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PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

COMMISSION ADVISORY AND
COMPLIANCE DIVISION
Energy Branch

RESOLUTION E-3397
November 22, 1994

R E S O L U T I O N

RESOLUTION E-3397. ERIC DIESEL REQUESTS APPROVAL TO DEVIATE FROM THE UNDERGROUNDING REQUIREMENTS OF PUBLIC UTILITIES CODE SECTION 320 AT CONGRESS SPRINGS ROAD, ALSO CALLED HIGHWAY 9, IN SANTA CLARA COUNTY.

BY A FEBRUARY 18, 1994 LETTER FROM ERIC DIESEL.

SUMMARY

1. Eric Diesel (Diesel) requests authorization for overhead electrical facilities along a scenic highway, a deviation from Public Utilities Code Section 320.
2. No party protested this request for a deviation.
3. This Resolution grants Diesel's request.

BACKGROUND

1. Diesel requested approval for overhead electric service by letter to the Commission dated February 18, 1994. Diesel owns property located on Congress Springs Road near Skyline Boulevard in Santa Clara County. Congress Springs Road, also known as State Highway 9, is an officially designated state scenic highway. Pacific Gas and Electric Company (PG&E) would be the utility that would extend service to Diesel and other prospective customers.
2. In accordance with California Public Utilities Code Section 320, state policy is to achieve undergrounding of electric or telecommunication facilities near scenic highways when feasible and consistent with sound environmental planning. The California Public Utilities Commission (Commission) is designated as the State's agency for implementing this undergrounding policy.
3. The Commission's policy for overhead installations, as enunciated in Decision (D.) 80864 dated December 19, 1972 in Case No. 9364, is:

In order to facilitate administration, letter requests for deviations will be accepted, reviewed by the Commission Staff and, where appropriate, approved by

Commission resolution. Local governments' participation in the review process is set forth hereinafter under the heading "coordination with local government". Clear-cut cases of reasonable deviations are granted by resolution following letter requests or by ex-parte order following formal application. Potentially controversial formal applications for deviations are heard and appropriate decisions rendered in each case.

NOTICE

1. Diesel's letter was given to PG&E, CALTRANS, and the County of Santa Clara.

PROTESTS

1. No protests to this letter have been received by the Commission Advisory and Compliance Division (CACD).

DISCUSSION

1. Diesel is requesting an overhead electric line extension in lieu of an underground extension because an underground extension is prohibitively expensive.

2. POTENTIAL CUSTOMERS. Diesel plans to build two homes on his properties. Phil Green is a neighbor with an existing house that is supplied with electricity by a generator. Steve Clark is another neighbor with a house that is 50% complete.

3. THE SITE. Congress Springs Road is a very narrow, winding, mountainous highway. The terrain is excessively steep and rocky with large Douglas fir trees. There is very little shoulder space on either side of the road, with a near vertical cliff to the south and a very steep drop-off to the north. All power in the surrounding neighborhood is provided by overhead lines.

4. UNDERGROUND CONSTRUCTION. The underground route is along a rocky mountain crest. Geological conditions would require blasting and excessive modification of the state highway to accommodate the trench for an underground extension. The trench would have to be placed in the travel lane of Congress Springs Road due to the surrounding terrain. Caltrans issues permits for such work, which must be performed between 9 a.m. and 3 p.m., with all trenches backfilled by 3 p.m. In addition, construction would require flagging at all times, since only one lane of traffic would be left open. Paving costs would include temporary patching and permanent asphalt replacement. A nine-foot-wide road replacement would be required to assure the integrity of the existing asphalt shoulder. Caltrans requires a 12-inch key and three inches of permanent asphalt, with 12 inches of concrete with baserock installed between sand and concrete to cover and pave the road after the utilities are installed.

5. UNDERGROUND COST - \$1.6 MILLION. PG&E's final estimate in 1992 showed that installation of a 3,453 foot underground extension to the driveway leading to Diesel's property would cost \$1,606,374. The following summary highlights the major cost components:

Trenching for electric and phone	\$820,772
Electric facilities	34,930
CIAC Tax	232,435
Cost of Ownership	<u>518,237</u>
Total:	\$1,606,374

Trenching would have accounted for over \$800,000 of the total \$855,702 construction cost. The portion of the electric extension on private properties is approximately 3,200 feet. This includes installing the overhead line extension along the driveway. The average cost of the overhead extension on private properties is \$18.50/ft. for a cost of \$59,200. The total estimated preliminary cost of the extension would have been \$1,665,074. This assumes that CALTRANS would allow PG&E to install overhead facilities along Dr. Diesel's driveway, even though it is within 1,000 feet of the scenic highway boundary.

6. PG&E personnel from the Cupertino office met with CALTRANS to review the construction site of the proposed underground and overhead distribution system. PG&E discussed another route with CALTRANS. If a deviation was granted to allow PG&E to set a pole within 1,000 feet of the scenic highway boundary, it is physically possible to construct the underground system 2,000 feet along Congress Springs Road from the take off pole to the corner of Diesel's property. Then the facilities would go overhead 2,700 feet on private properties. The underground portion would be approximately \$495,600 and the overhead portion would be approximately \$43,200. This total preliminary estimated cost would be \$538,800.

7. JOINT TRENCH BENEFITS. The extension was designed as a joint trench with telephone sharing the trench. While the existing home has phone service, a new line would have to be extended to serve the proposed three additional homes. If Pacific Bell did not participate in the trench, the total trenching costs would be reduced by approximately 10 percent. This is due to fact that the depth of the trench would be decreased by eight inches.

8. EXCEPTIONAL CASE ADD-INS. If this line was built underground, its cost to-revenue-ratio would lead PG&E to seek Exceptional Case treatment as provided in its tariffs. PG&E would want a Contribution-in-Aid-of-Construction for federal and state taxes and a cost-of-ownership charge to operate, maintain, and replace the line.

9. OVERHEAD COST - \$84,100. PG&E would install approximately eleven utility poles and overhead electrical lines along Congress Springs Road (Highway 9) near Skyline Boulevard in San Mateo County. The distance from the take-off pole on Congress Springs Road to where the electric overhead extension will cross

onto Mr. Diesel's property is approximately 2,000 feet. The unit cost of this portion of the extension is \$12.93 per foot, for a total cost of \$25,900. The portion of the electric extension on private properties is approximately 2,700 feet. The unit cost for this portion is \$16.00 per foot for a total cost of \$43,200. The total overhead cost is \$69,100. PG&E would incur additional costs if it is ordered to implement the California Department of Transportation's (Caltrans) proposals for overhead service described below. PG&E estimates that this may add an additional \$15,000 to the cost of the project, bringing the preliminary total estimated cost for overhead lines to \$84,100.

10. CALTRANS POSITION. Caltrans' Division of Transportation Planning has planning oversight on the construction of overhead facilities near state scenic highways. Caltrans reviewed the proposal for the installation of an overhead system and determined that undergrounding of the proposed utility facilities is the preferred alternative from an aesthetic, visual and safety standpoint.

11. CALTRANS' ADDITIONAL REQUIREMENTS FOR OVERHEAD. In the event that the Commission approves overhead service, Caltrans would specify certain restrictions. At the time an encroachment permit is requested by PG&E for placement of utility poles, Caltrans would review pole locations to see if they are safely positioned. Furthermore, Caltrans would specify that the language of the standard "hold harmless" clause regarding Caltrans liability be substantially stronger than traditional usage.

12. Caltrans also proposes integration of the following recommendations to ensure a safe and aesthetically-sensitive overhead configuration:

A. PG&E should paint or stain the poles a shade of brown consistent with the tone, value, and hue of the surrounding background vegetation. Once PG&E has selected a paint or stain, Caltrans' Landscape Architecture Branch would review and approve the chosen color.

B. PG&E should utilize brown-colored insulators. Insulators can be obtained through a special order.

C. The placement of additional wires in the future should be avoided. This recommendation applies primarily to telephone lines, but also to any other types of utility wires, such as cable TV.

D. PG&E should adjust the heights of the proposed poles to minimize the visual obtrusiveness of the electrical lines. These height variations will be in response to the existing tree canopy and Caltrans' desire to avoid the "sky lighting" of these wires.

E. Caltrans' Architecture Branch would review the construction documents at the 35%, 65%, and 95% design stages to

assist in the development of a design which is consistent with sound visual practices as well as satisfy concerns for safety and convenience to the travelling public. Caltrans will stay in contact with the Energy Branch staff, and the appropriate PG&E design engineers as this project progresses.

13. POSITION OF SANTA CLARA COUNTY. Santa Clara County has processed and authorized Mr. Diesel's application for construction of an overhead line.

14. OVERHEAD BENEFITS TO DIESEL. PG&E would install the extension under the standard provisions of its extension rule. Because of the free footage allowances provided in the rule for various appliances, the extension would be made at no cost to Diesel.

15. ENGINEERING CHARGES. Diesel advanced \$16,000 to PG&E for the cost to engineer the line, \$6,424 was refunded, resulting in a net payment of \$9,576.

16. CACD SITE INSPECTION. On May 10, 1994, Frank Crua and Bill Gaffney of CACD met with representatives of PG&E and Mr. Diesel to review the site. Said parties walked a portion of the proposed overhead electric extension route.

17. CACD's field inspection of the proposed extension routes confirmed the circumstances represented by PG&E and Diesel. The cost estimate for trenching and electrical facilities for an underground extension is approximately \$856,000. An equivalent overhead system would cost approximately \$84,000. This is a 10 to 1 cost ratio. Even under CALTRANS' underground/overhead scenario, the cost ratio is about 6.42 to 1. In prior decisions of the Commission, cost ratios exceeding 6 to 1 were determined to be excessive. In either underground proposal, the underground costs are considered excessive.

18. CALTRANS determined that undergrounding of the proposed utility facilities is the preferred alternative from an aesthetic, visual and safety standpoint. However, recognizing that the cost of an underground extension was expensive, and that an overhead extension may be preferred, CALTRANS proposed restrictions and conditions on overhead service to ensure a safe and aesthetically-sensitive configuration.

19. CACD recognizes CALTRANS' concerns, but believes that the substantial cost difference overrides the aesthetic, visual issue. Also, if PG&E works with CALTRANS, the safety concerns can be mitigated to some extent. CACD endorses CALTRANS proposals except for item C, prohibiting the placement of additional utility wires on PG&E poles in the future. Since the circumstances which preclude an underground extension by PG&E would apply to other utilities as well, placement of additional utility wires on this extension of PG&E's overhead facilities should not be prohibited. CACD therefore recommends authorization of an overhead extension for Diesel, conditioned according to Caltrans recommendations except item C.

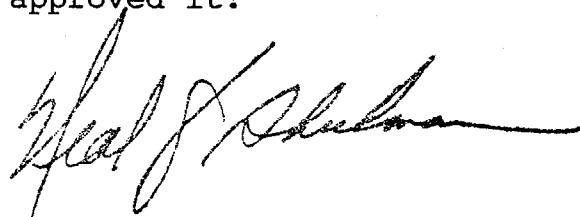
FINDINGS

1. By February 18, 1994 letter, Eric Diesel requested Commission approval to deviate from the undergrounding requirements of State of California Public Utilities Code Section 320 at Congress Springs Road, also called Scenic Highway 9, in Santa Clara County.
2. PG&E estimates the cost of an electric underground/overhead line to be \$1,665,074 due to the high cost of trenching, taxes, and cost-of-ownership. The cost-of-ownership would pay for maintaining and replacing the underground line, and would make the ratepayers indifferent to that expense.
3. The total cost of an electric overhead line extension to serve Mr. Diesel, Philip Green and Steven Clark with the additional CALTRANS construction requirements is estimated to cost \$84,100. Free footage allowances, based on the number and kind of electric appliances on four lots, would enable PG&E to extend overhead service to Diesel without charge.
4. The overhead to underground line cost ratio is about 10 to 1. In previous decisions, a ratio in excess of 6 to 1 was found to be excessive and grounds for authorizing overhead service.
5. Caltrans recommends underground service as the preferred alternative from an aesthetic, visual and safety standpoint. However, recognizing the potential overhead alternative, Caltrans proposed restrictions and conditions on overhead service to ensure a safe and aesthetically sensitive configuration.
6. The County of Santa Clara has authorized overhead construction to serve Diesel.
7. CACD recognizes Caltrans' concerns, but believes that there are adequate mitigation measures available. CACD therefore recommends overhead service, conditioned on Caltrans recommendations, except item C, which would limit other utility lines on PG&E's poles.
8. Caltrans recommendations for overhead service are reasonable, are in the interest of public safety, should reduce impacts on the aesthetics of the area, and should be adopted except for item C.
9. Since the underground to overhead cost ratio is significantly high, a deviation from mandatory undergrounding to permit the construction of overhead lines is reasonable and should be granted.
10. The cost of additional overhead line requirements requested by Caltrans such as the painting and staining of the poles and all other requirements found in this Resolution's Discussion Sections 8 and 9 are to be paid by Messrs. Green, Diesel and Clark.

THEREFORE, IT IS ORDERED that:

1. Pacific Gas and Electric Company is authorized to deviate from the undergrounding provisions of Public Utilities Code Section 320 for the purpose of extending overhead electric service to the property of Eric Diesel and adjacent customers on Congress Springs Road.
2. Pacific Gas and Electric Company shall implement the recommendations of the California Department of Transportation, described in paragraph 12 of the Discussion Section of this resolution, except for item C.
3. Eric Diesel and the other applicants for service from this overhead extension shall reimburse Pacific Gas and Electric Company for the cost to implement the recommendations of the California Department of Transportation.
4. This Resolution is effective today.

I hereby certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on November 22, 1994. The following Commissioners approved it:



NEAL J. SHULMAN
Executive Director

DANIEL Wm. FESSLER
President
PATRICIA M. ECKERT
NORMAN D. SHUMWAY
P. GREGORY CONLON
JESSIE J. KNIGHT, Jr.
Commissioners