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Decision No. 90371 JUN 5 1978

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the Application of  
PACIFIC GAS AND ELECTRIC COMPANY for a  
Certificate of Public Convenience and  
Necessity under General Order No. 131-A  
Authorizing the Construction, Operation  
and Maintenance of a 230 kV Transmission  
Line from Applicant's Vaca-Dixon-Contra  
Costa 230 kV Transmission Line to  
Applicant's Peabody Substation in Solano  
County, California.

(Electric)

Application No. 58183  
(Filed June 28, 1978)

O P I N I O N

Pacific Gas and Electric Company (Applicant) seeks an order of the Commission granting it a certificate that present and future public convenience and necessity will require the construction and operation of a double-circuit, initially unbundled, 230 kV transmission line from Applicant's 230 kV Vaca-Dixon-Contra Costa transmission line to Applicant's Peabody Substation site near the City of Fairfield, Solano County.

Project Description

The proposed project is located immediately north of the City of Fairfield in Solano County. The proposed project consists of 4.2 miles of double-circuit 230 kV transmission line starting from a point on the existing Vaca-Dixon-Contra Costa 230 kV transmission line and running west for approximately 0.7 miles and then southwesterly for approximately 3.5 miles to the Peabody Substation site at the intersection of Peabody and Vanden Roads. The 3.5-mile portion of the route parallels the Southern Pacific Railroad and a portion of Vanden Road. For the most part, the line would be

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supported on lattice steel double-circuited towers 80 to 150 feet high placed on the average at 1,075-foot intervals within a nominal 120-foot right-of-way. Twenty-three towers would be required along the project route, one of which would be a double-circuit tubular steel pole (adjacent to the substation). The line would parallel, for some 1.8 miles, two existing 60 kV wood pole lines along the railroad right-of-way (Vanden Road also parallels those two lines for 0.9 miles of the 1.8 miles involved).

The design capacity of the proposed overhead line, assuming one circuit out of service, will be approximately 400 MVA initially without bundling; and with eventual conductor bundling, the capacity could be increased to approximately 800 MVA if it should be required. The design capacity is based upon the use of standard conductors which will allow the addition in the future of technical features which improve system protection and flexibility.

The proposed project's route passes through agricultural, commercial, industrial and native vegetation land with the exception of 0.7 miles where it would be located between the edge of a golf course and intensive agricultural land. A row of trees parallels the golf course edge.

The substation will be constructed within a 6-acre site with substation structures being approximately 26 feet high and pull-off structures 50 feet high. Three 230-21 kV transformers (one initially) are proposed for the substation which will be located on industrial-zoned land.

#### Need for Project

The Fairfield-Suisun area is presently supplied with power via the Suisun and Cordelia Substations with power contributed by other substations as needed. Applicant's projected annual megawatt load growth rate of 10.0% (based upon a five-year historic trend)

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in the area indicates a need for electric power transmission facilities this year. Even using a more modest projected annual megawatt load growth rate (6.25%), the need for electric power still may exceed the existing capability of 170 megawatts later this year (and would result in approximately doubling electric demand within 10 years). This 6.25% growth rate is based upon an analysis made by the Association of Bay Area Governments (ABAG) which shows Solano County housing may develop at an annual rate of over 6.0% between 1977 and 1990. As electrical demand has historically increased at a greater rate than housing construction, the use of 6.25% appears reasonable. Applicant will be utilizing temporary facilities to handle the load this summer.

The staff has made an independent evaluation of growth rates utilizing the Association of Bay Area Governments' projections on population, housing, employment and land use and has found the estimate of growth between 6.25% and 10.0% to be reasonable. No comments have been received objecting to the staff's concurrence with Applicant's views concerning the load growth rate.

Aside from the immediate needs the project would satisfy, it should provide sufficient transmission capability to the area for the next 10 to 15 years.

#### Environmental Impact Assessment Process

In compliance with the provisions of the California Environmental Quality Act (CEQA), the CEQA Guidelines and Rule 17.1 of the Commission's Rules of Practice and Procedure, Applicant filed on June 28, 1978, as part of its application, a request for issuance of a Negative Declaration. In support of its allegation, Applicant submitted an Environmental Data Statement (EDS).

The staff analyzed the EDS, made a field inspection and concluded that a significant visual impact was possible due to the placing of over 20 transmission line towers in the relatively flat terrain existing between the operating Vaca-Dixon-Contra Costa line and the Peabody Substation site. That conclusion was reported in the staff's Initial Study which was circulated on August 8, 1978 to state and other agencies having expertise in environmental matters. Applicant was informed that an Environmental Impact Report (EIR) would be required, and environmental impact inquiries were sent to Applicant requesting, among other things, analysis of an additional route and of the effect of combining different voltage circuits on the same tower over part of the proposed line routing.

Draft and Final EIR's were prepared in connection with this application in compliance with the provisions of the laws and regulations noted above.

The Environmental Impact Branch of the Utilities Division prepared the Final EIR based upon comments received on the Draft EIR. These included one from Applicant and one from Solano Irrigation District which supported Applicant's preferred route. (The EDS also contained support for Applicant's preferred route from the Solano County Planning Commission.) Four other letters were received. One from a tenant farmer generally supported Applicant's preferred route but objected to four of the transmission towers being on agricultural land. Two letters from landowners having property near Applicant's preferred route and wishing to eventually develop their farmland for residential use recommended undergrounding or a route completely parallel to the transportation/utility corridor. One farmer having property on two of the other alternative routes made the same recommendation as that of the latter two landowners. All letters with staff comments are included in Chapter X of the FEIR.

When the availability of the Draft EIR was advertised (in February 1979) the public was informed that hearings would not be held unless a need for them was shown. As a result of receiving no request for a hearing, and the magnitude of the proposed project, it was determined that a hearing on this matter was not necessary.

Alternatives to the Project

Applicant, through its Environmental Data Statement, recommended the use of its preferred alternate for the subject line. Two other alternate routes were also discussed. All three alternate designs were based on the use of conventional lattice steel transmission line towers.

The staff requested that the utility consider an alternate route which would essentially confine the transmission line to the railroad right-of-way from a tap on the 230 kV Vaca-Dixon-Contra Costa line to the Peabody Substation site. In addition, the staff requested Applicant study the possibility of reducing some of the clutter of poles and wires existing along the railroad right-of-way (adjacent to the transmission line) by use of towers that might combine the different voltage circuits existing and proposed along the route. Applicant, in response to these requests, undertook an innovative study of alternatives which included the use of different types of towers and routes. Results of underground and No Project alternatives were also reported to the Commission staff so that a total of 14 alternatives were evaluated (see Final EIR, page S-6, for a summary description of alternatives).

Each alternative consists of a specific route, tower design and circuit combination. Applicant's studies expanded Applicant's preferred route and tower design into six alternatives. Applicant's studies in response to the staff's requested route evaluation resulted in the development of four more alternatives. Applicant's other two alternatives, the underground study and the No Project study, completed the list of alternatives studied by Applicant and staff. In addition to examining four principal overhead routes,

standard lattice, double lattice, slim line lattice, and tubular steel towers were investigated. The investigation included consideration of not only combining the 60 kV circuits with the proposed 230 kV circuits but included combining future 21 kV distribution circuits, as well as the railroad's communication and signal circuits, over part of the route. Extensive art work was prepared by Applicant to assist the staff in its analysis of the alternatives and is contained in the Final EIR.

The alternatives based upon Applicant's preferred route with various combinations of towers were estimated to cost between \$1,345,000 and \$2,000,000. The two alternatives initially studied and reported by Applicant in its EDS as alternates to its preferred route and tower design (which is estimated to cost \$1,345,000) cost between \$1,255,000 and \$1,316,000, while the overhead alternatives that resulted from the staff overhead request varied in cost between \$1,500,000 and \$2,419,000. The underground system was estimated to cost \$6,915,000.

The alternatives were analyzed based upon the number of towers to be erected, the visual appearance of the towers and other vertical elements in the context of the regional landscape, the lengths and location of lines, land used by structures as well as land use and zoning in the vicinity of the alternatives, and cost. It was concluded after extensive analysis that the possible gains in visual appearance of the transmission line, in the agricultural/ industrial corridor that surrounds the railroad line, which would result from the use of more expensive alternatives in preference to Applicant's preferred alternative, were conjectural at best and would not justify the additional capital and operating costs which would eventually be borne by Applicant's customers. The use of less expensive alternatives was rejected because they crossed relatively open land, had the maximum length of run outside the transportation/utility corridor, crossed the most country roads, and might require the construction of maintenance roads.

Environmental Matters

A comprehensive record of environmental matters was developed in the Final EIR. It was concluded that while the environmental effects of overhead construction on the preferred route are significant, they are acceptable. Construction impacts will be temporary and minor. They will include land alterations and effects on land use, traffic generation, dust and noise, alterations and reduction of wildlife habitat, and visibility of construction equipment. Operation of the transmission line, however, will have but marginal effects on wildlife and wildlife habitat and will only remove approximately one-half acre from agricultural production. Occasional radio interference will occur, and the transmission line may interfere with some crop dusting operations.

Applicant's preferred alternate includes several mitigation measures. One slim-line tower and the use of existing access roads are proposed. The 0.7-mile westward run of line will parallel an existing line of trees which should somewhat mitigate visual impacts. Should previously unknown archaeological resources or historically sensitive areas be discovered during construction, work will be stopped until the proper course of action can be determined by a professional archaeologist. These are reasonable mitigation measures and should be carried out.

While there will be a short-term disturbance to the environment arising out of the construction phase of this project, and a long-term commitment to use of the physical area, improved electrical reliability and availability of service to the Fairfield-Suisun area population resulting from the project will promote its health, comfort, safety, convenience, and long-term productivity. There are no irreversible environmental changes occasioned by the project, although there will be an irretrievable commitment of materials and labor.

Findings

1. Pacific Gas and Electric Company is a publicly regulated utility engaged in the generation, transmission, and distribution of electricity in northern and central California.

2. The projected growth of demand for electrical energy in the Fairfield-Suisun area this summer may exceed the capacity of the existing permanent system to meet service requirements.

3. The proposed project is reasonably required to meet area demands for future reliable and economic electric service and to prevent foreseeable overloading.

4. The construction of the proposed project will not produce an unreasonable burden on natural resources, aesthetics of the area in which the proposed facilities are to be located, public health and safety, air and water quality in the vicinity, parks, recreational and scenic areas, historic sites and buildings, or archaeological sites.

5. Land Resources - Minor alterations of physiographic features will result from the project. The disturbances associated with construction will be of short duration while those associated with operation will be negligible.

6. Vegetation and Wildlife - The major disturbance to these will occur during construction of the line. No significant permanent adverse impacts on the biological resources of the area will result once construction is completed.

7. Air, Water and Noise - The proposed transmission line is expected to have no adverse impact on the water, insignificant impact on the air and negligible impact on noise of the area. Audible noise and radio and television interference will increase directly beneath the transmission line. These effects, however, will not be significant outside the right-of-way. Brief radio interference might be experienced by motorists as they pass near the transmission line.



8. Cultural Resources - No significant impact to archaeological, paleontological or historical resources has been identified as a result of the project. In the event such resources are discovered during construction, authorities will be notified so that the value of these resources can be rapidly and adequately assessed.

9. Aesthetics - The proposed project will have a visual impact on the surrounding area. Part of the line will be visible from Vanden Road as well as several other thoroughfares. A new slim-line lattice steel pole, however, will be used adjacent to the Peabody Substation to reduce the aesthetic impact, and part of the line will follow a row of existing trees which will mitigate visual impact.

10. A public hearing is not necessary.

#### Conclusions

1. Present and future public convenience and necessity require the construction and operation of this transmission project.

2. Because of the general existing nature of the terrain, both natural and manmade, the local population density and use of the land by industry and agriculture, added investment to improve the aesthetics of the proposed line is not justified.

3. Applicant is placed on notice that operative rights, as such, do not constitute a class of property which may be capitalized or used as an element of value in rate fixing for any amount of money in excess of that originally paid to the state as the consideration for the grant of such rights. Aside from their purely permissive aspect, such rights extend to the holder a full or partial monopoly of a class of business. This monopoly feature may be modified or canceled at any time by the state, which is not in any respect limited as to the number of rights which may be given.

4. The action taken herein is not to be considered as indicative of amounts to be included in future proceedings for the purpose of determining just and reasonable rates.

5. The Notice of Determination for the project is attached as Appendix A to this decision. The Commission certifies that the Final EIR has been completed and adopted by it in compliance with CEQA and the guidelines and that it has reviewed and considered the information contained in the Final EIR in arriving at this decision.

6. Based on the foregoing, the Commission concludes that the 230 kV Peabody transmission line as proposed by Applicant should be authorized in the manner set forth in the following order.

O R D E R

IT IS ORDERED that:

1. A Certificate of Public Convenience and Necessity is granted to Pacific Gas and Electric Company to construct and operate the 230 kV transmission line in Solano County, California, as proposed in this proceeding.

2. Pacific Gas and Electric Company shall file with this Commission a detailed statement of the capital costs of this transmission line project, together with related appurtenances, within sixty days following the date the project is placed in commercial operation.

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3. The Executive Director of the Commission is directed to file a Notice of Determination for this project, with contents as set forth in Appendix A to this decision, with the Secretary for Resources.

The effective date of this order shall be thirty days after the date hereof.

Dated at San Francisco, California, this  
5th day of JUNE 1, 1979.

John E. Boyer  
President  
Vernon L. Thompson  
Charles D. Swartz  
Clayton J. Smith  
Samuel W. Jones  
Commissioners

## NOTICE OF DETERMINATION

TO: Secretary for Resources  
1416 Ninth Street, Room 1312  
Sacramento, California 93814

FROM: California Public  
Utilities Commission  
350 McAllister Street  
San Francisco, Calif. 94102

SUBJECT: Filing of Notice of Determination in compliance with  
Section 21108 or 21152 of the Public Resources Code.

Project Title Peabody 230 kV Transmission Line, Pacific Gas and Electric Company

State Clearinghouse Number (If submitted to State Clearinghouse)  
78082894

Contact Person  
D. B. Steger

Telephone Number  
(415) 557-0442

Project Location  
Solano County, California

Project Description The project consists of 4.2 miles of double circuit,  
bundled 230 kV transmission line from the existing Vaca - Dixon - Contra  
Costa 230 kV transmission line to the Peabody Substation.

This is to advise that the California Public Utilities Commission  
as lead agency has made the following determination regarding the  
above described project:

1. The project has been  approved by the Lead Agency.  
 disapproved
2. The project  will have a significant effect on the environ-  
ment.  
 will not
3.  An Environmental Impact Report was prepared for this project  
pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursu-  
ant to the provisions of CEQA. A copy of the Negative  
Declaration is attached.

Date Received for Filing

Executive Director

Date