

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

**Communications Division
Carrier Oversight & Programs Branch**

**RESOLUTION T-17354
January 12, 2012**

R E S O L U T I O N

Resolution T-17354. Extenet Systems California LLC (U-6959-C) requests a deviation from Public Utilities Code Section 320 to install 12.4 miles of fiber optic cable and 15 new utility poles for a distributed antenna system along State Scenic Highway 35 in San Mateo County.

By Advice Letter No. 32 filed July 25, 2011.

Summary

Extenet Systems California LLC (Extenet) is requesting by Advice Letter (AL) 32 and 32A, filed on July 25, 2011, and August 30, 2011 respectively, deviation from the undergrounding requirements of Public Utilities Code¹ (Section or § 320) which requires that all communications or electric utility facilities within 1,000 feet of a scenic highway be placed underground. Extenet is requesting this deviation to install 15 utility poles with Distributed Antenna Equipment (DAS) and 65,231 feet (12.4 miles) of aerial fiber optic cable in conduit along State Scenic Highway 35 in San Mateo County.

This resolution provides contingent approval subject to endorsement by San Mateo County, the local jurisdiction.

¹ All citations are to the Public Utilities Code unless otherwise indicated.

Background

Section 320 was enacted in 1971, and reads in relevant part as follows:

The legislature hereby declares that it is the policy of this state to achieve, whenever feasible and not inconsistent with sound environmental planning, the undergrounding of all future electric and communication distribution facilities which are proposed to be erected in proximity to any highway designated a state scenic highway pursuant to Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code and which would be visible from such scenic highways if erected above ground. The Commission shall prepare and adopt by December 31, 1972, a statewide plan and schedule for the undergrounding of all such utility distribution facilities in accordance with the aforesaid policy and the rules of the Commission relating to the undergrounding of facilities. The Commission shall require compliance with the plan upon its adoption.

The Commission is responsible for the administration of § 320 and is required to coordinate its activities regarding plans with local government and planning commissions. After hearings were conducted in Case 9364, the Commission issued Decision (D.) 80864, dated December 31, 1972 which implemented § 320 and set forth the deviation requirement:

In order to facilitate administration, letter requests for deviations² will be accepted, reviewed by the Commission staff and, where appropriate, approved by Commission resolution.³

D.80864 held that no communications or electric utility shall install overhead distribution facilities “in proximity to” and “visible from” any prescribed corridor on a designated scenic highway in California unless a showing is made before the Commission and the Commission finds that undergrounding would not be feasible or would be inconsistent with sound environmental planning. This Decision also defines “in proximity to” as being within 1,000 feet from either edge of the right-of-way of a designated state scenic highway.

D.80864 further stipulates that when repairs or replacement of existing overhead facilities in the same location do not significantly alter the visual impact of the Scenic

² The language in Section 320 is “deviation.”

³ 74 CPUC 457, D.80864

Highway, they should not be considered as new construction and need not be converted to underground.

Notice/Protests

Extenet's AL 32 filed July 25, 2011, appeared in the Commission's Daily Calendar on August 5, 2011. The Communications Division staff (CD) found Extenet's service list for AL 32 filing to be insufficient, and therefore, requested that Extenet file a more comprehensive list that would include additional parties in San Mateo County.

Extenet asserted that it served notice of supplemental AL 32A on the San Mateo County Planning and Building Department, Parks Department, Parks and Recreation Commission, Department of Public Works, and the Board of Supervisors, as well as Cal Trans, District 4 on August 30, 2011, in compliance with CD's direction.

Extenet also requested that recipients on the service list provide a written statement of support for its project to the Commission and should address only the recipient's opinion on the acceptability of above-ground construction on Highway 35 and not environmental issues. No protests or letters of support were received by CD from those on the service list.

Discussion

The Commission evaluated the deviation request considering the following factors (1) the nature of the project; (2) local government recommendations; (3) visibility, aesthetics, environmental impact and (4) economic feasibility. Our conclusion here is based on tangible evidence and analysis of these factors.

Nature of the Project

Carrier

Extenet fills signal coverage gaps in wireless networks by deploying wireless antennas to accept a wireless handoff, converting the signal to optical transmission and carrying this traffic on cable to a suitable handoff point, where the signal is converted back and handed off to the wireless carrier. Extenet is not, however, a wireless service provider; rather, it deploys wireless facilities for wireless service providers.

Project

The proposed project will provide fiber optic transport and backhaul capabilities to support Verizon Wireless telecommunications services where currently there is spotty service.

The project components would be located primarily within the right-of-way of Highway 35 near the Town of Woodside, California. The remainder of the project alignment would be located within county road rights-of-way and an existing Pacific Gas and Electric utility easement that roughly parallels this highway. The project, starts at pole number 16.95 and ends at pole number 11.35 just over 7.5 miles long (40,000 feet). It will be constructed in four phases over a period of 11 weeks. The project includes the following four phases:

- Phase 1: Installation of 1,187 linear feet (0.23 miles) of fiber optic polyvinyl chloride (PVC) conduit and fiber optic junction boxes or hand holes (concrete utility enclosures that allow access to underground conduits and utilities). Installation would occur via trenching, excavation, and boring.
- Phase 2: Installation of 15 fiber-fed antenna nodes with associated fiber-optic communications equipment. These nodes contain the panel antenna array and associated electronic equipment for cellular communication services. The nodes would be placed on newly installed wooden utility poles. The installation of new wooden utility service poles at specific node locations would bring fiber-optic cable and electricity to these node locations.

These wood poles will have an average height of 40 feet and is buried 6 feet into the ground. Node equipment, including galvanized risers, electrical meters, repeaters, and fiber optic splice boxes, will be painted brown in color to help them blend into the surrounding natural environment.

- Phase 3: Installation and splicing of 66,898 feet (12.67 miles) of fiber -optic cable in existing conduit, in newly installed conduit, and on existing and newly installed utility poles.
- Phase 4: Connection of the DAS system to an existing cell site base station located approximately 0.75 miles south of Node 52#, and the installation of a new cell site base station at the southern terminus of the project alignment.

For the node pole construction Extenet will need one boom truck and a crew comprised of one foreman and two laborers. For installation of the antenna Extenet proposes to use one truck, a Radio Frequency technician and a senior technician.

Project Area

Skyline Boulevard, State Scenic Highway 35 was designated a scenic highway on January 22, 1968. It winds along the crest of a ridge in the Santa Cruz Mountains dividing the bay side of the San Francisco peninsula from the ocean side. At the southern end, from an elevation of approximately 2,600 feet, motorists view groves of trees on sloped forming interesting views. Along the northern end, the route offers a number of spectacular views of the coastal range to the east, and of the Pacific Ocean to the west with intermediate views of wooded hillsides.

The proposed project occurs mostly within the right-of-way of Highway 35, within an unincorporated area of San Mateo County. The area provides recreational activities such as hiking, biking, and bird watching. It is also popular with automotive and motorcycle enthusiasts who are regularly found enjoying its scenery and the winding road. A number of county and regional parks are also adjacent to the project area.

Proposed Alternatives

In an effort to mitigate the aesthetic impact of the proposed project and subsequently eliminate the 15 additional poles CD requested information for two alternative project designs.

1. Pole Top Extensions

Under this method, Extenet would install extensions of approximately five to ten feet in length to the existing utility poles along the project. These extensions would allow placement of the node equipment on existing poles while assuring the proper separation between telecom equipment and existing power line equipment.

2. Replacement Poles

Under this method Extenet would install replacement poles in the same locations as existing utility poles along the project. These replacement poles would be tall enough to accommodate both existing utility equipment and proposed node equipment.

Application Review

Prior to Extenet's filing its deviation request, CD and Energy Division CEQA staff participated in a meeting on October 2010, with Extenet's counsel to discuss the proposed project and Commission requirements. CD informed Extenet at that meeting that it would need approval of a § 320 deviation and suggested follow up with the appropriate supervisor for further direction.

Extenet filed AL 32 with the Commission on July 25, 2011. The CD found the AL to be deficient as it did not provide adequate information for Commission review of a § 320 deviation request. In response, and in addition to other less formal requests for information CD sent data requests on August 10, September 20 and October 28, 2011 to obtain the necessary information. CD also required Extenet to file a supplemental advice letter which it filed on August 30, 2011.

CD requests for information included but were not limited to the following:

- A written "expressed opinion" from a local government agency.
- Letters of support from residents or businesses in the project area.
- An Environmental Impact Statement.
- Maps that more clearly identify each pole location.
- A cost analysis.
- A comprehensive service list.
- Information related to alternative project construction including replacement poles and pole top extensions in lieu of deployment of the 15 new additional poles.
- Documentation supporting the assertion that Caltrans and San Mateo County representatives recommended the proposed network design.
- Documentation from PG&E as to the viability of the alternative project designs of replacement poles and pole top extension.

Meeting with Extenet and Caltrans representatives

On November 9, 2011, Extenet scheduled a meeting with the CD to discuss the project and any concerns. CD staff explained the need for documentation as it applies to Section 320 deviation. CD staff also participated in a video conference with Caltrans to further explain the Section 320 process and coordinate efforts with Caltrans when it receives an application involving a deviation request.

Site Visits

On September 21, 2011, CD conducted a site visit with the Commission's CEQA contractor to better understand the overall project scope and location.

The project is located in a very rural, wooded and scenic area of San Mateo. CD staff viewed already existing facilities consisting of a cell tower base at the south end of the project and existing P.G. &E poles with aerial electrical distribution facilities and attached telecommunications facilities along Highway 35.

A subsequent site visit was conducted with personnel representatives from CD, Extenet and Caltrans on November 3, 2011, to resolve outstanding issues and answer specific project questions. CD used this opportunity to further explore the extent utility poles could be reconfigured or replaced to eliminate the deployment of the additional 15 poles the project plan included.

During these visits, photographs were taken and CD staff was able to document the existence of utility poles that are potentially available for joint pole attachments within the project area. After the second site visit, CD determined that further consultation with a P.G&E representative would be required to confirm whether the existing utility poles could be utilized or replaced to provision the distributed antenna system.

In response to CD's request, on November 10, 2011, a PG&E Program Manager, provided information based on the findings of a PG&E inspector by email. For all the existing poles at question PG&E concluded that, "no antenna or node equipment can be placed on [the] existing utility pole because additional equipment would infringe on the only remaining quadrant for climbing space" which would violate General Order 95 requirements. PG&E further stated that, "a taller pole [replacement pole] cannot solve the issue of having no climbing space".

In light of this information CD concludes that neither of the two project alternatives it explored will be viable to mitigate the aesthetic impact of the proposed project. CD however believes that other mitigating efforts may be available although it is not aware of any at this time. We therefore welcome the comments of parties especially Caltrans and the County of San Mateo to better inform the Commission if alternative mitigating measures are available and desired.

Local Resident Comments

Extenet provided ten letters dated August 30, 2011, from residents living in the affected community in support of the deviation request. The residents in favor of the project expressed the need to bring wireless and broadband service to the area.

However, on November 3, 2011, while CD was conducting its second site visit a local resident expressed opposition to construction of the aerial facility. He voiced his concerns to staff asserting that, there already existed too many poles on the highway and that the deployment of additional aerial facilities was not acceptable.

Although the record of community comments appears to support this project, we believe it appropriate to assure all affected residents are served with this resolution and provided an opportunity to comment.

Local Government Recommendations

Ordering Paragraph 3(B) of D.80864 states that: "Respondent shall review with, and seek an expression of opinion from, the appropriate local governmental agency prior to requesting Commission authorization for deviation".

Although specifically required and outlined in the Section 320 guidelines Extenet failed to meet this requirement and merely states in its AL filing that, "local jurisdictions do not oppose this project". In response to this statement and deficiency CD requested with Data Request 1 on August 10, 2010, that Extenet provide documentation of the local government's opinion as it relates to the project, and as required by Section 320.

On August 18th the CD received Extenet's response to the data request in which it states, "San Mateo County has deferred to Caltrans to conduct project review". Due to Extenet's failure to include documentation from the local government CD sent a letter to the Director of the San Mateo Planning and Building Department on November 17, 2011, requesting an "expressed opinion".

San Mateo responded to CD on December 1, 2011. The response from the county does not confirm Extenet's statements; first, they indicate that they expressly oppose the exemption, "we do not see a legal basis to EXEMPT Extenet from the requirement to underground" and second, they have not deferred authority to review, "we welcome the project applicant to submit for review".

Due to these apparent contradictions, we do not consider it reasonable to approve the deviation request without hearing further from San Mateo County about any objections to this project. Extenet must, therefore, provide to CD a letter from the County in which the County specifically states support for the underground exemption and the above ground project design.

Visibility, Aesthetics, Environmental Impact

Based on its visual inspection, CD does not believe an order to underground the telecommunications assets and 15 utility poles would reduce the cumulative negative visual impact of the present and proposed facilities. Therefore, CD does not recommend ordering Extenet to underground any of the overhead conduit and fiber optic cable, even though Extenet is already placing cable underground in limited locations along Highway 35.

California Environmental Quality Act (CEQA) review was completed in early September 2011. And the Commission subsequently adopted a Mitigated Negative Declaration (MND) by Decision 11-10-039 on October 20, 2011.

The MND (pgs. 3.1-9 & 3.1-10) concluded that:

- The placement of project components on the existing utility power line poles, on new communication node poles, and conduit connecting the two would add additional objects to the characteristic landscape.
- The project would add more utility structures within a scenic area with moderate visual quality.
- Construction activities and installation of the new nodes and fiber cable would not substantially damage the scenic resources of State Route 35 (SR 35) and impacts would be less than significant.

Economic Feasibility

Extenet estimates a 7:1 ratio in cost between undergrounded cable and overhead cable installation as shown in the table below; if the request for deviation is denied, it would cost Extenet approximately \$4.5 million to underground the fiber optic cable facilities.

According to Extenet, it would be required to use directional boring to construct underground conduit, which it estimates costs between \$70-\$75 per foot resulting in a

total cost to underground of \$4.5 million. By comparison, it estimates that placing aerial fiber will cost approximately \$10 per foot for a total of \$650,231 or seven times as much to underground the fiber than to place it aerially on utility poles.

It is technologically unfeasible to underground DAS equipment. However, there exists a multitude of options by which DAS equipment can be deployed in an effort to minimize a projects visual impact. CD requested Extenet provide costs for two identified alternative project designs, pole top extensions and replacement poles to eliminate the necessity to deploy 15 additional utility poles as the proposed project includes. Although the cost differential between the three project designs is negligible, as shown below, both alternatives proved not to be viable based on information from PG&E.

Proposed Project Costs

Pole Configurations			
	Replace Existing PG&E Pole	Add Pole Top Extension to Existing PG&E Pole	Slim Line Pole
Total	\$1,357,431	\$1,027,631	\$855,081
Cable Location			
	Cost to underground	Cost for aerial placement	Ratio of cost to underground vs. aerial cable
Total	\$4.5 million	\$650,231	7:1

Conclusion

Based on the data and information reviewed by CD, Extenet’s request for a deviation in accordance with § 320 is reasonable and therefore granted conditional upon provision of a letter from the County in which it specifically states support for the underground exemption and above ground project design.

Comments

In compliance with § 311(g), a letter was emailed on December 9, 2011, informing the interested parties of the availability of the draft of this Resolution for public comments at the Commission’s website <http://www.cpuc.ca.gov>. This letter also informed parties

that the final Resolution adopted by the Commission will be posted and will be available at the same website. The residents in favor of the project expressed the need to bring wireless service and broadband to the area. Caltrans, County of San Mateo and local residents are also encouraged to comment on this § 320 waiver request.

Additionally, Extenet shall serve this resolution for comment on all affected residents along the State Scenic Highway 35 project area.

Findings

1. Public Utilities Code Section (Section or §) 320 was enacted in 1971.
2. Decision (D.) 80864 (74 CPUC 457) authorizes the California Public Utilities Commission (Commission) to accept, review and, where appropriate, approve § 320 waiver permission by Commission Resolution.
3. Portions of Highway 35 in San Mateo County received designation as a State Scenic Highway in 1968.
4. Extenet Systems California LLC (Extenet) filed Advice Letter 32 and 32-A on July 25, 2011, and August 30, 2011, requesting authority to deviate from the undergrounding requirements of § 320 of the Public Utilities Code.
5. A Mitigated Negative Declaration (MND) was adopted on October 20, 2011, which concluded that the impacts of the project would be less than significant.
6. Extenet provided ten letters of support dated August 30, 2011, from residents living in the project area.
7. During the November 3, 2011 site visit, a resident of the project area voiced opposition to the project.
8. San Mateo County submitted a letter dated December 1, 2011, requesting Extenet submit an application for review and approval of its network design before constructing aerial facility in its jurisdiction.
9. The Commission finds that the use of replacement poles or pole top extensions as options to the deployment of the 15 additional utility poles in the project area is not viable due to General Order 95 compliance issues.

10. The Commission finds that it would not be economically feasible to underground the aerial cable facilities along Highway 35.
11. CD recommends Extenet's request for deviation be approved in accordance with § 320 but conditional upon project review by San Mateo County and a letter from the County supporting the project.

THEREFORE, IT IS ORDERED that:

1. Extenet's request for a deviation in accordance with § 320 is granted conditional upon submittal of a letter from the County to the Communications Division in which the County specifically states support for the underground exemption and above ground project design.

This resolution is effective today.

I hereby certify that the foregoing resolution was duly introduced, passed, and adopted at its regular meeting of the Public Utilities Commission of the State of California held on January 12, 2012, the following Commissioners voting favorably thereon:

PAUL CLANON
Executive Directive