be absorbed in the regular power bills.

(P.G. & E. admits that the Ames contract has provided revenues in excess of its cost of service, and it is meaningless to compute rates of return on interruptible service.)

Derivation of monthly contract minimum charge for service to Stanford Linear Accelerator Center

Line	Item	Estimated investment [1] (1)	Level annual cost percentage (2)	Level annual cost amount (3)
1	Land and land rights	$155,000	14.26	$22,103
2	Clearing land and rights-of-way	98,000	14.26	13,975
3	Towers and fixtures	211,000	14.38	29,920
4	Overhead conductors and devices-tower lines	209,000	15.31	31,998
5	Roads and trails	19,000	16.48	3,131
6	Subtotal	692,000		101,127
7	Incremental investment in towers and fixtures between Monte Vista subdivision and SLAC tap	161,000	14.18	22,830
8	Subtotal	853,000		123,957
9	Allocation of common utility plant	853,000	.60	5,118
10	Total	853,000		129,075
11	Rounded			129,000
12	Monthly costs			10,750

[1] Investment in 220-kilovolt tap to SLAC from Monte Vista-Jefferson line plus additional investment in Monte Vista-Jefferson line required to provide service.

APPENDIX 15

JCAE Press Release and Statement by Chairman Holifield Concerning Stanford Accelerator Powerline, June 11, 1965

Congressman Chet Holifield, chairman of the Joint Congressional Committee on Atomic Energy, released the attached statement on June 11, 1965, concerning the construction of an electric transmission line to supply power to the Stanford linear accelerator, and certain bills to amend section 271 of the Atomic Energy Act which are currently before the Joint Committee. The statement was released in connection with a visit to Stanford on the same date by Chairman Holifield and Dr. Glenn Seaborg, chairman of the Atomic Energy Commisison.

Chairman Holifield's statement emphasized the extensive deliberations of the five members of the Atomic Energy Commission and their unanimous decision that the facts in the case warranted the provision of an overhead transmission line. Chairman Holifield also summarized the extensive hearings and discussions on the subject by the Joint Committee over a period of years. He said:

"Notwithstanding all the information and arguments presented to us, no one has provided our committee with a valid reason why the considered decision of the executive branch should be overruled. The Joint Committee has not been convinced that the five members of the AEC have made a mistake."

Although the Joint Committee suggested, over a year and a half ago, that a compromise cost sharing arrangement be developed for putting the line underground, no offer of a firm financial contribution has been made by any party other than the AEC and the local public utility.

Chairman Holifield also reviewed cost estimates for suppling power to the Stanford accelerator which indicate that the total additional cost of underground transmission facilities may be over $4 million.

Chairman Holifield's statement pointed out that the major purpose of the bills introduced by Senators Pastore and Hickenlooper, Congressman Hosmer and Chairman Holifield, to amend section 271 of the act is to clarify the intent of Congress so as to reaffirm that AEC possesses the same sovereign immunity from local restrictions, under the U.S. Constitution, that other Federal agencies have. The need to clarify this section arose out of a decision by the U.S. Court of Appeals on May 20, 1965, concerning the transmission lines for the Stanford accelerator.

Attachment: June 11, 1965, statement by Mr. Holifield.

Statement by Congressman Chet Holifield, Chairman, Joint Committee on Atomic Energy, June 11, 1965

During the past several weeks I have read a number of newspaper articles and letters which comment on, and are critical of, the Atomic Energy Commission and the Joint Committee on Atomic Energy for their actions in connection with construction of an electric transmission line to supply power to the Stanford linear accelerator (SLAC). Each of us, as American citizens, has the duty and the privilege to criticize public officials when they do not properly discharge their responsibilities. However, I am concerned that the critcisms I have been reading about this particular matter have been written by people who have been furnished a one-sided view of this problem, and who have not had the benefit of hearing all the facts in this case.

The controversy over the construction of this electric transmission line has been going on since 1963. During this period there have been numerous meetings between the representatives of the town of Woodside and San Mateo County and the top officials of the Atomic Energy Commission, including the able Chairman of the Commission, Dr. Glenn Seaborg. Every facet of this problem has been explored in great detail, both verbally and in writing.

The Atomic Energy Commission is headed by five distinguished American citizens appointed by the President with the advice and consent of the Senate. These persons are selected for their depth of experience in different fields—including science, law, and public administration.

The five members of the Atomic Energy Commission have carefully reviewed the problem of electric transmission lines for the Stanford accelerator. Notwithstanding the many other demands on the time of these people—who perform duties which are vital to our defense and security—a tremendous amount of study has been given by them to this subject.

The result of their deliberation was a unanimous recommendation by the five-member Commission that the facts in this case warranted AEC's proceeding to construct an overhead transmission line through San Mateo County and the town of Woodside to service SLAC.

Let me turn now to the part the Joint Committee on Atomic Energy has played in this matter. Our committee, incidentally, is composed of 18 members, from both the Senate and the House of Representatives. Our membership is divided almost equally between the majority and minority parties. One of our committee's principal responsibilities is to exercise a continuing review of the activities of the Atomic Energy Commission.

Our committee's consideration of the SLAC powerline problem did not begin last week or last month. As early as July 1959, the committee considered the availability and source of power in connection with the proposed authorization of the SLAC project. Again in March and April 1960, the committee reviewed this subject in connection with authorizing design money for the accelerator. In 1961, another comprehensive review was undertaken by the committee in the course of consideration of AEC's authorization bill for fiscal year 1962, which provided the full $114 million authorization for the SLAC project. At each of these stages in the authorization process, careful attention was devoted to the overall costs of the project, including electrical power costs.

In January 1964, after difficulties arose between the AEC and the local communities adjoining Stanford concerning construction of an overhead powerline to SLAC, the committee held a full day of hearings devoted solely to this subject. Included among the witnesses were representatives of the town of Woodside and the county of San Mateo. In addition, three members of the committee visited the town of Woodside area to study this subject firsthand. Individual informal meetings were also arranged by committee members to determine possible compromise arrangements. The recent 2 days of hearings before our committee's Subcommittee on Legislation afforded still another opportunity for this matter to be aired. Anyone surveying the record would agree that the local residents who favor an underground line have been given every opportunity to present their case to Congress concerning construction of this powerline.

Our committee has given every consideraion to the contention of those who argue that the AEC should be forced to construct this powerline underground. For our committee to make such a recommendation to Congress, we would have to determine that the unanimous opinion of the five-member Commission was wrong.

Notwithstanding all the information and arguments presented to us, no one has provided our committee with a valid reason why the considered decision of the executive branch should be overruled. The Joint Committee has not been convinced that the five members of the AEC have made a mistake.

I have explained some of the background of our committee's consideration of the SLAC powerline dispute because I think it is essential that all of us who are interested in this matter view the subject from the proper perspective.

During the extensive hearing the Joint Committee held on January 29, 1964—a year and one-half ago—we were informed by the representatives of San Mateo County and the town of Woodside of their intention to pay a proportionate share of the added costs for underground lines and their belief that a compromise solution could be worked out with Stanford University and Pacific Gas & Electric Co. When representatives of the county and the town again appeared before the Joint Committee on May 27 and June 2 of this year, they advised of their inability to reach any type of agreement with the other participants. While they continue to talk of their desire to help pay the cost, based upon their testimony to the committee no firm financial contribution offer has been made to date by the county or the town of Woodside. The other participants have not been willing to assume the full cost of an underground line, although Pacific Gas & Electric has been willing to commit itself up to $1,012,000, a major portion of which would be repaid by the AEC in payments for power. In addition the Atomic Energy Commisison has offered to pay $350,000 toward the costs of an underground line. Thus, while the Joint Committee has been willing to consider suggested compromises, after more than 1½ years of waiting, we have received no firm proposal and we are no closer to a solution than we were in early 1964.

I also wish to clear up some misunderstandings which appear to exist about the bills which our committee is now considering to amend the Atomic Energy Act.

On May 20, 1965, the U.S. Court of Appeals for the Ninth Circuit handed down a decision which overruled a lower Federal court. Although the court of appeals' decision arose out of the local Woodside controversy, its effect has far-reaching implications which go to the very heart of the AEC's entire program.

AEC has testified that if the interpretation of the Atomic Energy Act set forth in the court of appeals' decision became binding generally, major adverse consequences throughout the entire AEC program could result. In the final analysis, all of the AEC's essential activities, including those vital to the defense and security of the United States and the entire free world, involve the generation, sale and transmission of electric power. If all these activities became subject to the control of local agencies of government, an intolerable burden could be placed upon the effective performance of the AEC's responsibilities under the Atomic Energy Act.

As one who participated in the drafting of the Atomic Energy Act, I know that the Joint Committee and the Congress did not intend to divest the Atomic Energy Commission of powers available to other Federal agencies in carrying out its duties under the Constitution. The bills introduced by Senators Hickenlooper and Pastore and Congressman Hosmer and myself accordingly would reaffirm the intent of Congress that AEC possess the same sovereign immunity under the supremacy clause of article VI of the Constitution that other Federal agencies possess. This is the major purpose of these bills.

Every one of us is vitally interested in preserving the natural beauty of this lovely area. We on the Joint Committe believe that the Federal Government has a responsibility to take every reasonable step toward this end. Of course, those of us in Congress and the executive branch also have a responsibility to all of the citizens of this country to assure that our scientific programs, which are vital to the future well-being and the world preeminence of our Nation, are carried out efficiently and without waste of funds. We think this dual responsibility has been carried out.

Various statements by the opponents of the overhead line and the press have been made concerning the costs involved in the overhead nad underground methods for serving the Stanford linear accelerator.

Let me clearly state the facts.

An overhead transmission line for approximately 5.4 miles as now planned will cost the taxpayers $1,052,000. The shortest underground line transmitting the amount of the power required through about 1970 is $2,770,000. Another underground line will be required after about 1971 at an estimated additional $2,640,000 for a total cost of $5,410,000. We are thus talking of a cost difference of about $4,358,000.

APPENDIX 16

CLEAN BILL (H.R. 8856, H.R. 8857, AND S. 2103) TO AMEND SECTION 271, INTRODUCED JUNE 8, 1965

A BILL To amend section 271 of the Atomic Energy Act of 1954, as amended

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 271 of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission: *Provided*, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission."

APPENDIX 17

COMMENTS OF JUSTICE DEPARTMENT AND AEC ON H.R. 8443, H.R. 8444, AND S. 2035, DATED JUNE 16, 1965

U.S. DEPARTMENT OF JUSTICE,
OFFICE OF THE DEPUTY ATTORNEY GENERAL,
Washington, D.C., June 16, 1965.

HON. CHET HOLIFIELD,
Chairman, Joint Committee on Atomic Energy,
Congress of the United States, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request, received on June 7, for the views of the Department of Justice on H.R. 8443, H.R. 8444, and S. 2035,

identical bills to amend section 271 of the Atomic Energy Act of 1954, as amended.

Section 271 of the Atomic Energy Act of 1954 (42 U.S.C. 2018) now provides "Nothing in this chapter shall be construed to affect the authority or regulation of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power."

The Atomic Energy Commission is presently constructing a facility at Stanford University in California. In connection therewith it desires to obtain power from the local electric company. The company applied to the town of Woodside, Calif., for permission to build overhead transmission lines from its generator to the Atomic Energy Commission site. This was denied by the town, whereupon the Commission condemned land along the proposed route and took steps to build the lines itself. In the condemnation case the town of Woodside contested the Commission's right to build the lines in violation of its ordinance, citing section 271. On May 20, 1965, the Court of Appeals for the Ninth Circuit denied the Commission the right to construct the powerlines on the theory that section 271 subjected the Commission to local regulation (*Maun* v. *United States*, No. 19373, and *Adams* v. *United States*, No. 19374).

The Commission now urges that section 271 should be clarified so as to establish that all that was and is sought to be subjected to regulation by Federal, State, and local authorities are commercial and industrial licensees of the Commission and not the Commission itself. We agree that the original intent of section 271 was, in fact, to permit the regulation of Commission licensees only and that, in view of the court of appeals' construction, clarification is both needed and justified.

We note that S. 2103, H.R. 8856, and H.R. 8857, identical bills directed to the same purpose, have been introduced since our receipt of the committee request. Those bills would amend section 271 to read:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulation of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission: *Provided*, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission."

S. 2103 and the companion bills would accomplish the same purpose but be clearer than the bills to which your inquiry relates. These later bills would clearly express the congressional intention that the AEC's activities are not subject to the authority or regulations of State or local agencies with respect to the generation, sale, or transmission of electric power, in the manner stated by the Court of Appeals for the Ninth Circuit. Upon a reconsideration of this matter following enactment, in our view the court would sustain the Government's position, for the holding seems clear that absent section 271 the court would not have found that the AEC was subject to the authority and regulation of local agencies.

This language would in no respect give the Commission an exemption from State or local regulation greater than that enjoyed by other Federal agencies. The court of appeals itself recognized at page 8 of the slipsheet opinion that local regulation was applicable only by implication solely by virtue of the special statutory provision and that no such limitation on the Commission's power is to be found elsewhere. Licensees of the Commission are subject to the regulatory provisions of the Federal Power Act, pursuant to section 272 of the act (42 U.S.C. 2019). Sections 101, 102, and 103 of the act (42 U.S.C. 2131, 2132, and 2133) provide for the licensing of Commission facilities for industrial or commercial purposes. The amendment to section 271 will serve merely to apply existing Federal, State, and local public utility regulations to the licensees of the Commission so as not to give them an advantage over other public utilities, thus preserving the historical powers over public utilities.

Nothing in the amendment to section 271 will affect the relationship of the Commission to the States with respect to public safety regulations over matters such as radiation hazards, since this is specifically spelled out in section 274 of the act (42 U.S.C. 2031).

You have also asked for comment on the prepared statements submitted to you by Mr. Austin Clapp and Mr. Paul N. McCloskey, Jr., special counsel for the town of Woodside. Limiting our comments to those portions of the statements which relate to the legal issues involved, the following may be of assistance to the committee.

Mr. Clapp contends that even if section 271 had never been enacted it would have been entirely possible for the court of have concluded that certain policies expressed in other congressional acts not pertaining to the Atomic Energy Commission or its functions would preclude the AEC from violating local ordinances which objectives coincide with the aforesaid congressional policies. We do not believe that this is supported either by general case law or by the specific opinion of the Court of Appeals for the Ninth Circuit hereinabove mentioned. There the court expressly stated, at page 8 of the slipsheet opinion:

"Without doubt the sovereign immunity derived from the supremacy clause, coupled with the statutory provision, authorize AEC to construct and operate an overhead transmission line in disregard of local authority or regulation, absent some statutory provision limiting AEC's authority in this regard. It is equally clear that neither the act, nor any other Federal statute called to our attention contains an express limitation of this kind."

Mr. Clapp also says in substance that there was and is in the California case a constitutional question arising under the 5th and 14th amendments to the U.S. Constitution. It has been the Department's consistent position throughout the litigation that there is no constitutional issue to be decided in this matter other than determining just compensation for the property interests condemned, pursuant to the fifth amendment. In this connection the District Court for the Northern District of California which ruled upon the objections raised in the condemnation proceedings specifically held that the only issue presented (other than just compensation) was whether section 271 deprived AEC of the necessary statutory authority to condemn for the purposes stated. Although it is true that counsel for the landowners again attempted on appeal to raise constitutional questions there was no indication from the court in its written opinion or at the time of oral argument that it found any such issues present. At the time of oral argument the court of appeals merely made the general comment that if there were another basis for deciding the matter it would never even reach the question of whether constitutional issues were involved. The court did, of course, subsequently decide the case on unconstitutional grounds.

The statement of Mr. McCloskey does not in general deal with specific legal issues; therefore, to comment on it would not be appropriate. We do, however, disagree with his contention that the amendment to section 271 is proposed in order to overturn the decision of the ninth circuit. We do adhere to the view that the amendment merely would clarify and make explicit the actual intent of Congress which, because of the statutory language used, was not made clear in the aforementioned case.

The Bureau of the Budget has advised that there is no objection to the submission of this report from the standpoint of the administration's program.

Sincerely,

(s) RAMSEY CLARK,
Deputy Attorney General.

U.S. ATOMIC ENERGY COMMISSION,
Washington, June 16, 1965.

Mr. JOHN T. CONWAY,
Executive Director, Joint Committee on Atomic Energy,
Congress of the United States.

DEAR MR. CONWAY: This is in reply to your letter of June 3, 1965, asking for our comments on the statements submitted to the Joint Committee on Atomic Energy, on June 2, 1965, by Mr. Paul N. McCloskey, Jr., and Mr. Austin Clapp.

We have reviewed these two statements carefully. Our comments on each are attached to this letter.

We are also pleased to respond to your request that we express our views on H.R. 8443, H.R. 8444, and S. 2035, a proposed amendment to section 271 of the Atomic Energy Act of 1954, as amended.

As Dr. Tape indicated in his statement at the hearing on May 27, 1965, conducted by the Subcommittee on Legislation of the Joint Committee on Atomic Energy, the proposed clarifying bills would restate the original purpose of Congress which the present text of section 271 was intended to convey. It has always been AEC's view that the legislative background made the intent of Congress quite clear.

In any event, AEC believes that it could be prevented from the most effective, timely, and economical discharge of its major responsibilities under the Atomic

Energy Act if it is made subject to State or local authorities where the consumption of electric power is involved.

All of AEC's scientific and technological activities involve the consumption of electric power and this, of course, entails the generation, sale, and transmission of electric power, primarily by various suppliers. If AEC's activities were made subject to the authority and regulations of local agencies with respect to the generation, sale, or transmission of electric power, local agencies would thereby be invited to participate significantly in all of the Commission's programs, from those relating to basic research, such as the Stanford linear accelerator project, to those pertaining to applied research and the developement of atomic weapons. The most important aspect of the proposed bills is the direct relevance to the entire range of AEC's developmental and production programs.

Regarding the two specific questions in your letter of June 3, these are our replies:

(1) With respect to your question as to whether these bills would adequately serve the purpose of clarifying section 271 to make it manifest that AEC's activities are not subject to the regulation of State or local agencies with respect to the generation, sale, or transmission of electric power as recently stated by the Court of Appeals for the Ninth Circuit, we believe these bills would serve that purpose. In Mr. Hennessey's letter to Mr. Holifield on May 27, 1965, the committee was advised that the Department of Justice had suggested certain perfecting language changes. More recently, informal discussions among the staffs of the joint committee, the Department of Justice, and AEC led to the general conclusion that the following version would be quite satisfactory for the purpose of clarifying section 271 to the extent necessary to correct the conclusion reached by the Ninth Circuit Court of Appeals on May 20:

"SEC. 271. AGENCY JURISDICTION.—Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric power produced through the use of nuclear facilities licensed by the Commission: *Provided*, That this section shall not be deemed to confer upon any Federal, State, or local agency any authority to regulate, control, or restrict any activities of the Commission."

(2) Concerning the question as to whether the bills would adequately serve the purpose of clarifying section 271 to the extent necessary to result in a reversal of the May 20 decision of the Ninth Circuit Court of Appeals, AEC believes that the enactment of this clarifying legislation should adequately serve such purpose, and we understand this is the view of the Department of Justice. It is well settled that in the interpretation of statutes the legislative will is the controlling factor.

The Bureau of the Budget advises that there is no objection to the views in this letter from the standpoint of the administration's program.

Sincerely yours,

(S) E. J. BLOCH,
Deputy General Manager.

Attachments:
AEC comments on Mr. McCloskey's statement.
AEC comments on Mr. Clapp's statement.

AEC COMMENTS ON MR. MCCLOSKEY'S STATEMENT

(*a*) On page 1, Mr. McCloskey makes this remark:

"Likewise, since 1954, it has been clear that the Atomic Energy Commission was required to comply with local laws relating to electricity."

AEC's view is precisely to the contrary. Since 1954—and indeed since the Atomic Energy Act of 1946 which created the AEC—it has been clear to the AEC that it was not legally required to comply with local laws relating to electricity. The legislative history wholly supports AEC's view.

(*b*) On page 2, Mr. McCloskey states:

"Among the lengthy remarks of Senator Hickenlooper, he quite plainly said the act was not intended to interfere with local agencies having jurisdiction over electricity."

Senator Hickenlooper's statements in the Senate, to which Mr. McCloskey refers, made it as clear as possible that section 271 was not affirmative law, and that it was merely a nonessential, cautionary remainder that sections 103 and 104 of the 1954 act, pertaining to AEC's licensing of production and utilization facilities owned by others, did not—aside from the control placed in the AEC

for the protection of the health and safety of the public with respect to special hazards associated with the operation of nuclear facilities, and for the common defense and security—mean that Federal, State, or local authorities would not continue to have whatever jurisdiction they had, pursuant to other laws, in regard to the generation, sale, or transmission of electric power produced through the use of the nuclear facilities licensed by the AEC.

Even the above quoted comment by Mr. McCloskey concerning Senator Hickenlooper's statements supports these facts, rather than Mr. McCloskey's point. Local agencies had no jurisdiction over AEC's activities under the Atomic Energy Act of 1946, as amended prior to the 1954 Act; therefore, the conclusion that section 271 does not subject AEC's own research, development, and production activities to the authority of local agencies with respect to electric power can not be said "to interfere with local agencies having jurisdiction" because they did not have such jurisdiction prior to the 1954 act. On the other hand, whatever authority local agencies did have with respect to persons and entities prior to the 1954 act, in regard to the generation, sale, or transmission of electric power, was intended to be continued, subject to AEC's licensing controls referred to above, without regard to the fact that the electricity was generated through the use of nuclear facilities.

(*c*) On page 2, Mr. McCloskey quotes two small portions of section 274 of the 1954 act. Then he concludes:

"Thus wholly apart from any legislative history, the Atomic Energy Act itself, as amended, presently preserves to local agencies authority in at least two fields, electric generation, sale, and transmission, and authority over purposes other than radiation hazard."

First of all, section 274 testifies to the careful attention and treatment by the Congress when the purpose to be served is to change significantly the authority or responsibility of the AEC. The single sentence of section 271 and the single reference to that section in the legislative reports accompanying the bills which became the 1954 act contrast sharply with the detailed statutory treatment of section 274 ("Cooperation With States") and the explanations in the reports of the bills that were enacted into law as section 274.

Secondly, section 274 is concerned with regulation—regulation of byproduct, source, and special nuclear materials. It provides for "an orderly regulatory pattern between the Commission and State governments with respect to nuclear development and use and regulation of byproduct, source, and special nuclear materials * * *" (sec. 274a(3)) and for the establishment "of procedures and criteria for discontinuance of certain of the Commission's regulatory responsibilities with respect to byproduct, source, and special nuclear materials, and the assumption thereof by the States * * *" (sec. 274a(4)).

Section 274 amends AEC's regulatory authority. Section 274 does not affect at all AEC's sovereign immunity from State or local control of its direct programmatic activities such as research, development, and production activities conducted for AEC's account.

Finally, in Mr. McCloskey's above-quoted conclusion, reference is made to the preservation in local agencies of the authority to regulate activities other than protection against radiation hazards. This is a reference to subsection k of section 274, which, Mr. McCloskey cites; it provides as follows:

"k. Nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards."

It is noteworthy that subsection k relates only to section 274—"Nothing in this section shall be construed * * *"—in contrast to section 271 which relates to the whole 1954 act—"Nothing in this Act shall be construed * * *." As indicated above, the scope of section 274 is sharply defined and bounded. It is also noteworthy that subdivision k parallels section 271 in this important respect: It is a nonessential cautionary reminder that section 274 was not intended to affect whatever authority local agencies had, pursuant to other laws, for purposes other than protection against radiation. Most importantly—and exactly paralleling section 271—subdivision k (as part of sec. 274) pertains only to persons or entities subject to AEC's licensing or regulatory control, and does not affect at all AEC's sovereign immunity from State or local control of its direct programmatic activities, such as the research, development, and production activities conducted for AEC's account.

(*d*) Mr. McCloskey's remarks on pages 2 and 3 of his statement imply that the proposed clarifying bills relate only to the SLAC problem. As Dr. Tape indicated in his opening statement on May 27, AEC is concerned about the appel-

late court's misinterpretation of the congressional intent that created section 271 because, if that decision remained binding and was generally followed, major adverse consequences throughout the entire range and scope of all of AEC's programs could well result. It could place an intolerable burden on the Commission's efforts to carry out its research, development, and production activities in an effective, timely, and economical way. All of these activities involve the generation, sale, and transmission of electric power; for the Commission to be made subject to the authority and regulations of local agencies in connection with electric power could result in delays in the conduct of the Commission's programs, large dollar outlays, and other serious barriers to the effective execution of the Commission's essential responsibilities under the Atomic Energy Act.

(*e*) On page 6, Mr. McCloskey states that "To our knowledge no other Federal agency has ever before, as a customer for electricity, declined to adhere to reasonable local regulations over the transmission of such electricity to the Government installation." This statement assumes a reasonable regulation. However, the reasonableness in this case is open to question. The decision of the Public Utilities Commission of the State of California referred to in the preceding paragraph suggests the view that an overhead transmission line is not unreasonable.

(*f*) On page 6 and elsewhere, Mr. McCloskey, conformably with his other statements of the January 1964 hearing and the recent hearing before the Joint Committee, continues to discuss undergrounding of lines without regard to the essential factor—namely, the need to distinguish between low-voltage distribution lines which may be buried without an unduly high-cost penalty and, therefore, which do not represent a disproportionate expense for the gained, esthetic appearance, and the undergrounding of high-voltage transmission lines which involves a much higher cost penalty. So far as AEC has been able to ascertain, there has not been any instance of undergrounding of high-voltage lines such as are needed for the SLAC project for esthetic reasons; only in large cities where it happens to make economic sense to bury such lines have they been placed underground.

(*g*) On page 7, Mr. McCloskey's remark about the lines buried around the White House, Connecticut Avenue, and Rock Creek Parkway apparently is not correct. We are told by Potomac Electric Power Co., the utility that owns and employs these lines, that there are no high-voltage lines such as those which will serve SLAC buried at these locations; the buried lines at the White House and along Connecticut Avenue are low-voltage distribution lines; the lines along Rock Creek Parkway are not underground.

(*h*) Attached to Mr. McCloskey's statement are sheets captioned "Development of Rates for Ames Laboratory," "Statement Before the Joint Committee on Atomic Energy by R. W. Joyce, vice president, Commercial Operations, Pacific Gas & Electric Co.," "From the Testimony of John Roberts before the California Public Utilities Commission, August 7, 1964," "Comparison—Ames and SLAC Contracts With P.G. & E.," and "Derivation of Monthly Contract Minimum Charge for Service to Stanford Linear Acceleration Center."

Mr. McCloskey has made many varying statements about the rates and charges to AEC under the January 1966 P.G. & E.–AEC contract, about the extra cost of undergrounding, and about events following AEC's compromise offer to share in the extra cost of undergrounding. The proceedings before the California Public Utility Commission included a consideration of whether P.G. & E. could underground a single 180-megawatt circuit without increasing the rates and charges to AEC. PUC's opinion was to the contrary. We believe it will serve no useful purpose to comment at this time on the material in these appendices to Mr. McCloskey's statement.

AEC Comments on Mr. Clapp's Statement

(*a*) On page 3, Mr. Clapp states:

"Without embarking further on this argument, which was settled by the court's decision, it should be remarked that the result reached by the court is not necessarily wrong even if it be assumed that the court was wrong in this particular point."

We are sure that Mr. Clapp, by his clause "which was settled by the court's decision," did not intend to suggest that further judicial recourse by the Government could not possibly result in a reversal of the decision—just as the district court's decision for the Government was overturned by the appellate court deci-

sion. Mr. Clapp goes on to state that, aside from section 271, "it would have been entirely possible for the court to conclude that the congressional policies expressed in the Federal Power Act of 1935, leaving to local agencies control over local electrical transmission systems, and in the Housing Act of 1961, stating a policy and appropriating funds to help provide necessary conservation in scenic areas by assisting State and local government to preserve open-space land which is essential to the proper long-range development and welfare of the Nation's urban areas, were of such relative importance as to control, in a conflict between such policies and the essential and laudable, but subordinate, policy of Congress to save the taxpayers money. And to conclude that action by a Federal agency to condemn land in derogation of these controlling policies should not be permitted."

We shall not argue whether "it would have been entirely possible" for the court to reach such a conclusion. We believe that the appellate court did not, in fact, reach this conclusion. In our opinion such an interpretation of the law would be extremely improbable.

The Federal Power Act of 1935 did not, and presently applicable Federal law does not, in AEC's opinion, require the undergrounding of high voltage transmission lines under circumstances such as are here involved. Furthermore, in our opinion, the Federal Power Act of 1935 did not, and presently applicable Federal law does not, leave to local agencies control over the arrangements made by the Federal Government for the supply of electric power to meet Government requirements. To put it simply it is our belief that Mr. Clapp cannot validly sustain the proposition that by reason of the Federal Power Act of 1935, or any other presently applicable Federal law—putting section 271 aside for the moment—local authorities can legally bar or limit AEC's right to acquire right-of-ways by eminent domain and build the overhead transmission facility to serve the needs of the national facility at Stanford.

This view includes full regard for the Housing Act of 1961. That act, was intended to help curb urban sprawl, prevent the spread of urban blight, and to help provide necessary recreational, conservation, and scenic areas by assisting local governments, through Federal contributions, to help finance the acquisition of interests in land. The Federal Housing Administrator was authorized to set such terms and conditions for assistance under the law as he determined to be desirable, and the Administrator was required to consult with the Secretary of the Interior on the general policies to be followed in reviewing applications by the local authorities for Federal grants. There is nothing in this act which bears on overhead transmission lines in any way.

(*a*) On page 4, Mr. Clapp makes reference to a constitutional question. We are advised by representatives of the Department of Justice that AEC's condemnation could not reasonably be viewed as condemnation for a private use, and that there are no constitutional or other questions which could reasonably be interposed to interfere with AEC's eminent domain acquisition or AEC's construction and ownership of the transmission line. We share this view.

(*b*) At the bottom of page 5, Mr. Clapp again tries to connect the letter or spirit of the Housing Act of 1961 with the transmission line problem. There is no connection in AEC's opinion. The preservation of open spaces, under conditions satisfactory to the Federal housing authorities, as contemplated by the Housing Act, has no relation to the erection of overhead transmission facilities such as are here involved.

(*c*) On pages 6 and 7, an account of some events is given. The account is fragmentary and not accurate in detail. Dr. Seaborg's letters of March 7, and March 16, 1964, to the mayor of Woodside and the county manager of San Mateo County (appearing on pp. 158–165 of the appendix to the January 1964 hearing) accurately present the facts in relation to AEC.

Mr. Clapp states that AEC tried to bail the utility out. This is wholly untrue. AEC was exercising the right of eminent domain to build its own transmission line because, in its judgment, this was the reasonable course of action to take under the circumstances in the interest of the Government.

(*d*) On page 7, Mr. Clapp states in effect that under section 271 as AEC construes it, and as the proposed bills state Congress intended, the wishes of local authorities would be ignored. AEC's actual policies and practices for many years adequately testify to the contrary. Where reasonable and not constituting an interference with important governmental purposes that may be involved, local plans and desires are normally given serious consideration by AEC.

(*e*) We disagree with the essence of Mr. Clapp's adverse comments on the proposed bills on pages 7 and 8.

APPENDIX 18

AEC Letter on Overhead Transmission Lines at Other Sites, June 15, 1965

U.S. Atomic Energy Commission,
Washington, D.C., June 15, 1965.

Mr. John T. Conway,
Executive Director,
Joint Committee on Atomic Energy,
Congress of the United States.

Dear Mr. Conway: At the hearing on June 2, 1965, before the Subcommittee on Legislation of the Joint Committee on Atomic Energy on H.R. 8443 and companion bills in the House and Senate, Senator Kuchel inquired about other instances when the Atomic Energy Commission had constructed its own transmission lines and whether there had been a question of complying with State and local statutes.

A quick check of our files has disclosed the following information:

At the Hanford project approximately 471 miles of overhead transmission and distribution powerlines were constructed or acquired by the Government during the period from 1943 (when the Manhattan Engineer District had jurisdiction) to 1961. In addition to power used on this project sales of electric power were made by the Government to farms, the Washington State Highway Commission, and to the community of Richland.

At the National Reactor Testing Station in Idaho, AEC constructed approximately 192 miles of overhead transmission and distribution lines during the period from 1951 to 1958. This power was required for on-site use at this location.

At Los Alamos, N. Mex., AEC constructed approximately 21 miles of overhead transmission lines in 1957 for project use. Apart from power required on the project sales of electric power were made by AEC to the Post Office Department, Bureau of Public Roads, State highway department, and to the community of Los Alamos.

At the Nevada Test Site, AEC has constructed about 123 miles of overhead transmission and distribution lines during 1963 and 1964. The power has been used only at the project site.

At Oak Ridge, Tenn., the Government constructed approximately 53 miles of overhead transmission lines during 1943 and 1944. Apart from power used for project purposes, sales of power were made to the community of Oak Ridge.

In addition, a few miles of electric power lines were constructed by AEC at Paducah, Ky., Portsmouth, Ohio, and the Argonne National Laboratory, Ill. The power at these locations is for project use only.

A majority of the above lines were constructed on Government-owned land but in some instances there were condemnation actions involving lands, or easements over lands, off of the project sites proper. All construction was in accordance with AEC (or Manhattan Engineer District) construction criteria only, and no permits or regulatory approvals were obtained from any State or local authorities. Where sales of power were made to others, the rates were not made subject to local jurisdiction although, as a matter of policy, AEC charges were compatible with the rate schedules prevailing in the area (i.e., Bonneville Power Administration schedules at Hanford, Tennessee Valley Authority schedules at Oak Ridge, or New Mexico Public Utility Commission schedules at Los Alamos). In all of these instances mentioned above no issues were raised by State or local authorities respecting compliance or faliure to comply with their requirements.

We will be pleased to furnish any additional information you may desire.

Sincerely yours,

(S) John A. Erlewine,
(For General Manager).

APPENDIX 19

RESOLUTION OF STANFORD TRUSTEES, JUNE 17, 1965

RESOLUTION ADOPTED BY STANFORD BOARD OF TRUSTEES ON JUNE 17, 1965

The trustees at their meeting of June 17, 1965, heard a report on the SLAC powerline problem and unanimously reaffirmed their previous position of February 20, 1964. In so doing the trustees reemphasized that they had supported the university's proposal for the linear accelerator on the Stanford campus with the clear understanding that no financial gain or loss would result from the installation or operation of this national facility.

Before construction began the trustees took the position that all utilities, including electrical distribution and transmission lines, must be installed underground. However, they were thereafter informed that the cost of placing electrical transmission facilities underground was prohibitively expensive and could not be justified on the basis of current practices of high-voltage lines either in the community or nationally. This advice has subsequently been confirmed by the White House Conference on Natural Beauty.

As a matter of information the trustees noted that Stanford has had a continuous policy of placing low-voltage distribution lines underground and that this has resulted in more than 25 miles of such lines on university land exclusive of SLAC. The trustees intend to continue and step up this activity.

APPENDIX 20

STATEMENT SUBMITTED FOR THE RECORD BY WILLIAM ZIMMERMAN, JR., JUNE 11, 1965

SIERRA CLUB,
Mills Tower, San Francisco.

Hon. JOHN O. PASTORE,
Chairman, Joint Committee on Atomic Energy,
U.S. Capitol,
Washington, D.C.

DEAR MR. CHAIRMAN: Herewith is a brief statement, which I should like to have included in the record of the hearing held by you on June 2, on the proposed amendment of section 271 of the Atomic Energy Act.

Sincerely yours,

WILLIAM ZIMMERMAN, Jr.

STATEMENT OF WILLIAM ZIMMERMAN, JR., ON BILLS PENDING TO AMEND SECTION 271 OF THE ATOMIC POWER ACT, RELATING TO THE SUPPLY OF POWER TO STANFORD LINEAR ACCELERATOR CENTER

My name is William Zimmerman. I am Washington representative of the Sierra Club, with my office at 1346 Connecticut Avenue NW. I recommend that you amend the bills pending before you, to provide an increase in the authorization for SLAC from $114 million to $116,500,000, or at least to $116 million, with the proviso that no part of the increased authorization, if approved by the Congress, shall be expended until the P.G. & E. and Stanford University have each agreed to pay at least one-third, approximately, of the added costs of underground lines.

As an outsider, not a party to this controversy, I suggest that either the AEC or the university should have taken the initiative in arranging a settlement. Stanford actively sought to have SLAC located on its campus. Presumably its officials saw some advantage to the university, to its man of science, to its prestige as a great institution, in having this project on campus. Yet Stanford seems to be saying, if the resolution of its trustees is read literally, that it seeks credit and prestige for itself, but it is not concerned if the project brings harm or damage to the local community. Stanford for some years has required all powerlines within the campus to be placed underground, yet it is willing to waive its own rules to win this project. Distinction has been drawn between transmission lines and distribution lines. I call attention to the testimony of Mr. W. R. Johnson of P.G. & E., page 60, printed hearings for January 29, 1964:

"With respect to reliability of an underground high-voltage line, there is no question that the experience of our ourselves and also nationally has shown that for equal lengths of line the underground line has fewer failures, fewer interruptions than an equivalent length overhead line."

The AEC offer to pay $200,000 or $300,000 of added cost, if someone else will pay the balance, perhaps 10 times as much, seems less than generous. Of the $114 million authorized for this project, $14.9 million was set aside for "indirect costs of construction," and $18 million for "contingency and escalation." In other words, about 30 percent of the total authorization was approved for vague and undetermined costs. Most respectfully I suggest that your committee has been openhanded in giving the Commission a 30-percent cushion. If the cushion is not sufficient to permit absorption of the added cost of underground lines, then the amendment I propose would make possible an end to the controversy.

In his letter of March 17, 1964, pages 167 to 168 of the printed hearings of 1964, Dr. Seaborg agrees to "receive any offer which would provide for construction of an underground line provided it does not contain any built-in delaying or contingency factors and does not require the Commission to assume, to any significant extent, the additional burden associated with such a line." The amendment I have proposed would make it possible for the Commission to recede from this position and move forward with negotiations which could end further argument and litigation.

APPENDIX 21

TOWN OF WOODSIDE RESOLUTION, JUNE 14, 1965

RESOLUTION NO. 1965–432

Resolution of the Town of Woodside Reaffirming Its Willingness and Intention To Make an Equitable Contribution to the Undergrounding of Electric Distribution and/or Transmission Facilities and Allocating the Sum of $150,000 Therefor

Resolved, by the Council of the Town of Woodside, Calif., That

Whereas this council has heretofore by its resolution 1964–370 adopted on February 14, 1964, expressed its willingness and desire to make an equitable contribution to the cost of undergrounding a powerline, subject to the establishment of legal authority so to do; and

Whereas the Planning Commission of the Town of Woodside is currently making studies for the purpose of making recommendations to this council regarding the adoption of amendments to town ordinances in order to effect the undergrounding of present and future facilities connected with the transmission and/or distribution of electrical energy and/or communications within the corporate limits of said town: Now, therefore, it is hereby

Resolved, That in accordance with the request of the U.S. Atomic Energy Commission and with their cooperation, and in order to preserve and enhance the scenic environment of the town, and in order to protect the public interest, safety, and convenience and to promote the public welfare, and provided that the U.S. Atomic Energy Commission shall underground its proposed high-voltage transmission line to the Stanford Linear Accelerator Center, the sum of $150,000 shall be allocated, (1) to the construction and installation of underground lines and facilities for the transmission and/or distribution of electrical energy and/or communications in substitution for and elimination of existing overhead lines and installations within the limits of said town along and in Canada, Woodside, and Whisky Hill Roads and to the extent such funds are available to such other streets as this council may select; and (2) or for the acquisition of scenic open space easements; or to the cost of the acquisition and construction of the high-voltage line proposed to serve the Stanford Linear Accelerator Center if said town is legally empowered so to do.

I hereby certify the foregoing to be a true, full, and correct copy of a resolution duly passed and adopted by the Town Council of Woodside, Calif., at a meeting thereof held on the 14th day of June 1965 by the following vote of the members thereof:

Ayes, and in favor thereof: Councilmen Chamberlain, Lowe, O'Neill, Wheeler, and Mayor Pro Tem Gill.
Noes: Councilman Hawkins.
Absent, councilman: Mayor Graham.

IRMA LEWIS,
Clerk of the Town of Woodside.

Approved:

ROBERT F. GILL,
Mayor Pro Tem.

APPENDIX 22

LETTER SUBMITTED FOR RECORD BY GEORGE NORRIS, JR., JUNE 8, 1965

LAW OFFICES OF COLE & NORRIS,
Washington, D.C., June 8, 1965.

Mr. JOHN T. CONWAY,
Executive Director, Joint Committee on Atomic Energy, Congress of the United States, U.S. Capitol, Washington, D.C.

DEAR MR. CONWAY: The opinion of the U.S. Circuit Court of Appeals for the Ninth Circuit in *Maun* v. *United States of America* appears to be erroneous and to raise grave problems.

THE ISSUE

The specific issue involved in the decision is whether the town of Woodside, Calif., could make the Atomic Energy Commission conform to its regulations with respect to the transmission of electricity in the construction of its new powerline to run from a power center of the Pacific Gas & Electric Co. to its research facility known as the Stanford linear accelerator. In order to obtain the right-of-way for its transmission line, the Atomic Energy Commission requested the U.S. attorney to start the appropriate condemnation actions. The town of Woodside objected on the ground that any transmission line had to be built underground in accordance with its regulations. The circuit court of appeals agreed with the town of Woodside on the grounds that section 271 of the Atomic Energy Act of 1954, as amended, provided a waiver by the Federal Government of its rights of supremacy under the Constitution (art. VI, clause 2) and hence the Atomic Energy Commission is subject to the local regulations of the town of Woodside.

COMMISSION AUTHORITY TO CONDUCT RESEARCH BEFORE 1954

Before 1954, the statutory authority of the Atomic Energy Commission was embodied in the Atomic Energy Act of 1946, as amended (Public Law 585, 79th Cong., 60 Stat. 755, 42 U.S.C. 1801, ff). Pursuant to section 3(b) of this act, the AEC then had full authority to conduct research into nuclear processes "through its own facilities, activities, and studies * * *." This power enabled the Commission to own and, if it so desired, to operate its own research facilities similar to the Stanford linear accelerator. Other powers (such as sec. 3(a)) enabled the Commission to contract for the operation of facilities that it owned. There was no section comparable to section 271 of the 1954 act and hence no waiver of the Federal supremacy as now interpreted by the court of appeals.

It should be pointed out that section 12(d) was added to the Atomic Energy Act of 1946, as amended, in 1953 (Public Law 164, 83d Cong., 67 Stat. 757, 42 U.S.C. 1812). This amendment authorized the Atomic Energy Commission to enter into long-term contracts for the supply of electricity to certain of its operations.

COMMISSION AUTHORITY TO CONDUCT RESEARCH AFTER 1954

The authority of the Atomic Energy Commission to engage in research through its own facilities was unchanged by the 1954 act. Indeed, the present section 32 is virtually unchanged from the prior section 3(b). Section 32 provides:

"The Commission is authorized and directed to conduct through its own facilities, activities, and studies of the type specified in section 31."

The types of research specified in section 31 merely expand the types earlier incorporated in section 3(a), but include "(1) nuclear processes."

Section 31 authorizes the Commission to conduct research through contracts. In addition section 161g continues the authority earlier given the Commission by section 12(a)(7) of the 1946 act to acquire such real and personal property as it may need for the purposes of the act. Under these sections there is no doubt of the power of the Commission to own the research facilities known as the Stanford linear accelerator and that its power has not been diminished by any changes in the sections specifically applicable thereto in the Atomic Energy Act of 1954.

BASIC CHANGES OF THE 1954 ACT

In 1954, at the request of President Eisenhower, the Atomic Energy Act of 1946, as amended, was revised to accomplish three major objectives:

"First, widened cooperation with our allies in certain atomic energy matters; second, improved procedures for the control and dissemination of atomic energy information; and, third, encouragement of broadened participation in the development of peacetime uses of atomic energy in the United States." (H. Doc. No. 328, entitled "Message of the President of the United States," transmitting recommendations relative to the Atomic Energy Act of 1954, 83d Cong., 2d sess., Feb. 17, 1954, p. 1).

In order to carry out the last recommendation, the Joint Committee on Atomic Energy drafted bills which would provide for the licensing of a new independent industry—in contrast to the prior operation of an industry under contract to the Commission. Thus licenses were required for the distribution within the United States of special nuclear material (sec. 53), source material (sec. 63), byproduct material (sec. 81), and for the construction and operation of production or utilization facilities (which include reactors) chapter 10, secs. 101, ff, including commercial facilities (sec. 103) and medical therapy and research and development facilities (sec. 104). In order to minimize the paperwork, the Commission was authorized to consider in one application all licenses that might be necessary for any one particular activity (sec. 161h). All of these activities were in addition to the authority of the Commission to conduct its own operations under contract as earlier granted by the 1946 act.

In each of the instances of licensing, the power of the Commission to regulate the specific activity is limited to the needs of the common defense and security and to those of the health and safety of the public. (Sec. 53b, sec. 63b, sec. 81, sec. 103b, and sec. 104b). There was nothing contained in the act which would allow the Atomic Energy Commission to exercise its regulatory powers in any other way than from the nuclear point of view. In one of a series of articles published shortly after the passage of the 1954 act, the Honorable Sterling Cole, who had been Chairman of the Joint Committee during the drafting and passage of the 1954 act, explained this purpose in this fashion:

"In determining the scope of control to be vested in the Commission's licensing authority, it became immediately apparent that, because of the diversity of possible uses of nuclear reactors, the Commission's control should be over the reactor as a nuclear device, leaving specific applications of reactors subject to regulation by the concerned agency. Thus, a reactor for use in an aircraft, for example, would be licensed by the Commission as a source of power, governed by interests of common defense and public health and safety, but operation of the aircraft would be subject to normal authority of the Civil Aeronautics Board, or other agencies having authority over airplanes.

"Similarly it was thought that a reactor powering a locomotive should be regulated by the Atomic Energy Commission only as a source of power using atomic energy, in the interests of the common defense and to protect the public health and safety. Control over the operation of the locomotive powered by the reactor should be left to the Interstate Commerce Commission or the State public utility or railroad commission having jurisdiction. It was likewise thought that when a reactor is used to power a plant generating electricity for public purposes, the reactor should be regulated by the Atomic Energy Commission only in the interests of common defense and security and to protect the health and safety. The generation and sale of electricity from the atomic power should be regulated by that agency, State or Federal, that otherwise has jurisdiction over the generation, transmission, and sale of electricity." (Licensing Nuclear Facilities, W. Sterling Cole, Nucleonics, February 1955, vol. 13, No. 2, p. 26, at p. 27.)

SECTION 271

It was against the above background that section 271 was put into the act. It is clear and unambiguous. It says:

"Nothing in this Act shall be construed to affect the authority or regulations of any Federal, State, or local agency with respect to the generation, sale, or transmission of electric energy."

This section had not been incorporated in any way into the Atomic Energy Act of 1946, as amended. It was first put into the clean bills (H.R. 9757 and S. 3690) introduced on June 30, 1954, after extensive public and executive hearings had been held in May and June on earlier proposals. The section was retained verbatim thereafter through all further actions in the House and the Senate and in the conferences.

The report that accompanied these bills had this explanation:

"Section 271 *preserves* the regulatory power of any appropriate agency with respect to the generation, sale, or transmission of electric power" [italic added] (S. Rept. 1699, 83d Cong., 2d sess., p. 31).

This section was not discussed on the floor of the House when the bill was under consideration (100 Congressional Record 11274, July 24, 1954).

This section was discussed twice on the floor of the Senate when Senator Humphrey tried to amend the bill to provide for certain regulatory power of the Federal Power Commission. In Senator Humphrey's first proposed amendment, the Federal Power Commission woudld have had full regulatory authority of any electrical energy generator by any reactor licensed under the act. In the debate on this subject, Senator Hickenlooper properly pointed out that section 271 is "designed to keep the regulatory authority exactly as it is now" (100 Congressional Record 11567, July 26, 1954). The Humphrey initial proposal was voted down (100 Congressional Record 11573, July 26, 1954).

Upon revising his proposal, Senator Humphrey adopted the precise language of the jurisdiction of the Federal Power Commission, and his amendment was adopted by a voice vote (100 Congressional Record 11713, July 27, 1954). In discussing this amendment, Senator Hickenlooper had this to say about section 271:

"It is not an authority given in a negative way. It is a positive negation of any intent by this statute to interfere with the existing laws and the existing authorities, State and Federal, that have to do with electricity" (100 Congressional Record 11709, July 27, 1954).

"There is a reason for saying it this way, as we have said it in the bill. Every time a State legislature or the U.S. Congress passed a bill on a subject, giving affirmative relief, or containing affirmative provisions, that new legislation is bound to be subject at some time or other to interpretation as to what it means. Does it mean to alter? Does it create new situations?

"We have attempted in this bill to eliminate such questions as that by merely saying the existing authority for the regulation of the flow of interstate power—whatever those regulations may be or whatever the authority which now exists in the Federal Power Commission is—remain the same" (100 Congressional Record 11709, July 27, 1954).

After the revised Humphrey amendment had been accepted by the Senate, it was then accepted by the first committee on conference (H. Rept. 2639, 83d Cong., 2d sess., p. 43). When this conference report was brought up on the floor of the Senate for approval, Senator Hickenlooper explained:

"Another Senate amendment, the Humphrey amendment, added section 183(e), required licensees operating utilization or production facilities under section 103 to be subject to the regulatory provisions of the Federal Power Act. This was moved to a new section, section 272. It provides a specific statement in the bill that the jurisdiction of the Federal Power Act is applicable to commercial electrical energy transmitted in interstate commerce without regard to the fact that such electricity is generated from atomic energy. While it was the contention of the sponsors of the bill that this effect was obtained by the provisions of section 271, this amendment was accepted and retained by the conferees on the theory that it was a specific restatement of the applicability of the Federal Power Act" (100 Congressional Record 13644, Aug. 13, 1954).

Hence it is that from the words of the section itself, from the accompanying report, and from the floor debate it is clear that section 271 was not intended to change or alter the jurisdiction of any authority, Federal, State, or local.

CONCLUSIONS

1. The original authority of the Commission to own research facilities such as the Stanford Linear Accelerator would have flowed from sections 3(b), 3(a), and 12(a)(7) of the Atomic Energy Act of 1946.

2. There was no section in the Atomic Energy Act of 1946 similar to section 271 which might have been construed as a waiver of Federal supremacy.

3. The authority of the Commission to own the research facilities known as the Stanford Linear Accelerator flow from sections 32, 31, and 161(h) of the Atomic Energy Act of 1954.

4. Sections 32, 31 and 161(h) were carried into the Atomic Energy Act of 1954 virtually verbatim from the Atomic Energy Act of 1946.

5. Section 271 was put into the Atomic Energy Act of 1954 in order to preserve the existing authority of Federal, State, or local agencies—as shown by its language, by the language of the report accompanying the bill, and by the floor debate.

6. Under the Atomic Energy Act of 1946 the town of Woodside would have had no power to regulate any of the activities of the Commission.

7. Under the Atomic Energy Act of 1954, the town of Woodside still had no authority to regulate the activities of the Commission since the section of the act relied on, section 271, preserved the former status.

In addition to the above, I believe that the opinion of the court of appeals raises any number of questions, since it now subjects all Commission activities to the question of local jurisdiction, especially where electricity is concerned.

Yours truly,

GEORGE NORRIS, Jr.

APPENDIX 23

LETTER TO PRESIDENT CONCERNING OVERHEAD VERSUS UNDERGROUND LINE FOR SLAC, MAY 31, 1965

PALO ALTO, CALIF., *May 31, 1965.*

Subject: Compromise plan for power supply to Stanford Linear Accelerator Center.

THE PRESIDENT,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: The San Francisco Chronicle of May 29 quotes Congressman J. Arthur Younger as having written to you to stop the AEC "from going ahead with overhead lines in Woodside" to serve the Stanford Linear Accelerator Center.

Because a great deal of misinformation and exaggeration on this subject have appeared in the press and in public discussion, I am writing to present some pertinent information and am enclosing a copy of my letter to Senator Murphy, which contains additional details.

It seems to me that the adoption of my proposal to install a single overhead 220,000-volt line on slender camouflaged steel poles would result in an installation that would be in accord with the precepts of the White House Conference on Natural Beauty, The completed line would be unobtrusive and would be far more attractive than the wood-pole lines now existing all over Woodside as well as throughout the country. (Some reserve power for SLAC will be available over an existing 60,000-volt line.)

Given the physical circumstances in this case, it is feasible to take full advantage of recent technical advances and to realize a line installation that would meet both technical and esthetic requirements. In view of this situation, I feel it would not be in the public interest to spend an extra $5 million to satisfy the demands of a small group of residents.

Yours very truly,

HERMAN HALPERIN.

PALO ALTO, CALIF., *May 30, 1965.*

Subject: Compromise plan for power supply to Stanford Linear Accelerator Center.

Hon. GEORGE MURPHY,
Senate Office Building,
Washington, D.C.

DEAR SENATOR MURPHY: In connection with the planned installation of one 220,000-volt overhead line to serve Stanford Linear Accelerator Center, you were quoted in the May 28 issue of the San Francisco Chronicle as saying "I don't think it's necessary to change the whole character of an area simply to accommodate some powerlines." I cannot help feeling that if you had been given an accurate and more complete picture of this situation, your attitude would be substantially different.

A complete understanding of the proposed plans for installing only one overhead line, for minimizing the cutting of trees for routing the line, for the use of tapered steel poles, and other recently developed techniques would lead you, I believe, to conclude that the area would not be significantly changed. Also the proposed single overhead line—and not a number of lines—would fully serve the SLAC needs for 220,000-volt power.

As a consultant to SLAC, but with no assignment on the design of power supply, I developed late in 1963 on my own initiative a scheme that would represent a compromise between the original proposals either for complete undergrounding of two lines or for installing them on conventional large steel towers. The adoption of my plan would involve only minor concessions by each group, and would save the U.S. taxpayers about 85 percent or some $5 million on this line alone. I am writing this letter on my own initiative and time, because this solution seems so eminently fitting to me as a professional engineer and as a citizen of Palo Alto.

My 1963 scheme, which SLAC and AEC adopted, was based on taking full advantage of recent technical advances and on installing only one line instead of two. The use of slender, tapered steel poles that would be camouflaged and would not be nearly so high as conventional towers would result in an unobtrusive line. The omission of steps on the poles and the use of unique new insulators attached directly to the pole constitute other important refinements.

Such pole line construction is more expensive than wood pole or steel tower construction, but is far less obtrusive. The proposed installation of a few dozen steel poles over 5½ miles (half of the route on Stanford property) would be much more attractive than the hundreds of dark wooden poles with crossarms, a large number of power wires, and sometimes transformers and large telephone cables, which one sees all over Woodside, Palo Alto, and elsewhere in the United States.

Incidentally, less than half the route of the line passes through wooded areas, and cutting of trees would be required in only a small fraction of that portion of the route. The result would be only some short stretches of tree removal.

As one who has been active for 44 years in all matters relating to underground cable systems, I am aware that our growing affluence has made possible a gradual increase in the use of underground.

There are many, many areas where an expenditure of some $5 million[1] for undergrounding the existing and future line facilities in excess of the cost of overhead construction could make the environment more pleasant for hundreds and thousands of families. However, undergrounding for the entire country, assuming present overhead facilities, would result in tremendous technical obstacles and could cost publicly and privately owned organizations over $100 billion.

Respectfully yours,

HERMAN HALPERIN.

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[1] This excess figure of $5 million is based on my estimated cost of $2,800,000 for installation of the initial 180,000-megawatt underground line and possibly a larger amount (because of rising costs) for the additional line that would have to be installed about 1972, as against a total cost of less than $900,000 for the overhead line.

APPENDIX 24

TRANSCRIPT OF NEWS CONFERENCE—JUNE 11, 1965

U.S. ATOMIC ENERGY COMMISSION

NEWS CONFERENCE, JUNE 11, 1965

(The following is a transcript of the news conference conducted at the site of the Stanford Linear Accelerator Center under construction for the AEC by Stanford University.)

Conducting the conference were: Dr. Glenn T. Seaborg, Chairman, U.S. Atomic Energy Commission; Congressman Chet Holifield, chairman, Joint Atomic Energy Committee; Frederick Terman, Stanford University provost and vice president; Matthew L. Sands, Deputy Director, Stanford Linear Accelerator Center.

Also present were Robert F. Gill, acting mayor of the town of Woodside; E. R. Stallings, county manager, San Mateo County; and representatives of the news media.

Dr. SEABORG. I will open with an informal, short statement. I think that will be the most efficient way to start. I am unfortunately on an extremely tight schedule.

I have come down here again, as I did in April last year, to look over the facility and to meet with the press in view of the continuing concern over the matter of bringing the high-voltage power to the Stanford linear accelerator. I had the opportunity to make a short tour of the accelerator this morning, and I had a quick look at it. I am impressed by the great deal of progress that has been made in the last 14 months. The accelerator is on schedule. It's going to be as good a machine as we thought it would be. It will be the outstanding facility in high-energy nuclear physics in the entire world. In fact, Stanford and the Woodside area will be a mecca for high-energy physicists all over the country and from many foreign countries. So we're very pleased with the progress of the machine.

I also met with members of the City Council of Woodside, with Acting Mayor Gill and Councilmen Wheeler and Lowe, and also County Manager Stallings of San Mateo County. We had what I consider a very friendly discussion, and I think I'll have more to say about that in a moment.

The time that I'm going to have available for this press conference is somewhat limited because I'm speaking at the Commonwealth Club at noon today. I'm speaking by the way, on a problem which is also very important; that is, how to prevent the proliferation of nuclear weapons. I'm following that with a talk, a commencement address, tonight at the American River Junior College near Sacramento. Then I'm speaking over on the Berkeley campus of the University of California tomorrow at the ground-breaking ceremonies of the Lawrence Hall of Science. And by the way, I have copies of the texts of all these talks in case you'd like to see those, and in case you're interested in other areas of human endeavor. I bring this out in order to emphasize tightness of schedule. Actually when Dr. Panofsky invited me to come down here a couple of months ago, after hearing that I was going to be in San Francisco for the talk at the Commonwealth Club, I told him that in view of this tight schedule I wouldn't be able to make it, but the interest in the high-voltage powerline situation became so great in the meantime that I thought I would sandwich this in.

Now, I just want to say a few words to explain to you again our reluctance in paying for the extra costs for undergrounding the high-voltage line. This is what I discussed with Acting Mayor Gill and County Manager Stallings just before I came in here. I emphasized again that there is a great difference between high- and low-voltage lines in the cost of undergrounding. In fact, it costs some 10 or 20 times as much to underground high-voltage lines as it does low voltage, and there's very little undergrounding in the United States today of voltages as high as 220 kilovolts. However, cost isn't the only only consideration here that leads to this reluctance on our part.

Also the technology of undergrounding high-voltage lines is not very advanced. This means that to underground even the less adequate lower powerline that we have been considering, the 180-megawatt line, we would run the risk of interruptions in power due to failure, and these interruptions might be of the order of a month each time—that is, the interruption of full power to the accelerator, well, for the indefinite future as long as this line was in existence would be of the

order of a month at a time. Whereas with an overhead line the thing can be fixed usually in a matter of hours or perhaps something in the order of a day.

Now, the other concern we have is with the comparison of the number of high-voltage, specially designed metal poles that are under consideration here over the Searsville route with the number of low-voltage poles that are already in existence and currently being erected. Under consideration, outside of the 24 pole structures on the Stanford property itself—which, by the way, are not very visible—are only 12 high-voltage pole structures. There would be only 1 in the town of Woodside itself and only 11 on the hillside in San Mateo County overlooking Woodside, and these are of about an average height which is the same as the thousands of more unsightly wooden poles in the neighborhood. I mentioned to the Woodside people that there are something like 2,500 poles in the town of Woodside but also said that I understood that this was just what they were trying to clear up. However, I have also learned that there has been something in the order of 275 of these poles put up since Woodside was incorporated and a number have been put up even since the temporary ordinance prohibiting overhead poles was passed last year subsequent to the application by P.G. & E. for a permit for the high-voltage lines. Similarly, there are over a thousand poles on the hillside of San Mateo County overlooking Woodside, and I have been told that about 60 low-voltage poles were put up in that area just in the last year during the time we've been talking about these 12 pole structures that they do not want us to erect—that is, underground the high-voltage lines corresponding to these pole structures even though this would be at such high extra cost compared to low voltage. I raised the question of whether something might be done about these low-voltage poles and especially their continued erection in large numbers if we are to consider going ahead with the undergrounding of the high-voltage line.

I said that despite these considerations, however, we realized that the people in Woodside are sincere. This is a beautiful area, a beautiful hillside, and I said that I would make a further exploration of the possibility of a compromise solution. I said that I would talk with the people at Stanford and the people at P.G. & E. to see whether there would be a possibility of a compromise solution, and I asked whether the Woodside people could tell me frankly just how firm was the availability of the $150,000 that Woodside is said to have made available. This has never really been a firm offer. I asked for an assessment on this, and they said they would try to develop means of doing this. I said that I would leave with them one of my assistants, Mr. John Erlewine, who will stay here and work with the Woodside people to talk about this aspect and all other aspects of a possible compromise solution. I pointed out that it was embarrassing to us as a Federal agency, in view of the people that we are accountable to, that the underground line would be going down the very street, Canada Road, where there is already a line of poles. In fact, one would almost find this line of poles interfering with the very undergrounding process in that area. I asked them whether they thought they could make an effort to perhaps underground some of that low-voltage line, to make it more reasonable to the people that we have to account to for our undergrounding a line that costs so much more, 10 to 20 times more per mile, namely our high-voltage line.

I also raised with County Manager Stallings the problem of the county doing something about undergrounding the low-voltage lines that correspond to the large number of poles in the hillside area and also avoid adding more poles at such a high rate as to dwarf the 12 high-voltage poles at issue. You remember I said that something like 60 poles had been erected there just during the time of this controversy. I don't know that I should speak for Mr. Stallings, but he said that he thought some progress could be made in this direction, and I said that it would be very helpful to us if we could have an assurance of an intention on the part of the local people to do something tangible of this sort, so that we could be able to actually show with action that this isn't just a matter of demanding that the Federal Government avoid putting up only some 12 poles at the high cost of some 10 or 20 times greater than the cost that would be entailed in undergrounding some of the numerous low-voltage distribution lines.

Now, one other aspect of this situation where there has been a widespread misunderstanding, I believe, is the clarifying legislation that has been introduced into Congress. The Atomic Energy Commission has been accused of highhanded action here. Actually, it was not the suggestion of the Atomic Energy Commission that this legislation be introduced. As a matter of fact, the Joint Committee on Atomic Energy didn't even need the concurrence of the Atomic Energy Commission in introducing this legislation, but I hasten to add it is legislation

that the Atomic Energy Commission needs, quite apart from the situation of the high-voltage powerline to the Stanford linear accelerator, in order to carry out its operations throughout the country. We just need this right in order to bring power to our many other installations.

I think with that I would like to suggest that my distinguished colleague, the chairman of the congressional Joint Committee on Atomic Energy, make a statement to cover the aspects of the situation that are of particular interest to him. That of course is Mr. Chet Holifield on my right.

Congressman HOLIFIELD. Thank you, Dr. Seaborg. I'm very pleased to be here this morning to try to bring some facts about this case to the attention of the press and the radio and television, because there's been a great deal of misinformation in the press, a great deal of failure to give the complete story. I have therefore prepared a statement which I intend to read because I want it to be a matter of record, and I don't want it to be made a matter of ad lib misstatement at any point. I will have the statement to distribute as soon as I finish reading.

During the past several weeks I have read a number of newspaper articles and letters which comment on and are critical of the Atomic Energy Commission and the Joint Committee on Atomic Energy for their actions in connection with the construction of an electric transmission line to supply power to the Stanford linear accelerator. Each of us as an American citizen has the duty and privilege to criticize public officials when they do not properly discharge their responsibilities. However, I am concerned that the criticisms I have been reading about this particular matter have been written by people who have been furnished a one-sided view of the problem and have not had the benefit of hearing all the facts on the case.

The controversy over the construction of this electric transmission line has been going on since 1963. During this period there have been numerous meetings between the representatives of the town of Woodside and San Mateo County and top officials of the Atomic Energy Commission, including the able Chairman of the Commission, Dr. Glenn Seaborg. Every facet of this problem has been explored in great detail, both verbally and in writing. The Atomic Energy Commission is headed by five distinguished American citizens appointed by the President with the advice and consent of the Senate. These persons are selected for their depth of learning in different fields, including science, law, and public administration. The five members of the Atomic Energy Commission have carefully reviewed the problem of the electric transmission line for the Stanford accelerator, notwithstanding the many other demands on the time of these people to perform duties which are vital to our defense and security. A tremendous amount of study has been given by them to this subject. The result of their deliberations was a unanimous recommendation by a five-member commission that the facts in this case warranted AEC proceeding to construct overhead transmission lines through San Mateo County and the town of Woodside to service the Stanford linear accelerator.

Let me turn now to the Joint Committee on Atomic Energy and the part it has played in this matter. Our committee, incidentally, is composed of 18 members from both the Senate and House of Representatives. Our membership is divided almost equally between the majority and minority parties. At this time there are 10 Democrats and 8 Republicans on this committee. One of our committee's principal responsibilities is to exercise a continuing review of the activities of the Atomic Energy Commission, and also authorize the funding of about $2.6 billion. Our committee's consideration of the SLAC powerline problem did not begin last week or last month. As early as July 1959, the committee considered the availability of a source of power in connection with the proposed authorization of the SLAC project. Again in March and April 1960, the committee reviewed the subject in connection with authorizing design money for the accelerator. In 1961, another comprehensive review was undertaken by the committee in correspondence. Consideration was given to the AEC's authorization by letter for fiscal year 1962, which provided the full $114 million authorization for the SLAC project. In each of these stages of the authorization proper careful attention was devoted to the overall cost of the project, including electrical power cost. And I want to say here that this has been a nonpartisan effort on the part of the minority House leaders on the Atomic Energy Committee, Mr. Craig Hosmer, of Long Beach, Calif., and myself. And we had tremendous competition as to where this linear accelerator would be, whether it would be at a site of the Midwestern University group or other parts of the United States. We thought we were doing the people of California and the scientists of California—yes, the scientists of the world—a tremendous benefit when we were

successful in bringing this linear accelerator to California, because we did have a fine group of scientists under Dr. Panofsky who were capable of doing this particular kind of advanced scientific work.

In January 1964, after difficulties arose between the AEC and the local communities adjoining Stanford concerning construction of overhead powerlines to SLAC, the committee held a full day of hearings devoted solely to this subject. Included among the witnesses were representatives of the town of Woodside and the county of San Mateo. In addition, three members of the committee visited the town of Woodside and the area to study this subject firsthand. I myself have been here three times.

Individual informal meetings were also arranged by committee members to determine possible compromise arrangements. At least 2 days of hearings before our committee's subcommittee on legislation afforded still another opportunity for this matter to be aired. Anyone surveying the record would agree that the local residents who favor an underground line have been given every opportunity to present their case to Congress concerning the construction of this powerline. We have bent over backward to give them adequate opportunities to present their case. Our committee has given every consideration to the contention of those who argue the AEC should be forced to construct this powerline underground.

For our committee to make such a recommendation to Congress, we would have to determine that the unanimous opinion of the five-member Commission was wrong. Let me make it very plain that the bipartisan, 18-member Joint Committee on Atomic Energy is unanimous in backing the decision of AEC, in this particular regard. Notwithstanding all the information and arguments presented to us, no one has provided our committee with a valid reason why the considered decision of the executive branch should be overruled.

The Joint Committee has not been convinced that the five members of the AEC have made a mistake. I've explained some of the background of our committee's consideration of the SLAC powerline dispute because I think it is essential that all of us who are interested in this matter view the subject at proper perspective. During the extensive hearing the Joint Committee held on January 28, 1964, a year and one-half ago, we were informed by the representatives of San Mateo County and the town of Woodside of their intention to pay a proportional share of the added cost to underground lines and their belief that a compromise solution could be worked out with Stanford University and Pacific Gas & Electric.

When representatives of the county and town again appeared before the Joint Committee on May 27 and June 2 of this year, they advised of their inability to reach any type of agreement with the other participants. While they continued to talk of their desire to help pay the cost, based upon their testimony to the committee, no firm financial contribution ever has been made to date by the county or the town of Woodside or Stanford University. The other participants have not been willing to assume the full cost of an underground line, although Pacific Gas & Electric has been willing to commit itself up to $1,012,000, a major portion of which would be paid for by the AEC in payments for power, of course. In addition, the Atomic Energy Commission has offered $350,000 more than the original offer toward the cost of an underground line. Thus, while the Joint Committee has been willing to consider suggested compromises and is still willing, after more than 1½ years of waiting, we have received no firm proposal, and we are perhaps no closer to a solution than we were in early 1964.

I want to direct the attention of the press to these three structures pictured over here. You will notice the first tower line—and we passed by many of them on our way down here. It is 120 feet tall. The Government could build that for $668,000. This is not what the Government plans to use. The next structure, a pole structure—is what the Federal Government has suggested at an estimated cost of $1,052,000. They would be in one-, two-, and three-pole individual structures and are 65 feet high, which is almost half as high as the original structures planned. In addition to being more expensive the poles have a disadvantage that they carry one circuit compared to two circuits on the tower line, which is far superior technologically speaking—that's why the power companies use it—than the lower line. You will see on the right a picture of a 60-foot conventional wooden pole, and you can find a number of photographs around the room of what they look like in the city of Woodside. Now, you can see the one-, two-, and three-pole structures that the Government plans to use and you can compare them with what the city of Woodside now uses, and I'll let you make your own opinion as to the aesthetic value of the different types of construction.

I also wish to clear up some misunderstanding which appeared to exist about the bill which our committee is now considering to amend the Atomic Energy Act. We have all kinds of news articles, cartoons and so forth, showing the great ogre of the Federal Government cramming something down people's throats. And I want to explain the position of the Federal Government as far as your representatives in Congress are concerned.

On May 20, 1965, the U.S. Court of Appeals for the Ninth Circuit handed down a decision which overruled a lower Federal court. Although the court of appeals' decision arose out of a local Woodside controversy—I want you to get this point very carefully—its effect has far-reaching implications, which go to the very heart of the Atomic Energy program—the national program—which includes the defense of our Nation. AEC has testified that if the interpretation of the Atomic Energy Act as set forth in the court of appeals' decision became binding generally, major adverse conditions throughout the entire AEC program could result. In the final analysis all of AEC's essential activities, including those vital to the defense and security of the United States and the entire free world involve the generation, sale, and transmission of electric power all over the United States, not just here in the city of Woodside. If these activities become subject to the control of local agencies of government, an intolerable burden could be placed upon its effective performance of AEC responsibilities under the Atomic Energy Act.

I want to call your attention to another thing. We recently got through the great intertie between the Bonneville power system and California and Arizona. There will be three lines of power towers such as you see at the left here, marking the full length of California. If this decision of the court of appeals could stand, it might well form the basis for a challenge by every county or municipality that wanted to challenge these overhead intertie lines from Bonneville down as far as San Diego. And if those lines had to go underground, it would cost in the neighborhood of one and a half to two billion dollars. It would cost at least $1 million a mile, and when you're talking about 220-kilovolt transmission and greater being underground there's only 35 miles in the United States that is now underground and there's only 10 miles of that in the State of California.

So we're talking about something a lot different from putting low-voltage service distribution lines which in Woodside would cost about $20,000 or $30,000 a mile. We're talking about tremendous voltages that create great heat and have to go through steel pipes which are under a pressure of 200 pounds per square inch of oil to remove the heat generated. And we're talking about getting into those steel pipes whenever there's a short or some other kind of trouble and fixing them. That's what Chairman Seaborg was telling you about when he said one deficiency might cost at least a month to repair. In the meantime, you'd have a $114 million facility standing idle with the damage to shutting it down abruptly, and you'd have hundreds of scientists waiting around.

So we're talking about something that's a lot more important than a lot of people think. As one who participated in the drafting of the Atomic Energy Act, I know that the Joint Committee and the Congress did not intend to divest the Atomic Energy Commission of powers available to other Federal agencies in carrying out their duties under the Constitution. The bills introduced by Senators Hickenlooper and Pastore and Congressman Hosmer and myself—you notice that's two Republicans and two Democrats, although the papers haven't given the Republicans credit for going along with the two Democrats—would reaffirm the intent of Congress that AEC possess the same sovereign immunity under the supremacy clause of article VI of the Constitution that every other Federal agency possesses. This is the major purpose of these bills and it goes far beyond the present Woodside controversy.

Now, every one of us is vitally interested in preserving the natural beauty of this lovely area. We on the Joint Committee feel that the Federal Government has a responsibility to take every reasonable step toward this end. Of course, those of us in Congress and the executive branch also have a responsibility to all of the citizens of this country to assure that our scientific programs, which are vital to the future well-being and world preeminence of our Nation, are carried out efficiently and without waste of funds. We think this dual responsibility is being carried out. Various statements by opponents of the overhead lines in the press have been made concerning the cost involved in the overhead and underground method of serving the Stanford linear accelerator.

Now, let me clearly state the facts in conclusion. An overhead transmission line of approximately 5.4 miles as now planned would cost the taxpayers $1,052,000, and we're talking about the 65-foot metal pole line. It would be

$668,000 if it were the 120-foot tower line, but we are talking now about what we agreed to do for esthetic purposes. The shortest underground line transmitting the limited power required to 1970 costs $2,770,000. Another underground line will be required, according to Dr. Panofsky, after about 1971, at an estimated additional cost of $2,640,000, for a total cost of $5,410,000—$5,410,000 in the place of $1,052,000. That's what we're talking about when we're talking about this 5.4-mile high-voltage transmission line. We are thus talking of a cost difference of about $4,358,000 for the few poles that we need to go across the city of Woodside and the county of San Mateo to service the Stanford linear accelerator.

Thank you.

Dr. SEABORG. I might also add, as you probably know, the Atomic Energy Commission has authorized undergrounding of hundreds of miles of low-voltage distribution lines on the Stanford campus to service the accelerator. This is technically feasible and at a reasonable cost.

QUESTION. Dr. Seaborg, if this law is passed by the Congress, will you still try to work out a compromise solution with Woodside, or just go ahead and go overhead?

Dr. SEABORG. We are open on that. As I stated, we are going to explore thoroughly the possibilities of a compromise, a cost-sharing solution involving Stanford, P.G. & E., and if possible, if the town of Woodside can legally put up money such as they have suggested but never have been in a position to make a firm offer, they would also be part of the cost-sharing proposition.

QUESTION. Dr. Seaborg, there's been a lot of talk about various sums of money involved here and the possibilities of lots more powerlines and their cost. Do you have any idea or does Congressman Holifield of how much money the Federal Government is spending on any kind of research in an effort to make the technology of undergrounding lines more feasible and cheaper? We were talking about a million dollars a mile underground. Is the Government doing anything about this?

Dr. SEABORG. They are doing something, but I think they're doing too little, and I think this is one of the aspects of this that perhaps Congressman Holifield and I could help along by lending our weight to this research problem. This, of course, is not an area of responsibility of the Atomic Energy Commission, and I suppose doesn't come within the purview of your interests in Congress, either?

Congressman HOLIFIELD. Not my legislative jurisdiction; my personal interest, yes. But I think I should say that we are just on the very birth of this underground technology. I've already given you the figure of 35 miles in the United States of 220 kilovolts or larger, and there are tremendous technological problems involved when you're putting that high voltage in a narrow space underground. You have got the heat dispersion which naturally accompanies all these high-voltage lines. When they are overhead in the air, it dissipates into the air. When they are underground and confined in a steel, waterproof pipe, you've got to get that heat out someway, and this is why we have got to pump this oil through the line at a pressure of 200 pounds per square inch in order to take the heat out. Or else you'd have the melting of the copper lines.

Dr. SEABORG. From a purely technological point of view, it is not yet sensible to underground high-voltage lines.

QUESTION. Dr. Seaborg, I notice from the chronological record the San Mateo County supervisors revoked the use permit. What is their present feeling on the situation?

Dr. SEABORG. Oh, I don't believe I could speak for the San Mateo County supervisors. Mr. Stallings, the county manager, is here. He might be able to respond to that.

QUESTION. Let's find out if Mr. Stallings has any comment on the compromise or anything else here.

Dr. SEABORG. I presume that you are all acquainted with my friend, Dr. Terman, vice president of Stanford University; and Dr. Sands, who is the deputy director of the Stanford linear accelerator facility. Dr. Panofsky is in Hamburg, Germany, today. He regretted very much having to be absent during our visit, but he had a longstanding engagement to give a talk in Hamburg. I think it is today or tomorrow. Mr. Stallings?

Mr. STALLINGS. What was the question?

QUESTION. Well, I notice that the use permit has been revoked by the county supervisors. What is their feeling now in the present situation?

Mr. STALLINGS. I think they feel just as they did when the action was taken in denying the use permit to P.G. & E. They would still like very much to see the line go underground so as not to mar the natural beauty of the landscape,

as the line will come down the hill from Skyline, crossing a scenic highway, Skyline Boulevard, and further being visible from another scenic highway, Junipero Serra Boulevard, and then traversing along the accelerator itself to Stanford, which while being much different is certainly beautiful land and should retain its natural beauty if possible. I don't believe that unless they are forced to permit an overhead line in the route suggested, that the supervisors will relent one bit from their position. Their position has been unanimous even as late as yesterday.

QUESTION. Then it's not Woodside versus the AEC. It's Woodside and San Mateo County versus the AEC?

Mr. STALLINGS. Well, Woodside is in San Mateo County, and we back up our local communities. And when our attitude, our expression, our feeling has been the same as theirs in this case, there's been no weakening of our position whatsoever. There's nobody—not one dissenting view insofar as the position the county has taken.

QUESTION. Would you say, sir, your position seems sound or is made less tenable after hearing what we have just heard from the chairman and the Congressman?

Mr. STALLINGS. Not our position; perhaps the outcome.

QUESTION. This is what I mean.

Mr. STALLINGS. Yes, we are still hopeful, and I'm very encouraged about Dr. Seaborg's remarks this morning about efforts to work out a compromise. We have been working toward this end, but as Congressman Holifield has stated, after 18 months we have nothing really firmed up. I was working on it this morning before I came to this meeting, and I'll be working on it this afternoon.

Dr. SEABORG. As I said this morning to County Manager Stallings and to Acting Mayor Gill, I thought what had held up progress on the compromise was the lack of firmness on the offer of $150,000 by Woodside. I think we could have moved forward if at some time that had been a firm offer. What I'm suggesting now is that they make the most sincere effort possible to clear this up and let us know exactly what the status of that is. Once we know that, I would think that would be precedent to going forward to having discussions with the other parties.

QUESTION. How much money are you asking from the county then on this?

Dr. SEABORG. Well, I had the understanding that it's legally not possible for the county to contribute this way—and Mr. Stallings can correct me if that is not right. Really what I was asking from the county was some tangible evidence, one, that they would put underground some of the lines that are already there and two, at least stop putting up more poles during the very period when we're being prevented from putting up only 12 additional pole structures. So that our case would be stronger with those that we have to give an accounting to. It is frankly very embarrassing to us to have to defend the avoidance of only 12 pole structures while hundreds have gone up in recent years and 60 have even gone up in just this period during which the controversy has been raging. Mr. Stallings told me—and I was glad to hear it, and I told him it would be helpful—that he thinks it may be possible to pass an ordinance in San Mateo County that would put this into effect. It would at least stop the erection of the low-voltage poles currently. After all, they are going up at a faster rate than the poles that we're talking about could possibly go up, that is, the 12 high-voltage pole structures. And he thinks perhaps they could even make some attempt in San Mateo County to get rid of some of the existing poles on the hillside—I'm talking now about the hillside overlooking Woodside—by undergrounding. And I don't know if I misquoted Mr. Stallings, but that's the way I understood him.

Mr. STALLINGS. That is correct, Doctor.

Dr. SEABORG. This would be very helpful to us.

QUESTION. Dr. Seaborg, in reality, though, we are talking about dollars and cents here, and yet if I understand it correctly from the statements of both you gentlemen, it isn't possible to put this underground.

Dr. SEABORG. I am saying it's a great sacrifice, that it's technologically not really sensible. But we are willing to make this sacrifice technologically in the spirit of compromise. We are in effect willing to jeopardize the operation of this great national facility in the interests of local esthetics if we can work out some kind of a cost-sharing proposal for undergrounding the high-voltage line. I am glad you put it that way. That gave me a chance to really pinpoint the distance that the Atomic Energy Commission has been willing to go. By the way, we have had this offer extant for the last 14 months, and as I say, I think it has been—as I analyze it—I think its acceptance has been basically held up

by the understandable lack of firmness in the Woodside offer of $150,000. I'm not saying that I don't understand that. What I'm pleading for now is just a clear clarification of that position. Then I think we might be able to at least go forward and explore the possibility of a compromise cost-sharing development. There is a gentleman who has been trying to ask a question for the last 20 minutes.

QUESTION. Can you tell us if you have set a timetable to reach this compromise? That is, have you set a deadline?

Dr. SEABORG. I don't think you can ever set a deadline on this, but it is certainly to our advantage to move as fast as we can. As I understand it, if we started undergrounding today, there would be a 12- to 18-month delay in the full power operation of this great facility, which is another consideration that should concern the whole United States. The taxpayers in the United States have put up this money. It's a facility for national use, and this is a very serious consideration and illustrates the tremendous concession that the Federal Government would be making toward local esthetics if we should work out this compromise solution for undergrounding the high-voltage line.

QUESTION. Would it not be reasonable, Doctor, that there should be a deadline set under these circumstances?

Dr. SEABORG. I just don't feel that I should say that a dealine will be set.

QUESTION. Would you withdraw the legislation?

Dr. SEABORG. Oh, no.

QUESTION. What would happen to that?

Congressman HOLIFIELD. There would be no withdrawal of the legislation, let me assure you of this, because it is the national interest that is involved here, the denial of the right of eminent domain to be exercised in the national interest by a Federal agency. Every other Federal agency has it, and we believe the mistaken decision of the circuit court of appeals takes it away from the AEC. And this is an intolerable situation. So regardless of any compromise of any kind—I'm not ruling out a compromise—this bill has to be passed. I couldn't face the Members of Congress and allow such an intolerable situation to exist.

Dr. SEABORG. I agree with that. I want to make that very clear. We need this bill to carry on the nationwide activities of the Atomic Energy Commission concerned with the national security of the United States. I just want to emphasize that as strongly as I am capable of.

Congressman HOLIFIELD. And we are not overriding, as you say, a community by this bill. This is the power of the Atomic Energy Commission, taken away by the circuit court of appeals decision. We are merely restoring the status quo. That is what we have to do. Now, Dr. Seaborg spoke of his embarrassment in advocating this underground line in the face of the situation that exists here in Woodside. Let me speak of my embarrassment as a Member of Congress, constantly harassed by the taxpayers and the chambers of commerce to lower our Federal expenses. How am I going to go on the floor of the House of Representatives and get an appropriation for $4 million—and this is what will have to be done if we go ahead—for the suggested plan sometime between now and the full use of the accelerator? I'll still have to go on the floor and ask for $4 million difference between the overhead line and the underground line. and I will have to talk to Members of Congress who will vote on this bill and convince them that this particular 5 miles of line in the United States must be——

Dr. SEABORG. Consisting of only 12 pole structures outside of Stanford.

Congressman HOLIFIELD. Consisting of 12 poles must be given $5 million in the place of $1 million when they have these powerlines over every district in the Nation.

QUESTION. Wouldn't that be a good expenditure for this research—use the Federal Government to do research——

Congressman HOLIFIELD. There's no research involved in putting this type of line underground.

Dr. SEABORG. It would, of course, in a perfect world be a better expenditure of the $4 million, to do research on increasing the technical feasibility of undergrounding high-voltage lines. Now, I want to be clearly understood on this. I believe that it will become technically feasible to underground high-voltage lines in the future. We have solved more difficult technological problems than that. Of course, Mr. Terman should speak on this. He is the world authority on electrical power and electrical power transmission. But I do believe that it will be technically feasible following a sufficient amount of research to eventually underground high-voltage lines; never at the same cost as undergrounding low-voltage lines, but certainly in such a way that there wouldn't be the risk

entailed as to the interruption of power that there is today in undergrounding high voltage.

QUESTION. Mr. Chairman, why won't Stanford kick in any money on this cost-sharing plan? I'm asking Dean Terman. Why?

Dr. SEABORG. Why Stanford doesn't?

QUESTION. Yes.

Dr. TERMAN. Well, I think the best thing I can do on that is to go back to the action of the board of trustees sometime ago. The trustees accepted the AEC linear accelerator project on Stanford property with the understanding that while the university would contribute the use of the land, which is in effect a financial contribution, that it would not realize either financial gain or loss from the operation of the project. We collect no fee for profit or anything of that sort. The trustees have always made it clear—and I'm really reading from the action they took—they have made it unequivocally clear that the university cannot justify devoting its own funds, held in trust for other educational purposes, to a national facility of this kind. That is to say, the university trustees by this action took the view that they couldn't take the money that was charged students for undergraduate tuition and use it for underground power in Woodside. Or they couldn't use endowment money that was given to the university for educational purposes and apply it to such purposes.

QUESTION. Dr. Seaborg, not to interrupt you gentlemen on this thought, but I wonder before you have to take off for the city, if we could ask you just two questions regarding your address today before the Commonwealth Club? First of all, could you summarize briefly what you are going to tell them?

QUESTION. Let's get something a little more pertinent. Dr. Seaborg, you spoke of a compromise. What would the compromise be?

Dr. SEABORG. Cost sharing; a general, acceptable cost sharing.

QUESTION. Then it still could go underground.

QUESTION. Isn't there a bigger linear accelerator being built at Cal or somewhere?

Congressman HOLIFIELD. I'd like to speak. This planned accelerator is a 200-billion-volt machine, and will cost $280 million to build. I'd say this much, that the facts of construction, and the delay that has come about as a result of this litigation, in my opinion, seriously jeopardize the State of California getting that big new accelerator, in the bay area particularly. Here are the men at Berkeley under Dr. McMillan and Alvarez, who have done the design work on it. Now, how am I going to go before the House of Representatives and beg that this be done here, as we did the Stanford accelerator and have this thrown in my face: "All right, you take it there, and you're going to have to have an underground line at much greater expense. You bring it to my State and you can have all the overhead lines you want."

QUESTION. How much bigger is this?

Congressman HOLIFIELD. It is a different situation.

Dr. SEABORG. It's a difference of $280 million instead of $114.

QUESTION. Is that a threat to punish the State of California by depriving it of a physics facility?

Congressman HOLIFIELD. A threat by whom?

QUESTION. I took it you meant——

Congressman HOLIFIELD. No; I said this would present a problem to me on the floor, arguing to other Congressmen who may want the project in their State, as they wanted the Stanford linear accelerator, and it took us 5 years to get it for California. Now we run into this situation, and, of course, the opponents to placing this new accelerator in California will bring this matter up and we will be asked how many millions of dollars will you have to pay on this one in order to put the lines underground.

QUESTION. Congressman, I get the impression from what you have told us that, regardless if a compromise is reached, as suggested by Dr. Seaborg, that Congress would still be unwilling or refuse to approve the additional expense of undergrounding these lines?

Congressman HOLIFIELD. Of course, I can't answer that question because I don't know what Congress would do. I would work in good faith to achieve any compromise that was reasonable and attainable on the floor of the House. But I will have a problem in getting legislation through and getting funding through.

QUESTION. You wouldn't care to give us what the odds are this could go through?

Congressman HOLIFIELD. No, I don't know what kind of compromise can be arranged. Let me point out something on this compromise. The P.G. & E. has

gone up about $350,000 on their original offer; the AEC has gone up $350,000. The town of Woodside hasn't put up a dime in a firm offer, and the county of San Mateo hasn't put up a dime in a firm offer, and Stanford University, which I understand has more than $100 million in their endowment fund, and which is going to have 2¾ miles of pole lines on their property hasn't offered to put up a dime. Now, that's the fact, gentlemen. Those are the facts that we are faced with, and I hope the press will carry these facts.

QUESTION. You're asking Stanford to put up a dime or so?

Congressman HOLIFIELD. I'm not asking anybody. I'm just saying the AEC, the Government agency, has put it up and your power company, P.G. & E., has put up about 30 percent more than originally scheduled for them, and no one else has come forward.

QUESTION. Dean Terman, would the Stanford Board of Trustees reconsider the question at their next meeting—I believe it's fairly soon—about the possibility of changing this policy and entering into a compromise?

Dr. TERMAN. I'm sure the board of trustees would be willing to consider any proposal that is made. There's no proposal before the board of trustees at the meeting next week. I doubt if there will be one. They will consider it. I cannot predict their action.

Dr. SEABORG. Now we have to go.

APPENDIX 25

LETTER TO SAN FRANCISCO EXAMINER AND NEW YORK TIMES FROM HERMAN HALPERIN, DATED JUNE 12, 1965, AND JUNE 15, 1965

ELECTRIC POWER SYSTEMS, *June 14, 1965.*

Subject: Subsidies for underground lines by the general public.

Hon. CHET HOLIFIELD,
Chairman, Joint Committee on Atomic Energy,
Washington, D.C.

DEAR MR. HOLIFIELD: It was a privilege to meet you last Friday morning at the press conference at SLAC.

Attached is a copy of my letter of June 12 to the San Francisco Chronicle and a letter to the New York Times that I think may be of interest to you—particularly the last two paragraphs in which I bring out an important consideration that you pointed up in your remarks on Friday. Similar letters have been sent to a few other newspapers.

Sincerely yours,

HERMAN HALPERIN,
Consulting Engineer.

ELECTRIC POWER SYSTEMS, *June 12, 1965.*

SAN FRANCISCO EXAMINER,
San Francisco, Calif.

To the EDITOR:

Statements appearing recently in the press in the bay area regarding the 220,000-volt power supply to Stanford accelerator (SLAC) have contained a few major errors.

As an engineer with extensive underground cable experience, I have been encouraging the use of underground lines in place of overhead, especially for certain low-voltage distribution where the extra costs are substantially less than those for high-voltage transmission. However, as a consultant to SLAC but with no assignment on power supply, I suggested to SLAC, AEC, Woodside and San Mateo County a compromise that would use slender camouflaged tapered steel poles and other recent refinements instead of conventional steel towers.

SLAC and AEC, after much deliberation, agreed to the proposal, which involved their giving up the originally planned two lines on towers for only one line on poles, even though this entailed greater cost. The proposed pole line (not lines nor towers as has been mentioned sometimes in the press) would cost about $900,000 and would serve throughout the life of SLAC.

The figure of $1.6 million in the press as the extra cost for the use of underground lines is a little low and applies only to the immediate installation of one line. It fails to take into account the second underground line, costing $2.7 million or more, needed about 1972, making the total extra cost $4.5 million.

It has been charged that the pole line would deface the hillside area. The height of the 14 pole structures in that area would average about 65 feet, much lower than that of conventional towers, and the poles would be much smaller in cross-section. The average span between poles would be about 1,000 feet. Tree cutting would be limited and growth up to 15 feet would be retained under the lines; there would therefore be no swath. The resulting installation would be unobstrusive.

Underground construction will continue to grow, but its excess costs will preclude its general use. On the other hand, technical advances will continue to improve the appearance of overhead.

If, however, the American public, as a result of actions by pressure groups, were to start subsidizing underground installations in cases where overhead would normally be used, the extra cost of electric lines for new construction in the next 12 to 15 years would be roughly $50 billion. This makes no allowance for conversion of existing overhead lines. In addition, underground construction is not technically feasible for the very long transmission lines.

The larger question, therefore, is how great a sacrifice should the general public be asked to make to pay for undergrounding to take care of "special situations."

Sincerely yours,

HERMAN HALPERIN, *Consulting Engineer.*

ELECTRIC POWER SYSTEMS, *June 15, 1965.*

THE NEW YORK TIMES,
229 West 43d Street,
New York, N.Y.

TO THE EDITOR: Referring to your editorial of June 8 regarding the 220,000-volt power supply to Stanford linear accelerator, I believe that if you had been given an accurate and more complete picture of the situation, your attitude would be substantially different.

In the first place, the proposed overhead line is not to be installed on poles and towers ranging from 70 to 120 feet high. The designs call for the use of slender poles (no towers) ranging from 45 to 93 feet high.

In the next place, the incremental cost for putting the lines underground is about $4.5 million, not "from $2 to $4 million."

Also, in my opinion, you were unjustified in saying that "Apparently word of President Johnson's concern for conserving the natural landscape has not reached the AEC." Of the 5.3-mile length, only half would be in the hillside area, including Woodside, which is the area receiving considerable public attention.

The height of the 14 pole structures in that area would average about 65 feet, much lower than that of conventional latticed steel towers, and the poles would be much smaller in cross-section. The average span between poles would be about 1,000 feet. Tree cutting would be limited to the area adjacent to the poles, and growth up to 15 feet would be retained under the line; there would therefore be no swath. The resulting installation would be unobtrusive.

As an engineer with extensive underground cable experience, I have been encouraging the use of underground lines in place of overhead, especially for certain low-voltage distribution where the extra costs are substantially less than those for high-voltage transmission. However, as a consultant to SLAC but with no assignment on power supply, in 1963, I suggested to SLAC, AEC, Woodside, and San Mateo County a compromise that would use slender camouflaged tapered steel poles and other recent refinements instead of conventional steel towers.

SLAC and AEC, after much deliberation, agreed to the proposal, which involved their giving up the originally planned two lines on towers for only one line on poles, even though this entailed greater cost. The proposed pole line (not lines nor towers as has been mentioned sometimes in the press) would cost about $900,000 and would serve throughout the life of SLAC.

If underground construction were to be used instead, the extra cost of the first line would be about $1.7 million. However, a second underground line, costing $2.7 million or more, would be needed about 1972 to take care of the increased load, making the total extra cost about $4.5 million.

Underground construction will continue to grow, but its excess costs will preclude its general use. On the other hand, technical advances will continue to improve the appearance of overhead.

If, however, the American public, as a result of actions by pressure groups, were to start subsidizing underground installations in cases where overhead would normally be used, the extra cost of electric lines for new construction in the next 10 to 15 years would be roughly $50 billion. This makes no allowance for the high costs of conversion of existing overhead lines. In addition, underground construction is not technically feasible for the very long transmission lines and ties between power systems which must be used to keep down the costs of electricity.

The larger question, therefore, is how great a sacrifice should the general public be asked to make to pay for undergrounding to take care of special situations.

Sincerely yours,

HERMAN HALPERIN, *Consulting Engineer.*

APPENDIX 26

LETTER TO THE NEW YORK TIMES, DATED JUNE 16, 1965, FROM DR. PANOFSKY

STANFORD LINEAR ACCELERATOR CENTER,
STANFORD UNIVERSITY,
June 16, 1965.

Mr. JOHN T. CONWAY,
Joint Committee on Atomic Energy, Congress of the United States, Washington, D.C.

DEAR MR. CONWAY: I am enclosing a copy of a letter I have written to the New York Times together with a copy of the editorial to which this letter responds.

I hope you will find this information useful.

Sincerely yours,

W. K. H. PANOFSKY, *Director.*

JUNE 16, 1965.

To the EDITOR:

I am sorry to note that the Times has contributed in its editorial "High Power," of June 9, 1965, to the widespread distortion of fact concerning the AEC's power-line to be built in California.

The Times says: "The agency (AEC) wants to take possession of a strip of land 100 feet wide and 5.3 miles long, running through picturesque hills and heavy woods, and erect an overhead line on poles and towers ranging from 70 to 120 feet high." The picture is quite different: The proposed line consists of 1 pole structure in the town of Woodside, 11 in the adjoining unincorporated land and, with the consent of the Stanford Board of Trustees, 24 on university land (2 of which are on university land within the limits of Woodside). The length of the easement the AEC wished to acquire is 2.5 miles. The average height of the poles is 65 feet. Ground clearing is not required; the countryside is not "scarred," to use the Times' language. There are no towers, only poles painted green. The area in question is now zoned for residential subdivision. The Times fails to add that the town of Woodside has 2,500 poles of their own, many the same height but carrying lower voltage wires; the county has many thousand more, including many located in the same terrain as the planned AEC line, and has no ordinance against overhead construction; Woodside adopted its ordinance only after the application was made for permission to construct the line in question. In short, what is involved here is an attempt of local communities to impose conditions on the U.S. Government which the communities have been unwilling to apply to themselves.

The Times editorial refers frequently to the President's natural beauty program. What the editorial fails to mention is that the President's Conference on Natural Beauty specifically recommended widespread undergrounding of low-voltage distribution lines, which are about 10 times cheaper to underground than

are high-voltage transmission lines, but recommended against using scenic dollars in undergrounding high-voltage transmission lines such as the one in question. Paradoxically, the AEC-supported Stanford Linear Accelerator Center (SLAC) operated by Stanford University is doing just what was recommended. SLAC is undergrounding its entire multihundred-mile distribution system, thereby leading San Mateo County and the town of Woodside which have as yet not even started on such a program. The President's Conference also recommended improved design of overhead high-voltage lines—again this is what the AEC-designed line has accomplished. The AEC design, mounted on green-painted steel poles averaging 65 feet in height, compares favorably with the 120-foot towers erected by the local utilities to carry wires at the same voltage.

The editorial states that Woodside "has offered to quadruple its taxes" to pay part of the added costs for the AEC's underground line. Actually, Woodside has done no such thing; as the only firm commitment the town has made was on June 14 (after the Times editorial) to increase its tax rate for 1 year by 75 cents out of an average total real estate tax rate of about $9 in order to contribute toward the undergrounding of a small fraction of its own lower voltage system, a task the AEC has already accomplished at SLAC and which Stanford University has practiced for years. Moreover, Woodside's offer is made contingent on the AEC's obtaining financing for the entire multi-million-dollar cost for undergrounding the single high-voltage line.

The reference to the pending legislation is singularly inaccurate. The editorial describes the bill's purpose "to exempt the AEC from local and State zoning regulations." Actually, Federal agencies normally are not subject to such regulations; the Federal court decision referred to in the editorial ruled that the AEC alone would be subject to local powers, because of a section in the Atomic Energy Act intended by the Congress to limit the AEC's power in controlling transmission of electricity generated in its own nuclear powerplants. The pending legislation would simply give the AEC the same position in relation to local regulation as that held by other Federal agencies.

Finally, there is the matter of the Joint Committee of the Congress "rushing through a law with imperiousness," to quote the editorial again. The request for a permit for the line to feed the accelerator was filed with Woodside authorities in June 1963. Today, June 1965, is later by three full hearings before the Joint Congressional Committee on Atomic Energy, by innumerable hearings before local bodies, the California Public Utilities Commission, and the county. It is also later by 25 more poles erected for local purposes in Woodside, and many hundreds in the county, the same bodies objecting to the AEC's 1 plus 11 pole structures. Within less than 9 months the power needs of the Stanford accelerator laboratory, a facility to serve scientists from all over the country and the world, will have exceeded its present supply. According to the estimates of the utility serving northern California, the Pacific Gas & Electric Co., it will take 18 to 24 months to construct the 220-kilovolt underground line after all legal matters are settled; the utility has never built such a line in California before. All this is not exactly "rushing."

The struggles for conservation of the natural landscape can be greatly harmed if distorted reporting and editorializing permit this kind of conflict between local interests and national needs to masquerade as an issue of conservation.

HIGH POWER

Apparently, word of President Johnson's concern for conserving the national landscape has not reached the Atomic Energy Commission.

The AEC is determined to win its fight to string high-power transmission lines anywhere it pleases. For more than a year, the Commission has been engaged in a struggle over the issue with the residents of Woodside, Calif., a town 30 miles south of San Francisco. The agency wants to take possession of a strip of land 100 feet wide and 5.3 miles long, running through picturesque hills and heavy woods, and erect an overhead line on poles and towers ranging from 70 to 120 feet in height. The line would carry electricity to a linear accelerator being built at Stanford University.

The residents of Woodside, pointing out that country zoning forbids overhead powerlines, urged the AEC to place the lines underground. rather than scar the countryside. Instead, the AEC went to court—and lost. On May 20, the Federal

Court of Appeals upheld Woodside, basing its decision on a section of the 1954 Atomic Energy Act. Undaunted, the AEC turned to its friends in Congress. On May 25, the same day that the White House Conference on National Beauty opened, Senators Pastore and Hickenlooper and Representative Holifield, the ranking members of the Joint Committee on Atomic Energy, introduced a bill to exempt the AEC from such local and State zoning regulations. Hearings were scheduled immediately with no advance notice.

Estimates of the cost of putting the lines underground range from $2 to $4 million, but either figure is small compared to the total cost of the linear accelerator. Moreover, Woodside, a wealthy town, has offered to quadruple its taxes for the next year to pay part of the added costs for the underground lines.

These local considerations, however, are less important than the principles involved. Even in the absence of a Presidential push for protecting the natural environment, Federal agencies should respect local conservation requirements. No committee of Congress should attempt to rush through a law with the imperiousness the Joint Committee on Atomic Energy is showing. The public looks to Congress to curb, rather than to abet, high-powered bureaucratic arrogance.

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