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ORIGINAL

Decision No. 76394

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own motion into the Tariff Schedules, Rates, Rules, Charges, Operations, Practices, Contracts, Services and Aesthetics and Economics of Facilities of all Electric and Communication Public Utilities in the State of California.	Case No. 8209 (Filed June 22, 1965)

Additional Appearances

E. F. Stark, for Electrical Contractors Industry Council of Contra Costa County; M. A. Walters, for Local Union 1245 International Brotherhood of Electrical Workers, interested parties.
Richard D. Gravelle, Counsel, for the Commission staff.

OPINION AND ORDER AFTER FURTHER HEARING /

The Commission on June 22, 1965 instituted this investigation of the rules of electric and communication utilities to consider the conditions which might require the revision of existing rules and establishment of new rules or rates pertaining to the extension of electric and communication service and facilities for aesthetic and economic reasons. After 36 days of public hearings the matter was taken under submission on December 10, 1966.

An Interim Order, Decision No. 73078 dated September 19, 1967, resolved the matters of Service Connections and Conversions, leaving the matter of New Construction to be resolved in a future order. In reference to a new rule for new underground construction in new subdivisions, proposed by Pacific Gas and Electric Company (PG&E) in its opening brief, the Commission stated "It appears that

this proposal should be considered by this Commission and that opportunity should be given to all parties to advise the Commission as to their views of PG&E's proposed new rule. The rule was included as Appendix F in the decision. By letter dated September 19, 1967, the Commission requested PG&E to furnish additional data to all parties and requested the parties to provide written comments to this Commission. The issues raised by the parties in their comments indicated the need for further testimony in order to consider the requirement for a rule or rules for all electric utilities under the Commission's jurisdiction. On January 9, 1968 the Commission filed its order reopening the matter for further hearing commencing March 5, 1968 and being limited in scope to consideration of the rule proposed by PG&E, and the issues related thereto. After six days of public hearings, held before Examiner Gillanders, the matter was submitted on April 3, 1968, subject to the filing of briefs. Concurrent opening briefs were filed on June 3, and concurrent reply briefs were filed on June 18, 1968. The issue of new construction is ready for decision.

Following are the positions of the parties on the principal issues remaining to be resolved in the case.

Proposed Rule and Position of
Pacific Gas and Electric Company

Proposed Rule 15.1 is an electric line extension rule applicable only to underground distribution systems in new residential subdivisions. Such systems, and no others, are referred to as "URD" (underground residential distribution).

Under the rule, the developer of the subdivision will perform all necessary trenching and backfilling and will furnish, install,

and deed to the utility any ducts that are required. PG&E will complete the installation of the URD extension within the subdivision boundaries and will also complete under this rule up to 200 feet of underground line outside the subdivision boundaries to connect the extension to the utility's existing or planned supply facilities. Any required extension outside of the subdivision in excess of 200 feet will be constructed in accordance with existing Rule 15, except that the free footage appliance allowances (Sections B.1.a. and B.1.b.) will be reduced by 50 percent for those installed within the subdivision. This reduction is made because the Company claims it will already be investing a substantial amount within the subdivision. Specifically, PG&E estimates that in most instances the actual investment in underground facilities within the subdivision would be approximately 50 percent of the cost of installing the maximum free footage of an overhead extension as allowed in Rule 15 for such a subdivision. Services will be installed and maintained as provided in Rule 16. Street lights will be installed under appropriate, existing tariff schedules.

The developer must make a refundable advance to the utility and in some cases may be required to make a nonrefundable advance. A nonrefundable advance will be required where the total street frontage of property within the subdivision is in excess of 125 feet times the number of lots plus 25 feet times the number of dwelling units in excess of two in each multifamily building. For each excess front foot, the developer will pay a nonrefundable advance of $1.10. The refundable advance to be paid by the developer will be $2.80 per front foot minus any nonrefundable amount which might be required. The refundable advance is subject to postponement for six months under the same conditions which presently exist for postponement of

refundable advances in existing Rule 15. If a developer requests a URD system using subsurface transformers he will be required to make an additional nonrefundable advance of the amount by which the cost of such a system exceeds the cost of a standard URD system using pad-mounted transformers.

A refund for each lot equal to the total refundable advance divided by the number of lots will be made to the developer within 90 days after permanent service commences at each lot. Any remainder of the advance not yet refunded will be refunded when 90 percent of the lots have been occupied by permanent customers. In the event that dwellings have not been completed and occupied on 90 percent of the lots within 12 months after completion of the system, the developer will pay the utility each month three-quarters of one percent of the balance of the advance not yet eligible for refund. This payment is to cover the utility's ownership costs associated with the completed but unused portion of the extension (i.e., depreciation, taxes, maintenance, and operating costs). The cost of ownership payment normally will be made by a deduction from the amounts refundable to the developer. As under the existing Rule 15, no refunds will be made after ten years from the date the utility is first ready to render service from the extension.

In recent years, according to PG&E, a series of new technological developments has taken place in the materials and methods used in the installation of URD. These developments have resulted in major cost reductions in the installation of underground facilities of the type used in residential subdivisions, i.e., relatively light distribution systems initially designed and built for the ultimate density of customers expected. The cost of such URD systems is now no more than double the cost of equivalent overhead systems.

Although reductions in the cost of underground distribution for commercial, industrial, and other similar areas have been made, the ratio of the cost of such underground compared to equivalent overhead according to PG&E remains considerably higher than that ratio for URD. The limitation of Rule 15.1 to new residential subdivisions is, therefore, based on an actual difference in the extent of cost reductions.

PG&E claims that URD systems are nearly identical in subdivisions of the same size regardless of variations in density of customers; the fixed costs associated with serving subdivisions of the same size over the range of densities normally found in residential subdivisions do not vary substantially; these fixed costs are supported primarily by the higher unit rates in the initial blocks of applicable rate schedules; the subsequent lower unit rate blocks recognize the lower unit costs of service, primarily for energy taken beyond the initial rate blocks; other things being equal, the greater the density, the more investment in URD facilities will be supported by revenues from the customers in the subdivision; and that in a dense subdivision there are more customers per mile of line and a greater amount of electricity per mile of line is sold at the higher initial rate blocks.

Position of Southern California Edison Company (Edison)

According to Edison, it is without question that underground installations in residential developments are more expensive to install than overhead installations for electric service. The primary regulatory question involved then is: How is the added cost, for underground distribution facilities that are to be installed, to be equitably allocated among the utility's ratepayers?

Edison believes that the additional cost involved can be provided for by one of the following alternatives: (1) the applicant, generally the subdivider in residential tracts or subdivisions, can pay the estimated difference cost between overhead and underground facilities by a cash payment in accordance with the presently effective rules, or (2) rules could be designed which would provide for the increased cost to be covered through increased revenues from those customers who receive the direct benefit of underground service, or (3) rules could be designed whereby the increased cost would be imposed upon all of the utility's customers as proposed by PG&E in its Rule No. 15.1 for its system. Edison firmly believes that the equitable method of recovering these added costs is to provide the customer with the option of selecting one of the first two alternatives referred to above, and that extension rules which do not provide for an equitable allocation of the added cost burdens would be contrary to the firmly established policies of this Commission that each customer should pay a reasonable share of the cost of rendering service.

According to Edison, PG&E's Rule No. 15.1 is based upon customer density, and admittedly has no relationship to the amount of installed electric load within the subdivision, except as to the allowance for an overhead extension in excess of 200 feet outside of the subdivision boundaries. The effect of PG&E's Rule would be to provide for the installation of underground electric distribution systems in all new residential subdivisions at no cost to the developer other than trenching, backfilling and necessary ducts that may be required to complete the installation.

Edison believes that PG&E's evidence supporting its proposed rule in no way reflects an accurate evaluation of the total cost to it resulting from underground construction in place of overhead facilities.

Edison submits that extension rules which do not allocate in an equitable manner the additional cost of providing underground service, are contrary to the established policies of this Commission and would not conform to sound, regulatory practice. An important and fundamental consideration in rate making is that each customer should pay a reasonable share of the cost of rendering service. The imposition of the added costs resulting from Paific's proposed Rule No. 15.1 on all of a utility's ratepayers would not, in Edison's opinion, result in an equitable allocation of the added cost burdens involved and would not be in keeping with the exercise of just and equitable rate making authority.

Edison believes that the existing cost differentials as between overhead and underground in the methods of providing distribution service to its residential customers require the utility to recover such excess costs in order to eliminate unfair discrimination as between its ratepayers. The method to be used in recovering such cost differentials is a practical problem to be determined by utility management, taking into consideration all of the relevant facts applicable within its own service area. Management's discretion in determining the most reasonable and practical method of payment of such charges within its service area should not, it submits, be interfered with by the Commission unless it is exercised in an unreasonable or unjust manner.

Position of San Diego Gas & Electric Company (San Diego)

San Diego believes that the underground line extension rule proposed by it in Exhibit 75 in these proceedings, and as modified in its letter of October 17, 1967,[1/] is the most appropriate and the most

1/ Such modifications nullify Exhibit 75 and in essence Exhibit 75 becomes the equivalent of PG&E's proposed Rule 15.1. The letter of October 17, 1967 is not in evidence.

equitable for its service territory. This proposed rule was designed to cover the specific circumstances found in its service territory.

It is San Diego's earnest desire to have this matter resolved as expeditiously as possible, and for this reason, it would not object to this Commission ordering San Diego to adopt as part of its tariff an underground line extension rule similar to PG&E's proposed Rule 15.1.

Position of Sierra Pacific Power Company (Sierra)

Sierra Pacific introduced its testimony and exhibits alleging that (1) its electric service territory in the State of California is far different from that served by the other electric utilities in California; (2) that its competitive position with other fuels was much closer to the price of electric energy in Sierra Pacific's territory than was the gas in Pacific Gas & Electric's territory; and (3) that Sierra Pacific's territory in California was mainly in the Lake Tahoe Basin which is bisected by the California - Nevada state line and as such Sierra Pacific would like to have the same rules for electric underground extensions in both states as is now the case for all of its rates and tariffs in the Lake Tahoe Basin.

Interested Parties

Position of Southern California Gas Company and Southern Counties Gas Company of California (Gas Companies)

Gas Companies believe that extension rules can be designed to provide a utility with a competitive tool for obtaining new business. This is done by relating the amount of the utility's investment in the extension to major uses in a manner designed to influence the builder to install appliances or equipment that are competitive with another available source of energy. In Southern California, at least, the choice between gas and electricity for

space heating and water heating in tract homes and multifamily projects is almost invariably made by the builder. In addition, the choice of an energy source for cooking is usually made by the builder. Thus, the factors which influence the builder's selection of appliances are of extreme interest to the Gas Companies. Home builders should be permitted a free choice between gas and electric appliances in order that they may purchase and install the type of appliances preferred by buyers of the residential units they build.

An extension rule is unreasonably competition-oriented when a builder can obtain an extension without contribution only if he agrees to provide an average load per dwelling unit which is substantially greater than that of a representative customer on the utiltiy's system. This type of rule provides an obvious economic incentive to builders to install sufficient load to qualify for a no-contribution extension. By contrast, a rule that, on the average, does not require any contribution from an applicant, if he will agree to provide a representative load, is one that does not seek to gain an unreasonable competitive advantage. A noncompetitive rule is in the public interest because it leaves the builder or developer free to provide the types of appliances which will be most economical or otherwise preferable to the consumer.

According to Gas Companies, PG&E's proposed Rule 15.1 is an example of an extension rule which preserves for builders a choice between gas and electric appliances without economic consequences.

Gas Companies have no objection to the authorization by this Commission of Rule 15.1, as proposed by PG&E, for use on the PG&E system. Further, if the Commission should find that uniformity of electric underground extension rules is in the public interest,

Gas Companies would have no objection to, and would not oppose, the Commission prescribing underground electric extension rules comparable to PG&E's proposed Rule 15.1 for the other electric utilities in the State.

Position of League of California Cities (League)

The League of California Cities urges this Commission to make underground installation of electric and communication facilities the standard in all areas of new construction, except where clearly impractical. Any additonal cost attributable to making undergrounding the standard should be borne by the benefitting property owner directly. In computing the cost to the property owner, however, an equitable underground line extension rule should be adopted that contains a schedule of utility allowances designed to encourage undergrounding. To meet public demands for undergrounding throughout the community, undergrounding should be required in all areas of new construction, not just residential areas. To facilitate public understanding, utility allowances should be based on a single concept regardless of the area where undergrounding is to occur. To further encourage public understanding, the allowance concept adopted for areas of new construction should be extended to the installation of new underground plant in conversion projects. To guarantee equity in application and opportunity, any rules adopted by the Commission should be applied uniformly throughout the State.

Position of California Builders Council (Builders)

The California Builders Council (formerly the Home Builders Council of California) urges this Commission to adopt a rule based upon two criteria:

1. Make underground the standard for new construction.

2. Apply a uniform rule statewide.

According to Builders, there is only one proposal before the Commission in this proceeding that meets these criteria, and that is the proposal of San Diego Gas and Electric Company.[2/]

Position of the Department of Defense and Other Executive Agencies of the United States of America (Government)

Government believes that the significantly greater cost of underground distribution must be borne by the users of the utility services. Government advocates a dual rate concept. Under this concept, the dual rates for each class of service and each tariff schedule would have applicable rates for overhead service and underground service, the difference in rate levels being designed to recompense the serving utility for the increased costs of furnishing underground service. Government urges that the underground rates be based on the utility company financing the complete installation, in order that the accepted regulatory theory of rates based on cost of service and value of service principles be continued. Government represents that its dual rate concept is the only logical method to provide a means of shifting from overhead systems to underground systems.

Position of the City of Oakland (Oakland)

Oakland believes that new overhead installations will decrease and underground installations will increase. Thus, inevitably, underground installations will become standard. Therefore, according to Oakland an underground line extension rule should be developed

2/ As we have pointed out, San Diego's proposal was so modified that it is nothing more or less than PG&E's proposed rule. We will assume therefore that Builders are advocating the adoption of Exhibit 75 before modification.

which realistically relates the investment responsibility of the utility to the revenue potential of the load. The extension rule should permit the utility to finance the entire investment for the standard customer including trenching and feeders. The rule should be uniform for all utilities.

Commission Staff

The staff believes that an equitable and practicable division of first cost is the most reasonable criteria for and rule governing electric underground extensions. The staff maintains that PG&E's proposed rule will shift a substantial portion of costs from the developer to the utility.

The staff recommends modification of the rule whereby the developer is responsible for the substructures in addition to trenching and backfilling and that no added payment will be required to reflect a cost differential between pad mount and subsurface transformers. The staff believes that a new rule should be limited to new residential subdivisions. The staff is of the opinion that PG&E Rule 15.1, with recommended modifications, should be made statewide and that each electric utility should be required to submit to the Commission its proposal of charges applicable to its own system.

Respondent Communications Utilities
Position of The Pacific Telephone
and Telegraph Company (Pacific)

Pacific has no objection to or other comment on PG&E's proposed rule as nothing in the additional hearings suggested any change in the telephone utility rule on new construction heretofore proposed by it (Exhibit 28, Section 1). However, Pacific indicates that various improvements in the form of its proposed rule should be considered.

According to Pacific it undergrounds as much new construction as reasonably possible, to reduce need for subsequent conversion of aerial to buried plant. Pacific's proposed rule is divided between (1) construction of distribution facilities within new tracts or subdivisions and (2) construction of distribution and other plant outside new subdivisions.

Within new subdivisions, underground construction would replace aerial construction as the standard installation. Pacific would, at its expense, install underground distribution facilities in all new subdivisions, excepting only rare instances in which trenching costs materially exceed Pacific's average trenching costs in the area. In those isolated instances, the subdivider or developer would, at his option, either pay the amount by which Pacific's trenching costs in the subdivision outrun its average costs in the area, or do the trenching work himself and receive from Pacific an amount determined by its average costs.

Pacific anticipates the trend to underground construction will continue. It intends to construct new plant underground wherever the cost does not unreasonably exceed the cost of equivalent aerial facilities or structural requirements justify additional expenditures for underground construction or other considerations of engineering economics indicate the advisability of underground construction.

Pacific contends that those who benefit from the aesthetic advantages of underground facilities should pay the excess costs of their installation.

Position of General Telephone Company of California (General)

For new construction in tracts and subdivisions, General recommends that the sharing of costs principle be continued.

General's proposal was that it will determine the differences, on a company average, between the cost of serving new subdivisions underground and the cost of serving new subdivisions overhead. A tariff schedule would be filed whereby the cost difference would be shared equally between the company and the subdivider. The tariff schedule would establish the amount of the subdivider's share expressed in dollars-per-service entrance and would be filed with this Commission, with appropriate background data. General reiterates that the undergrounding program contained in its proposals before this Commission, carefully backed with specific costs and revenue requirement effects, is the maximum undergrounding proposal that it can recommend to this Commission at this time.

Discussion

It is apparent from the positions taken by the various parties that there are six material issues that must be resolved. These issues are:

1. Should Underground be the Standard for all Extensions?
2. Should a Statewide Underground Rule be Adopted?
3. On What Should the Rule be Based i.e.; Difference in Cost; Load or Density?
4. How Should the Additional Costs of Underground be Apportioned?
5. Should the Rule be Specific as to Materials and Methods of Construction?
6. Does Relocation Come Within the Ambit of Underground Extensions?

It is felt that prior to reviewing these points a discussion on what constitutes "new construction" would be helpful.

In Decision No. 73078 in this matter dated September 19, 1967 we said:

"New construction means the installation of underground facilities to supply new applicants for service."

In this connection, we defined conversion as follows:

"Conversion means the removal of existing overhead facilities and the installation of new underground facilities to serve existing customers."

We see no reason to change these definitions at this time and will employ them throughout this decision.

Should Underground Be the Standard For All Extensions?

It is the continued policy of the Commission to encourage underground construction. Underground construction should be the standard in California and all new residential subdivisions should be constructed underground. Other types of more expensive underground construction in commercial and industrial developments and for other individual extensions should be constructed underground whenever feasible. Feasibility for such requirements should be determined at the local level and underground construction undertaken consistent with the applicable rules governing such extensions.

Should a Statewide Underground Rule be Adopted?

The adoption of statewide rules for underground construction was favored by the City of Oakland, League of California Cities, California Builders Council, and the Commission staff. San Diego expressed its willingness to adopt a rule similar to the proposed PG&E Rule 15.1. Edison and Sierra favored flexibility within their service area in determining underground rules and practices. Pacific Telephone and General Telephone did not oppose a statewide underground extension rule. The gas companies did not oppose uniform electric extension rules.

The subject is of statewide interest and statewide rules should be adopted. If changes to the basic rules are warranted they will be permitted upon an adequate showing that such changes would be in the public interest.

On What Should the Rule be Based i.e.; Difference in Cost; or Load or Density?

Edison is the only party which believes its existing tariff[3] based upon difference in cost between overhead and underground meets the needs of undergrounding line extensions.[4]

Sierra, League, Oakland, San Diego and Builders urge that the rule be based upon load. PG&E, Gas Companies and the staff urge that the rule be based upon density.

San Diego argues that at the time its present extension rule was approved by the Commission only 1.4 percent of the new lots within its electric service territory were served underground but that in 1965, 61 percent of the new lots were served from underground; therefore, it is readily apparent that underground extensions are no longer the exception, but the rule. As a result of studying its underground installation costs, the company determined that the average cost of an underground extension is approximately three times

3/ Filed as required of all public utility electric companies by ordering paragraph 1 in Decision No. 59011, dated September 15, 1959 in Case No. 5945 (37 PUC 346).

4/ By its advice filing (315.E) on July 27, 1966, Edison proposed a new rule No. 15.1 designed to supplement its existing tariff provisions. By Decision No. 72646, dated June 20, 1967, in Case No. 8513 the Commission permanently suspended the filing.

that of an overhead extension. In determining its proposed underground extension allowances the company merely converted its presently authorized overhead free footage allowances to underground free footage allowances by making them approximately one-third the length of the overhead allowance. By this method, the company can spend the same amount to serve an underground customer as it now can spend to serve an overhead customer. San Diego claims its proposed allowances, if authorized, would have a minimal impact on its earnings.

City of Oakland argues that the average residential consumption in 1959, the year in which Rule 15 was revised, was 3,618 kwh. Average annual consumption in August 1966 was 5,171 kwh. Oakland attributes most of the increased consumption to new homes which are larger and contain far more electricity-consuming apparatus. Oakland maintains that an underground line extension rule must realistically relate the investment responsibility of the company to the revenue potential of the load and should permit the utility to finance the entire investment for the standard customers, including trenching services and feeders. Exhibits 53 and 55 contain Oakland's views.

Sierra Pacific believes that a revision of its Rule 15, Section D (Underground Extensions) is now required and that such revision should contain a philosophy of relating investment policy to anticipated revenues. Exhibit 39 contains an example of Sierra's suggested policy.

League of Cities leaves it to the Commission to determine a schedule of allowances that will assure that utilities made a significant contribution to the total cost of undergrounding.

PG&E testimony presented several considerations which, in PG&E's opinion, demonstrates the desirability of having the rule based on density of customers instead of expected gross revenue as measured by the load.

1. Rates are lower the greater the customer's usage.

2. The greater the density, that is, the more customers per mile of line, the greater the amount of electricity sold per mile of line at the higher rates of the initial blocks.

3. A rule based on load inherently and unavoidably promotes the use of electricity for purposes which could be served more economically by other forms of energy.

4. Under a rule in which refunds are based on load the developer could obtain all of his advance for the entire subdivision by installing electrical heating equipment in the first houses completed.

5. The cost of administering a load-based rule is much greater than the cost of administering a density-based rule.

In Decision No. 72646, dated June 20, 1967, in Case No. 8513, the Commission permanently suspended Edison's Tariff Rule No. 15.1 which was filed July 28, 1966 under Advice Letter No. 315-E. This proposed rule provided for greater company investment for larger customer loads and the company stated that the applicant would normally be required to make no capital contribution if all of his major energy uses were electrical.

In its brief Pacific Telephone agreed to construct underground line extensions in subdivisions along dedicated streets and utility easements at its expense except those involving exceptionally high costs and subject to a density proviso in its subdivision definition. General Telephone, in its brief, recommended that the sharing of cost principle be continued.

We shall adopt density as the proper criterion for residential subdivisions and for the present "difference in cost" shall be continued for other extensions.

How Should the Additional Cost of Underground be Apportioned?

The staff is of the opinion that the performing of trenching and backfilling by the developer does not provide sufficient participation by the developer in the added costs of underground construction and thus poses an undue burden on other ratepayers as reflected in the portion borne by the utility. The staff concludes that the division of costs should be more equitable and this can best be accomplished if the developer is responsible for all substructure work in addition to performing the trenching and backfilling in new subdivisions.

PG&E believes that the developer should not be required to pay the costs of all substructures in addition to the costs of trenching and backfill.

According to PG&E its proposed Rule 15.1 attempts to strike a reasonable balance in the allocation of costs. It is PG&E's position that the allocation made in Exhibit 77 is the most reasonable one. If some of the proposed modifications of Exhibit 77 are adopted so as to shift to the utility costs not assigned to it in Exhibit 77 (e.g., costs of subsurface transformers and line extensions outside the tract regardless of length), adoption of the staff's suggested assignment of the cost of substructures to the developer would go some way toward restoring the economic basis upon which Rule 15.1 was proposed. It is PG&E's position, therefore, that Rule 15.1 should be adopted as it appears in Exhibit 77, but that,

if it is modified to shift various costs to the utility, the modification proposed by the staff shifting the cost of all substructures to the developer would be appropriate.

It is PG&E's testimony that its proposed Rule 15.1 and all of its cost allocations are based upon considering overhead to be the standard method of construction except in new subdivisions. Concluding that underground should be the standard for extending all new distribution circuits wherever located we must determine a cost allocation which will be compatible with such a standard.

In Decision No. 59011, dated September 15, 1959 in Case No. 5945 the Commission determined that an investment-to-revenue ratio of no more than 5-1 was reasonable for overhead electrical extensions. There should be no question that footage allowances and density allowances can be equated to an investment-to-revenue ratio. In Exhibits 53 and 55 the .City of Oakland developed footage allowances based on testimony given by various parties during the course of this proceeding. The city's witness concluded that it would be reasonable to allow one-half of PG&E's existing overhead allowances as the allowance for all underground extensions. Edison objected to the receipt of Exhibit 53 on the grounds that it did not apply to its operations.

It is apparent from the testimony presented by the public utilities and by parties utilizing cost data presented by the public utilities that there is only a nominal spread between costs of the various utilities, i.e., underground cost per lot was approximately three times that of overhead.

Exhibit 36 presented by the Sacramento Municipal Utility District shows that the difference in average cost per lot between underground and overhead is $96 ($274-$178) or 1.85 times as much.

If the home to be connected to the underground system does not qualify as a Bronze Medallion home[5/] and in addition have a permanently installed electric water heater of at least 40 gallons and a minimum of 4500 watts, the district requires a payment of $100 per lot. If the home does meet the above requirements no charge is made. In no case is a customer required to install facilities beyond his property line.

The Department of Water and Power, City of Los Angeles, currently provides, at the developer's option, either of two underground distribution systems. The lowest cost system consists of pad-mounted transformers on precast concrete pads, precast concrete handholes for service connections, plastic conduit for primary and secondary cables, and direct buried service cables. The second and more costly system is totally underground with subway transformers installed in precast concrete vaults. Underground residential systems may be separated into two parts, the substructure system and the cable system. The developer may provide the entire substructure system in accordance with the department's requirements or he may provide only trenching and backfilling with the department installing the necessary conduit, pads, vaults and handholes. The department then installs the cable system. The cost to the developer is the cost of substructure plus $36 per lot. The flat charge of $36 per lot represents the difference between the cost of the underground cable system and an equivalent overhead system excluding transformers, meters, and services. The cost to provide cable systems to the lots served underground in 1964-1965 averaged $213 per lot, and the cost to provide overhead distribution to the lots served overhead was $177 per lot or the difference of $36 per lot.

5/ A Bronze Medallion home is a residence which uses electricity for most purposes except space heating and water heating.

The department installed substructures systems in excavations provided by the developer for slightly more than one-half of the lots served underground in 1964-1965 at an average cost of $202 per lot. The underground systems include service at 120 volts to the base of street lighting standards. The department shares a trench with the telephone companies where feasible, and in two recent tracts, has also shared a common trench with the gas company. The department's Line Extension Rule and Regulation No. 20 is essentially the same as the line extension rule filed by regulated utilities.

The record indicates there has been a decline of the difference in cost between underground and overhead costs in new residential subdivisions. Costs of other types of conventional underground construction for commercial and industrial developments continue to be considerably greater than for overhead extensions. PG&E estimated that the annual additional construction cost under its proposed rule for residential subdivisions would be $2.7 million in 1968. This amount and a proportionate increase for the other electric utilities appear warranted since the benefiting property owner will bear the cost of trenching and backfill. The benefiting property owner will continue to pay the "difference in cost" for all other types of underground extensions until the Commission has had an opportunity to further review these practices.

Should the Rule Be Specific As to Materials and Methods of Construction?

PG&E and San Diego propose that developers pay the extra costs of subsurface transformers until certain technical and economic problems have been resolved.

The staff urges that underground rules should not require any payment for the difference in cost between pad-mounted and subsurface transformers.

PG&E argues that if the difference cost charge for subsurface transformers was eliminated from its proposed Rule 15.1 it is certain that subsurface transformers would become the standard because of their aesthetic superiority to pad-mounted transformers.

We will not permit the difference cost charges for subsurface transformers since it would probably retard the development of full underground systems. We recognize that an immediate requirement for the exclusive use of subsurface transformers is not practicable but will expect the utilities to make rapid progress in further improving the aesthetics and operations of underground systems.

The record indicates that the three principal means of underground cable installation are direct burial, preassembled cable in duct, and cable in conventional duct lines or rigid conduit. There is no basis in the record for the Commission to prescribe the exclusive use of one of the methods. The utilities are expected to provide adequate service by economic methods: we therefore will place no obstacles in the development of underground systems by prescribing materials and methods to be used.

Does Relocation Come Within the Ambit of Underground Extensions?

In Decision No. 73078 in this matter dated September 19, 1967 we said:

> "The record reveals that respondent utilities often are required to relocate their facilities due to street or highway widening. It appears that the practice of these utilities, when overhead facilities are involved, is to remove existing overhead and replace such facilities with new overhead facilities. In view of the fact the cost differential between overhead facilities and equivalent underground facilities has markedly decreased and the fact that the cost differential between overhead and underground communications facilities has virtually been eliminated, such relocations must be given high priority under the conversion rule ordered herein."

Testimony in the subsequent proceedings on the subject of relocation was as follows:

According to PG&E ".....our franchises that we obtain from the cities are all obtained under the Franchise Act of 1937, and they all contain a provision requiring PG&E to relocate facilities installed on public property when made necessary by any lawful change of grade, alignment, or width of any street, way, alley, or place, where these facilities are installed."

PG&E's interpretation of this franchise language is that it means relocation of overhead facilities to a new location overhead, and that the franchise does not contractually require PG&E to relocate overhead facilities to underground at its own expense.

PG&E knows of no case interpreting this language and it knows of no authorities either supporting or opposing its interpretation other than argument based on constitutional statutory provisions.

PG&E believes that "...we cannot be required by the cities to do so at our own expense" (replace overhead with underground) "and since we have a conversion program where the company has allocated the moneys it thinks should be prudently invested for conversion and if the city was unwilling or unable to use those moneys...." PG&E's position is that the relocation should be overhead.

Exhibit 81 shows that the City of Walnut Creek and the Legal Department of PG&E are of the opinion that the City has the legal authority to require the undergrounding of utilities on peripheral streets if in fact those utilities are, or will be when finally installed or relocated, within the boundaries of the underground district - in which case PG&E charges the subdivider for the entire cost of the required undergrounding.

Such relocations come within the ambit of conversions. Where a city does not wish to use its allocation of Section A conversion funds for such relocations the Commission will not interfere with the exercise of a city's lawful authority in assessing such costs against the benefiting property owner.

The Effect of the New Rule on the Conversion Rule Previously Adopted

The costs of conversion are considerably higher than underground construction costs in new residential subdivisions. A considerable investment has already been made in existing overhead systems. The Commission believes that higher priority should be given to new underground construction than the types of conversion covered by Section B and Section C of the conversion rule. Therefore, the conversion rule will not be changed at this time.

Findings

After considering the evidence we find that:

1. Underground should be the standard for all extensions.

2. Extension rules should be statewide in scope.

3. The additional costs of electric utility undergrounding in residential subdivisions should be absorbed by the utilities except for the costs associated with trenching and backfilling.

4. The electric and communication utilities' rules for undergrounding in residential subdivisions should be based on density.

5. The additional costs, if any, of undergrounding a communication extension (including the trenching and backfilling costs except where they materially exceed the utility's average cost) in a residential subdivision should be absorbed by the utility.

6. The difference in cost principle should continue for other underground extensions at this time.

7. Underground extension rules should not be specific as to materials and methods of construction.

8. Relocations are properly considered as conversions. The conversion rule should not be changed at this time.

Conclusions

The Commission concludes that:

1. All respondent electric utilities should be ordered to file an extension rule substantially as set forth in Appendix A.

2. All respondent communications utilities should be ordered to modify their line extension definitions, rules and schedules to conform with the requirements as set forth in Appendix B.

3. All electric and communication distributions systems within new residential subdivisions should be installed underground.

O R D E R

IT IS ORDERED that:

1. Each respondent providing electric service shall, within thirty days from the effective date of this order, in accordance with the procedure prescribed by General Order No. 96-A, file with this Commission the rule substantially as set forth in Appendix A attached to this decision. Such rule shall become effective on not less than five days' notice to the Commission and to the public and shall cancel and supersede the corresponding existing rule respecting electric line extensions.

2. Each respondent providing communication service shall, within thirty days from the effective date of this order, in accordance with the procedure prescribed by General Order No. 96-A, file with this Commission its proposed revision of its line extension definition and schedule applicable to both overhead and underground line extensions, to eliminate conflicts with existing tariffs and to conform with requirements set forth in Appendix B attached to this decision.

3. All motions not consistent with the findings in the opinion part of this decision, and not consistent with the rules provided in Appendices A and B herein, are denied.

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

Dated at San Francisco, California, this 4th day of NOVEMBER, 1969.

William Symons Jr.
President

Commissioners

I will file a dissent
Avgustus

I may desire to file a concurring opinion
William Symons Jr.

RULE NO. ___.1
UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS

Extension of underground distribution lines at available standard voltages necessary to furnish permanent electric service within a new single-family and/or multi-family residential subdivision of five or more lots will be made by the utility in advance of receipt of applications for service in accordance with the following provisions:

A. General

1. The utility will construct, own, operate, and maintain underground lines only along public streets, roads, and highways which the utility has the legal right to occupy, and on public lands and private property across which rights of way and easements satisfactory to the utility may be obtained without cost or condemnation by the utility.

B. Installation

1. The developer of the subdivision will perform all necessary trenching and backfilling, including furnishing of any imported backfill material required, and will furnish, install and deed to the utility any necessary distribution and feeder conduit required.

2. The utility will complete, at its expense:

   a. The installation of the underground distribution system within the residential subdivision, consisting of primary and secondary conductors, transformers, and associated equipment, except excess footage within the subdivision will be partially at subdivider's expense in accordance with Section C.3.

   b. That portion of the supply circuit which may extend beyond the boundaries of the subdivision to the utility's existing supply facilities that is not in excess of 200 feet.

   c. Any necessary feeder circuits within the subdivision.

3. That portion of an extension to a subdivision from the utility's existing supply facilities in excess of 200 feet outside the boundaries of the subdivision will be made either overhead or underground in accordance with Rule No. ___, except that the free footage allowances listed in Sections ___ and ___ of Rule No. ___ will be reduced by 50 percent for those appliances installed within the subdivision.

NOTE: In Section B.3 above, blank spaces refer to PG&E "Rule No. 15------ in Section B.1.a and B.1.b. of Rule No. 15." Use equivalent references for other utilities.

RULE NO. ___.1
UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS (Continued)

4. Underground services will be installed and maintained as provided in Rule No. ___.

5. Street lights will be installed in accordance with the appropriate tariff schedule.

6. The distribution facilities will be installed as herein provided and will be owned, operated, and maintained by the utility.

C. Advances by Developer

1. The developer shall pay to the utility, before the start of construction, the estimated cost (exclusive of transformers, meters, and services) of the underground extension within the subdivision, such payment to be the product of $____* per foot times the total footage of property fronting on streets within the subdivision.

2. If the total footage determined in Section C.1. above does not exceed the sum of 125 feet times the total number of single-family and/or multi-family lots plus 25 feet times the number of separately metered dwelling units in excess of two in each multi-family building, the entire amount computed in Section C.1. above shall be a refundable advance.

3. If the total footage determined in Section C.1. above exceeds the limits set forth in C.2. above, then $____** per foot for all such excess footage shall be nonrefundable and the balance shall be a refundable advance.

4. The payment of the portion of such advance as the utility estimates would be refunded within six months under other provisions of this extension rule may be postponed for six months, provided that the developer furnishes to the utility evidence that he has received state and local authorizations to proceed promptly with construction and that he has adequate financing, and provided further that the developer agrees in writing in his contract for the extension to pay immediately at the end of six months all amounts not previously advanced which are not then refundable. At the end of such six-month period, the developer will pay to the utility all such amounts not previously advanced which are not then refundable.

Note: Amounts based on individual utility's cost.

* Cost of underground.
** Difference in cost of underground and overhead.

RULE NO. ___.1
UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS (Continued)

D. Refund of Advance

The refundable advance determined in accordance with Section C.2. or C.3. will be subject to refund as follows:

1. To determine the amount to be refunded, the total refundable advance will be divided by the total number of lots within the subdivision covered by the advance, then;

2. When a building has been completed on a lot within the subdivision and service is supplied to the first permanent customer on that lot, that portion of the advance (determined in accordance with D.1. above) appropriate to said lot will be refunded (or credited to the developer's account if the advance has been postponed in accordance with Section C.4. above).

3. When buildings have been completed on 90% of the total number of lots and service is supplied to at least one permanent customer in each of such buildings, any remainder of the advance will be refunded.

4. All refunds will be made promptly and without interest, but not later than 90 days after eligibility for refund is established under Sections D.2. or D.3. above.

5. In the event that any portion of an advance has not qualified for refund at the end of 12 months after completion of the underground extension, the developer will pay to the utility its ownership costs on that portion of the advance for which no refunds have been made or are eligible to be made. The ownership costs shall be equal to 3/4% per month of the difference between the total amount advanced and any refunds made or eligible to be made to the developer.

   Payment of such ownership costs will normally be made by deduction from the developer's advance, but such deduction will not reduce the amount on which the cost of ownership charge is based.

6. No payment will be made by the utility in excess of the refundable amount advanced by the developer nor after a period of 10 years from the date the utility is first ready to render service from the extension, and any unrefunded amount remaining at the end of the 10-year period will become the property of the utility.

RULE NO. ___.1
UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS (Continued)

E. Special Conditions

1. Contracts

Developers requesting an underground extension within a residential subdivision in advance of applications for service will be required to execute written contracts covering the terms under which the utility will install the underground extension, and written contracts covering line extensions for which advances or payments will be made in accordance with the provisions of the tariff schedules. Such written contracts shall be in the form on file with the Public Utilities Commission as part of the utility's effective tariff schedules.

2. Periodic Review

The utility will review its costs of construction of underground line extensions annually and shall prepare a contemplated tariff revision when such costs have changed by more than 10 percent since the last revision of the costs set forth in Section C. above. A contemplated revision shall be submitted to the Commission for review in proposed form not less than 30 days prior to any contemplated filing date.

3. Rules Previously in Effect

Amounts advanced under the conditions established by a rule previously in effect will be refunded in accordance with the requirements of such rule.

4. Exceptional Cases

In unusual circumstances, when the application of these rules appears impractical or unjust to either party, the utility or developer may refer the matter to the Public Utilities Commission for special ruling or for the approval of special conditions which may be mutually agreed upon, prior to commencing construction.

APPENDIX B

TELEPHONE DEFINITIONS

Definitions of the terms shown below would be amended as follows:

1. Line Extensions

Line extensions consist of overhead or underground extensions to plant from existing facilities to service connections and exclude additions to plant along existing telephone facilities.

2. Tract or Subdivision

Improved or unimproved land under a definite plan of development wherein it can be shown that there are reasonable prospects within the next three years for five or more main telephones at a density of at least one per acre.

UNDERGROUND LINE EXTENSIONS

I. General

A. Except as otherwise provided in these Rules, the Utility will, at its own expense, furnish, install and maintain all facilities necessary to serve applicants or customers in accordance with its lawful rates, rules and current construction standards, provided public ways or suitable easements, which can be obtained without charge, are available.

B. The Utility will determine the route and type of construction. Where an applicant requests a route or type of construction which is feasible but differs from that determined by the Utility, he will be required to pay the estimated additional cost involved.

C. In lieu of all or part of such payment the applicant or customer may furnish such materials or perform such work as may be mutually agreed between the Utility and the applicant or customer. Upon acceptance by the Utility, ownership of any material so furnished shall vest in the Utility.

D. In exceptional circumstances, when the application of these rules appears impractical or unjust the utility or the applicant may refer the matter to the Public Utilities Commission for special ruling or for approval of mutually agreed upon special conditions, prior to commencing construction.

E. When, for its own operating convenience, the Utility desires to construct and maintain underground line extensions, such facilities will be provided at no charge.

II. Within Residential Subdivisions

A. The Utility will construct underground line extensions along dedicated streets and utility easments at its expense, subject to the Utility being able to occupy trenches jointly, where economy dictates, upon payment by the Utility of its pro-rata cost thereof.

III. All Other Cases

In cases other than those included in II.A if the Applicant or customer requests underground construction he will be required to pay in advance the difference between the cost of providing underground facilities and the estimated cost of constructing equivalent aerial facilities.

A. W. GATOV, COMMISSIONER, Dissenting:

I dissent.

Because the decision of the majority fails to do something imaginative and forward looking about undergrounding in new commercial and industrial construction and eliminating the existing visual blight which the junkyards in the sky have created, the long-term efforts of the Commission commencing in mid 1966 have come to nothing.

On Monday afternoon, November 3d, all Commissioners were handed a 32-page proposed order which we were informed would be considered at 10 a.m. November 4th. With no questions or comments, the majority approved the order. This last-minute, authorless decision was supposedly a substitute for a proposed decision (which had been before the Commission for some 26 days) put forth by me and endorsed by Hearing Examiner Gillanders. My proposal ordered that the record be reopened for the purpose of examining on the record those statements from some of our major utilities forecasting that economic disaster and astronomical rate increases would follow adoption of our proposals on undergrounding, and particularly those which had to do with the conversion of existing overhead systems to underground systems. (See Proposed Report of Commissioner Gatov and Examiner John R. Gillanders filed in this proceeding on May 28, 1969.)

The majority's decision does nothing more than tidy up some loose ends in the area of new residential subdivisions, almost all of which are already being undergrounded, and in any event represents no problem. The guts of the problem is not in new residential construction but in the conversion of existing overhead systems to underground systems, plus the undergrounding

of new commercial and industrial construction.

The majority apparently goes along with the utilities who, while favoring token recognition of the problem, show even less enthusiasm for coming to grips with it.

The majority, furthermore, seems oblivious to contemporary thinking on aesthetic ecological values and that a major issue confronting the State in the 70's will be the environmental quality of life around us and how to improve it.

Because of the many recent public pronouncements by some of our leading legislators, I look for a spate of resolutions in the 1970 session of the Legislature importuning or memorializing this Commission to take actions in this area of rapidly expanding public interest. The majority has missed an opportunity to provide leadership in an area where its leadership should be expected, and it will soon find itself in the wake of actions by other states and eventually of our own Legislature.

Commissioner

Dated at San Francisco, California,
November 5, 1969.

COMMISSIONER WILLIAM SYMONS, JR., CONCURRING:

I concur in Decision No. 76394, Case No. 8209. A brief review of this case will show that it started by an Order Instituting Investigation issued by the Commission on June 22, 1965.

There have been 42 days of hearing held on Case No. 8209 during the last 4 years and 4 months. After this long lapse of 52 months Commissioner Gatov concluded that no meaningful decision could be reached which would terminate the proceeding, and recommended that the record should be reopened for the purpose of examining on the record those statements from some of our major utilities forecasting that economic disaster would follow adoption of the proposals on undergrounding in the proposed report.

As a further argument for reopening Commissioner Gatov stated that some of the participants had not understood just what had been considered during the 42 days of hearing.

In answer to these arguments and the further assertions in Commissioner Gatov's dissent, it must be observed that after establishing a conversion rule and revised service connection rule in Decision No. 73078, the Commission by Decision No. 73612, dated January 9, 1968, reopened Case No. 8209 for hearing: "... limited to consideration of the rule proposed by Pacific Gas and Electric Company". That proposal dealt with undergrounding in new residential subdivisions. Commissioner Gatov signed that order. The hearings in the reopened proceeding were concluded in April of 1968 and briefs were filed in June of 1968. However, the proposed report of Commissioner Gatov was not issued until May of 1969. That proposed report, in fact, dealt with issues beyond a disposition of the proposal of Pacific Gas and Electric Company. This factor precipitated the doubt about what had actually been the scope of the reopened proceeding.

The majority decision establishes a rule for undergrounding in new residential subdivisions. The establishment of this rule meets a demand by local governments, developers and the utilities for such a rule.

The Commission has heretofore established a conversion rule and an underground service connection rule and has presently established a new subdivision rule for undergrounding. The Commission has also instituted a new proceeding in which an updated record may be developed in a prompt and orderly fashion and upon which may be predicated rules pertaining to underground extensions to commercial and industrial developments and to individual customers. The new order of investigation is not a "limp urging", as characterized by Commissioner Gatov in his dissent to it, but serves as a vehicle for utilities, cities and counties, developers and all interested parties to present their views on these matters on a timely basis that will reflect current needs and current technology. An attempt to consider today's problems on an outdated record, as Commissioner Gatov would have us do, could only result in a rule that would lack the imagination and leadership which the majority seeks to provide by opening the new proceeding.

William Symons, Jr., Commissioner

San Francisco
November 6, 1969