

Decision No. 69663

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ROBERT W. E. DUNCAN, et al.,
Complainants,

vs.

PACIFIC GAS AND ELECTRIC COMPANY,
a corporation,
Defendant.

Case No. 8003
(Filed September 11, 1964)

Milton L. McGhee, for complainants and for intervenors
Richard Moore, et al.
F. T. Searls, John C. Morrissey and Ross Workman, for
defendant.
James R. McBride, for Beilby et al.; Milton Goldinger,
for County of Solano; Wallace Sheehan, for Liberty
Farms Company; Hale Meader, for Church and Graham;
Bancroft, Avery & McAlister, by Stephen W. Hackett,
for Sorensen Estate et al.; Downey, Brand, Seymour
& Rohwer, by Richard G. Worden, for Bowlsbey, et al.;
intervenors.
William C. Bricca, with Robert W. Hollis and John E.
Brown, for the Commission staff.

O P I N I O N

Public hearing in this matter was held before Commissioner
McKeage and Examiner Emerson on December 16, 17 and 18, 1964 and
thereafter before Examiner Emerson for twenty-three additional days
during the period December 21, 1964 to March 12, 1965. The record
consists of 3145 pages of reporters' transcripts in 26 volumes, of
89 exhibits, and the testimony of 45 witnesses. The matter was
submitted subject to the receipt of briefs, the last of which was
filed on June 8, 1965, and the matter is now ready for decision.

Parties

Complainant Robert W. E. Duncan and 91 other complainants^{1/}
are property owners, lessors or lessees of farming lands in the

^{1/} Collectively hereinafter referred to as "complainants".

Counties of Butte, Colusa, Sutter, Yolo and Solano, over portions of which defendant intends to construct 500 kv electric transmission lines. Intervenor Richard Moore and 34 other intervenors on behalf of complainants are similarly engaged in farming activities on lands adjoining those lands over which defendant's proposed 500 kv electric transmission lines would pass.

Defendant is a public utility corporation.^{2/} Fifty-eight intervenors on its behalf (or in opposition to the alternative proposal of the complainants), are, except for the County of Solano, engaged in farming operations along the alternate routes espoused by the complainants.

Issues

Pacific Gas and Electric Company is presently constructing several 500-kv transmission lines throughout its territory. PGandE's plans call for three of these lines to traverse the Sacramento Valley (one from Table Mountain Substation in Butte County to Tesla Substation in Alameda County, one from Table Mountain Substation to Vaca-Dixon Substation in Solano County and one from Vaca-Dixon to Tesla) for a total of approximately 274 route-miles.

Complainants, principally rice growers, ask that the Commission halt construction of these transmission lines. They seek an order of the Commission which would assure that two of the lines (the one from Table Mountain to Vaca-Dixon Substations and the one from Table Mountain to Tesla Substations) be so routed that the lines would not cross over or adjoin their lands. Complainants claim that PGandE's routing will cause irreparable harm and damage. The two issues thus generated are (1) whether PGandE's proposed lines would unduly interfere with the agricultural pursuits of complainants and (2) whether the alternate routes proposed by complainants are preferable to those proposed by PGandE.

^{2/} Hereinafter sometimes referred to as "PGandE".

Complainants also allege that erection of these transmission lines will create safety hazards to aircraft and in particular to crop-dusters and the operations of aerial crop-treating and crop-processing machinery, as well as cause safety hazards in the dispersion of poisonous substances used in crop treatment if the presence of such lines causes such substances to be dispersed at altitudes higher than those permitted by law or regulation. Complainants further allege that PGandE's proposed construction of 500-kv transmission lines will create an entirely new and different system, that it is not an extension of an existing system and that, therefore, it must obtain a certificate of public convenience and necessity from this Commission before it may undertake construction of such transmission lines.

Defendant admits that it intends to construct the transmission lines in question; that such lines, like all structures rising above ground, will create some safety hazards to aircraft, including crop-dusters; that there will be some damage to some farm land and that the agricultural yield per acre for that portion of the land over which rights-of-way will have been obtained will be less than it would otherwise be were the transmission towers not installed. Defendant alleges that nothing in California law requires it to make application to this Commission for a certificate of public convenience and necessity for the proposed lines because they will be, within the meaning of Section 1001 of the California Public Utilities Code, extensions within territory already served by it and are necessary in the ordinary course of defendant's business.

Defendant also alleges that the Federal Power Commission has jurisdiction over the proposed transmission lines, to the exclusion of this Commission and, further, that if this Commission were by order herein to delay completion of construction beyond a prospective 1968 completion date, the Commission would frustrate

the intent of Congress as to such completion date and thus would violate Article VI, Section 2, of the United States Constitution. Defendant claims that what complainants really seek is to prevent defendant from exercising its right of eminent domain by bringing this action before the Commission and points out that by California law, such issues as (1) the necessity of the lines, (2) the compatibility of their location with the greatest public good and least private injury and (3) the character and extent of damages, if any, are determinable solely by the Superior Courts of this State and are beyond the jurisdiction of this Commission.

Evidence and Facts

The evidence is voluminous. Its summarization has been presented by the briefs of complainants and defendant, complainants' summary of the evidence alone running to more than 290 printed pages. No further summarization of the evidence will be attempted herein. Instead, only the more important facets of the evidence and those elements of contention which will lead to an understanding of the ultimate findings and conclusion of the Commission will be discussed.

As electric load has grown through the years PGandE has had to expand and reinforce its system, both as to production and transmission facilities. It must continue to do so. The system's annual peak load is increasing by about 500 megawatts annually at the present time. Forecasts for ten years hence indicate an annual increase of 1,000 megawatts, and for 15 years hence, an annual increase of about 1,400 megawatts. Provisions for meeting these increasing peak loads include new and larger generating sources or plants and additional transmission lines of greater capacity. PGandE presently utilizes transmission voltages of 60 kv, 70 kv and 115 kv (all of which it now terms subtransmission) and a maximum transmission voltage of 230 kv. Future large blocks of power will be transmitted at 500 kv.

The larger concentrations of PGandE's electric loads are in the San Francisco Bay Area, in the Sacramento Valley and in the San Joaquin Valley.^{3/} It is necessary to transmit power to, from and through these areas and in doing so, it is also necessary to have switching points and substations within them. Tesla Substation (near Tracy) and Vaca-Dixon Substation (near Vacaville) are important termini for existing transmission lines. Table Mountain Substation (near Oroville) will serve as a switching point for 500-kv lines, and as a receiving point for the increased generating capacity being built along the Pit and Feather rivers and from the proposed North Yuba and Oroville-Thermolito projects. In addition, it is designed to serve as a switching point for the power received from out-of-state which may be used for state pumping at the Oroville-Thermolito project. All three substations are of primary importance in the operations of PGandE's integrated power system.

The natural features of this State and the electrical load centers within it are such that transmission lines must be carried both lengthwise and across central valleys which valleys, in addition to containing cities, military and other governmental installations, airports, and navigable streams, are intensively farmed. Transmission line route selection is thus made difficult because of the necessity of avoiding many of these natural and man-made features. The traversing of farm lands is unavoidable. The problems of electric transmission (through agricultural lands, as well as through or into suburban and urban centers), because of the growth of this State and the importance of agriculture and industry to its economy and the well-being of all of its people, is of statewide concern. In viewing the complaint and the evidence herein, the Commission is ever mindful of its obligation properly to protect the public interest. Such problems are also receiving the earnest attention of other persons

^{3/} Forecasts for loads in these areas, for the year 1970, are 5,000 megawatts, 2,000 megawatts and 4,000 megawatts, respectively.

and agencies. In this respect, the Commission takes notice of Senate Concurrent Resolution No. 77^{4/} whereby the Department of Water Resources and such other State and local agencies and commissions as may be affected, are directed to undertake a study of the matter of planning and location of transmission lines. This Commission will participate in such study and will join others in reporting thereon to the Legislature. In weighing the evidence in this voluminous record, the test uppermost in the mind of the Commission is the reasonableness of the resulting decision in providing for the future public needs for electric power while accomplishing the same with the least private injury. This is at the heart of the controversy in this proceeding.

On the average, the 500-kv transmission lines will be supported by towers spaced four to the mile. The towers and their footings have been specifically designed so as to present the least possible obstruction to surface farming operations. The tower heights and the conductor clearances above ground have been specifically designed to permit, insofar as practicable, aerial farming operations.

Where two tower lines are placed within a right-of-way, the desired right-of-way width is 350 feet; where a single line is used, the width is 200 feet. The presence of transmission lines through or over lands devoted to grazing or pasture present few, if any, problems to the farmer. Where row crops are concerned, the problems are slightly greater but in general the towers may be placed in such positions that the tower legs and footings will coincide with the rows of cultivation and thus present a minimum obstruction to farming operations. Where orchards are concerned, because of growing tree heights, both safety and continuity of electric service often require

^{4/} Introduced by Senator Pittman and dated April 27, 1965.

completely cleared rights-of-way. Irrespective of the type of farming operations, safety demands that water wells, gas wells, standpipes and similar objects whose pumps, casings or extensions may be raised into the line conductors be avoided or cleared from rights-of-way. Buildings must be similarly treated.

The total length of PGandE's routing is approximately 274 miles and encompasses some 7,350 acres of rights-of-way.^{5/} Of these 7,350 acres, some 1,500 acres lie on rice lands such as the lands of complainants.^{6/} In the whole length of the route, only a total of about 15 acres is attributable to the areas contained within the tower legs. The capital cost of the lines proposed by PGandE is on the order of \$41,400,000. Annual fixed charges will approximate \$4,900,000.

Primarily, complainants have sought to show that there is a better routing than that proposed by defendant. Their proposal would establish a different route for the lines between Table Mountain and the Toland Landing crossing of the Sacramento River, south of Rio Vista, and would leave undisturbed defendant's routing between such river crossing and Tesla. As compared with defendant's proposal, complainants' suggested routing would (1) lengthen the lines by about 41 miles, (2) reduce the number of acres of rice land traversed by about 500 acres but increase the total acres of farm land traversed by about 1,150 acres, (3) place Vaca-Dixon Substation at the end of a 26-mile tap line rather than on a looped-line; (4) require additional capital expenditures on the order of \$11,450,000 if their proposed lines were to be electrically equivalent to those of defendant; (5) require the crossing of 23 other high voltage tower lines in 17 separate crossings as compared to defendant's

^{5/} PGandE has already acquired about two-thirds of the rights-of-way necessary for its routing. Rights-of-way yet to be obtained involve approximately 1,600 acres of land, a portion of which will be obtained through eminent domain proceedings before the courts.

^{6/} On the order of 324,000 acres are devoted to the growing of rice in the Sacramento Valley.

crossing of 7 other tower lines in 7 crossings; (6) place some portions of the tower lines in deeply and lengthily flooded areas; (7) require destruction or removal of a number of farm buildings, dwellings and highly productive orchards, and (8) do no more than transfer their problems to the lands of others.

Complainants' rice-growing activities rely heavily on the use of aircraft, commonly called crop-dusters. Indeed, they could not maintain the scale of their present farm businesses without the seeding, fertilizing, weed and pest control services provided by crop-dusters. Their concern that crop-dusters not be hindered in their flying is readily understandable. Extensive testimony is in this record respecting the ability of pilots to fly around obstructions and under lines while effectively performing their various services. They regularly face such hazardous obstructions as levees, trees, barns, dwellings, telephone lines, roadways and electric lines which are in, along or adjacent to or at higher elevations than the fields which they service. Except for flying above obstructions, much of their flying over rice fields is done at distances above ground of six to thirty feet. Some pilots will fly under wires only thirty feet above ground, others will not fly under wires irrespective of the distance of the wires above ground. In this State, the minimum permissible clearances of utility wires above ground are specified by this Commission's General Order No. 95. For 500-kv electric lines, the design minimum clearance is 30 feet at a temperature of 130 degrees fahrenheit. At lower temperatures, the conductors for this voltage will always have a greater clearance above ground. PGandE's design of these lines for use through rice growing areas will provide a mid-span minimum clearance of 50 feet above ground at 130 degrees and a normal mid-span clearance of 57 feet above ground at 60 degrees fahrenheit. As the conductors approach the towers, the ground clearances become greater until clearances of about 110

feet are realized adjacent to the towers. These greater than minimum-allowable clearances have been intentionally provided in order to permit crop-dusters to fly under the lines in rice fields. Insofar as the ability to see the wires is concerned, each of the line conductors will be composed of pairs of cables, each one of which is 1.75 inches in diameter (thus presenting a minimum extent of 1.75 inches when viewed in their smallest dimension and 3.5 inches when viewed in their greatest dimension). This size is many times greater than other wires which now confront crop-dusters.

Findings and Conclusion

The Commission makes the following findings:

1. This complaint is properly before this Commission. While it is true that the Federal Power Commission has certain jurisdiction over facilities for transmission of electric energy in interstate commerce, the lines here in question will be used for both intrastate and interstate transmission. Even if only for the latter, such matters as the location of the lines, their electrical and structural adequacy, their safety and their meeting of the needs of the public within this State are clearly, by law, subject to the jurisdiction of this Commission.

2. The future public need for the transmission lines which defendant proposes to erect has been clearly demonstrated.

3. The proposed lines do not constitute a new electric system but will be, in fact, no more than a reinforcement of defendant's existing integrated electric power transmission system.

4. Routes for transmission lines between Table Mountain, Vaca-Dixon and Tesla Substations cannot be selected which will completely avoid farm lands which may be seeded, fertilized, sprayed or dusted by the use of aircraft, nor can the crossing of all rice-growing or potentially rice-growing lands be avoided.

5. The total actual rice land within defendant's proposed rights-of-way comprises but 45/100 of one percent of the total rice acreage harvested in the Sacramento Valley in 1963. When potential rice lands are added to actual, such figure increases only to 83/100 of one percent.

6. Construction, operation and maintenance of the 500 kv transmission lines designed by defendant will create no undue hazard to the public, including operators of aircraft.

7. The routings selected by defendant are preferable to those suggested by complainants, will not unduly interfere with the agricultural pursuits of complainants and will reasonably provide for the public benefit with the least private injury.

8. Such matters as the taking of property and the amount of damages attendant thereon are for the courts to determine and this Commission has no jurisdiction with respect thereto.

The Commission concludes that this complaint should be dismissed.

ORDER

IT IS ORDERED that the complaint herein, Case No. 8003, be and it is hereby dismissed.

Dated at Los Angeles, California, this 14th day of SEPTEMBER, 1965.

Frederick B. Hallock
President

George E. Crover

Proctor

Commissioners

any views will be set forth regarding Williamson to Board

C. 8003

DISSENT

BENNETT, William M., Commissioner, Dissenting Opinion:

There is a flaw in this proceeding and the opinion following which is incurable. And that is the failure to direct the staff of this Commission to make an independent study in terms of the most desirable route of the line here proposed. The only way in which the ultimate long term public convenience and necessity can be measured is by such an independent study conducted by a staff having the capability to make such.

As it is we can speculate forever as to whether the route proposed by the PG&E is in fact the only avenue whereby energy may be transmitted to the load centers. The showing and the testing made by complainants here does not satisfy the obligation of this Commission to make its own determination and judgment upon the most desirable route. Failure of the Commission to render its own independent investigation inevitably results in a one-sided contest between a resourceful public utility and a group of vastly over-matched individual complainants. The reason this Commission was created in the first instance was to serve as the public advocate and not to act as the passive referee. An affirmative duty exists in proceedings such as these which are becoming more and more important to California. And if the public convenience and necessity is to be judged as here only by such showing as individual complainants may make, then no precise or truly informed judgment as to the true public convenience and necessity may ever be reached except by chance. The complainants here asked the Commission for assistance and it was denied. On February 2, 1965 these complainants by petition asked

"that the Commission, through its staff, conduct a full and complete comparative study of the two proposals for location of 500 kv transmission lines

and towers both as to actual costs and the impact each would have on the farming economy and other industries and interests of the state affected by either proposal."

That petition which I would have granted and so stated at the time was denied. I pointed out then that

"this proceeding involving individual complainants placed against the resources and skill of a giant utility suggests that the contest may be improperly balanced. The very existence of this Commission and its staff rests upon the premise that we assist the public where possible -- and it is quite possible here. A mere directive can accomplish such result. Litigation such as this which has a great impact above and beyond the interest of these litigants can hardly be left to such resources as complainants may possess. It is not only the obligation of the staff to be vigorous in proceedings such as this so far as the public is concerned but it makes for less than a complete record without active staff participation. As it is the completeness of the record leaves something to be desired and all of the expertise of the Commission staff has been denied us on the record by way of making a sound decision in which all public interest factors might be evaluated. As recently as May 5, 1964 (in Decision No. 67180, Application No. 45231) the staff of this Commission at my direction made a study encompassing all of Southern California as to possible suitable sites for a nuclear plant. Then and only then with such evidence was the judgment reached that the site at San Onofre (Southern California Edison Company and San Diego Gas & Electric Company Nuclear Plant) was by elimination the most suitable for the construction of the Edison Nuclear Plant."

As the record stands it may be that the route proposed by the PG&E is the only possible energy corridor which may be utilized. On the other hand there may be other routes with superior advantages which would do less violence to valuable agricultural land. The tragedy is that a Commissioner can never know any more than I know now and accordingly I dissent from the opinion of the majority herein upon the simple basis that no comparative study was made as requested. And incidentally this would have been a most routine thing and could have been done in a relatively short period of time. Indeed such a study might have confirmed the decision of the PG&E.

This proceeding is more than a controversy over the location of a power line. It is an effort by individual complainants to persuade this Commission that it now has the obligation in California in the year 1965 to judge utility proposals in terms of effect upon ecology, aesthetics -- upon nature itself! And it is small comfort to complainants to be cast aside and to be apprised that the Legislature is about to undertake an investigation of this problem. It does little good to participate in investigations and long range studies seeking ideal answers for other theoretical problems when we are confronted with a harsh problem which asks for an answer now. This Commission presently has the clear obligation as I view the phrase, "public convenience and necessity" to concern itself with public utility planning and its effect upon the landscape of California, the environment, and the citizens who will be affected thereby. The issue in this case could only be resolved by a record in which the Commission could make a judgment as to the best and highest use of land. And the intrusion of power lines in the manner as proposed while it may be a correct one nonetheless has been authorized without any deep inquiry into the issue as to whether or not this is the highest use of the natural environment and if several public utilities are to take their proper place in terms of best land use then one day a record devoted to some of those matters which are basic to conservation will have to be made and a public utility will have to be ordered to judge a plant, a record, a facility or whatever. And while this may seem startling to some it has happened at least once in California as the Bodega Bay controversy attests.

One day -- and not too far off in my opinion -- agricultural lands will have enormous burdens in terms of food production imposed upon them. And it will then be a thin comfort

to realize that today's generation has traded off the vital commodity food for another vital but more dispensable commodity energy.

The only way in which the type of controversy which is here presented may be resolved is by an understanding of ecology. Californians and public officials must steep themselves in the literature and the lore of conservation. There must be a true understanding of the basic importance of land. Note, for example, in a work which ought to be recommended reading for all officials and agencies touching upon land use, ⁽¹⁾ this sobering statistic:

"Up to 1955 we were losing farm land at the rate of 60,000 acres per year. Since 1955 the rate has speeded up. Despite all the protests and complaints from those who were aware of the problem, we are now losing it at a rate approaching 90,000 acres per year. We are expending incredible sums of money to bring new farming land into existence through vast irrigation developments while at the same time we are concreting over better lands capable of more diversified food production." Pg. 133.

The author then sounds this warning:

"If populations continue to grow and farming land declines, the United States may well join the ranks of major importers of foods that it now produces and exports."

The author obviously has much more to say about the critical issues this proceeding presents and again one of the great differences I have with the opinion of the Commission here is the complete failure to give any discussion of the real issue which is in this case, i.e., what is the highest and best use of agricultural land. It seems evident that transmission lines can be located and relocated as this Commission directs. But once land is gone, generally speaking, it is gone forever.

All planning should take into account at least two generations into the future. All planning and public utility

(1). The Destruction of California, by Raymond F. Dasman, MacMillan Co.

proposals themselves should be based on a land ethic or policy and the public utilities of California as I have repeatedly said have a greater obligation than the immediate objective of producing additional electrical energy. The public utilities are simply a part of the total California scene and if they themselves are ever to conform to the best ideals of true conservation they must be ordered so to do where necessary by this Commission. And that means a complete record where the Commission may cast its weight upon the side of a best land use after such questions and issues have been completely explored upon a record. It simply was not done here and it should have been.

These views I express are neither new nor novel but unfortunately to many, even most Californians, they are little noticed or unknown. Drawing upon one of the founding fathers, look to what Thomas Jefferson said concerning agricultural land:


"The indifferent state of agriculture among us does not proceed from a want of knowledge merely; it is from our having such quantities of land to waste as we please. In Europe the object is to make the most of their land, labor being abundant; here it is to make the most of our labor, land being abundant. ... The land belongs to the living generation. They may manage it, then, and what proceeds from it, as they please, during their usufruct."

And by way of a contemporary voice addressing itself to this problem one need only read the "Quiet Crisis" by Stewart L. Udall. There he points to the demands upon land in a nation having a population which will inevitably double by the year 2000. Udall calls for the development of a land ethic and a land conscience and with this I agree completely. Such broad ideals, however, will continue to be meaningless here in California unless those ideals are applied to specific situations. And this Commission as I have said over and over again has the absolute obligation to approve or disapprove utility projects having in mind an awareness of the best land use not merely for the present but for those two or three generations

of the future of which I spoke. If we fail in this regard today we are creating for ourselves problems for tomorrow and the price to be paid for the destruction of agricultural land or for the spoliation of an ideal beach-front site or the scarring of a timber stand or whatever will be as to most of these instances the complete loss of that which is natural and true.

Accordingly for all of the reasons that I have set forth I am of the strong view that this matter should be reopened and tried with an ear and an intellect listening to some of the things I have said. California has the abilities at its great universities and other places so that this Commission could call forth the assistance of agronomists, conservationists, land planners and others. And this we should do otherwise the Commission decides at its peril and almost upon an unknowing basis.

In short, then, in my view, the record is not so complete as to warrant a knowledgeable judgment of this Commission as to the best record or location of these power lines. This matter should be reopened and the the staff should be directed to apply itself to questions of the true ultimate and long range best use of this land as that concept is inherent in the public convenience and necessity.


WILLIAM M. BENNETT
Commissioner

San Francisco, California
October 28, 1965