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ORIGINAL

Decision No. 73078

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

(Appearances are listed in Appendix A)

INTERIM OPINION

Nature of Proceeding

The Commission on June 22, 1965, instituted this investigation to determine what revision of existing rules, what new rules, or new rates would be required to stimulate, encourage, and promote the undergrounding, for aesthetic as well as economic reasons, of electric and communications services and facilities. However useful and often necessary had been the seemingly total preoccupation with the engineering and commercial aspects of our utilities, the time had long passed when we could continue to ignore the need for more emphasis on aesthetic values in those new areas where natural beauty has remained relatively unspoiled or in established areas which have been victimized by man's handiwork.

Scope of Proceeding

During the course of the proceeding, it became apparent that the investigation could be divided into three separate and distinct parts as follows:

1. Service connections.
2. Conversions.
3. New construction.

As used in this decision:

1. "Service connections" as used for electric service means overhead and underground conductors leading from a point where wires leave the last pole of the overhead system or the distribution box or manhole, or the top of the pole of the distribution line, to the point of connection with the customer's outlet or wiring. Conduit used for underground service is included herein.

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

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

The proposals made by various respondent electric utilities for conversions and for new construction were limited to so-called distribution facilities (those of voltage rating below 34.5 kv) because of the widely held belief that conversions or new construction of facilities above 34.5 kv (so-called transmission) is not economically feasible at today's state of the art.

The record is clear that most parties to the proceeding recognize that undergrounding of transmission lines (110 kv and above) carried on steel towers is a desirable objective, but that such objective is neither economically nor technically possible at this time except in isolated cases.

The record is also clear that respondent electric utilities have given little thought to undergrounding of transmission lines normally carried on single wooden poles, i.e., transmission lines of 66 kv and below.

The record shows that in numerous cases, the existence of, or possibility of, construction of such lines has created considerable concern to certain cities.

The record indicates that respondent utilities should seriously consider undergrounding of such transmission lines in conjunction with undergrounding of distribution lines carried on the same poles. If such undergrounding of transmission lines is not considered practical, then such overhead lines should be routed to another area.

Public Hearings and Proceedings

Public hearings were held, after due notice, at San Francisco, Los Angeles and San Diego before Commissioner Gatov and/or Examiner Gillanders on 36 days during the period beginning September 29, 1965 and ending November 1, 1966. Opening and reply briefs have been filed. The matter was taken under submission on December 10, 1966. During the course of the proceeding, Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E) made motions requesting interim orders to place in effect their respective proposed changes to their existing rules. Those motions were denied by the Examiner. On the last day of hearing, the motions were renewed and were taken under submission.

During the course of the proceeding, evidence was adduced from 55 witnesses, 75 exhibits were received and 4,502 pages of transcript were recorded.

Demand for Undergrounding

The League of California Cities, speaking for all cities in California, supported undergrounding, where practical, in areas of new and existing construction, and urged the Commission to promulgate orders which will be applied uniformly to all electric and communications utilities subject to Commission jurisdiction. The League co-sponsored enabling legislation whereby public agencies,

through special assessments, could finance undergrounding of existing overhead utility facilities. (Now Section 5896 et seq. of the Streets and Highways Code.)

To date, over 200 cities have given their support to under-grounding programs by enacting ordinances requiring undergrounding in areas of new construction.

It is clear from the record that the people of California, through their elected representatives, demand undergrounding of new and existing overhead electric and communications facilities. This demand was also presented through the testimony of individuals speaking as representatives of various entities or organizations or speaking for themselves.

It is also clear from the record that electric and communications utilities, both privately and publicly owned, are aware of this demand and are willing to accommodate it, but are not in complete agreement as to the methods to be used.

The Commission is aware from the record that not only does underground electric and communications construction create considerable aesthetic value, but it includes features which promote safer and more reliable utility service. Further, the evidence indicates that considerable progress has been made in reducing the cost of electrical underground installations at distribution voltages and that presently there is little or no difference in the cost between overhead and underground communications installations.

Service Connections

Proposed Rule and Position of Pacific Gas and Electric Company.

PG&E seeks Commission approval of a revision of its present Rule No. 16 to make it consistent with the corresponding rules of other electric utilities in California.

Under its proposed rule for new construction, PG&E will provide a CIC[1] service connection up to 100 feet at its expense where the service is to be underground and where the use of CIC is technically feasible. PG&E, in addition, will bear the costs of installation and connection to street and house facilities. Where the use of CIC is not technically feasible, PG&E proposes to supply the cables at its expense; conduit to be at the expense of the applicant customer. The applicant, in either case, will share with PG&E the costs of underground service connections in that he will be responsible for trenching, backfill, required substructure facilities[2] and as stated above, conduit where CIC cannot be used. The use of CIC will, however, be standard practice wherever possible.

PG&E will own and maintain the service cables. The corresponding rules of Southern California Edison Company (Edison) and SDG&E also provide for company ownership of these facilities.

The proposed change should result in substantial savings to those who under PG&E's present rules are required to pay for the entire underground installation. In a new subdivision the average 35-foot underground facility will cost approximately $54 of which the applicant for service will pay $14 for trenching, leaving $40 for PG&E. Current PG&E costs for a comparable overhead service are about $33. Underground services under proposed Rule 16 should therefore cost the company about $7 more than overhead services. This nominal increase in investment will often result in much greater savings to the applicant who under present rules must provide the entire underground service at a cost of $60 to $150.

1/ A factory pre-assembled cable in a conduit.

2/ I.e., pads, vaults, ducts, boxes.

These savings result from PG&E's use of new, economical materials such as CIC and service cables sized according to utility standards which are different from local electrical codes. The joint use of trenches with other utilities for underground services will further reduce costs and PG&E proposes to share such savings with the applicant.

PG&E claims that the proposed revision should be authorized for the following reasons:

1. It will make the ownership of electrical service cables uniform statewide.

2. It will facilitate and encourage the initial installation of underground distribution systems and the conversion of overhead systems to underground by reducing the capital expenditure required of customers.

3. It will facilitate and promote the practice of joint trenching for utility service cables and pipes and thereby reduce the cost of all utility service supplied underground.

Proposed Rule and Position of San Diego Gas & Electric Company

SDG&E has proposed three changes in its present Rule 21 which are summarized as follows:

1. Underground Service from Underground Systems

Where an applicant seeks underground service from an underground distribution system under its present rule, SDG&E pays for the cost of the cable only. The applicant pays all of the remaining costs including the cost of furnishing and installing the conduit. Under proposed Section C of Rule 21, in the case of new construction SDG&E would furnish and install at its expense up to 100 feet of conduit as well as cable, and the applicant would furnish the trenching and backfill and any conduit and cable in

excess of 100 feet. Under this proposal the company would own and maintain the entire service connection.

2. Secondary Underground Service[3] from an Overhead Line

Under Section B3 of the present Rule 21, an applicant who desires secondary underground service from an overhead distribution system must furnish the entire service connection at his expense. SDG&E now proposes to delete Section B3 and to add a new Section D under which SDG&E would furnish and install at its expense up to 100 feet of cable. The applicant would pay for the remaining underground service facilities including conduit, trenching and backfill. The company would own and maintain the entire service connection.

3. Primary Underground Service[4] from an Overhead Line

Pursuant to Section B4 of the present Rule 21, an applicant who wishes primary underground service from an overhead source must install the conduit at his expense. SDG&E will install cable at its expense for lengths that are a function of the kva capacity of the applicant's transformer installation. SDG&E proposes to delete Section B4 and to cover this situation under new Section D. Under this proposal, SDG&E would furnish and install at its expense up to 100 feet of cable. The applicant would furnish the remaining underground service facilities, including conduit, trenching and backfill. The company would own and maintain the entire service connection.

SDG&E would increase its relative investment in service lines and thus would further encourage undergrounding. The company's ability to do this is brought about, in part, from developments in the technology of undergrounding electric facilities, including the

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3/ 2000 volts or less.

4/ Over 2000 volts.

use of CIC. In those cases dealing with the underground service from overhead distribution systems, this liberalization of the rule will not only encourage underground, but will reduce the cost of future overhead to underground conversions for both the customer and the company.

The present rule is unclear as to the ownership of underground service connections and, hence, as to the responsibility for maintenance and repair. When the question of responsibility for repair of such a facility is raised, particularly in an emergency, such uncertainty results in an unnecessary expense of time, money, and endangers customer relations. The proposed changes in the rule clearly state that SDG&E shall own and shall be responsible for the maintenance of service connections.

San Diego's proposed rule, particularly those parts dealing with underground service connections from an overhead system, is closer to the existing rule of Edison than to its own existing rule. Because of the mobility of architects and contractors which lead to building activities by the same people in the service territories of both companies, there are advantages in having identical rules which reduce confusion, errors and customer relations problems that arise under the present situation where the rules are different.

Position of Other Respondents

Edison did not propose any change in its presently filed tariff schedules.

Sierra Pacific Power Company's position is that it should install, own and maintain the service connection between the service connection point and the applicant's facilities including the conduit in any CIC system and that the applicant should be required

to pay the cost of any cables required in excess of 100 feet. In addition, applicant, at his expense, should provide the trench, backfill, repaving and any rigid conduit required.

The Pacific Telephone and Telegraph Company (Pacific) proposes to carry forward its present practice of requiring the subdivider or developer or home owner to provide or pay the cost of the underground supporting structure[5/] for the service entrance.[6/] Pacific will at its expense (and without length limitation) furnish, install and maintain the wire or cable in the service entrance. Pacific's proposal on service entrance facilities is exactly the same in cases of new construction as in cases of conversion.

General Telephone Company of California (General) concurs with Pacific and other major utilities that in conversion cases the subscriber should provide the underground supporting structure for the service entrance on his property. General has suggested, however, that a different approach be taken in new construction cases.

Position of Interested Parties

The Home Builders Council of California agrees that utilities should install, own and maintain the service connections; that uniformity of the service connection rules is desirable; and that the requirement that the applicant pay a reasonable charge for extensions in excess of 100 feet is reasonable.

With regard to trenching costs of service connections, the Home Builders Council of California feels the requirement that developer pay these costs has slowed down joint trenching and other

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5/ Conduit, manholes, handholes, and pull boxes.

6/ Drop and block wiring or cable, including protective conduit where used, from the point of connection with the company's distribution facilities to the point of connection with the inside wiring of the premise served.

cost-saving practices since there is no incentive to the utility to use joint trenches where the extra cost is absorbed by the developer.

The City of Oakland believes that underground services from underground systems should be financed, owned and maintained by the serving utility company. All costs, including trenching and backfill, should be paid by the utility, subject to a suitable length limitation, and such costs should be included in the utility's rate base.

The City and County of San Francisco maintains that should the service cables be supplied by the utility company, the size and installation should conform to the City's Electrical Code.

The San Francisco Bay Area Labor Management Committee for the Electrical Construction Industry opposes the changes in the service connection rule as proposed by SDG&E.

Commission Staff Position

The staff's position is that the utility should own and maintain the service connection including, where necessary, the conduit. The utility should, at its expense, furnish and install a reasonable length of service connection cable, including the conduit in pre-assembled cable-in-conduit systems. Applicant, at his expense, should bear the costs for trenching, backfilling, re-paving and a separate conduit when required.

Discussion

The record reveals that there are definite advantages to the electric utility and its customers when the utility owns and maintains underground services. The record also reveals that, in some cases, a new customer receives different treatment from an existing customer who is required to convert his equipment from overhead to underground service. The rule which will be authorized will apply both to new and existing customers.

No good reason appears in the record why an applicant for an underground service connection or conversion to underground service should be required to furnish a separate trench for electric service and a separate trench for communication service. However, joint trenching for service connections requires coordination between the applicant and each of the utilities. If an appropriate joint trench is furnished by the applicant there will be no requirement for separate trenches. If the applicant desires service locations requiring separate trenches for the various utilities he will be required to provide separate trenches. If a respondent utility desires a separate trench for its facilities, such trench will be built and paid for by the utility.

The staff recommended retention of the term "Service Connection" as defined in Appendix C for the applicable portion of telephone facilities rather than the proposed term "Service Entrance". That recommendation is adopted herein.

Conversions

Various long-term proposals were made by the parties designed to accelerate conversion of overhead facilities to underground.

Proposed Rule and Position of Pacific Gas and Electric Company

PG&E seeks authorization to change its basis on which it will replace existing overhead distribution lines with underground facilities. Under its present rule, PG&E replaces existing overhead with underground provided the person requesting such change pays the estimated cost of the new underground facilities less the estimated net salvage value of the replaced facilities. Where its own operating convenience has been involved, PG&E has converted some overhead to underground at no cost to the users.

Members of the public generally as well as many local governing bodies have urged PG&E to do more conversion at its own expense. PG&E claims that such replacement of overhead facilities with underground increases its capital and annual ownership costs of providing electric service without, however, a corresponding increase in its revenues. Therefore, it states that the revenue from customers would have to be higher than it would be otherwise in order to maintain the return at a level equal to overhead systems. This is not withstanding that the quality and quantity of electric power provided the customers remain substantially the same.

Despite this claimed adverse economic result of conversion, PG&E believes that its proposal will permit it to satisfy reasonably the demand for increased conversion without any significant effect on its rates for service. This is because it has attained and hopes to continue to attain reductions in the unit costs of providing electric service. This factor, plus an anticipated continuing reduction in the cost of underground installation and the generally favorable status of the economy led PG&E to make its proposal to increase the replacement of its existing overhead installations with underground within the framework of present rate structures.

PG&E's proposal presents three methods of meeting the cost of replacing particular overhead distribution lines. The first, or Section A method, applies when a city or county designates the lines to be replaced; the second, or Section B method, applies normally whenever property owners affected designate at least one block or 600 feet of overhead to be replaced; the third, or Section C method, applies in all situations where the applicant for the replacement cannot comply with the conditions of the Sections A and B methods.

Under Section A, PG&E claims it would invest, principally for aesthetic improvement, a significantly greater amount in conversion work. To assure that each area in PG&E's electric service area receives its fair share of the total annual company investment for conversion, PG&E's proposal provides for an investment in underground facilities within each city and each county which will be equal to, but not otherwise related to, 2 percent of certain electric revenues received during the prior year from the customers in each city, each county or city and county. Each political subdivision would thus be able to know in advance the capital that PG&E would allocate to the conversion of overhead facilities located within its jurisdiction and be able to develop its improvement programs accordingly. Because of expected increases in efficiencies, PG&E judges it can allocate this amount without requiring an increase in its rates in the foreseeable future.

PG&E and the local governing bodies would consult on plans for conversion work, but the proposal gives to the local governing body the power to define by ordinance, after public hearing, the conversion project, or projects, to be done within its territory. Thus, all conversion work done under this proposal would be the result of local ordinances, which will assure that such work is located in areas of greatest public benefit and that the owners of property in such areas will make or provide for the necessary associated changes in their wiring.

According to PG&E, Section A assures local governments and the public that much more conversion work can be done completely at PG&E expense. At the same time, PG&E believes that Commission authorization of the Section A method will definitely indicate a limit to the amount of conversion work which PG&E can be required to do at its own expense.

Under the Section B method, PG&E will convert facilities at a cost to applicants substantially lower than under its existing rule. Thus, whenever applicants who want at least one block or 600 feet of overhead converted can give satisfactory assurance that the property owners affected will make or provide for the necessary changes in their own wiring, PG&E will do the conversion at its expense if the applicants will pay the difference between the cost of a new equivalent overhead system and the underground system to be installed.

For all other situations, PG&E would retain its existing rule for conversion.

The principal reasons advanced by PG&E in support of its conversion proposal are:

1. It provides an orderly and fair method for promoting and accelerating conversion.

2. Under it the elected local officials, who can best reflect the local public interest, will select the conversion projects for their areas.

3. It assures that the removal of overhead electrical facilities will be associated with the removal of other overhead wiring in the area.

4. It will encourage local governments and others in PG&E's electric service area to make definite plans for the conversion of existing overhead wires.

5. The proposed rule, if authorized by the Commission, will give a definite indication of the added capital investment in conversion which PG&E can prudently make for aesthetic reasons, having in mind its ultimate effect on rates.

6. The cities, counties and PG&E will know definitely the amount, the location, and the timing of conversion which PG&E may be required to do.

Proposed Rule and Position of San Diego Gas & Electric Company

San Diego Gas & Electric Company (SDG&E) seeks authorization to change its existing rules for conversion.

SDG&E's present rules (Rule 20D5a) provide for conversion under the following conditions:

> "Where mutually agreed upon by the utility and a customer or applicant, overhead distribution facilities may be replaced with underground facilities, provided the customer or applicant requesting the change pays, in advance, a non-refundable sum equal to the estimated cost of the underground facilities less the estimated net salvage value of the replaced overhead facilities."

In addition, SDG&E presently undertakes conversion of overhead facilities at its own expense where it will improve the Company's operations. This primarily occurs in congested downtown areas.

SDG&E proposes to delete the above-quoted portion of its present Rule 20 and establish a new Rule 31 dealing with the subject of conversion in far greater detail. Proposed Rule 31 deals with conversion in three different situations, as follows:

A. Section A of the rule deals with conversion in areas affected with the public interest, such as heavily congested or unusually scenic areas. Under this rule, the local governing body, after consulting with SDG&E and holding public hearings, would select the area to be undergrounded and would pass an ordinance ordering the undergrounding and requiring each property owner to provide the necessary changes on his premises in order to receive underground service. The ordinance would also authorize the utility to discontinue overhead service.

Under this provision, SDG&E could be required to expend up to 2 percent of the preceding year's revenue from electric sales in the city or county involved, excluding certain large industrial sales and rural sales. The minimum distance which would be undergrounded would be one block or 600 feet, whichever is the lesser. Provision is made in this rule for a carryover of unexpended funds for, at least, two and possibly more years.

B. Section B of the proposed Rule 31 deals with the situation where a group of property owners agree on a conversion plan. In this situation, the applicants would be required to pay a nonrefundable sum covering the cost of the conversion, but would be credited with the estimated cost of building a new equivalent overhead system. The applicants have the option of performing the trenching, backfilling and substructure work themselves. The minimum area to be undergrounded would be both sides of a street, at least one block or 600 feet long, whichever is the lesser.

C. Section C of proposed Rule 31 deals primarily with the situation where an individual wishes to convert distribution facilities. Under these circumstances, the arrangement would be the same as the present Rule 20D5a quoted above.

Position of Southern California Edison Company

Southern California Edison Company (Edison) does not believe that the proposals of PG&E and SDG&E will provide for the conversion of overhead facilities on a sound engineering basis nor in a manner that will promote efficiency in planning, operating and

maintaining an electric distribution system. Edison does not support the type of conversion rule proposed by PG&E and SDG&E, and states it would object to any such rule being required for the Edison system. Its reasons for its position include the following:

1. Legislative bodies are not proper forums for determining the most effective and efficient manner of expending the limited funds available for conversions.

2. A patchwork overhead and underground system could result, due to the substitution of such legislative control in place of those responsible for efficiently planning, engineering and operating an electric utility system. If, on the other hand, the intention is for the utility to control the decision in the event of an impasse, then the rule is misleading and could be expected to cause public misunderstanding and public relations problems.

3. The allocation of the limited available funds for undergrounding would seldom, if ever, match the requirements of the underground area involved and would necessarily result in a disorderly and inefficient program of conversion.

Position of Sierra Pacific Power Company

Sierra Pacific Power Company (Sierra) states that for many years it has spent considerable sums of money for the purposes of converting overhead distribution systems to underground distribution systems in areas where the public interest was best served by an underground system. Normally this occurs in the more densely developed areas of the company's commercial service areas. These undergrounding projects have developed as a result of the customer's needs, the public safety and the company's operating convenience. Sierra states that it has always considered these projects on the

basis of the total company economic feasibility and has proceeded with these projects in a method and manner which has been satisfactorily accepted by the areas in which the company renders service.

Sierra has no objection to a rule relating to the replacement of overhead with underground distribution facilities. It has always exceeded two percent of preceding year's revenue in underground conversion construction. Sierra feels that so long as the public interest requires and economics dictate, it will continue to replace overhead distribution facilities with underground systems.

Proposed Rule and Position of The Pacific Telephone and Telegraph Company.

The Pacific Telephone and Telegraph Company (Pacific) proposal on conversion of aerial facilities at its expense in areas affected by general public interest is patterned after and is intended to dovetail with like conversion proposals introduced by PG&E and SDG&E (the so-called two percent of revenues conversion proposal). Pacific's companion proposal is contingent upon this Commission's approval of a uniform rule for electric utilities substantially as proposed by PG&E. A uniform conversion rule for electric utilities is essential to telephone company cooperation in a statewide conversion program. Diverse conversion rules for different electric utilities would defeat objectives of equitable and consistent progress in undergrounding throughout the State, and would create serious operating difficulties for telephone utilities in terms of inability to forecast or make orderly arrangements for material and manpower for the conversion program. Subject to a uniform rule, Pacific is prepared to convert its aerial facilities at its expense in the same locations and at the same time as electric

utilities convert their facilities at their expense in areas affected by general public interest within the tariff requirement.

Other tariff provisions of Pacific, again similar to proposed electric utility tariff clauses, provide for conversion at the request and expense of cities or other applicants in other areas or at faster rates than contemplated by the basic proposal for progressive conversion at utility company expense.

Proposed Rule and Position of General Telephone Company of California

General Telephone Company of California (General) testified that presently its decisions to convert or not to convert existing overhead facilities to underground are made on the basis of engineering economics. General now proposes to replace existing overhead facilities with underground at its own expense under the following conditions:

1. The governing body of the city or county in which such facilities are located has found such undergrounding to be in the general public interest.

2. The electric distribution facilities are being placed underground at the expense of the electric public utility pursuant to a uniform plan similar to that proposed by PG&E and SDG&E in this proceeding.

3. The supporting structure for the service entrance facilities will be provided by the individual property owner.

General made these proposals on the assumption that a finding of public convenience and necessity would first be made by this Commission, if such public convenience and necessity exist. Assuming a finding of public convenience and necessity, General recommends its proposals as the maximum changes which could be made at this time under existing rates without impairing the

ability of General to perform its duty to the public. General feels that any other plans which would require more loss and more additional investment would also necessitate rate relief to General to avoid impairing its duty to serve the public.

Based on the above qualifications, General strongly urges that its proposal, including the adoption of a plan for electric facility conversion which would be identical in its effect on General as the conversion plans proposed by PG&E and SDG&E in this investigation. General points out that its proposal for conversion was tied to the electric facility conversion proposals and feels that any plan for electric facility conversion which would result in more expense to General than the PG&E and SDG&E plans would not be proper or reasonable.

Proposed Rule and Position of Continental Telephone Corporation

A witness speaking for all 12 Continental subsidiaries operating in California proposed adding to the definitions section of the rules filed by them definitions of service entrance, trenching costs, and underground supporting structure.

Continental also proposes a new rule entitled "Facilities to Provide Service and Replacement of Aerial with Underground Facilities."

The companies propose to replace existing overhead facilities with underground facilities in areas affected by general public interest and where certain conditions are met. In cases where there is a request from governmental agencies or groups of applicants, the companies will replace overhead facilities with underground construction provided it is reimbursed for the cost of underground supporting structure. The companies reserve the right, in all instances of replacement, to place facilities underground at its own initiative and at its own expense.

Position of California Independent Telephone Association

The secretary-treasurer of the Association testified on behalf of the independent companies other than General and the Continental system affiliates.

It is the position of these companies, based upon the undergrounding proposals submitted by the power companies, that the possibility of conversion of telephone plant on any significant number of joint or contacted poles is extremely remote and therefore no undue burden would be placed upon them at the time the power companies underground their facilities.

The independents see no reason to make any revision in their present rules governing service connections and facilities on the premises of customer as they do not differ in any significant respect from the proposals of Pacific and Continental.

Proposals and Positions of Interested Parties

The position of the Commission of Housing and Community Development of the State of California is that the cost of undergrounding should be spread among the consumers both for new construction and for conversion. That Commission recommended that utility companies be required to construct all new utilities underground and that they be required to submit a reasonable statewide plan or schedule for conversion within a reasonable time for all existing overhead utilities.

The Housing Commission took no position regarding transmission lines because it appeared that such undergrounding might be inordinately expensive. However, it was the consensus of that Commission that undergrounding of transmission lines should be an ultimate goal.

It is the position of the Home Builders Council of California that a conversion program is desirable, but that it must be combined with a reasonable extension rule in order to avoid both discrimination against new home buyers and to avoid the economic imbalance of a program which would allow large amounts of new tracts and apartments to go overhead, when they would have to be converted at substantial cost at some later date.

The League of California Cities urges the Commission to adopt an order applicable to all privately owned utilities providing for:

1. Utility allowances for new underground plant in conversion projects shall be based on customer load rather than "salvage value" or "comparable overhead systems".

2. Utilities, as one affected party, shall make a minimum annual investment in conversion projects. That minimum investment shall be over and above what is presently or might be done for company convenience.

3. The minimum annual utility investment in conversion projects shall be equivalent to two percent of all gross revenues, and this investment shall be made at the direction of the local governing jurisdiction in accordance with its undergrounding plan and priorities.

4. The two percent investment revenues shall be apportioned according to a formula that assures maximum benefit to all cities, shall be subject to accumulation by communities for a reasonable period of time, and shall be reallocated where unused in certain areas.

5. The benefitting property owner and/or the local governing jurisdiction shall bear the responsibility of financing conversion

projects after appropriate utility allowances and any utility-contributed investment is credited to the project. In no case shall the cost of conversion projects be financed by a permanent rate increase.

The City of Oakland (Oakland) takes the position that the so-called "two percent conversion rules" as proposed in this proceeding were designed to limit rather than encourage undergrounding and that utility companies have tended to resist undergrounding. Oakland looks forward to the institution of a plan which will make conversion possible. The plan, according to Oakland, should require the undergrounding of existing overhead lines in urban areas which, for any valid reason, must be rebuilt or relocated. In addition, the plan should allow the orderly conversion of all overhead facilities in urban areas. "Orderly" means a systematic procedure starting with streets where undergrounding would provide the greatest immediate benefit to the public and progressing to residential and industrial streets. Exclusive of undergrounding projects for the sole benefit of the utility, the control of Oakland's underground utilities' program and the authority to designate priorities within the program must remain with Oakland's governing body. The rules should provide clear and indisputable statements concerning the financial responsibilities of the utility and the customer.

The City and County of San Francisco (San Francisco) feels that the two percent rule as applied to San Francisco is reasonable and meets its approval. It should also be the minimum criterion with flexibility to meet the specific needs of other communities.

The areas to be converted from overhead to underground should be determined after a public hearing before the legislative body of the community involved and a priority system established if

there are more areas than can reasonably be converted in a specified period of time.

The City of San Diego (San Diego) maintains that if SDG&E's proposed conversion rule were adopted it would result in Commission sanction of a limitation on the sums which the utility companies would be required to expend on undergrounding of their facilities in areas affected with the public interest. In addition, San Diego maintains that the framers of the rule have indicated an intent to use it as a sword to thwart communities from including in their franchises provisions for undergrounding even though properly ordered under municipal police power.

San Diego urges the Commission not to establish an artificial limitation on the amounts of money which utility companies may spend on the undergrounding of their facilities in areas affected with the public interest. San Diego presented an alternate conversion rule. This rule sets forth the "traditional, usual and most important circumstances under which the police power may be exercised". It provides that if a governing body makes certain determinations relative to these police powers the utilities must underground certain of their facilities at their own expense.

San Diego states that if such a rule resulted in a demand for undergrounding which jeopardized the utility companies' ability to earn a fair rate of return, then the companies should be entitled on that basis to make application for an appropriate rate increase.

It is the position of the City of Long Beach (Long Beach) that if the health, safety and welfare of the public in the cities and counties in California is to be protected at all times, it is imperative that any rule or rules promulgated by the Commission as a result of this proceeding not impinge upon the existing police

power of cities and counties. Long Beach believes there could be impingement upon the police powers of cities and counties because of the proposals of PG&E and SDG&E to expend not more than two percent of certain revenues to convert their overhead facilities to underground. These proposals would, first of all, according to Long Beach, place a maximum limitation upon the amounts that these utilities could be compelled to expend for conversion without reimbursement from outside sources. Secondly, the testimony indicates that the proposals of the utilities would permit them to use the two percent fund for conversions in three different categories: (1) conversions for company convenience, (2) conversions required by cities and counties in the exercise of their police power, and (3) conversions for purely aesthetic reasons. Furthermore, these proposals would permit the utilities to determine how much would be expended in any of the three categories of conversion. If this is the manner in which the proposals would be interpreted, once the two percent maximum limitation is reached, the utilities could refuse to expend any further funds on conversions even if such conversions were needed because of an unforeseen emergency that required undergrounding of the overhead facilities in order to protect the public. Long Beach urges the Commission not to adopt any rule which would have the effect of impinging upon the police power of cities and counties.

Long Beach urges the Commission to amend Edison's Schedule "U" so that it could not be applied in cases where conversions are made pursuant to the obligations assumed by Edison in franchises issued to it by various cities and counties. Such an amendment to Edison's Schedule "U" would make such schedule consistent with the contractual obligation voluntarily assumed by Edison in its franchise with Long Beach.

Long Beach favors the adoption of a uniform statewide rule that would require both electrical supply and communication utilities to expend a minimum amount each year for conversion of their overhead facilities to underground solely for aesthetic reasons, such amounts to be measured by a uniform percentage of the gross revenues of the respective utilities. Again, such conversions would be over and above those required by cities and counties in the exercise of their police power and conversions that might be made by the utilities for their operating convenience. The costs of service connections in such types of conversions should be included in the over-all costs.

Any such rule should require such expenditures for purely aesthetic reasons to be made in cities and counties in the proportion that the gross utility revenue produced in a city or unincorporated county area bears to the total gross revenue of the particular utility involved.

The utilities should be required to periodically notify each city and county in their operating areas, as well as the Commission, of the funds allocated to the respective cities and counties. Any allocations to a particular city or county should be permitted to be accumulated upon request of such city or county until sufficient funds are available to finance their proposed conversion projects. Upon receipt of each notice, each city or county irvolved should be required to advise the utility that it (1) accepts such allocation, setting forth the proposed use thereof, (2) elects to accumulate such allocations, as permitted above, or (3) chooses not to accept its allocation.

If for any reason a particular city or county chooses not to accept its allocation, such amounts should be reallocated among the remaining cities and counties.

As the utilities involved, and ultimately the ratepayers thereof, generally, would be paying for such conversions for purely aesthetic reasons, Long Beach would favor a rule which would restrict such conversions to "areas affected by the public interest", such as Select System of City Streets, and streets adjoining civic areas, and areas of unusual scenic interest to the general public. The foregoing areas are the ones which would most likely be visited by ratepayers who reside outside these areas of conversion, and in this sense such ratepayers would be receiving a benefit from conversion of overhead facilities in these areas that they would not receive if such conversions were permitted in other areas than those affected by the public interest.

Conversions in areas other than those affected by the public interest should be financed by some other means.

Each city and each county should have the power to establish a priority for conversions in each of the areas affected by the public interest within its boundaries, and this decision should not be left to the discretion of the utilities involved.

Coordination between supply and communication utilities in the conversion of their facilities should also be assured so as to minimize the unnecessary cost and public inconvenience that would otherwise occur if conversion of each type of utility facility took place at different times.

The Department of Defense representing all executive agencies of the Federal Government (Government) supports the concept of undergrounding utility lines in the furtherance of beautification. Government believes that the significantly greater cost of underground distribution must be borne by the users of the utility services.

The Government, in Exhibit 70, pointed out the advantages of 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.

According to the Federal Government, as undergrounding becomes the norm or basic type of service, in lieu of the exception, dual rates would provide the utility companies with the additional revenue to meet the increased expenses. This would result in an acceleration of the undergrounding program as it would not be limited to what a company could afford to contribute to the beautification program, but would result in a program to be implemented at the speed to be determined by the general public. Further in this regard, the underground rates should be based on the utility company financing the complete installation. The continuation of the accepted regulatory theory of rates based on cost of service and value of service principles would result in fair and equitable treatment to all parties.

The Government contends that a dual rate treatment for underground service offers the following advantages:

1. It provides for the implementation of the beautification program at a rate to be established by a combination of the public's interest, the Commission's actions, and the economic and technological ability of the utilities to meet the above demands.

2. It would enhance the utilities' public relations by eliminating the need for rate increases in the future to support an undergrounding program.

3. It would provide that local governmental entities would retain home rule over the program and could implement its co-ordination at any rate desired by the general public by ordinance action.

4. It would comply with accepted regulatory theory by having its foundation based on cost of service and value of service principles.

5. It would provide that no existing customer would receive a rate increase. Currently, all customers receiving underground service have made contributions in aid of construction for the service. The dual rate concept provides that the utility perform and fund the construction and own and maintain the facilities in the same manner as for overhead customers, thus establishing a new subclass of service which at present does not exist.

6. It would lead to future rate reductions as technological and scientific economies are achieved and will not jeopardize the goal of 1.2-cent power suggested as a target in 1980 by the Federal Power Commission's National Power Survey.

Mr. Edwin L. Miller, Jr., testifying as an individual, proposed that an appropriate method for conversion of overhead facilities to underground was through a surcharge method. The term "surcharge" as used in his proposal means an extra fixed charge based in general on the cost of undergrounding to the utility and which would appear prorated on each benefited ratepayer's bill within a particular underground district, in addition to all other service charges. His proposal would apply only to conversion from overhead to underground.

Position of Commission Staff

It is the position of the Commission staff that existing conversion programs should be expanded, and that the proposals of

PG&E and SDG&E will provide a step forward to acquire further experience with the conversion problem. The amount of conversion which as taken place or which is presently taking place has not been significant enough, the staff maintains, to provide a basis for determining the desirability of a uniform statewide rule, and therefore further experience should and must be provided. The staff states that the PG&E and SDG&E programs indicate a very minor decline in rate of return due to the conversion program; that the concept of including a limitation as proposed by the company is necessary to insure that an undue burden on the company's other ratepayers does not develop; and that all of the utility ratepayers are, in essence, sharing a cost of such conversion but the limitation assures that the burden is not an undue one.

The staff submits that after several years' experience, these various conversion programs can be reviewed to determine the desirability of a uniform statewide rule on conversions, as well as the desirability of expanding the conversion programs and that only after a reasonable length of time of implementation of the conversion proposals can it be readily determined to what extent the program should be modified.

With respect to Edison, the staff submits that although a constant volume of conversions is indicated by Edison's evidence it can be assumed that the volume could be increased to meet requirements. If the Edison program does not meet the requirements of the public, further modifications can be made.

The staff contends that the period of accumulation of funds allocated by the utility should be a reasonable length of time as long as the political subdivision has an undergrounding program; that there should be a coordinated effort between the utility and

the political subdivision involved to establish a conversion program which is in the public interest; that mere company convenience should not be the sole criterion; and that it is contemplated that the proposals of PG&E and SDG&E will actually bring about an increase in level of conversions which are presently taking place.

Section 5896 et seq., of the Streets and Highways Code provides a vehicle by which a given segment of the public can, by sharing the expense, obtain conversion of the overhead facilities to underground. The staff submits that conversions under this code should be coordinated with the conversion activities of the utility, and thus enhance the increasing benefits inherent in the orderly conversion of overhead facilities. The staff contends that coordination between these two concepts will provide a means of sharing the costs for conversions between the general utility ratepayer and the benefitting property owners.

It is the staff's opinion that surcharge rates, such as Schedule "U" of Edison, are unnecessary. It is also of the opinion that such rates are not desirable since so many different types of underground systems are in use and the customer shares in the initial cost of undergrounding in some situations and not in others.

The surcharge rate concept, thus far, has only been utilized by Edison. The surcharge rate concept of Edison has, according to the staff, actually discouraged undergrounding. It submits that this concept is not compatible with the difference-in-cost concept presently authorized and followed for new construction. Furthermore, according to the staff, the record is devoid of any evidence to establish a foundation for a distinction between conversions that would be made at the company's expense under the auspices of "company convenience" and those which may be made under

the application of Schedule "U", and that there is a complete absence of any evidence establishing the reasonableness of the level of rates contained in Edison's Schedule "U" in relation to current undergrounding costs.

It is the staff's opinion that the orderly conversion of overhead facilities can be achieved in part by the development of master plans for underground construction; that the utilities should adopt a liberal conversion policy when considering the reinforcement of the replacement of overhead facilities; and that all underground facilities, whether paid in whole or in part by the property owner, should be owned and maintained by the utility.

Discussion

The record shows conclusively that the cost of converting existing electric and communications facilities to underground would be prohibitive if programmed in the short run (10 years). The record is equally conclusive that the long-run proposals (so-called two percent of revenue rule) advocated by PG&E and SDG&E, if adopted by this Commission, would get the program started but the remainder of this century might not be a long enough period to produce spectacular results.

The Commission is concerned that a reasonable balance be maintained between gaining the advantages of underground service and controlling expenditures so that unreasonable burdens do not fall upon the general ratepayer. For that reason it is important that rules and practices provide alternatives for the division of cost between the utility and the benefitting property owner. Benefitting property owners may be sufficiently interested to participate in financing a portion of the costs as is permitted under the present and proposed rules and can be accomplished under legislation now in effect, i. e., Sections 5103, 10110, 10111, and 5896 of the Streets and Highways Code.

There is merit to a uniform statewide approach to the problem of conversion, though we are not unmindful broader experience than we have now might show a superior approach to be apparent. The Commission is of the opinion, furthermore, that participation at the local level is not only desirable but should stimulate greater interest and incentives in the entire program. The magnitude of future expenditures for conversion will be dependent on the public demand and on the impact of other changes on the economics of utility service.

In order that any program be sufficiently flexible, it would be unwise to place an absolute limit on the amounts to be expended or, on the other hand, to require minimum expenditures. It is the utility's responsibility to proceed with conversion projects and annually to budget amounts to accomplish this end. On this record we believe the large electric utilities could budget significant amounts for 1968 for aesthetic conversions, over and above what they presently project to be expended for operational convenience conversions or to meet commitments. The utilities will, of course, be expected to budget increasing amounts in subsequent years to meet the demand and need for aesthetic conversions.

The annual budgeted amount will pertain to replacement of overhead with underground distribution facilities under Section A of Appendix D of the rules ordered herein. Any other expenditures by the utilities for replacement of overhead with underground facilities, as suggested above, would be in addition thereto. Each electric utility will be required to file annually a statement setting forth its annual budgeted amount for the replacement of overhead with underground facilities, together with the amounts allocated to each city and unincorporated area. Respondent electric and communications utilities will be required to file reports

annually on the conversion work accomplished. The Commission recognizes that the smaller utilities serving predominantly outside of urban areas may not experience requests for underground conversions or may not be in a position to finance such projects as are requested. Such utilities may request appropriate relief from the Commission where any undue problems exist.

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 that 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.

Although the record indicates the rate surcharge provided by Edison's Schedule "U", approved in 1957, has never been used, it was nevertheless intended to obviate a cost burden on all ratepayers where the benefits of conversion redounded to but a relatively few. Section 5896 of the Streets and Highway Code (enacted in 1966), and the conversion programs ordered herein, provide for the same safeguards for the general ratepayer but in terms of up-to-date costs and conditions. Under the circumstances, Edison's Schedule "U" will be ordered cancelled.

New Construction

During the course of the proceeding, numerous proposals were made by various parties concerning the issue of new construction.

In its opening brief, PG&E, in accordance with the terms of submission of this matter, proposed a new rule for new underground construction in new subdivisions.[7/] PG&E characterized its proposal, which generally would treat undergrounding as the norm in new subdivision construction, as "a radical departure from past utility practices".

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. PG&E will be requested to provide additional data to all parties by letter and parties will be given an opportunity to provide written comments to this Commission.

Commission Policy

It is the policy of this Commission to encourage undergrounding. The record discloses that sufficient evidence has been adduced with respect to two of the three material issues before us; namely, service connections and conversions.

7/ See Appendix F.

Findings

After considering the evidence we find that:

1. The citizens of California through their elected officials and representatives have indicated a demand for underground electric and communications facilities.

2. The conversion rules herein authorized should provide a framework for the electric utilities and communications utilities to proceed with a reasonable program.

3. The conversion rules herein authorized nullify Edison's Schedule "U".

Conclusions

The Commission concludes that:

1. Uniform policies and practices should be followed by all electric utilities and by all communications utilities in the installation of service connections.

2. All respondent electric utilities should be ordered to file a service connection rule substantially as set forth in Appendix B.

3. All respondent communications utilities should be ordered to file a service connection rule substantially as set forth in Appendix C.

4. All respondent electric utilities should be ordered to file a conversion rule substantially as set forth in Appendix D.

5. Edison's Schedule "U" should be cancelled.

6. All respondent communications utilities should be ordered to file a conversion rule substantially as set forth in Appendix E.

7. The issues concerning new construction should be resolved in a further order.

INTERIM ORDER

The above-entitled matters having been considered and the Commission having found that an interim order should be issued; therefore,

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 B 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 service connections.

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 the rule substantially as set forth in Appendix C 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 service connections.

3. 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 as set forth in Appendix D 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 conversion of electric lines.

4. Southern California Edison Company's Schedule U (Revised CPUC Sheet No. 2816-E) is cancelled.

5. 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 the rule as set forth in Appendix E 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 conversion of telephone lines.

6. Each respondent electric utility shall file with this Commission, within sixty days after the effective date of this order, and annually thereafter, a statement setting forth its annual budgeted amount for the replacement of overhead with underground facilities, together with the amounts allocated to each city and unincorporated area under Section A of the rule prescribed in Appendix D.

7. Each respondent electric utility and each respondent communication utility shall submit to this Commission annually a full report on conversion work completed during the preceding year, including a listing and description of each project and indicating the distribution of costs as between the utility and others. The first such report for the year 1966 shall be submitted within sixty days after the effective date of this order and subsequent reports on or before April 1 of each year.

8. All motions not consistent with the findings in the opinion part of this decision, and not consistent with the rules provided in Appendices B, C, D and E herein, are denied.

The effective date of this order shall be twenty-five days after the date hereof.

Dated at San Francisco, California, this 19th day of SEPTEMBER, 1967.

President

Commissioners

Commissioner William M. Bennett, being necessarily absent, did not participate in the disposition of this proceeding.

LIST OF APPEARANCES

FOR RESPONDENTS:

Pillsbury, Madison & Sutro, Arthur T. George and John A. Sutro, by George A. Sears and John A. Sutro, Jr., for The Pacific Telephone and Telegraph Company; Rollin E. Woodbury and H. Clinton Tinker, by H. Clinton Tinker, for Southern California Edison Company; F. T. Searls, John C. Morrissey and Malcolm A. MacKillop, for Pacific Gas and Electric Company; Brobeck, Phleger & Harrison, by Gordon E. Davis and Robert N. Lowry, for Pacific Power & Light Co.; John P. Vetromile and Orrick, Dahlquist, Herrington and Sutcliffe, by James F. Crafts, Jr., for California-Pacific Utilities Company; A. M. Hart and Donald J. Duckett, by Donald J. Duckett, for General Telephone Company of California; Richard G. Campbell and R. P. Cromer, for Sierra Pacific Power Company; Wm. G. Sebastian, for Kerman Telephone Co.; William W. Eyers, for Southern California Water Company; O. M. Spear, for Mountain Empire Electric Co-operative; Chickering and Gregory, by Sherman Chickering and C. Hayden Ames also Stanley Jewell, for San Diego Gas & Electric Co.; A. E. Engel, for Plumas-Sierra Rural Electric Cooperative; Harvey Schmidt, for Western Union Telegraph Co.; A. M. Hart and Donald J. Duckett, by Donald J. Duckett, for Western California Telephone Company and California Water and Telephone Company; James H. Krieger, for Continental Telephone Company Subsidiaries in California.

INTERESTED PARTIES:

Harold Gold, Marvin Morse and Stuart R. Foutz, for The Department of Defense and Other Executive Agencies of the United States Government; William L. Knecht, for California Farm Bureau Federation; Thomas M. O'Connor, McMorris M. Dow, Robert R. Laughead, for City and County of San Francisco; Neal C. Hasbrook, for California Independent Telephone Association; William C. Sharp, James Austin, Howard W. Carmak, for the City of Oakland; Cooper, Schnake and Rader, by Fred F. Cooper and Richard Rader, for Home Builders Council of California; Harvey L. Goth, Erick W. Martens and R. R. Edsall, for Southern California Gas Co. and Southern Counties Gas Co.; Alan R. Watts and Gordon W. Hoyt, for City of Anaheim; Cheriel M. Jensen, for the League of Women Voters of Central Santa Clara Valley; Henry E. Jordan and Louis Possner, for Bureau of Franchises and Public Utilities, City of Long Beach; Edwin Fleischmann, for California Manufacturers Association; Malcolm E. Uptegraff and Phil J. Shafer, for the City of Long Beach; J. A. Wade, Parker M. Robinson and C. G. Ferguson, for California Water Service Company; Norman Andrews, for San Jose Water Works; Charles W. Sullivan, Robert W. Russell and K. D. Walpert, for City of Los Angeles; Morgan, Beauzay & Holmes, by David W. Leahy, for San Francisco Bay Area Labor Management Committee for the Electrical Construction Industry; Daniel J. Curtin, Jr., for the City of Walnut Creek;

LIST OF APPEARANCES

Wayne N. Frederickson, for Alameda County; Herbert Gardner, for Varian Associates of Vallco Park; Walter P. Ward, for Vallco Park; Hubert C. Cavanagh, James Milch and John W. Witt, for the City of San Diego; Mrs. Philip W. Kearney, for Marin Conservation League; Eugene Deuprey, for the Department of Housing Alameda and Contra Costa Counties; Robert T. Anderson, for the City of Berkeley; Norris Rawles, for the City of San Rafael; Frank Finney and Adde Laurin, for the City of Cupertino; James P. O'Drain, for the City of Richmond and Mayors Conference Committee on Underground Utilities (Alameda and Contra Costa Counties); James R. Johst, for Alameda County Planning Department; Lawrence N. Foss, for International Brotherhood of Electrical Workers, Local 1245; Joseph Ziff, for International Brotherhood of Electrical Workers, Local Union 6; William J. Adams, for the City of Novato; John Bonadelle, for Fresno Home Builders; Charles Bras, for the City of Walnut Creek; F. B. Finney, for the City of Cupertino; George N. Harter, for the Ninth District Council National Electrical Contractors Association; Norman P. Ingraham, for the City of Santa Clara; Mrs. James Wiley, for California Roadside Council; Mrs. James S. Hughes, for Sierra Club; John R. Ficklin, for the City of Vallejo, Stephen M. Heller, for Northern California Chapter and East Bay Chapter, American Institute of Architects; Stanley Hiller, in propria persona; Martin Rosen & Duncan Davidson, by Duncan Davidson, for IBEW, Local 1245; John A. Van Ryn, for City of Santa Maria; Ralph E. Anderson, for League of California Cities; Edward O. Ansell, for Claremont Civic Association; Paul L. McKaskle, for the County of Ventura; Garcd N. Smith, for the California Council of the American Institute of Architects and the Orange County Chapter A.I.A.; Hill, Farrer & Burrill, by C. M. Gould, for National Electrical Contractors Association Los Angeles Chapter; Charles H. McCrea, Robinson & Mills, by Harlo L. Robinson, for Southwest Gas Corporation; Jason Lane, for Manhattan Beach Residents Association; Melvin G. Bakeman, for Monterey County; John E. Stevens, for the City of Hermosa Beach; William J. O'Connor, for Santa Monica Property Taxpayers Association; Zach Redington Stewart, in propria persona; Hal Kapp, for Palm Desert Chamber of Commerce; Curran, Golden, McDevitt & Martin, by Robert O. Curran, for Mercy Hospital; B. James Polak and LeRoy W. Knutson, for the City of La Mesa; Etta Linton, in propria persona; Mrs. Hazel Irene Stockman, for the City of National City; Francis Hoey, for the City of Martinez; Charles J. Williams, for the City of Pleasant Hill; Leland F. Reaves, for the City of San Pablo; Saul M. Weingarten, for the City of Seaside; Russell R. Ofria, for Kaufman and Broad Homes; Richard Godino, for County of Marin; Eugene B. Jacobs and Catherine P. McAndrew, for Commission and Department of Housing and Community Development of the State of California; J. L. Mulloy, for Department of Water & Power, City of Los Angeles.

COMMISSION STAFF:

Timothy E. Treacy, Robert C. Marks, Counsel, Walter J. Cavagnaro and Kenneth J. Kindblad.

UNDERGROUND SERVICE CONNECTIONS FROM UNDERGROUND SYSTEM

a. General

(1) In areas where the utility maintains an underground distribution system individual service connections (service laterals) will be underground.

(2) In all instances where the utility owns and maintains on the applicant's property, either a distribution junction box, manhole, transformer, enclosure or a service lateral, the applicant shall provide without cost to the utility, the necessary rights-of-way or easements.

(3) In all cases where the utility furnishes at its expense conductors and conduits, the term "conduit" means the conduit portion of cable-in-conduit. If other types of conduit are required, the applicant will furnish and install them.

(4) Whenever the utility's underground distribution system is not complete to the point designated by the utility where the lateral service is to be connected to the distribution system, the system may be extended in accordance with Rule No. 15.

b. New Underground Service Connections from Underground System

(1) Secondary Service (2,000 volts or less)

The utility will install a service lateral from its distribution line to the applicant's termination facilities under the following conditions:

(a) The applicant, at his expense, shall perform the necessary trenching, backfill and paving on his property and

shall furnish, install, own and maintain termination facilities on or within the building to be served.

(b) The utility, at its expense, will furnish, install, own and maintain the underground service lateral to the applicant's termination facilities where the length of the service lateral on the applicant's property is 100 feet or less, except as provided in (c) below. Where the distance is over 100 feet, the utility will furnish, install, own and maintain the service lateral for the entire length, and the applicant shall pay to the utility the cost of the conductors and the conduit for the length exceeding 100 feet, except as provided in (c) below.

(c) Whenever the service lateral terminates inside the applicant's building, the applicant shall furnish, install, own and maintain that portion of the conduit or duct located inside of the outer building line.

(d) The utility will determine the size and type of the service lateral conductors and of that portion of the conduit furnished by the utility.

(e) Transformer Installation on Applicant's Premises
In those instances where utility-owned transformers are installed on the applicant's premises under the applicable portions of this rule, the service facilities will be installed under the following conditions:

(i) The applicant, at his expense, shall perform all necessary trenching, backfill and paving for the underground primary distribution line and service lateral on his property.

(ii) The utility, at its expense, will furnish, install, own and maintain the primary conductors and conduit from its distribution supply line to the transformer and the secondary service lateral conductors from the transformer to the applicant's termination facilities; provided, however, that the applicant shall pay to the utility the cost of the conductors and conduit for any length on applicant's property exceeding 100 feet; except as provided in (c) above.

(iii) The utility will determine the size and type of the primary and service lateral conductors.

(f) Unusual Conditions of Service Installation

(i) In cases where the applicant's building to be served is located so that an obstruction such as plowed land or other deterrent obstacle between the utility's distribution system and the building prevents the utility from prudently owning and maintaining an underground service, the service point will be at such location on the applicant's property as may be mutually agreed upon, or if the applicant so chooses, the service point will be at or near the applicant's property line or in an easement on his property in which the distribution system is located.

(ii) The utility, at its expense, will install the necessary distribution junction box, manhole or transformer enclosure at the service point and

will furnish, install, own and maintain the underground conductors and conduit from the distribution system to the service point.

(iii) The applicant, at his expense, shall perform the necessary trenching, backfill and paving on his property and shall pay the utility the cost of the conductors and conduit (including CIC if used) for that portion of the distance exceeding 100 feet.

(iv) The applicant will furnish, install, own and maintain the lateral service from the service point to his building subject to approval by the utility of the number, size, type, location and manner of installation.

(2) Primary Service (over 2,000 volts)

Where an applicant requests electric service at a line voltage in excess of 2,000 volts, the applicant shall furnish, install own and maintain the underground primary and secondary facilities including any transformers and shall extend the primary conductors to a location designated by the utility at or near the applicant's property line or in an easement on his property in which the utility's distribution system is installed. The method of installation and the type and size of the underground primary facilities shall be subject to approval by the utility.

The utility, at its expense, will connect the applicant's primary conductors to its distribution system.

c. Underground Installation Replacing Existing Overhead Systems

Where an existing overhead distribution system is replaced by an underground distribution system, underground service will be

supplied in the same manner and subject to the same conditions as for new installations under b. above.

d. Replacement or Reinforcement of Existing Underground Service Connections

(1) When an existing customer-owned service lateral requires replacement or reinforcement due to added loads, etc., such replacement or reinforcement will be accomplished under the provisions of b. above and the following conditions:

(a) Portion To Be Owned and Maintained by Utility Under the Provisions of b. Above.

The utility will determine if any part of the existing customer-owned service lateral can be utilized. The customer will convey any usable part so determined to the utility, and the utility will allow the customer an appropriate credit for it.

(b) Portion To Be Owned and Maintained by Customer Under the Provisions of b. Above.

The customer will replace or reinforce that portion which he will continue to own subject to approval by the utility of the number, size, type, location and manner of installation.

(2) When an existing utility-owned service lateral requires replacement or reinforcement due to added loads, etc., the utility at its expense will replace or reinforce it under the following provisions:

(a) The customer, at his expense, shall replace or reinforce such portion, if any, of the service lateral which he owns and maintains.

(b) Where, in the utility's judgment, a transformer installation is required on the customer's premises, the customer shall furnish, install, own and maintain a transformer room, pad or enclosure as provided in this rule and any conduit or duct within his building and shall provide a suitable location and route for the utility's primary and/or secondary conductors and the necessary conduit or duct up to the building, all as agreed to by the utility.

TELEPHONE DEFINITIONS

Certain terms and phrases used in the following Rules and Regulations have the meaning as given in the definitions set forth below.

1. Service Connection.

Drop and block wiring or cable, including protective conduit where used, from the point of connection with the company's distribution facilities to the point of connection with the inside wiring at the premises served.

2. Trenching Costs.

Cost of excavating, backfilling and compacting, and, where necessary, cost of breaking and repaving pavement and of restoring landscaping.

3. Underground Supporting Structure.

Conduit, manholes, handholes, and pull boxes where and as required plus trenching costs as defined in 2. above.

4. Line Extension.

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

5. 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 residential telephones.

RULE NO. _____

TELEPHONE SERVICE CONNECTIONS

I. General

A. Except as otherwise provided in these Rules, the Company will, at its own expense, furnish, install and maintain

all facilities necessary to serve applicants or subscribers in accordance with its lawful rates, rules and current construction standards.

B. The Company will determine the specific type of construction and route to be used in each particular case.

II. New Underground Service Connections

When applicant or subscriber, including subdivider or developer, either requests or is lawfully required to provide underground facilities, the Company will furnish such service under the following conditions with respect to underground service connections. Underground line extensions are covered under the line extension schedule.

A. To Property of Applicant or Subscriber, Including Subdivider or Developer. (Service Connections)

1. Tracts or Subdivisions

The Company will construct underground service connections without charge where right-of-way can, in the Company's judgement, be reasonably obtained, and where soil conditions and topography are such that trenching costs will not materially exceed the Company's average trenching costs. Where right-of-way or trenching costs are materially excessive, the subdivider or developer will pay the difference between that cost and average right-of-way and/or trenching costs.

2. All Other Cases

In all cases other than those included in II.A.1, if the applicant or subscriber requests underground construction he will be required to pay the difference between the cost of providing underground service

connection and the estimated cost of constructing the aerial equivalent. In lieu of all or part of such payment the applicant or subscriber may furnish such materials or perform such work as may be mutually agreed between the Company and the applicant or subscriber. Upon acceptance by the Company, ownership of any material so furnished shall vest in the Company.

B. On Property of an Applicant or Subscriber, Including Subdivider or Developer (Service Connection).

1. Where the Company determines that conduit is to be used for the service connection, the applicant or subscriber will furnish, install and maintain at his expense the required conduit in accordance with the Company's specifications, or
2. Where the Company determines that buried wire or buried cable is to be used for the service connection, the applicant or subscriber will provide or pay the cost of the underground supporting structure, and
3. In either 1. or 2. above the Company will at its expense furnish, install and maintain the service connection wire or cable.
4. When, for its own operating convenience, the Company desires to construct and maintain underground facilities on the property of an applicant or subscriber, such facilities will be provided at no charge to applicant or subscriber.

RULE NO. _____

REPLACEMENT OF OVERHEAD WITH UNDERGROUND DISTRIBUTION FACILITIES

A. The utility will, at its expense, replace its existing overhead distribution facilities with underground distribution facilities along public streets and roads, provided that:

1. The governing body of the city or county in which such distribution facilities are and will be located has

a. Determined, after consultation with the utility and after holding public hearings on the subject, that such undergrounding is in the general public interest for one or more of the following reasons:

Such undergrounding will avoid or eliminate an unusually heavy concentration of overhead distribution facilities;

Said street or road or right-of-way is extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;

Said street or road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.

b. Adopted an ordinance creating an underground district in the area in which both the existing and new facilities are and will be located requiring, among other things, (1) that all existing overhead communication and electric distribution facilities in such district shall be removed, and (2) that each property owner served from such electric overhead distribution facilities shall provide, in accordance with the utility's rules for underground service, all electrical facility changes on his premises necessary to receive service from the underground facilities of the utility as soon as it is available, and (3) authorizing the utility to discontinue its overhead service.

2. The utility's total annual budgeted amount for undergrounding within any city or the unincorporated area of any county shall be allocated in the same ratio that the number of customers in such city or unincorporated area bears to the total system customers. The amounts so allocated may be exceeded where the utility establishes that additional participation on a project is warranted. Such allocated amounts may be carried over for a reasonable and necessary period of time in communities with active undergrounding programs. In order to qualify as

(Continued)

RULE NO. _____ (Continued)

REPLACEMENT OF OVERHEAD WITH UNDERGROUND DISTRIBUTION FACILITIES
(Continued)

A.2. (Continued)

a community with an active undergrounding program the governing body must have adopted an ordinance or ordinances creating underground district and/or districts as set forth in Section 1B of this rule. Where there is a carry-over, the utility has the right to set, as determined by its capability, reasonable limits on the rate of performance of the work to be financed by the funds carried over. Where amounts are not expended or carried over for the community to which they are initially allocated they shall be assigned where additional participation on a project is warranted or be reallocated to communities with active undergrounding programs.

3. The undergrounding extends for a minimum distance of one block or 600 feet, whichever is the lesser.

B. In circumstances other than those covered by A. above, the utility will replace its existing overhead distribution facilities with underground distribution facilities along public streets and roads or other locations mutually agreed upon when requested by an applicant or applicants where all of the following conditions are met:

1. a. All property owners served from the overhead facilities to be removed first agree in writing to perform the wiring changes on their premises so that service may be furnished from the underground distribution system in accordance with the utility's rules and that the utility may discontinue its overhead service upon completion of the underground facilities, or

b. Suitable legislation is in effect requiring such property owners to make such necessary wiring changes and authorizing the utility to discontinue its overhead service.

2. The applicant has:

a. Furnished and installed the pads and vaults for transformers and associated equipment, conduits, ducts, boxes, pole bases and performed other work related to structures and substructures including breaking of pavement, trenching, backfilling, and repaving required in connection with the installation of the underground system, all in accordance with the utility's specifications, or, in lieu thereof, paid the utility to do so;

(Continued)

RULE NO. _____ (Continued)

REPLACEMENT OF OVERHEAD WITH UNDERGROUND DISTRIBUTION FACILITIES (Continued)

B.2. (Continued)

b. Transferred ownership of such facilities, in good condition, to the utility; and

c. Paid a nonrefundable sum equal to the excess, if any, of the estimated costs, exclusive of transformers, meters and services, of completing the underground system and building a new equivalent overhead system.

3. The area to be undergrounded includes both sides of a street for at least one block or 600 feet, whichever is the lesser, and all existing overhead communication and electric distribution facilities within the area will be removed.

C. In circumstances other than those covered by A. or B. above, where mutually agreed upon by the utility and an applicant, overhead distribution facilities may be replaced with underground distribution facilities, provided the applicant requesting the change pays, in advance, a nonrefundable sum equal to the estimated cost of the underground facilities less the estimated net salvage value and depreciation of the replaced overhead facilities. Underground services will be installed and maintained as provided in the utility's rules applicable thereto.

D. The term "underground distribution system" means an electric distribution system with all wires installed underground, except those wires in surface mounted equipment enclosures.

APPENDIX E

RULE NO. _____

FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES

I. Replacement of Aerial with Underground Facilities

A. In Areas Affected By General Public Interest.

The Company will, at its expense, replace its existing aerial facilities with underground facilities along public streets and roads, and on public lands and private property across which rights-of-way satisfactory to the Company have been obtained, or may be obtained without cost or condemnation, by the Company, provided that:

1. The governing body of the city or county in which such facilities are located has

a. Determined, after consultation with the Company and after holding public hearings on the subject, that undergrounding is in the general public interest in a specified area for one or more of the following reasons:

1. Such undergrounding will avoid or eliminate an unusually heavy concentration of aerial facilities;

2. Said street, or road or right-of-way is in an area extensively used by the general public and carries a heavy volume of pedestrian or vehicular traffic;

3. Said street, road or right-of-way adjoins or passes through a civic area or public recreation area or an area of unusual scenic interest to the general public.

b. Adopted an ordinance creating an underground district in the area requiring, among other things,

1. That all existing and future electric and communication distribution facilities will be placed underground, and

2. That each property owner will provide and maintain the underground supporting structure needed on his property to furnish service to him from the underground facilities of the Company when such are available.

(Continued)

RULE NO. _____ (Continued)

FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Continued)

A. In Areas Affected By General Public Interest. (Continued)

2. The Company will replace its aerial facilities at the time and only to the extent that the overhead electric distribution facilities are replaced.

B. At the Request of Governmental Agencies or Groups of Applicants.

In circumstances other than those covered by A. above, the Company will replace its aerial facilities located in a specified area with underground facilities along public streets and roads, and on public lands and private property across which rights-of-way satisfactory to the Company have been obtained, or may be obtained without cost or condemnation, by the Company upon request by a responsible party representing a governmental agency or group of applicants where all of the following conditions are met:

1. All property owners served by the aerial facilities to be replaced within a specific area designated by the governmental agency or group of applicants first agree in writing, or are required by suitable legislation, to pay the cost or to provide and to transfer ownership to the Company, of the underground supporting structure along the public way and other utility rights-of-way in the area, and

2. All property owners in the area are required by ordinance or other legislation, or all agree in writing, to provide and maintain the underground supporting structure on their property, and

3. The area to be undergrounded includes both sides of a street for at least one block, and

4. Arrangements are made for the concurrent removal of all electric and communication aerial distribution facilities in the area.

C. At the Request of Individual Applicants

In circumstances other than those covered by A. or B. above, where mutually agreed upon by the Company and an applicant, aerial facilities may be replaced with underground facilities, provided the applicant requesting the change pays, in advance, a nonrefundable sum equal to the estimated cost of construction less the estimated net salvage value of the replaced aerial facilities.

(Continued)

RULE NO. _____ (Continued)

FACILITIES TO PROVIDE REPLACEMENT OF AERIAL WITH UNDERGROUND FACILITIES (Continued)

D. At Company Initiative

The Company may, from time to time, replace sections of its aerial facilities with underground facilities at Company expense for structural design considerations or its operating convenience.

II. Interior Wiring

The interior wiring in buildings to provide telephone service to the occupants will be furnished, installed and maintained by the Company and the Company will not be required to connect its facilities and instrumentalities with interior wiring furnished and installed by others. If the owner of a building under construction elects to furnish and install interior wiring which conforms with the specifications of the Company, the Company may use such interior wiring until ownership of same is acquired by the Company from the building owner.

PROPOSED RULE NO. 15.1

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 in advance of receipt of applications for service will be made by the utility in accordance with the following provisions:

A. General. 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 furnish, install and deed to the utility any necessary duct required, all in accordance with the utility's specifications. All work by the developer shall be performed at such times and in a manner which will permit the utility to perform its work without delay and in an efficient manner.

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 wires and cables, pad-mounted transformers and associated equipment.

   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.

(Continued)

PROPOSED RULE NO. 15.1

UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS
(Continued)

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. 15, except that the free footage allowances listed in Sections B.1.a. and B.1.b of Rule No. 15 will be reduced by 50 percent for those appliances installed within the subdivision.

4. Underground services will be installed and maintained as provided in Rule No. 16.

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

C. Advances by Developer

1. The developer shall pay to the utility a non-refundable amount equal to $1.45 per foot times the total footage of property fronting on streets within the subdivision (including public or common use property) that is in excess of the sum of 125 feet times the total number of single-family and/or multi-family lots and 25 feet times the number of separately metered dwelling units in excess of two in each multi-family building.

2. The developer shall advance to the utility, before start of construction, the estimated cost (exclusive of transformers, meters, and services) of the underground extension within the subdivision, such advance to be the product of $3.05 per foot and the total footage of property fronting on streets within the subdivision less any non-refundable amount determined under Section C.1. above; however, 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 shall be postponed for six months if 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 utility shall collect all such amounts not previously advanced which are not then refundable.

(Continued)

PROPOSED RULE NO. 15.1

UNDERGROUND EXTENSIONS WITHIN NEW RESIDENTIAL SUBDIVISIONS
(Continued)

D. Refund of Advance

The amount advanced in accordance with Section C.2. will be subject to refund as follows:

1. When a building has been completed on a lot within the subdivision and service is supplied to a separately metered permanent customer by the utility, an advance will be subject to refund; will be made without interest; and will be made promptly, but in no event later than 90 days after date of first service to such customer.

2. For such customer the utility will refund an amount equal to the total advance divided by the total number of lots within the subdivision.

3. Any remainder of the advance not yet refunded will be refunded in total when dwellings have been completed and occupied on 90% of the total number of lots within the subdivision.

4. In the event that dwellings have not been completed and occupied on 90% of the total number of lots within the subdivision at the end of 12 months after completion of the underground extension, the developer will pay to the utility its ownership costs of 3/4 of one percent per month of the balance of the advance not yet eligible for refund. Payment of such ownership costs will be made by a deduction from the developer's advance and such amount will no longer be refundable.

5. No payment will be made by the utility in excess of the 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.

E. Special Conditions

1. Exceptional Cases. In unusual circumstances, when the application of these rules appears impractical or unjust to either party, the utility or applicant shall 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.