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Decision S3 08 031

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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| In the Matter of the Application of THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a corporation, for authority to increase certain intrastate rates and charges applicable to telephone services furnished within the State of California. | Application 59849 (Filed August 1, 1980; amended August 28, 1980 and October 14, 1980) |
| In the Matter of the Application of THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a corporation, for authority to increase certain intrastate rates and charges applicable to telephone services furnished within the State of California. | Application 59269 (Filed November 13, 1979; amended November 15, 1979) |
| Re Advice Letter (PT&T) No. 13640 to reprice certain telephone terminal equipment and Resolution No. T-10292 granting approval of said changes. | Application 59858 (Filed August 1, 1980) |
| In the Matter of Advice Letter Filing No. 13641 of THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY for authority to increase certain rates for key telephone service by $30.1 million. | Application 59888 (Filed August 19, 1980) |

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| Investigation on the Commission's own motion into the rates, tolls, rules, charges, operations, costs, separations, inter-company settlements, contracts, service, and facilities of THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a California corporation; and of all the telephone corporations listed in Appendix A, attached hereto. | OII 63 (Filed December 18, 1979) |
| Investigation on the Commission's own motion into the rates, tolls, rules, charges, operations, costs, separations, inter-company settlements, contracts, service, and facilities of THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a California corporation; and of all the telephone corporations listed in Appendix A, attached hereto. | OII 81 (Filed August 19, 1980) |
| Investigation on the Commission's own motion into the Matter of Revision of the Accounting for Station Connections and related Ratemaking Effects and the Economic Consequences of Customer-owned Premise Wiring. | OII 84 (Filed December 2, 1980) |

(See Decisions 93367, 93728, and 82-08-01 for appearances.)

## OPINION ON ORDERING PARAGRAPHS 16.a, c, AND f OF DECISION 93367 AND REQUEST OF PACIFIC FOR ADDITIONAL DEPRECIATION ALLOWANCES

In Interim Decision (D.) 93367 dated August 4, 1981, the Commission ordered further hearings on three issues which are the subject of this decision. Those issues were set forth in Ordering Paragraphs 16.a, c, and f of D.93367 (mimeo. p.229) which ordered hearings concerning:

> "a. An appropriate method for allocating to the proper user any net stranded investment as a result of Pacific's migration strategy and the establishment of nonregulated operations on March 1, 1982, as required by the FCC Computer Inquiry II decision."
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> "c. Studies by Pacific and the staff to determine the kinds of equipment which may have been retired prior to being fully depreciated, the associated amount of undepreciated or stranded investment, and a method for recovering fairly any stranded investment."
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> "f. Depreciation rates used for ratemaking."

In that same decision the Commission commented at mimeo. p. 42 on the overall percent condition of The Pacific Telephone and Telegraph Company's (Pacific) reserve account which the Commission considered to be too high.

In November 1981 Pacific filed new remaining life rates with this Commission for all of its depreciable plant. This filing was part of an annual review of depreciation rates for Pacific under the Commission's determination of straight line remaining life depreciation for ratesetting purposes.

On January 28, 1982 the Federal Communications Commission (FCC), as a result of an earlier request by the affiliated Bell System companies including Pacific, approved represcribed customer

premises equipment (CPE) depreciation rates. On February 4, 1982 this Commission adopted Resolution RRD-10 approving new 1981 remaining life rates for Pacific. This approval included new rates for CPE consistent with the CPE rates approved by the FCC in its January 28, 1982 order. In granting this approval the Commission noted that revenues to offset the increased depreciation expense were under consideration in the continued hearings in Application (A.) 59849, this proceeding.

As ordered by D.93367 further hearings were held during 1981 and 1982 on the three matters covered by Paragraphs 16.a, c, and f, including a public hearing on July 12, 1982 in San Francisco. In response to Paragraph 16.f Pacific filed exhibits and gave testimony at the further hearings which adjusted upward the depreciation rates found reasonable for test year 1981 in D.93367. That upward adjustment of depreciation translated to a request by Pacific for an increase in revenue requirement for the test year 1981. The Commission staff (staff) and other parties maintained that Pacific had not satisfied the notice requirements applicable to rate increases and, therefore, its request for increased rates due to additional depreciation should be denied. A formal objection was made through a written motion filed by certain intervenors on February 3, 1982, joined in by a written response of the staff on February 26, 1982, and orally by the City and County of San Francisco at the March 18, 1982 hearing. Pacific opposed the motion primarily because the additional revenue requested was within the total amount requested in A.59849 less the amount granted by D.93367 and because D.93367 was an interim decision which ordered further hearings on the level of depreciation. The motion was denied by the presiding administrative law judge (ALJ). We affirm the ALJ's ruling.

Pacific later made a motion to the ALJ for leave to file a written amendment, its third, to A.59849; it included in that motion a request that the Commission or the ALJ approve its request as being consistent with the Commission's Regulatory Lag Plan under which

A.59849 had been filed originally. By written ruling filed June 4, 1982 the ALJ granted Pacific's motion noting that its request met all applicable Commission rules and resolutions. We affirm the ALJ's ruling.

Thereafter, on June 7, 1982, Pacific filed its third amendment to A.59849 which requests the Commission to authorize additional revenues for Pacific of $69.9 million per year to cover these items: the increase in 1981 depreciation expense approved by the Commission on February 4, 1982, a change in how depreciation reserve balances are calculated for ratemaking purposes, and an increase to reflect adoption of a modified straight line depreciation method. Specifically, Pacific requests the following increases for test year 1981:

1. An increase of $46.5 million due to the prescription of terminal equipment and digital data system equipment depreciation to reflect shorter service lives and revised salvage factors as approved by the Commission on February 4, 1982.
2. An increase of $9.1 million to reflect the approval by this Commission on February 4, 1982 of 1981 straight line remaining life depreciation rates for all plant accounts other than terminal equipment and digital data system equipment.
3. An increase of $9.2 million to reflect the use of account average remaining lives in plant and depreciation reserve balances as of the beginning of the test year in which the rates are applicable (effective for year 1981 and thereafter) to replace the present method of calculating depreciation rates using account average remaining lives in plant and depreciation reserve balances as of the beginning of the year previous to the test year.
4. An increase of $5.1 million to reflect the proposed adoption of the straight line equal life group (SLELG or ELG) depreciation method for outside plant accounts beginning with 1981.

The Issues

In D.93367 we discussed extensively the matter of Pacific and the Bell System installed base migration strategy. In addition to what we view as a very high percent condition or net plant factor (NPF)[1] for Pacific's reserve account we found that as a result of Pacific's embracing the Bell System migration strategy there might be stranded investment[2] in Pacific's accounts for which there would be no reasonable recovery other than an increase in depreciation rates or some sort of write-off. The migration strategy involved coaxing Bell System equipment customers to replace installed equipment with newer, more modern, Bell System equipment. This was done through special marketing strategies and pricing structures. The displaced older equipment was not always fully depreciated or reusable at other locations. Under the group depreciation accounting method used by Pacific the undepreciated investment is left on the books as rate base even though the asset is retired. This comes about because under group depreciation retired equipment is considered fully depreciated regardless of its age at retirement. For example, if we have an investment account totalling $1,000 with a depreciation reserve of $200, the undepreciated investment is $800 and the percent condition of the account or NPF is 80%, $800/$1,000. Now assume that part of the $1,000 is a single unit which has an investment of $100 and a life of five years which is equal to the average of the entire group. Under group depreciation, a percentage of the $1,000 is booked each year in the depreciation reserve, that percentage being determined by the average life of all units making up the $1,000, including our $100 unit with its life of five years. Further, assume the $100 unit is retired early, say after three years of service instead of five. Under unit depreciation it would have accumulated a reserve of $60, three years times $20 per year.

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[1] Percent condition or NPF is the ratio of undepreciated investment to total investment.

[2] Pacific chooses to call it a reserve deficiency.

However, under group accounting when the item is retired, $100 is retired from the investment account and $100 from the depreciation reserve. So after its retirement, the investment account equals $900 and the reserve account $100 for an NPF of 89%, $800/$900. Note that the undepreciated investment (rate base) has not changed, remaining at $800, the NPF has increased, and the investment against which the depreciation percentage is applied has been reduced. We have disregarded salvage value and cost of removal in this example, neither of which would change the principles illustrated. Simplistically, one can say there is $40 of stranded investment in the account or, when the asset was retired, there was a reserve deficiency of $40. What happens now? Under our remaining life theory of depreciation for ratemaking purposes, we would reevaluate the depreciation percentage we have been applying based on the estimated overall remaining life for the account, a process called "represcription." Under our example, the percentage we have been applying would be raised, that is, the remaining life of the group as a whole would be reduced, which also is what has been happening in actual practice with Pacific. Suppose we had been applying a depreciation rate of 20% to the account. The depreciation would be $200 per year, 20% of $1,000. With no additions or retirements to the account, the undepreciated investment would have been written off in four years, $800/$200. After the retirement of our unit, there is only $900 to apply the 20% rate to, resulting in $180 per year of depreciation. Now it will take 4.4 years to write off the remaining investment, $800/$180. If we still want to write it off in four years, the depreciation rate must be represcribed to 22.2%, $200/$900. Where we formerly had an indicated average life of five years for the total account, 100%/20%, the indicated average life is now 4.5 years, 100%/22.2%.

Pacific's witnesses, in particular Roger H. Bohl, an assistant vice president for Pacific, readily acknowledge there is a

reserve deficiency. That deficiency is explained as an underaccrual of depreciation in past years resulting in a lower than adequate depreciation reserve. No matter what one calls it, the record is clear that Pacific's reserves are too low because the NPF is too high. That could result from several things. First, inaccurate estimates of the average service life and net salvage value of equipment. Second, premature retirement of equipment because of improvements in the state of the art. Third, for the terminal equipment, premature retirements resulting from the migration strategy, i.e. raising prices on older equipment in hopes users would buy new equipment, thereby causing the older equipment to have an earlier than normal retirement, and, fourth, the increasing growth rate.

Other issues have come up during these proceedings because of the FCC Computer Inquiry II (CI-II) decision requiring the establishment of fully separated subsidiaries to handle the sale and furnishing of equipment formerly provided by the operating companies such as Pacific[3] and the modified final judgment (MFJ) in the antitrust case now before Federal Judge Harold H. Greene. Some of the issues resulting from those actions we are addressing outside these proceedings, for example, our filings in the MFJ matter with Judge Greene.

Our concern with the above issues prompted our ordering the further hearings to cover the matters noted by Ordering Paragraphs 16.a, c, and f of D.93367. The main issue in this phase may well be whether the parties, in particular Pacific and the staff, have answered all of the questions we posed by way of those paragraphs.

Pacific's Showing

William M. Turk, a division staff manager, testified for Pacific concerning differences in depreciation methods and the depreciation changes which would be made if the Commission were to

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[3] By FCC order this was done effective January 1, 1983.

grant Pacific's request. Turk also detailed the calculations underlying the revenue requirement increase of $69.9 million. He testified that depreciation is a process to account for capital consumption with the two principal objectives of assuring that capital invested in depreciable plant is fully recovered over the plant's useful life and is allocated as accurately as possible to the accounting periods in which the capital is consumed.

Pacific presently employs the straight line vintage group (VG) whole life method of depreciation for its books of account kept in accordance with FCC rules; for intrastate ratemaking purposes in California the straight line vintage group remaining life (VGRL) method is required by this Commission. Turk testified that neither VG nor VGRL achieve the two objectives of depreciation accounting he identified because they do not correctly attribute depreciation to the time periods in which plant is consumed and in the case of VG full recovery of the original cost of assets is not assured.

Turk testified that Pacific's book depreciation reserve declined from 24% of depreciable plant in 1950 to 22% in 1970. Since 1970 the depreciation reserve percent has declined at an even faster rate; by the end of 1980 the reserve was only 19% of depreciable plant investment.[4] Turk testified that, on the other hand, depreciation reserve for Standard and Poor's 400 industrials is approximately 38%.

Turk stated that competition and accelerating technology are shortening the service lives of Pacific's plant. He expects those underlying forces to continue and become even more pronounced, further accelerating the reduction in service lives. He believes a more timely response to those forces is needed to improve the capital recovery process and recommends review of capital asset life characteristics on a yearly basis rather than every three years.

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[4] The comparable NPF would be: 1950 - 76%; 1970 - 78%; 1980 - 81%.

Turk stated that the FCC has recently approved the SLELG depreciation method for plant additions. He claims this method, which Pacific is asking the Commission to accept for ratemaking purposes, will assure that depreciation accruals will more accurately match the consumption of capital over time; he claims that, in the long run, the revenue requirement is less.

The following will serve as an example of how the three methods discussed differ.[5] Assume four groups of equipment are put into service January 1 of any year; estimated lives for the four groups and investment are as follows:

| | Life | Investment |
|---|---|---|
| Group 1 | 1 Yr. | $100 |
| Group 2 | 2 Yrs. | 100 |
| Group 3 | 3 Yrs. | 100 |
| Group 4 | 4 Yrs. | 100 |
| Total | | $400 |

Straight Line Vintage Group Whole Life (SLVGWL)

$$\text{Average Service Life} = \frac{1+2+3+4}{4} = 2.5 \text{ Yrs.}$$

$$\text{Depreciation Rate} = \frac{100\%}{2.5} = 40\%$$

| Year | Investment | Book Depreciation @ 40% |
|---|---|---|
| 1 | $400 | $160 |
| 2 | 300 | 120 |
| 3 | 200 | 80 |
| 4 | 100 | 40 |
| Total | | $400 |

[5] Appendix A contains a more detailed illustration of the differences and is taken from Turk's Exhibit 415.

Straight Line Vintage Group Remaining Life (SLVGRL)

| Year | Investment (1) | Depreciation Reserve[a] (2) | Depreciated Investment (3)=(1)-(2) | Average Remaining Life[b] (4) | Book Depreciation (5)=(3)÷(4) |
|---|---|---|---|---|---|
| 1 | $400 | $ 0 | $400 | 2.5 | $160 |
| 2 | 300 | 60 | 240 | 2.0 | 120 |
| 3 | 200 | 80 | 120 | 1.5 | 80 |
| 4 | 100 | 60 | 40 | 1.0 | 40 |
| | Total | | | | $400 |

a: End-of-year reserve less retirements
Yr. 2 = 0 + 160 - 100 = 60.
Yr. 3 = 60 + 120 - 100 = 80, etc.

b: Yr. 1 = $\frac{1+2+3+4}{4}$ = 2.5, Yr. 2 = $\frac{1+2+3}{3}$ = 2.0, etc.

Straight Line Equal Life Group (SLELG)

Straightline Depreciation By Equal Life Group

| Year | Group 1 | Group 2 | Group 3 | Group 4 | Total All Groups |
|---|---|---|---|---|---|
| 1 | $100 | $50 | $33 | $25 | $208 |
| 2 | | 50 | 33 | 25 | 108 |
| 3 | | | 34 | 25 | 59 |
| 4 | | | | 25 | 25 |
| | Total | | | | $400 |

Comparison of Straight Line Book Depreciation By Method

| Year | Vintage Group Whole Life | Vintage Group Remaining Life | Equal Life Group |
|---|---|---|---|
| 1 | $160 | $160 | $208 |
| 2 | 120 | 120 | 108 |
| 3 | 80 | 80 | 59 |
| 4 | 40 | 40 | 25 |
| Totals | $400 | $400 | $400 |

It will be noted that VGWL and VGRL are identical in the above example. In actual practice, VGWL will not recover full investment if the average service lives are reduced from those estimated when the assets were put into service. Appendix A of this order illustrates this point.

Turk claims the SLELG method is superior to SLVG primarily because it more accurately matches capital recovery with capital consumption. He believes capital recovery by the SLVG method is too low in the early years of assets and too high in the later years. This is because SLVG reflects the average life of all groups in a vintage. In contrast, the subgrouping of a vintage into equal life groups makes it possible to attribute the capital consumption for each equal life group on a straight line basis over the life of each group. Thus, the capital cost of each equal life group is booked over the same time period the group actually provides service. This also results in timing the amount of capital recovery more closely to match the timing and amount of capital consumption over the life of the entire vintage and there is no lag in capital recovery as occurs with SLVG depreciation.

Turk commented on a possible recordkeeping problem in the actual calculation and implementation of SLELG. He claims that modern data processing methods give Pacific the ability to implement SLELG depreciation at very little cost in relation to the benefits of SLELG.

Turk pointed out that for intrastate ratemaking purposes Pacific will continue to use the SLVG remaining life method for plant put in service prior to Commission approval of SLELG. Pacific plans a phase-in approach similar to that approved by the FCC. Pacific would apply SLELG for outside plant additions in 1981, central office equipment in 1982, and all other applicable accounts in 1983.

In summarizing his recommendations Turk stated there are five depreciation accrual increases which come about as a result of his recommendations:

1. Replacement of 1980 remaining life depreciation rates with 1981 rates. The 1980 rates were used in A.59849 results of operations for the 1981 test year.
2. Elimination of the lag in reserve, remaining life estimates, and plant balances used in computation of current year remaining life rates.
3. Implementation of a reserve allocation filed by Pacific with the FCC.
4. Represcription of CPE lives.
5. Implementation of the SLELG method.

Bohl summarized the filings of Pacific in this phase of the proceedings and, most importantly, offered rebuttal testimony on the contentions of Users Group and California Interconnect Association (Interconnect Association) concerning stranded investment. Bohl's rebuttal testimony will be discussed after a summary of the staff and intervenor's testimony.

Staff's Showing

Kevin P. Coughlan, senior utilities engineer in the Commission's Revenue Requirements Division, testified for the staff. He stated that if there were no legal obstacles to the recovery of revenues associated with the changes in depreciation expense requested by Pacific, he would have no objection to the changes except for the change to equal life group depreciation accounting. Coughlan is not opposed to equal life group depreciation if it is applied to single units of plant but is opposed to its application to groups of plant. He stated that depreciation is not simply a process of feeding retirement data into a computer and generating mortality curves upon which equal life group depreciation can be determined.

He prefers to continue the use of straight line remaining life depreciation which, in his opinion, more correctly matches the life characteristics and depreciation for Pacific's plant.

Coughlan claims that Pacific's witness Turk compared only total dollars of revenue requirement in attempting to show that the revenue requirement under equal life group depreciation would be less than under straight line vintage group depreciation. Coughlan points out that Turk did not take into account the time value of money. He discounted the revenue requirement flow of Turk's exhibit at 12.91% interest, the rate of return granted Pacific in D.93367, and thereby showed that when present worth of future payments required from customers under the two depreciation methods is considered, VG is less costly in the long run for Pacific's customers than the ELG method. Coughlan claims generalizations regarding depreciation practices for a single unit are not always appropriate for groups of property. A single unit may be considered to have a finite life but groups of plant undergoing continuous replacement may be considered to have an indefinite life.

Coughlan believes Turk's comparison of the depreciation reserve of Pacific with Standard and Poor's 400 industrials has no relevance to the proceeding. He cites as one of the reasons for Pacific's depreciation reserve decline from 24% in 1950 to 19% in 1980, Pacific's large annual construction program. He pointed out that Pacific's construction budget had increased at an annual rate of approximately 10%, 1946 through 1975. However, since 1976 the budget has increased at an annual rate of approximately 16%. He claims that new plant added at an increasing rate tends to drive the relative depreciation reserve lower. He pointed out that Pacific's depreciable plant has increased from $8.2 billion in 1976 to $14.9 billion in 1982, not including station connections, a compound growth of about 10.5% per year. He further stated the Commission has recently approved higher depreciation rates for Pacific raising its

composite depreciation rate from 4.3% in 1976 to 5.6% in 1981 excluding station connections. He also stated that (1) depreciation reserve as a percent of investment will tend to stabilize at a certain level even under growth, (2) the higher the growth rate the higher the NPF, and (3) the NPF will vary with the type of life curve used. He offered a National Association of Regulatory Utility Commissioner's committee on depreciation paper published in 1960 which shows such a phenomenon. See Chart I for an example. This lends some support to the contention by intervenors that the increase in NPF is due to factors other than growth, factors such as earlier than anticipated retirements. However, it appears possible that the NPF will increase to some extent if the growth rate increases.

DEPRECIATION RESERVE
BASED ON GROUP PLAN, STRAIGHT LINE METHOD

Class of Plant with Following Characteristics:

1. Consisting of numerous similar units undergoing continual replacements at rates of growth specified below
2. Life characteristics defined by No.1 life table and average service life of 10 years

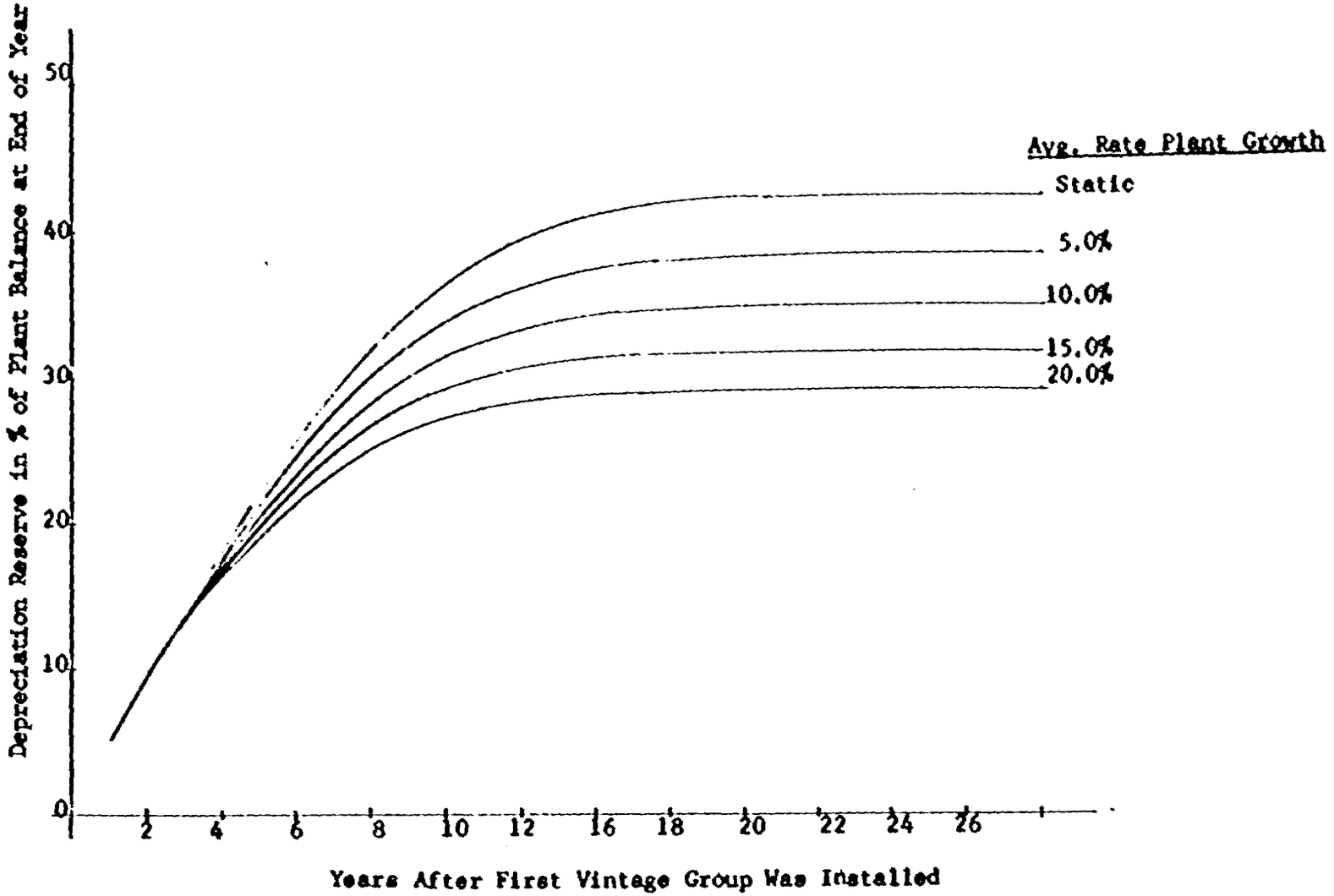


CHART 1

Users Group Showing

Dr. Lee L. Selwyn of Economics and Technology, Inc. testified for Users Group. Selwyn believes Pacific has attempted to sidestep the stranded investment issue in this proceeding by asserting it does not exist, a position taken at the same time Pacific was asking the Commission to approve increased depreciation allowances of almost $70 million and negotiating with the FCC and the staff for even higher rates. Selwyn asserts the requirement for higher depreciation is a direct and inescapable consequence of the Bell System's migration strategy.

In our recent decision on costing procedures for telephone companies, D.83-04-012, we included Selwyn's discussion and example of how stranded investment occurs. Selwyn had two customers, A and B, coming on line at Pacific at the same time, each taking a $10,000 piece of equipment. Using straight line depreciation and a five-year life, the equipment would be depreciated at $4,000 per year. By the end of the third year, $12,000 of the original investment of $20,000 would have been depreciated and the net undepreciated investment would be $8,000. Selwyn assumed customer A discontinued service and his equipment was retired at the end of three years because it was no longer used or useful in Pacific's business. As noted in a similar example earlier in this decision, under group accounting procedures, the investment for A's piece of equipment, $10,000, is retired from the capital and reserve for depreciation accounts leaving $10,000 capitalized with a reserve against it of $2,000. The customer that remained with Pacific, B, would now be faced with an NPF in the account of 80%, $8,000 of undepreciated investment out of a total of $10,000. The $8,000 would have to be recovered from B over the two years remaining life of his equipment; that would amount to $4,000 per year, double the previous depreciation accrual. If B continues to pay the $2,000 per year because of no change in rates, then some other ratepayers must pick up the difference in order for Pacific to

recover its authorized revenue requirement. If B is charged for the stranded investment, he will have paid $14,000 in depreciation for a $10,000 piece of equipment and A would have paid the other $6,000 of the $20,000 total. Selwyn claims the stranded investment in this example was caused by A's departure from Pacific, for whatever reason, and that departure leaves stranded investment to be recovered through rates charged by Pacific. Selwyn maintains that if customer A's decision to discontinue service were influenced by an affirmative effort by Pacific to migrate A to another Pacific service, then the cost causer is really Pacific and not its customers. Under the revenue requirement approach to ratemaking, coupled with Pacific's ability to seek higher depreciation charges, Pacific would not be held responsible for any of the costs of the premature retirement of A's equipment even if that retirement were a result of the migration strategy. Thus Pacific escapes responsibility for any negative aspects of its marketing practices. Selwyn believes the stranded investment problem occurs whenever equipment is retired prior to being fully depreciated. He claims that Pacific's solution for the treatment of stranded investment, that is, represcription of equipment lives through the remaining life theory of depreciation accounting, assigns no responsibility to early-departing customers or Pacific for the premature retirements.

Selwyn's example, of course, has the infirmities inherent in an isolated situation. But even though the size of Pacific's customer base is several hundred thousand and, in some cases, several million, the example serves to illustrate the problem. Under the group depreciation methods used by Pacific, Selwyn concedes that some units of equipment will be retired prior to the average service life for a given group and others will serve beyond that point. If, however, some event occurs which effectively shortens the life expectancy after the depreciation rate has been set, a

disproportionately high number of units could be retired ahead of their expected service life and, unless the depreciation rate is represcribed, the total investment will not be recovered. In any case, earlier than normal retirements will produce stranded investment which has to be recovered somehow.

Selwyn was the only witness in this phase of these proceedings to make an attempt at quantifying stranded investment. He introduced two estimates, each arrived at by different methods, and each covering different periods. The broadest estimate was made from Pacific's witness Turk's Exhibit 417. Here Selwyn estimated the stranded investment might be as high as $95.7 million on January 1, 1981 for the account 234-Other, which is the bulk of the investment for large PBX installations excluding the newer electronic equipment; it is, therefore, a more "seasoned" account. Selwyn used Turk's estimate of a theoretical depreciation reserve for the account of $169.6 million and compared that to actual book reserve of $73.9 million to obtain the $95.7 million. Selwyn made a more limited estimate for the total 234 account by estimating what 1980 and 1981 retirements would have been based on a 1970-79 retirement trend and then comparing that to actual 1980-81 retirements; by this method, Selwyn concluded that about $19 million of the total 234 account retirements could be directly attributed to Pacific's marketing programs.

Selwyn opposes Pacific's proposal for ELG depreciation. His opposition centers mainly on the effects ELG depreciation would have on customers when used in concert with the revised equipment costing procedures proposed by Pacific, procedures which have, in the main, been rejected by the Commission in D.83-04-012. Selwyn disputes Pacific's claims that under ELG costs to customers can be reduced because even though depreciation charges in the early years will be increased, in the long run depreciation and rate base will be

reduced requiring less revenue to support return on investment. According to Selwyn the customers will never really be afforded the opportunity to benefit from the lower levels of depreciation and rate base because Pacific will always operate under conditions of growth and inflation. He believes the present so overshadows the future that the theoretical benefits will not be felt to any meaningful extent in future periods.

Selwyn testified that aside from his specific opposition to ELG, Pacific, in general, should not be granted any increases in depreciation allowances at this time. He believes the recovery of increased depreciation sought by Pacific is a direct consequence of Pacific's marketing programs; approval of increased depreciation, which could lead to increased monthly rates for Pacific's terminal equipment prior to the resolution of the migration issue, will only result in a further stimulation of premature discontinuances of services creating additional stranded investment and upward pressure on Pacific's revenue requirement. Also, Selwyn cited the impending changes in Pacific's investment, reserve, and depreciation expense in relation to its revenue requirement resulting from FCC decisions and the antitrust settlement as a further reason to make no changes in Pacific's depreciation allowances at this time.

Selwyn further testified that Pacific's equipment retirement practices were not in the best interests of ratepayers. He believes the Commission should require Pacific to dispose of equipment at the best possible salvage price rather than junk most of it as is now being done. As discussed above, when equipment is retired from service, any unrecovered book value remains in the rate base. Also, any salvage value received is deducted from rate base and any cost of removal is added to the rate base by Pacific's accounting procedures. Therefore, claims Selwyn, Pacific has an incentive to accept minimal salvage values coupled with high costs of

removal when retiring equipment. Until Pacific adopts the practice of disposing of used equipment at the highest possible price based on arm's length transactions in the public marketplace, Selwyn urges the Commission to reject any increases in revenue requirement based on increases in depreciation levels. Selwyn recommends the Commission require Pacific to retain at stockholder's expense, an independent appraiser to value Pacific's used equipment at fair market prices; if Pacific persists in its policy of selling such equipment only for scrap value, then the difference between the scrap value and the appraised fair market value should be considered a below-the-line expense and charged to Pacific's stockholders.

Interconnect Association's Showing

John W. Wilson, president of J. W. Wilson & Associates, Inc., testified for Interconnect Association. Wilson testified that one problem with Pacific's proposal is that in the 234 account (large PBX) remaining lives would be represcribed for each depreciation reserve subgroup based on Pacific's marketing objectives. He believes this would increase the premature obsolescence problems associated with Pacific's customer premises equipment migration strategy and contribute significantly to the cost burdens of Pacific's local exchange monopoly ratepayers. He reasons that represcription of service lives to carry out marketing objectives would result in higher depreciation rates for older equipment and make it even more likely that customers would migrate to the Bell System's newer and more modern equipment. This would enlarge the stranded investment problem leaving monopoly ratepayers to pick up the associated costs because of the pending divestiture in 1984 under present agreements. Wilson concludes that Pacific's current pricing strategy would assist the Bell System's objective of obtaining a competitive terminal equipment sales advantage at the expense of local exchange monopoly ratepayers.

Wilson stated that Pacific and other operating telephone companies in the Bell System have, in the past, determined plant depreciation lives based on studies designed to reflect the engineering properties of equipment. Now Pacific is proposing to shift from engineering service life estimates to a depreciation approach that reflects marketing circumstances and considerations. He stated that according to the Bell System its new product life cycle forecasts are based on:

1. The changing needs of customers.
2. The introduction of planned replacement products.
3. Bell System's marketing plans for pricing and promotion of current products.
4. Both current and anticipated future technology.
5. Competitiveness in the products market segment.
6. Strategic long-term company objectives.
7. Potential for customer ownership.

Wilson believes that to accurately assess the impact of the proposed depreciation revisions it is essential to evaluate them in connection with the Bell System's marketing strategies. He claims the new market forecast approach to determining equipment remaining lives gives the Bell System almost total discretion over the determination of depreciation expenses charged to competitive and monopoly ratepayers. He believes the specific depreciation proposals advanced by the Bell System serve to favorably position the Bell System in potentially competitive business terminal equipment markets at the expense of monopoly utility ratepayers. With the aid of the proposed new depreciation rates, the Bell System would be able to achieve its market goals and effectively subsidize the changeover of terminal equipment by leaving behind the burden of undepreciated

retired plant in the monopoly utility service rate base. He claims that represcriptions resulting in shorter service lives on older equipment will lead to grossly higher tariffs on that equipment making the migration strategy a self-fulfilling prophesy. He claims that shortening service lives indicates that an error in judgment was made in the past and, in an unregulated market, the burden of past mistakes should be borne by shareholders. However, in a monopoly situation it can be shifted to the ratepayers unless regulators such as this Commission recognize what is happening and make appropriate allowances. One way to do this, claims Wilson, is to take the unrecovered capital costs associated with premature retirement of equipment resulting from the migration strategy and directly allocate those costs to the services which replaced the prematurely retired equipment. He concedes that there are, of course, circumstances where early retirements of rate base properly ascribed to the franchised monopoly should be borne by the ratepayers using the franchise service because overall there would be a benefit to the ratepayers; but he believes charging the monopoly ratepayers for mistakes made by management or extraordinary write-offs resulting from marketing practices is totally improper and unfair to general ratepayers and the Bell System's competitors. He stated that no competitor of the Bell System would be able to enjoy the unfair advantage of spreading the costs of early retirement to some other product line.

Wilson recommended that the Commission order Pacific to file a report of the equipment retirements that have resulted from its dimension PBX and horizon installations. A detailed report of this type would allow the Commission to assess the costs of early equipment retirement resulting from Dimension and Horizon service installations thereby preventing the spreading of such retirement costs to general telephone ratepayers as he believes is now being

done. Alternatively he believes that shareholders, not monopoly ratepayers, should bear the cost of premature customer premises equipment retirements especially since such premature retirements are being used to position the Bell System in competitive markets. He believes that if the Commission were to adopt this policy it would only be prescribing a course that would automatically take place if the Bell System were already deregulated and all of its markets were competitive. Under competitive conditions shareholders would bear the risks of obsolescence and would have to pay for the cost of the Bell System's competitive repositioning.

Rebuttal Showings and Discussion

Bohl summarized the filings of Pacific in this phase of the proceedings and also offered rebuttal testimony concerning the contentions of Users Group on stranded investment. The primary purpose of Bohl's rebuttal testimony was to refute certain contentions made in the presentations of Selwyn and Wilson appearing for Users Group and Interconnect Association. Essentially Bohl does not quarrel with the fact there is a reserve deficiency or stranded investment on Pacific's books. However, Bohl claims there is no stranded investment as a result of the alleged migration strategy. Bohl offered a long series of tables containing calculations to prove that Selwyn's estimates of stranded investment were erroneous and that the method used by Selwyn would indicate stranded investment even where lives of equipment did not deviate from the original forecast made when first setting depreciation lives for a group of equipment.

Bohl disputed the charge that depreciation deficiencies, and hence anticipated increases in depreciation allowances, are a direct consequence of Pacific's marketing programs and practices, that is, the embedded base migration strategy. Bohl claims the decline in lives is a result of competition brought about by

technological advances coupled with changes in regulatory policies; he offered an exhibit which showed a steadily increasing pattern of retirements expressed as a percent of gross investment beginning long before any alleged migration strategy is claimed to have existed. Bohl's presentation can be summed up as a statement by Pacific that it has not engaged in any migration strategy, that any reserve deficiency or stranded investment on the books is a result of forces and factors existing for many years, forces which existed long before any migration strategy is alleged to have guided Pacific's terminal equipment marketing activities.

Bohl testified that the depreciation rates for which Pacific is seeking rate relief reflect increased depreciation expenses resulting from a longstanding pattern of shortening lives. He believes the evidence cited by witnesses Selwyn and Wilson to support their contention that Pacific has somehow created the problem does not withstand careful analysis. He believes Selwyn's testimony regarding the computation of stranded investment is not logical and does not support Selwyn's contentions. On the contrary, Bohl believes careful consideration of the totality of the evidence points very clearly to the conclusion that a changing marketplace and its effect on product lives bears the primary responsibility for the low level of the depreciation reserve for terminal equipment. Bohl believes that ELG depreciation has elements that, if adopted, will serve to reduce the extent to which the Commission will have to contend with the inordinately low depreciation reserve levels in the future.

In Exhibit 507, Bohl's rejoinder testimony on stranded investment, he states that the prescribed remaining lives for account 234 property (large PBX), have decreased from over ten years in 1973 to 4.5 years in 1981. Two-thirds of this decrease occurred prior to the date cited as the initiation of the migration strategy, which

Selwyn claims to have been about April 30, 1980. It appears we can conclude that in the eight-year period from 1973 to 1981 two-thirds of the decrease in lives for account 234 occurred in a 6½-year period and one-third in a 1½-year period. This would support Selwyn's testimony.

Bohl disputes Selwyn's computation of his $19 million stranded investment estimate which Selwyn calculated by using the deviation from the straight trend line over the period 1979 through 1981 that occurred for the actual retirements made during that period. He computed these at 1.5% points in 1980 and 3.3% points in 1981. Bohl contends that this is not a valid approach because it fails to consider the numerous factors that could cause an increase in the rate of retirements. Bohl claims the increase in retirements is attributable to the growth of competition in the marketplace and proceeded to make some computations based on stations in service for large customer premise systems in Pacific's territory over the period 1974 through 1981. Bohl claims that it was an incursion of Pacific's competitors that caused the premature retirements, not Pacific's marketing practices.

Bohl calculated that the replacements of station lines that Pacific lost equate to about 4.8% points of the additional retirements over the two years used by Selwyn in his analysis; he claimed that this amount essentially matches the deviation from Selwyn's trend line for the years in question. He concludes that almost all of the additional retirements computed by Selwyn are attributable solely to market share losses by Pacific rather than to Pacific's marketing strategy. Bohl also testified that an analysis of engineering records of PBXs removed from 1981 to August 1982, shows that for both 1981 and 1982, 38% of the Pacific PBX systems removed were replaced by PBXs of Pacific's competitors. Bohl goes on to state that technological change has contributed to the ability of

Pacific's competitors to increase their rate of success in replacing Pacific's PBXs. He claims reductions in cost and increases in capability from advancing technology enable Pacific's competitors to meet the telecommunications needs of customers now served by Pacific.

In summary, Bohl said that comparisons drawn by Selwyn provide no support for Selwyn's conclusion that a migration strategy caused Pacific's account 234 to have a high NPF. Bohl claims Selwyn simply failed to recognize nearly ten years of depreciation history preceding the date Selwyn alleges the migration strategy began. Bohl claims that competitive activity began in 1978 and it caused the recent increase of retirements from account 234.

Taking Bohl's presentation at face value indicates to us that we have done a very poor job determining remaining lives for some accounts; and it is obvious that a triennial represcription may not be adequate and Pacific's suggestion that it be done each year should be considered.

Witness Turk for Pacific testified that the NPF, or percent condition, of Pacific's 234 account is 81%, meaning, conversely, only 19% of it has been depreciated. Chart I from Coughlan's Exhibit 447 shows that depreciation reserve based on group plan, straight line, depreciation over a long period of time (18-20 years) becomes constant if no other factors are working on the account. That is, if all of the equipment that is being depreciated lives out its life as predicted when it was first put into service, then the reserve account reaches a constant level. As an example, Chart I shows that if plant growth is static, the undepreciated investment becomes about 58% and stays at that level forever. If the growth rate is 5%, it equals 62%, 10% = 65%, 15% = 68%, and 20% = 71%. If we were to assume a depreciation reserve growth rate of 15% is reasonable for Pacific, the undepreciated investment in account 234 should be at a constant 68%. It is not--it is 81%. This example indicates that there are about 13% points reserve deficiency in the account; perhaps

it is better to say 13% more of the plant investment balance should have been depreciated but was not.

Discussion

The record in this proceeding indicates that earlier than anticipated retirements are the largest cause of the decline in Pacific's book depreciation reserve as a per cent of plant. Growth fluctuations are a secondary cause. Whether we call this condition a reserve deficiency or a stranded investment does not matter. Whether the problem has been caused by the economic trends of the day, the migration strategy, or, most likely, some combination of the two, does make a difference. The difference lies in how costs are allocated between Pacific's shareholders and ratepayers. That portion not resulting from the migration strategy should be paid by ratepayers. However, ratepayers should not bear the full cost of increasing the depreciation reserve if Pacific's migration strategy contributed to the resulting increased revenue requirement in ways which would not benefit ratepayers as a group.

Some of the existing stranded investment is certainly attributable to Pacific's marketing practices. We noted in D.93367 that Pacific had embraced the marketing strategies of its parent, AT&T. The evidence is quite clear that there have been early retirements of equipment because of marketing strategies which were designed to secure embedded equipment market customers against competition. Selwyn provided two estimates of the cost attributable to the migration strategy. Both were disputed by Pacific.

We believe that Selwyn's analysis comparing estimated 1980-81 retirements with actual 1980-81 retirements for Account 234 is a reasonable one for purposes of this proceeding. Based on that analysis, $19 million of Account 234 retirements are attributable to Pacific's migration strategy, thus overstating the rate base by understating the reserve in like amount.

In essence, $19 million of Pacific's existing rate base is overstated as a result of Pacific's marketing strategy, and yet that rate base is still earning a return.

We find that $19 million of Pacific's rate base should not earn a return from ratepayers. We will order Pacific to remove that amount from rate base, an adjustment which lowers the annual revenue requirement, as determined for purposes of this proceeding, by $3.5 million which allows for 75% of the adjustment to California intrastate, and a net to gross factor of 1.896 and the 12.9% return granted in D.93367. We expect this adjustment to rate base to be included as part of Pacific's pending general rate case proceeding. (A.83-01-22).

As noted earlier, one of our problems is the frequency of our depreciation reviews, every three years on a committee basis--Pacific, the FCC, and our own staff. We believe now this should be done more often. The depreciation rates we use for ratemaking purposes, that is, straight line remaining life, would then be more in line with the actual consumption of Pacific's assets; Pacific recommends a yearly review which may be too often for our staff resources. An alternative we want Pacific, our staff, and the parties to consider would eliminate estimating remaining life for accounts susceptible to group accounting methods such as 234 in favor of maintaining such accounts at an agreed-upon NPF. This would automatically determine annual depreciation allowances for ratemaking. As an example we can assume an NPF of 70% is reasonable for an account and that, at the beginning of a given year, the NPF is at that level. Additions and retirements to the plant account and net retirements to the reserve account would be made during the year; depreciation for the year would be the amount necessary to bring the NPF to 70%. Safeguards could be built into such a scheme such as an annual review of the target NPF, growth rates, plant additions, retirements, and salvage values.

The two developments which are going to affect what we do in this proceeding and in Pacific's current major rate case are the FCC CI-II decision and the MFJ in the antitrust case. As we understand the Modified Final Judgment as approved by Judge Greene those assets of Pacific which go to American Telephone & Telegraph Company (AT&T) sometime early in 1984 will be transferred at book value based on FCC accounting and not on this Commission's notation reserves we use for ratemaking purposes. This creates a ratemaking problem for AT&T, this Commission, and the FCC and will affect the California payers of interstate and intrastate rates for services furnished by AT&T. This should be carefully considered as we move through divestiture, FCC Docket No. 81-893, and the current Pacific rate case.

We will grant Pacific's request for increased depreciation allowances with the exception of ELG. We, in effect, approved most of the request in RRD-10 in February 1982 and it only remained to determine the proper revenue requirement adjustment in this proceeding. Also, Pacific has been booking most of the request since January 1981 although it is for book purposes and represents no real cash drain such as a corresponding increase in wage costs might.

We are persuaded by the staff's showing that, in the long run, ELG is more costly to the ratepayers with no corresponding benefit to Pacific. Our present straight line remaining life method recovers all of Pacific's investment (even, eventually, any stranded investment) and Pacific, in the meantime, receives a return on its undepreciated investment (rate base) so that, in the long run, Pacific loses nothing. Although it is true that granting ELG along with the other adjustments Pacific proposes could help alleviate what we see as too high an NPF, the amount of help from ELG would be small and does not appear to offset the reduced benefits to ratepayers.

Rate Design

Pacific offered a rate design through its witness G. W. McBee and the staff through witness Emily Marks. Pacific conceded that it would adopt the staff proposal. Marks put in two proposals, one with the ELG revenue requirement and one without. Table 1 is the staff proposal without ELG which we will adopt for this decision; it must be scaled down to comport with the following discussion.

TABLE 1
SUMMARY OF GUIDELINE RATES
BASIC EXCHANGE SERVICE
ZONE USAGE MEASUREMENT SERVICE

| BASIC EXCHANGE (Flat Rate) | Present D.93367 | Guideline |
|---|---|---|
| Business Service | | |
| Individual Line | $14.55 | $15.60 |
| 2-Party Line | 10.75 | 11.55 |
| 4-Party Suburban | 11.00 | 11.80 |
| Farmer Line | 4.15 | 4.35 |
| PBX Trunk | 21.75 | 23.40 |
| Centrex Line | 2.20 | 2.30 |
| Foreign Exchange | 15.50 | 16.55 |
| Residence Service | | |
| Individual Line | | |
| ZUM Areas | 7.00 | 7.60 |
| SMRT Areas | 6.70 | 7.60 |
| Unmeasured | 6.70 | 7.60 |
| 2-Party Line | 4.75 | 5.00 |
| 4-Party Suburban | 4.90 | 5.00 |
| Farmer Line | 2.20 | 2.35 |
| PBX Trunk | | |
| ZUM Areas | 10.50 | 11.40 |
| SMRT Areas | 10.05 | 11.40 |
| Unmeasured | 10.05 | 11.40 |
| Foreign Exchange | | |
| ZUM Areas | 8.50 | 9.10 |
| SMRT Areas | 8.20 | 9.10 |
| Unmeasured | 8.20 | 9.10 |
| ZONE USAGE MEASUREMENT | | |
| Initial Period | | |
| One-Minute Units | | |
| Zone 1 | 3 | 3 |
| Zone 2 | 6 | 6 |
| Zone 3 | 8 | 8 |

We have two matters requiring refunds that we brought over to this decision, the last decision involving rates in these proceedings.[6] These are the $12.8 million dollar adjustment as a result of the stipulation authorized by D.82-05-044 on the rate base adopted by D.93367 and the $3.6 million Economic Recovery Tax Act adjustment ordered by D.82-12-046 retroactive to January 1, 1982 as provided for in D.93850 dated December 15, 1981. We find it most practicable to meld those two refunds with the increase authorized by this decision in the following way. The increase resulting from this ecision will go into effect when the amount of tFhe refunds noted above have been equaled by the increased revenues from this cision. Table 2 is an eNFxample of how we intend this to work and should serve as a guide for Pacific in an advice letter filing to accomplish our intent. The advice letter filing should reflect the actual number of days involved and appropriate interest as provided for in the following order.

In devising and ordering the above refund schedule we take note of California Manufacturers Association v CPUC (1979) 24 C 3d 836 where the court found that rate refunds should be distributed to utility customers in accordance with PU Code § 453.5 which requires the Commission to order refunds paid to all current utility customers, and, when practicable, to prior customers. However, the court found in that decision that both the history and language of § 453.5 are persuasive that the statutory term "rate refunds," as

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[6] We recognize there is one final decision to be issued in these proceedings; that one involves OII 84 and the matter of inside wiring now consolidated with these proceedings as A.82-10-23. Other than the effect of the stipulation noted in the text on revenue requirement as a result of our decisions on inside wiring writeoffs, revenue changes, if adopted, will be a wash.

therein employed, refers to specific amounts held by utilities as rebates from their suppliers and earmarked for customer refunds by prior Commission orders and utility tariffs. Further, that case involved a balancing account adjustment of the rate refunds which would have returned the rebates on a basis that discriminated between business and residential customers. That will not be the case here. We believe the most practicable means of refunding is what we propose above. In the past where we ordered refunds to be made retroactively based on prior billings we have found the process cumbersome, time consuming, and, in some cases, a near impossible task for the utilities with the possibility that some of the refunds due never would get to utility customers, certainly, a process much less than practicable. See Kenneth Cory, as State Controller, v CPUC (1983) 33 C 3d 522. The process we propose will put the refunds into the hands of customers immediately and without the adverse effects of a possible refund on the one hand and a certain rate increase on the other.

TABLE 2
(Millions $)

| Item | Effective Date | Annual Revenue Adjustment |
|---|---|---|
| D.82-05-044 | 8/29/81 | -12.8 |
| D.82-12-046 | 1/1/82 | - 3.6 |
| This Decision | 5/1/83* | 61.4** |
| | Net Change | +45.0 |

$9/81 - 5/83 = 20 \text{ mos.} \times \frac{12.8}{12} = 21.3$

$1/82 - 5/83 = 16 \text{ mos.} \times \frac{3.6}{12} = \frac{4.8}{26.1}$

$\frac{45.0}{12} = 3.75/\text{mo.}$

$\frac{26.1}{3.75} = 7.0$

7.0 months after 5/1/83, the assumed effective date of the rate increase authorized by this decision, rates would be adjusted to produce an increase in revenue of $45.0 million.

In the calculation called for in the order in this decision:

a. Days would be used instead of months.

b. Interest on the two refund orders would be taken into account.

c. Any effective surcharges would be accounted for.

* For illustrative purposes.

** 19 x 75% x 12.91% x 1.896 = 3.5

64.9 - 3.5 = 61.4

The issue of a rate base adjustment reflecting cost savings from Pacific's PhoneCenter program which was raised by Cities of San Francisco and San Diego will be addressed in a separate decision.

Findings of Fact

1. In Interim D.93367 dated August 4, 1981, the Commission ordered further hearings on the issues of:

a. An appropriate method for allocating to the proper user any net stranded investment as a result of the migration strategy and the establishment of nonregulated operations.

b. Studies to determine the kinds of equipment which may have been retired prior to being fully depreciated and the associated stranded investment.

c. A method for recovering fairly any stranded investment.

d. Depreciation rates used for ratemaking.

2. On February 4, 1982 this Commission adopted Resolution RRD-10 approving new 1981 remaining life rates for Pacific.

3. Further hearings in these proceedings were held in 1981 and 1982 on the issues enumerated in Finding of Fact 1 where all interested parties were afforded the opportunity to appear and be heard.

4. On June 7, 1982 Pacific filed a third amendment to A.59849 requesting the Commission to authorize additional revenues of $69.9 million per year to cover the increases in depreciation expense approved by the Commission in RRD-10 and other changes involving additional applicability of approved rates to other equipment, a change in the periods used for test year account averaging, and adoption of ELG depreciation methods.

5. Pacific is required by this Commission to use straight line vintage group remaining life depreciation for ratemaking purposes.

6. Pacific's book depreciation reserve declined from 24% of depreciable plant in 1950 to 19% by the end of 1980.

7. The decline in Pacific's book depreciation reserve as a percent of plant for the terminal equipment accounts is primarily due to earlier than expected retirement of assets.

8. The terms "stranded investment" and "reserve deficiency" are interchangeable and describe an underaccrual of depreciation in past years resulting from earlier than anticipated retirements.

9. Depreciation reserve as a percent of investment tends to stabilize even when the reserve is growing.

10. Although the shortening of asset lives for depreciation purposes through the represcription process recovers total investment, it assigns no responsibility to those customers who do not keep equipment for its average estimated original life nor to Pacific for such premature retirements.

11. The most likely customers to pay the costs of stranded investment caused by premature retirements are those who take service after such retirements.

12. Estimates of the amount of stranded investment on Pacific's books range from $19 to $95.7 million.

13. The record supports the removal of $19 million from Pacific's rate base, an amount which lowers the annual revenue requirement, as determined for purposes of this proceeding, by $3.5 million.

14. Remaining life estimates or represcription for Pacific's assets is now made on a triennial basis after conferences among the Commission staff, Pacific, and the FCC staff.

15. A less than triennial represcription of the lives of Pacific's assets would respond more timely to the rapidly changing technology in the telecommunications industry.

16. The technical staff of the Commission does not oppose Pacific's request for depreciation changes except for the ELG method.

17. When the time value of money is taken into account at the rate of return authorized Pacific in D.93367 the straight line vintage group remaining life method of depreciation is less costly for ratepayers in the long run than the SLELG method.

18. Pacific's request for additional depreciation allowances as put forth in this decision, with the exception of adoption of the ELG method and the $19 million adjustment to rate base to account for stranded investment, are reasonable and should be adopted.

19. The increased revenue requirement to accomplish the additional allowances noted in Finding of Fact 18 is $61.4 million based on the results of operations adopted in D.93367 dated August 4, 1981.

20. The general rate design shown on Table 1 should be used by Pacific in the filing to accomplish the change in rates authorized by this decision.

21. It is most practicable to meld the rate decrease ordered in D.82-05-044 and D.82-12-046 with the increase authorized by this decision into one net increase as shown, for example, on Table 2.

Conclusion of Law

Based on the foregoing findings of fact and under Public Utilities Code § 454 this Commission may grant Pacific authority to increase rates as provided for in the following order to enable Pacific to earn additional annual revenues of $45 million ($61.4 - 12.8 - 3.6).

SIXTH INTERIM ORDER

IT IS ORDERED that:

1. The Pacific Telephone and Telegraph Company (Pacific) shall perform a calculation of the effective date to increase its revenue requirement by $45 million annually after taking into account the revenue reductions ordered by D.82-05-044 and D.82-12-046 in a manner similar to that shown on Table 2 of this decision and file an original and 18 copies of that calculation with the Commission's Docket Office and all parties 30 days after the effective date of this decision.

2. Pacific shall file with the Commission, 30 days prior to the effective date determined in Ordering Paragraph 1, in conformity with General Order 96-A, revised tariff schedules with rates, charges, and conditions modified in general conformance with Table 1 of this decision and designed to produce an increase in revenue requirement of no more than $45 million based on the results of

operations adopted in D.93367 with an adjustment of the present 6.66% surcharge to recognize the larger revenue base to which the surcharge will be applied in the future.

3. Interest on amounts subject to refund shall be computed by applying the Federal Reserve Board Commercial Paper Rate, 3-month prime, published monthly in Federal Reserve Board Statistical Release G-13 with monthly compounding.

4. The rates authorized in this decision shall be subject to refund upon further order of the Commission only on any accumulated reserve in connection with the AAA/AA treatment of accelerated depreciation.

5. No later than 60 days after the effective date of this decision the Commission staff and Pacific shall file a plan, jointly, if possible, for changing the triennial represcription process to a more frequent review.

This order becomes effective 30 days from today.

Dated AUG 3 1983, at San Francisco, California.

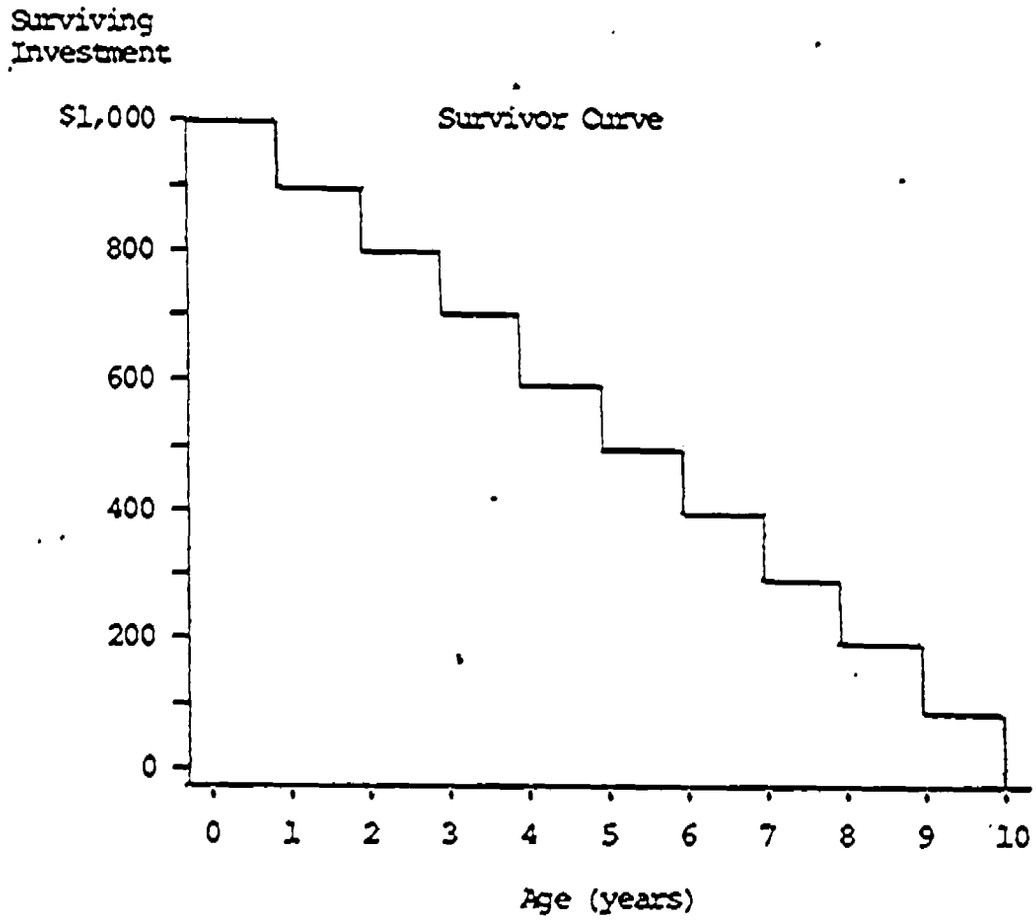
LEONARD M. GRIMES, JR.
President
VICTOR CALVO
PRISCILLA C. GREW
DONALD VIAL
WILLIAM T. BAGLEY
Commissioners

I CERTIFY THAT THIS DECISION WAS APPROVED BY THE ABOVE COMMISSIONERS TODAY.

Joseph E. Bodovitz, Executive Director

APPENDIX A
Table 1

SLVG - DETERMINATION OF AVERAGE SERVICE LIFE




| Year<br>a | Surviving Investment<br>b | Weight<br>c | Area<br>d = b x c |
|---|---|---|---|
| 1 | $1000 | 1 year | $1000 years |
| 2 | 900 | 1 year | 900 years |
| 3 | 800 | 1 year | 800 years |
| 4 | 700 | 1 year | 700 years |
| 5 | 600 | 1 year | 600 years |
| 6 | 500 | 1 year | 500 years |
| 7 | 400 | 1 year | 400 years |
| 8 | 300 | 1 year | 300 years |
| 9 | 200 | 1 year | 200 years |
| 10 | 100 | 1 year | 100 years |
| | | Total Area Under Curve = | $5500 years |
| | | Average Service Life = | $5500 years / $1000 |
| | | = | 5.5 years |

SLVG DEPRECIATION ILLUSTRATION

DETERMINATION OF ANNUAL ACCRUALS AND DEPRECIATION RESERVE AMOUNT

| Year n | Beg. of Year Investment a‡ | End of Year Retirements b‡ | End of Year Investment c = n - b | Annual Accruals d = 0.182* x a | Depreciation Reserve Net Change e = d - b | Depreciation Reserve End of Year f = e + f** |
|---|---|---|---|---|---|---|
| 1 | $1,000 | $100 | $900 | $ 182 | $82 | $ 82 |
| 2 | 900 | 100 | 800 | 163 | 63 | 145 |
| 3 | 800 | 100 | 700 | 146 | 46 | 191 |
| 4 | 700 | 100 | 600 | 127 | 27 | 218 |
| 5 | 600 | 100 | 500 | 109 | 9 | 227 |
| 6 | 500 | 100 | 400 | 91 | -9 | 218 |
| 7 | 400 | 100 | 300 | 73 | -27 | 191 |
| 8 | 300 | 100 | 200 | 55 | -45 | 146 |
| 9 | 200 | 100 | 100 | 36 | -64 | 82 |
| 10 | 100 | 100 | 0 | 18 | -82 | 0 |
| | | | | $1,000 | | |

‡ Columns a and b are based on retirements following the survivor curve in Table 1.

* Whole Life Depreciation rate = $\frac{100\% - \text{Average Net Salvage \%}}{\text{Average Life}} = \frac{100\% - 0\%}{5.5 \text{ years}} = 18.2\%/\text{year}$

Remaining Life Depreciation Rate (%)= $\frac{100\% - \text{Future Net Salvage} - \text{Depr. Res. \%}}{\text{Average Remaining Life}} = \frac{100\% - 0\% - 0\%}{5.5} = 18.2\%/\text{year}$

** Prior year

APPENDIX A
Table 2

SLVG WHOLE LIFE DEPRECIATION ILLUSTRATION
DETERMINATION OF ANNUAL ACCRUALS AND
DEPRECIATION RESERVE AMOUNT

ESTIMATED SERVICE LIFE CHANGES AT THE END OF YEAR 3
($000)

| Year n | Beg. of Year Investment a‖ | End of Year Retirements b‖ | End of Year Investment c = a - b | Annual Accruals d = a x rate* | Depreciation Reserve Net Change e = d - b | Depreciation Reserve End-of-Year f = e + f** |
|---|---|---|---|---|---|---|
| 1 | $1,000 | $100 | $900 | $ 182 | $ 82 | $ 82 |
| 2 | 900 | 100 | 800 | 163 | 63 | 145 |
| 3 | 800 | 100 | 700 | 146 | 46 | 191 |
| 4 | 700 | 100 | 600 | 155 | 55 | 246 |
| 5 | 600 | 100 | 500 | 133 | 33 | 279 |
| 6 | 500 | 500 | 0 | 111 | -389 | - |
| 7 | 0 | - | - | - | - | - |
| 8 | - | - | - | - | - | - |
| 9 | - | - | - | - | - | - |
| 10 | - | - | - | - | - | - |
| | | | | $ 890 | | $-110 |

‖ Columns a and b are based on retirements following the survivor curve in Table 1.

* Depreciation rate used in Column d:

$$\text{Years 1 - 3: rate} = \frac{100\% - 0\%}{5.5 \text{ Years}} = 18.2\%/\text{year}$$

$$\text{Years 4 - 6: rate} = \frac{100\% - 0\%}{4.5 \text{ years}} = 22.2\%/\text{year}$$

** Prior year

## SLVG REMAINING LIFE DEPRECIATION ILLUSTRATION

### DETERMINATION OF ANNUAL ACCRUALS AND DEPRECIATION RESERVE AMOUNT

### ESTIMATED SERVICE LIFE CHANGES AT THE END OF YEAR 3

| Year n | Beg. of Year Investment a‡ | End of Year Retirements b‡ | End of Year Investment c = a - b | Annual Accruals d = a x rate* | Depreciation Reserve Net Change e = d - b | Depreciation Reserve End of Year f = e + f** |
|---|---|---|---|---|---|---|
| 1 | $1000 | $100 | $900 | $ 182 | $ 82 | $ 82 |
| 2 | 900 | 100 | 800 | 163 | 63 | 145 |
| 3 | 800 | 100 | 700 | 146 | 46 | 191 |
| 4 | 700 | 100 | 600 | 198 | 98 | 289 |
| 5 | 600 | 100 | 500 | 170 | 70 | 359 |
| 6 | 500 | 500 | 0 | 141 | -359 | 0 |
| 7 | 0 | - | - | - | - | - |
| 8 | - | - | - | - | - | - |
| 9 | - | - | - | - | - | - |
| 10 | - | - | - | - | - | - |
| | | | | $1000 | | |

‡ Columns a and b are based on retirements following the survivor curve in Chart 1.

* Depreciation rate used in Colum d:

Years 1 - 3: rate $= \frac{100\% - 0\% - 0\%}{5.5 \text{ Years}} = 18.2\%/\text{year}$

Years 4 - 6: rate $= \frac{100\% - 0\% - 27.38\%}{2.57 \text{ years}} = 28.3\%/\text{year}$

** Prior year

SLVG
DEPRECIATION ACCRUALS VS. CAPITAL CONSUMPTION

VINTAGE: 3 units of plant at $100 with lives of 5, 10 & 15 years, respectively.

ASL = $\frac{5 \text{ years} + 10 \text{ years} + 15 \text{ years}}{3}$ = 10 years

ASSUME: 0% Salvage

| Year n | Beg. Yr. Plant Balance (a) | Retirements E.O.Y. (b) | Deprec. Accrual (c)=(a)x10% | Deprec. Reserve (d) | Capital* Consumption (e) | SLVG Reserve Deficiency (f)=(e)-(d) | Net Plant Balance (E.O.Y.) SLVG Basis (g)=(a)-(d) | Net Plant Balance (E.O.Y.) Capital Consumption Basis (h)=(a)-(g) | Excess Rate Base SLVG Basis (i)=(g)-(h) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | $300 | | $30 | $ 30 | $ 36.67 | $ 6.67 | $270 | $263.33 | $ 6.67 |
| 2 | 300 | | 30 | 60 | 73.33 | 13.33 | 240 | 226.67 | 13.33 |
| 3 | 300 | | 30 | 90 | 110.00 | 20.00 | 210 | 190.00 | 20.00 |
| 4 | 300 | | 30 | 120 | 146.67 | 26.67 | 180 | 153.33 | 26.67 |
| 5 | 300 | $100 | 30 | 50# | 83.33# | 33.33 | 150 | 116.67 | 33.33 |
| 6 | 200 | | 20 | 70 | 100.00 | 30.00 | 130 | 100.00 | 30.00 |
| 7 | 200 | | 20 | 90 | 116.67 | 26.67 | 110 | 83.33 | 26.67 |
| 8 | 200 | | 20 | 110 | 133.33 | 23.33 | 90 | 66.67 | 23.33 |
| 9 | 200 | | 20 | 130 | 150.00 | 20.00 | 70 | 50.00 | 20.00 |
| 10 | 200 | 100 | 20 | 50# | 66.67# | 16.67 | 50 | 33.33 | 16.67 |
| 11 | 100 | | 10 | 60 | 73.34 | 13.34 | 40 | 26.66 | 13.34 |
| 12 | 100 | | 10 | 70 | 80.00 | 10.00 | 30 | 20.00 | 10.00 |
| 13 | 100 | | 10 | 80 | 86.67 | 6.67 | 20 | 13.33 | 6.67 |
| 14 | 100 | | 10 | 90 | 93.34 | 3.34 | 10 | 6.66 | 3.34 |
| 15 | 100 | 100 | 10 | 0# | 0# | 0 | 0 | 0 | 0 |

* 1/5 of unit #1 for each of first 5 years; 1/10 of unit #2 for each of first 10 years; 1/15 of unit #3 for each of 15 years.

\# Reflects retirements at 0% salvage.

APPENDIX A
Table 5

SIELG DEPRECIATION
DEVELOPMENT OF ANNUAL DEPRECIATION RATES

| ELG Group | Capital Recovery for Years 1 - 10 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total |
| 1 | $100 | - | - | - | - | - | - | - | - | - | $100 |
| 2 | 50 | 50 | - | - | - | - | - | - | - | - | 100 |
| 3 | 34 | 33 | 33 | - | - | - | - | - | - | - | 100 |
| 4 | 25 | 25 | 25 | 25 | - | - | - | - | - | - | 100 |
| 5 | 20 | 20 | 20 | 20 | 20 | - | - | - | - | - | 100 |
| 6 | 17 | 17 | 17 | 17 | 16 | 16 | - | - | - | - | 100 |
| 7 | 15 | 15 | 14 | 14 | 14 | 14 | 14 | - | - | - | 100 |
| 8 | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | - | - | 100 |
| 9 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | - | 100 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 100 |
| Total Accruals | $ 296 | $194 | $143 | $110 | $ 83 | $ 63 | $ 47 | $ 33 | $ 21 | $ 10 | $1000 |
| Average Investment | $1000 | $900 | $800 | $700 | $600 | $500 | $400 | $300 | $200 | $100 | |
| Depreciation Rate | 29.6% | 21.6% | 17.9% | 15.7% | 13.8% | 12.6% | 11.8% | 11.0% | 10.5% | 10.0% | |

APPENDIX A
Table 6

SLELG DEPRECIATION
DETERMINATION OF ANNUAL ACCRUALS AND DEPRECIATION RESERVE AMOUNT

| Year n | Beg.-of-Year Investment a | End-of-Year Retirements b | End-of-Year Investment c = a - b | Depreciation Rate d | Annual Accruals e = a x d | Depreciation Reserve Net Change f = e - b | Depreciation Reserve End-of-Year g = f + g* |
|---|---|---|---|---|---|---|---|
| 1 | $1000 | $100 | $900 | 0.296 | $296 | $196 | $196 |
| 2 | 900 | 100 | 800 | 0.216 | 194 | 94 | 290 |
| 3 | 800 | 100 | 700 | 0.179 | 143 | 43 | 333 |
| 4 | 700 | 100 | 600 | 0.157 | 110 | 10 | 343 |
| 5 | 600 | 100 | 500 | 0.138 | 83 | -17 | 326 |
| 6 | 500 | 100 | 400 | 0.126 | 63 | -37 | 289 |
| 7 | 400 | 100 | 300 | 0.118 | 47 | -53 | 236 |
| 8 | 300 | 100 | 200 | 0.110 | 33 | -67 | 169 |
| 9 | 200 | 100 | 100 | 0.105 | 21 | -79 | 90 |
| 10 | 100 | 100 | 0 | 0.100 | 10 | -90 | 0 |
| | | | | | $1000 | | |

*Prior year

## SLVG VERSUS SLELG

## COMPARISON OF ACCRUALS AND RESERVE

| | Annual Depreciation Accruals | | | End-of-Year Depreciation Reserve | | |
|---|---|---|---|---|---|---|
| | SLVG | SLELG | Difference | SLVG | SLELG | Difference |
| Year | a | b | c = a - b | d | e | f = d - e |
| 1 | $ 182 | $ 296 | $-114 | $ 82 | $196 | $-114 |
| 2 | 163 | 194 | -31 | 145 | 290 | -145 |
| 3 | 146 | 143 | 3 | 191 | 333 | -142 |
| 4 | 127 | 110 | 17 | 218 | 343 | -125 |
| 5 | 109 | 83 | 26 | 227 | 326 | -99 |
| 6 | 91 | 63 | 28 | 218 | 289 | -71 |
| 7 | 73 | 47 | 26 | 191 | 236 | -45 |
| 8 | 55 | 33 | 22 | 146 | 169 | -23 |
| 9 | 36 | 21 | 15 | 82 | 90 | -8 |
| 10 | 18 | 10 | 8 | 0 | 0 | 0 |
| Total | $1,000 | $1,000 | $ 0 | | | |

## SLVG versus SLELG
## COMPARISON OF REVENUE REQUIREMENTS

| Year | SLVG Annual Accruals a | SLVG EOY Net Plant[1] b | SLVG Capital Costs on Average Net Plant c | SLVG Total Revenue Requirement[2] d = a + c | SLELG Annual Accruals e | SLELG EOY Net Plant[1] f | SLELG Capital Costs on Average Net Plant g | SLELG Total Revenue Requirement[2] h = e + g | SLVG-SLELG Total Revenue Requirement[2] l = d - h |
|---|---|---|---|---|---|---|---|---|---|
| 1 | $ 182 | $818 | $136.35 | $ 318.35 | $ 296 | $704 | $127.80 | $ 423.80 | $-105.45 |
| 2 | 163 | 655 | 110.48 | 273.48 | 194 | 510 | 91.05 | 285.05 | - 11.57 |
| 3 | 146 | 509 | 87.30 | 233.30 | 143 | 367 | 65.78 | 208.78 | 24.52 |
| 4 | 127 | 382 | 66.83 | 193.83 | 110 | 257 | 46.80 | 156.80 | 37.03 |
| 5 | 109 | 273 | 49.13 | 158.13 | 83 | 174 | 32.33 | 115.33 | 42.80 |
| 6 | 91 | 182 | 34.13 | 125.13 | 63 | 111 | 21.38 | 84.38 | 40.75 |
| 7 | 73 | 109 | 21.83 | 94.83 | 47 | 64 | 13.13 | 60.13 | 34.70 |
| 8 | 55 | 54 | 12.23 | 67.23 | 33 | 31 | 7.13 | 40.13 | 27.10 |
| 9 | 36 | 18 | 5.40 | 41.40 | 21 | 10 | 3.08 | 24.08 | 17.32 |
| 10 | 18 | 0 | 1.35 | 19.35 | 10 | 0 | 0.75 | 10.75 | 8.60 |
| | $1,000 | | $525.03 | $1,525.03 | $1,000 | | $409.23 | $1,409.23 | $115.80 |

a = Page 9, Column d

b = Page 9, Column c - Colum f

$c = \frac{b + b^{4}}{2} \times 0.15$ where b = $1,000 in year 0

e = Page 20, Colum e

f = Page 20, Column c - Column g

$g = \frac{f + f^{4}}{2} \times 0.15$ where f = $1,000 in year 0

[4]Prior year

[1]For the purpose of this example, revenue requirement equals annual accruals plus estimated capital costs on average net plant as defined in Columns c and g.

(END OF APPENDIX A)

it is better to say 13% more of the plant investment balance should have been depreciated but was not. This record indicates earlier than expected retirements are the largest cause of this deficiency. Growth fluctuations are a secondary cause. The straight line remaining life depreciation method has attempted in the past to rectify the problem. It obviously has not worked. What we could say then, based on this example, is that at least 13% of account 234 should be depreciated, written off somehow. Whether we call it a reserve deficiency or stranded investment does not matter. Whether it has been caused by the economic trends of the day or the migration strategy which we found in D.93367 Pacific had engaged in, or, as is most likely, some combination of the two, does make a difference. It makes a difference in how it should be written off. The part not due to the migration strategy should be paid by the ratepayers over a period of time, perhaps five or ten years. We could choose an NPF which is a reasonable one for Pacific's different accounts and eventually bring the depreciation reserves up to meet that figure. As an example, if we found that a 68% NPF is reasonable for an account which is now at 81%, we could bring the account down over a ten-year period by an additional depreciation allowance for Pacific of 1.3 percentage points each year. As to which ratepayers should pay for that, and what portion, and whether stockholders should pay for a portion, this record is not clear. There are some estimates on what the migration strategy might have cost as far as a reserve deficiency is concerned. There are only two broad figures on the record both calculated by Selwyn but disputed by Pacific. There is certainly some of the stranded investment attributable to Pacific's marketing practices. We noted in D.93367 that Pacific had deliberately embraced the marketing strategies of its parent, AT&T. The evidence is quite clear there have been early retirements because of marketing strategies. It is possible that a follow through on the

new costing procedures adopted by D.83-04-012 will give us some stronger estimates of the size of the stranded investment as well as the asset retirements which caused it.

As noted earlier, one of our problems is the frequency of our depreciation reviews, every three years on a committee basis--Pacific, the FCC, and our own staff. We believe now this should be done more often. The depreciation rates we use for ratemaking purposes, that is, straight line remaining life, would then be more in line with the actual consumption of Pacific's assets; Pacific recommends a yearly review which may be too often for our staff resources. An alternative we want Pacific, our staff, and the parties to consider would eliminate estimating remaining life for accounts susceptible to group accounting methods such as 234 in favor of maintaining such accounts at an agreed-upon NPF. This would automatically determine annual depreciation allowances for ratemaking. As an example we can assume an NPF of 70% is reasonable for an account and that, at the beginning of a given year, the NPF is at that level. Additions and retirements to the plant account and net retirements to the reserve account would be made during the year; depreciation for the year would be the amount necessary to bring the NPF to 70%. Safeguards could be built into such a scheme such as an annual review of the target NPF, growth rates, plant additions, retirements, and salvage values.

The two developments which are going to affect what we do in this proceeding and in Pacific's current major rate case are the FCC CI-II decision and the MFJ in the antitrust case. As we understand the divestiture proposal currently filed with Judge Greene those assets of Pacific which go to American Telephone & Telegraph Company (AT&T) sometime early in 1984 will be transferred at book value based on FCC accounting and not on this Commission's notation reserves we use for ratemaking purposes. If AT&T were to take the investments at the book value we use for ratemaking purposes, then

We are persuaded by the staff's showing that, in the long run, ELG is more costly to the ratepayers with no corresponding benefit to Pacific. Our present straight line remaining life method recovers all of Pacific's investment (even, eventually, any stranded investment) and Pacific, in the meantime, receives a return on its undepreciated investment (rate base) so that, in the long run, Pacific loses nothing. Although it is true that granting ELG along with the other adjustments Pacific proposes could help alleviate what we see as too high an NPF, the amount of help from ELG would be small and does not appear to offset the reduced benefits to ratepayers.

Rate Design

Pacific offered a rate design through its witness G. W. McBee and the staff through witness Emily Marks. Pacific conceded that it would adopt the staff proposal. Marks put in two proposals, one with the ELG revenue requirement and one without. Table 1 is the staff proposal without ELG which we will adopt for this decision; it must be scaled down to comport with the following discussion.

TABLE 2
(Millions$)

| Item | Effective Date | Annual Revenue Adjustment |
|---|---|---|
| D.82-05-044 | 8/29/81 | -12.8 |
| D.82-12-046 | 1/1/82 | - 3.6 |
| This Decision | 5/1/83* | +64.9 |
| | Net Change | +48.5 |

$9/81 - 5/83 = 20 \text{ mos.} \times \frac{12.8}{12} = 21.3$

$1/82 - 5/83 = 16 \text{ mos.} \times \frac{3.6}{12} = \frac{4.8}{26.1}$

$\frac{48.5}{12} = 4.0/\text{mo.}$

$\frac{26.1}{4.0} = 6.5$

6.5 months after 5/1/83, the assumed effective date of the rate increase authorized by this decision, rates would be adjusted to produce an increase in revenue of $48.5 million.

In the calculation called for in the order in this decision:

a. Days would be used instead of months.

b. Interest on the two refund orders would be taken into account.

c. Any effective surcharges would be accounted for.

*For illustrative purposes.

8. The terms "stranded investment" and "reserve deficiency" are interchangeable and describe an underaccrual of depreciation in past years resulting from earlier than anticipated retirements.

9. Depreciation reserve as a percent of investment tends to stabilize even when the reserve is growing.

10. Although the shortening of asset lives for depreciation purposes through the represcription process recovers total investment, it assigns no responsibility to those customers who do not keep equipment for its average estimated original life nor to Pacific for such premature retirements.

11. The most likely customers to pay the costs of stranded investment caused by premature retirements are those who take service after such retirements.

12. Estimates of the amount of stranded investment on Pacific's books range from $19 to $95.7 million.

13. There is not enough evidence in this record to determine who may have caused the stranded investment on Pacific's books nor who should be responsible for its recovery.

14. Remaining life estimates or represcription for Pacific's assets is now made on a triennial basis after conferences among the Commission staff, Pacific, and the FCC staff.

15. A less than triennial represcription of the lives of Pacific's assets would respond more timely to the rapidly changing technology in the telecommunications industry.

16. The technical staff of the Commission does not oppose Pacific's request for depreciation changes except for the ELG method.

17. When the time value of money is taken into account at the rate of return authorized Pacific in D.93367 the straight line vintage group remaining life method of depreciation is less costly for ratepayers in the long run than the SLELG method.

18. Pacific's request for additional depreciation allowances as detailed in this decision with the exception of adoption of the ELG method are reasonable and should be adopted.

19. The increased revenue requirement to accomplish the additional allowances noted in Finding of Fact 18 is $64.9 million based on the results of operations adopted in D.93367 dated August 4, 1981.

20. The general rate design shown on Table 1 should be used by Pacific in the filing to accomplish the change in rates authorized by this decision.

21. It is most practicable to meld the rate decrease ordered in D.82-05-044 and D.82-12-046 with the increase authorized by this decision into one net increase as shown, for example, on Table 2.

Conclusion of Law

Based on the foregoing findings of fact and under Public Utilities Code § 454 this Commission may grant Pacific authority to increase rates as provided for in the following order to enable Pacific to earn additional annual revenues of $48.5 million ($64.9 - 12.8 - 3.6).

SIXTH INTERIM ORDER

IT IS ORDERED that:

1. The Pacific Telephone and Telegraph Company (Pacific) shall perform a calculation of the effective date to increase its revenue requirement by $48.5 million annually after taking into account the revenue reductions ordered by D.82-05-044 and D.82-12-046 in a manner similar to that shown on Table 2 of this decision and file an original and 18 copies of that calculation with the Commission's Docket Office and all parties 30 days after the effective date of this decision.

2. Pacific shall file with the Commission, 30 days prior to the effective date determined in Ordering Paragraph 1, in conformity with General Order 96-A, revised tariff schedules with rates, charges, and conditions modified in general conformance with Table 1 of this decision and designed to produce an increase in revenue requirement of no more than $48.5 million based on the results of

it is better to say 13% more of the plant investment balance should have been depreciated but was not.

Discussion

The record in this proceeding indicates that earlier than anticipated retirements are the largest cause of the decline in Pacific's book depreciation reserve as a per cent of plant. Growth fluctuations are a secondary cause. Whether we call this condition a reserve deficiency or a stranded investment does not matter. Whether the problem has been caused by the economic trends of the day, the migration strategy, or, most likely, some combination of the two, does make a difference. The difference lies in how costs are allocated between Pacific's shareholders and ratepayers. That portion not resulting from the migration strategy should be paid by ratepayers. However, ratepayers should not bear the full cost of increasing the depreciation reserve if Pacific's migration strategy contributed to the resulting increased revenue requirement in ways which would not benefit ratepayers as a group.

Some of the existing stranded investment is certainly attributable to Pacific's marketing practices. We noted in D.93367 that Pacific had embraced the marketing strategies of its parent, AT&T. The evidence is quite clear that there have been early retirements of equipment because of marketing strategies which were designed to secure embedded equipment market customers against competition. Selwyn provided two estimates of the cost attributable to the migration strategy. Both were disputed by Pacific.

We believe that Selwyn's analysis comparing estimated 1980-81 retirements with actual 1980-81 retirements for Account 234 is a reasonable one for purposes of this proceeding. Based on that analysis, $19 million of Account 234 retirements are attributable to Pacific's migration strategy.

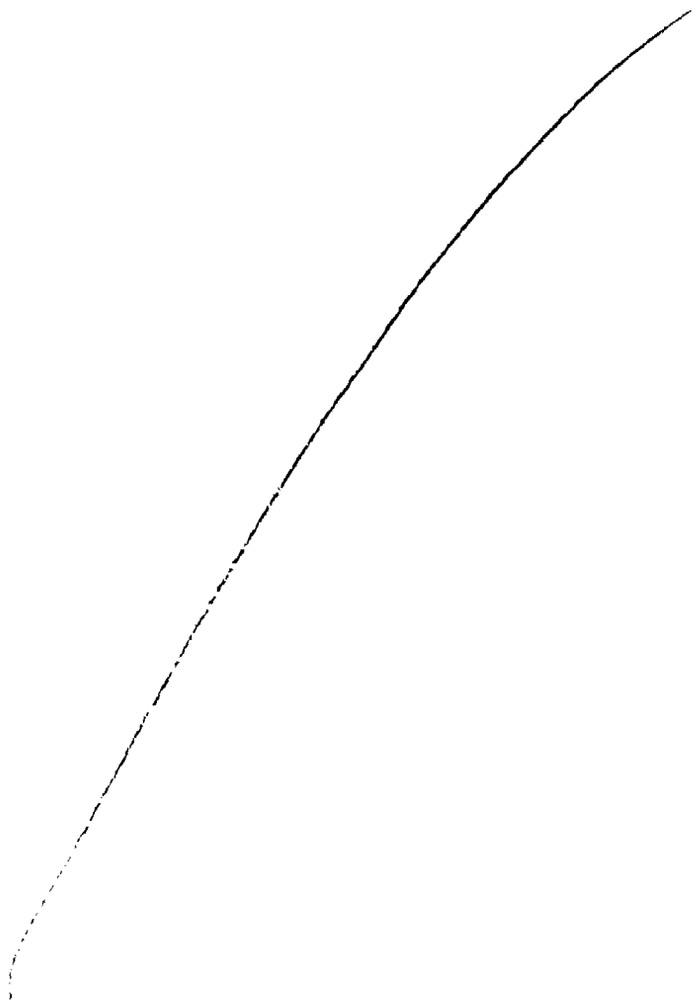
In essence, $19 million of Pacific's existing rate base is no longer used and useful plant as a result of Pacific's marketing strategy, and yet that plant is still earning a return as though it were used and useful.

We find that $19 million of Pacific's plant should not earn a return from ratepayers. We will order Pacific to remove that amount from plant, an adjustment which lowers the annual revenue requirement, as determined for purposes of this proceeding, by $3.5 million which allows for 75% of the adjustment to California intrastate, and a net to gross factor of 1.896 and the 12.9% return granted in D.93367. We expect this adjustment to rate base to be included as part of Pacific's pending general rate case proceeding. (A.83-01-22).

As noted earlier, one of our problems is the frequency of our depreciation reviews, every three years on a committee basis--Pacific, the FCC, and our own staff. We believe now this should be done more often. The depreciation rates we use for ratemaking purposes, that is, straight line remaining life, would then be more in line with the actual consumption of Pacific's assets; Pacific recommends a yearly review which may be too often for our staff resources. An alternative we want Pacific, our staff, and the parties to consider would eliminate estimating remaining life for accounts susceptible to group accounting methods such as 234 in favor of maintaining such accounts at an agreed-upon NPF. This would automatically determine annual depreciation allowances for ratemaking. As an example we can assume an NPF of 70% is reasonable for an account and that, at the beginning of a given year, the NPF is at that level. Additions and retirements to the plant account and net retirements to the reserve account would be made during the year; depreciation for the year would be the amount necessary to bring the NPF to 70%. Safeguards could be build into such a scheme such as an annual review of the target NPF, growth rates, plant additions, retirements, and salvage values.

The two developments which are going to affect what we do in this proceeding and in Pacific's current major rate case are the FCC CI-II decision and the MFJ in the antitrust case. As we understand the divestiture proposal currently filed with Judge Greene those assets of Pacific which go to American Telephone & Telegraph Company (AT&T) sometime early in 1984 will be transferred at book value based on FCC accounting and not on this Commission's notation reserves we use for ratemaking purposes. ~~If AT&T were to take the investments at the book value we use for ratemaking purposes, then~~

However, it now becomes a ratemaking problem for AT&T, this Commission, and the FCC and will affect the California payers of interstate and intrastate rates for services furnished by AT&T. This should be carefully considered as we move through divestiture, FCC Docket No. 81-893, and the current Pacific rate case.



Pacific would be made whole. However, it now becomes a ratemaking problem for AT&T, this Commission, and the FCC and will affect the California payers of interstate and intrastate rates for services furnished by AT&T. This should be carefully considered as we move through divestiture, FCC Docket No. 81-893, and the current Pacific rate case.

Because much of this proceeding comes down to a battle of experts, we cannot say with certainty, nor even within a reasonable judgment, how much stranded investment there is in Pacific's accounts and what part of it is due to inaccurate estimates of account average lives, changes in technology, the pressures and inroads of competition, the migration strategy, and the high growth rate. Therefore, we do not know how much stranded investment should be the responsibility of Pacific's stockholders and how much the responsibility of its customers and, of course, which customers.

We feel frustrated and disappointed that we have not obtained, from Pacific ~~and the staff~~ in particular, all the answers to the questions which came out in D.93367. However, we do not want to delay the closing of this proceeding any further and note that we have the new rate case and Order Instituting Investigation (OII) 83-02-01 we instituted February 22, 1983 to pick up the existing loose ends. Looking back at Paragraphs 16.a, c, and f of D.93367 it appears we still have no satisfactory answers for an appropriate method for determining any net stranded investment on Pacific's books, the cause of that stranded investment, including the kinds of equipment involved, and a method for recovering fairly that stranded investment.

We will grant Pacific's request for increased depreciation allowances with the exception of ELG. We, in effect, approved most of the request in RRD-10 in February 1982 and it only remained to determine the proper revenue requirement adjustment in this proceeding. Also, Pacific has been booking most of the request since January 1981 although it is for book purposes and represents no real cash drain such as a corresponding increase in wage costs might.

TABLE 2
(Millions $)

| Item | Effective Date | Annual Revenue Adjustment |
|---|---|---|
| D.82-05-044 | 8/29/81 | -12.8 |
| D.82-12-046 | 1/1/82 | - 3.6 |
| This Decision | 5/1/83* | 61.4 ** |
| | Net Change | +45.0 |

$9/81 - 5/83 = 20 \text{ mos.} \times \frac{12.8}{12} = 21.3$

$1/82 - 5/83 = 16 \text{ mos.} \times \frac{3.6}{12} = \frac{4.8}{26.1}$

$\frac{45.0}{12} = 3.75/\text{mo.}$

$\frac{26.1}{3.75} = 7.0$

7.0 months after 5/1/83, the assumed effective date of the rate increase authorized by this decision, rates would be adjusted to produce an increase in revenue of $45.0 million.

In the calculation called for in the order in this decision:

a. Days would be used instead of months.

b. Interest on the two refund orders would be taken into account.

c. Any effective surcharges would be accounted for.

*For illustrative purposes.

** 19 x 75% x 12.91% x 1.896 = 3.5
64.9 - 3.5 = 61.4

8. The terms "stranded investment" and "reserve deficiency" are interchangeable and describe an underaccrual of depreciation in past years resulting from earlier than anticipated retirements.

9. Depreciation reserve as a percent of investment tends to stabilize even when the reserve is growing.

10. Although the shortening of asset lives for depreciation purposes through the represcription process recovers total investment, it assigns no responsibility to those customers who do not keep equipment for its average estimated original life nor to Pacific for such premature retirements.

11. The most likely customers to pay the costs of stranded investment caused by premature retirements are those who take service after such retirements.

12. Estimates of the amount of stranded investment on Pacific's books range from $19 to $95.7 million.

13. The record supports the removal of $19 million from Pacific's rate base, an amount which lowers the annual revenue requirement, as determined for purposes of this proceeding, by $3.5 million.

14. Remaining life estimates or represcription for Pacific's assets is now made on a triennial basis after conferences among the Commission staff, Pacific, and the FCC staff.

15. A less than triennial represcription of the lives of Pacific's assets would respond more timely to the rapidly changing technology in the telecommunications industry.

16. The technical staff of the Commission does not oppose Pacific's request for depreciation changes except for the ELG method.

17. When the time value of money is taken into account at the rate of return authorized Pacific in D.93367 the straight line vintage group remaining life method of depreciation is less costly for ratepayers in the long run than the SLELG method.

18. Pacific's request for additional depreciation allowances as put forth in this decision, with the exception of adoption of the ELG method and the $19 million adjustment to rate base to account for stranded investment, are reasonable and should be adopted.

19. The increased revenue requirement to accomplish the additional allowances noted in Finding of Fact 18 is $64.9 million based on the results of operations adopted in D.93367 dated August 4, 1981.

20. The general rate design shown on Table 1 should be used by Pacific in the filing to accomplish the change in rates authorized by this decision.

21. It is most practicable to meld the rate decrease ordered in D.82-05-044 and D.82-12-046 with the increase authorized by this decision into one net increase as shown, for example, on Table 2.

Conclusion of Law

Based on the foregoing findings of fact and under Public Utilities Code § 454 this Commission may grant Pacific authority to increase rates as provided for in the following order to enable Pacific to earn additional annual revenues of $45 million (64.9 - 12.8 - 3.6).

SIXTH INTERIM ORDER

IT IS ORDERED that:

1. The Pacific Telephone and Telegraph Company (Pacific) shall perform a calculation of the effective date to increase its revenue requirement by $45 million annually after taking into account the revenue reductions ordered by D.82-05-044 and D.82-12-046 in a manner similar to that shown on Table 2 of this decision and file an original and 18 copies of that calculation with the Commission's Docket Office and all parties 30 days after the effective date of this decision.

2. Pacific shall file with the Commission, 30 days prior to the effective date determined in Ordering Paragraph 1, in conformity with General Order 96-A, revised tariff schedules with rates, charges, and conditions modified in general conformance with Table 1 of this decision and designed to produce an increase in revenue requirement of no more than $45 million based on the results of