Application No. Exhibit No.
Witness:
Date:

## SOUTHERN CALIFORNIA EDISON COMPANY

## PREPARED TESTIMONY OF

H. F. CHRISTIE

## Before the

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rosemead, California<br>November 1980

## 8108110713

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    SOUTHERN CALIFORNIA EDISON COMPANY
Prepared Testimony of H. Fred Christie
    Application No. }5935
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Q. Have you testified previously in this proceeding?
A. Yes, I have. I sponsored Exhibit No. 1 and pages $\mathrm{HFC}-1$ through $\mathrm{HFC}-31$ of Exhibit No. 4.
Q. What is the purpose of your testimony?
A. The purpose of my testimony is to:

1. Extend pertinent tables of Exhibit No. 1 to reflect 1979 recorded financing costs.
2. Revise the projected 1980,1981 , and 1982 cost of debt and preferred stock.
Q. Which tables of Exhibit No. 1 have been expanded in Exhibit No. (HFC-1)
$\qquad$ ?
A. Tables 1 through 7 and 24 have been expanded to include recorded data for 1979 and 1980 (through September) where appropriate. These tables are included in Exhibit No. (HFC-1) $\qquad$ as Tables 1 A through 7 A and 24 A .
Q. What is shown on Tables $1 A$ and $2 A$ ?
A. Tabies 1 A and 2 A reflect recorded 1979 construction expenditures, refundings, and financings. The 1980-1983 estimates of construction expenditures and financings have not been modified.
Q. Why haven't the financing projections for the 1980-1983 period been modified?
A. The Company has an urgent need for the rate relief which will be the
subject of the decision in this case. The Commission notice setting the date for the additional hearings limited the scope of the additional hearings, apparently so the Commission can reach such a decision before year-end 1980 with new rates to become effective January 1, 1981. Therefore even though the Company currently estimates 1981-1982 financing requirements will be higher than shown in Tables 1A and 2A, the Company is limiting the financial changes in the updated forecasts to those involving senior capital cost factors resulting from higher interest rates and rates applicable to preferred issues without changing the size of financings, the target capital structure, or the required return on common equity.
Q. What is shown on Table 3A of Exhibit No. (HFC-1) $\qquad$ ?
A. Table 3 A shows the GNP Implicit Price Deflator, the Consumer Price Index (CPI), and the Producer Price index (PPI) for the 1969-1979 time period. For the 1975-1979 period, the average annual trend rate of these price change indicators ranged from $6.77 \%$ to $7.65 \%$. This demonstrates a persistent inflation rate of at least $7 \%$ per year over that period.
Q. What is your current projection of the GNP Implicit Price Deflator and the CPI increases for 1980, 1981, and 1982?
A. Based on the November 1980 forecast of the U.S. Economy prepared by Data Resources, Inc., we project the GNP Implicit Price Deflator to rise approximately $9.5 \%$ in $1980,10.2 \%$ in 1981 and $9.8 \%$ in 1982 . We estimate the CPI will increase $13.5 \%$ in 1980, and hopefully no more than an additional $11.5 \%$ in $198 i$ and $10.0 \%$ in 1982. These indices indicate a high basic inflation rate for the 1980-1982 period.
Q. What do Tables $4 \mathrm{~A}, 5 \mathrm{~A}$, and 6 A show?
A. Tables 4A, 5A, and 6A set forth the trends in short-term money rates, utility long-term interest rates, and utility preferred stock yields

## HFC248. AB

01
recorded through September 1980. The cost of funds peaked in March 1980, declined until June and then commenced to increase again. We project that our final 1980 bond financing scheduled for mid-November in the amount of $\$ 150$ millition will cost at least $14.5 \%$ and the cost of 1981 and 1982 bond issues will average at least $14 \%$ and $12 \%$, respectively. Costs for preferred and preference issues for 1981 and 1982 are expected to be slightly less. These costs are projected to be at least $12 \%$ in 1981 and $11 \%$ in 1982.
Q. What do Tables 7 A and 24 A show?
A. Table 7 A shows the recorded 1979 imbedded costs of debt and preferred stock and current estimates of the imbedded costs of debt and preferred stock for 1980, 1981, and 1982 on both an average year and year-end basis. Unless the Company's cost factors are applied and an adequate attrition allowance is authorized, we believe year-end imbedded costs should be user.

Table 24 A shows the weighted cost of capital using the current estimates of both the year-end and average year imbedded costs. Excluding any provision for attrition, an $11.30 \%$ rate of return is required in 1981. This return reflects a $15 \%$ return on equity. It should be realized that an $11.30 \%$ rate of return will provide interest coverage of only 2.67 times.
Q. What impact would the higher estimated 1982 imbedded cost of senior capital have on a step attrition allowance?
A. Assuming that the required return on common equity remained at $15 \%$, the rate of return on rate base authorized for test year 1981 would have to be increased for 1982 to provide for financial attrition resulting from increases in imbedded costs. If a step attrition allowance were adopted using year-end cost factors, the authorized rate of return on rate base
for 1982 would have to be at least $11.51 \%$. It is estimated such a return would only provide coverage of 2.6 times interest. If a step attrition allowance were adopted using average cost factors, the authorized rate of return on rate base for 1982 would have to be at least $11.40 \%$. Such a return would only provide coverage of 2.64 times interest, if such coverage was calculated on an average year basis.
Q. Does this conclude your prepared test imony?
A. Yes, it does.

$$
\begin{aligned}
& \text { Application No. } \frac{59351}{\text { Exhibit No. } \frac{(H F C-1) 1.39}{\text { Fred Christie }}} \begin{array}{l}
\text { Witness: H. } \\
\text { Date: }
\end{array} .
\end{aligned}
$$

## SOUTHERN CALIFORNIA EDISON COMPANY

## CURRENT FINANCIAL DATA

Before the
PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Table 1A

## SCE FUNDS REQUIRED FOR

CONSTRUCTION EXPENDITURES AND REFUNDINGS
Line

No. Funds Required (millions)
Nonstruction
A. Recorded Period

| 1. | 1974 | \$-...- | \$320.7 | \$320.7 | \$140.2 | \$180.5 | 43.78 | $56.3 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 1975 | ..... | 381.1 | 381.1 | 52.8 | 328.3 | 13.8 | 86.2 |
| 3. | 1976 | 80.8 | 500.3 | 581.1 | 344.9 | 236.2 | 59.4 | 40.6 |
| 4. | 1977 | -...- | 500.3 | 500.3 | 55.2 | 445.1 | 11.0 | 89.0 |
| 5. | 1978 | 35.5 | 567.8 | 603.3 | 410.4 | 192.9 | 68.0 | 32.0 |
| 6. | 1979 | 33.7 | 674.1 | 707.8 | (37.6) | 745.4 | (5.3) | 105.3 |
| 7. | Total | \$150.0 | \$2,944.3 | \$3,094.3 | \$965.9 | \$2,128,4 | -.-- | -... |
| 8. | verage | 25.0 | 490.7 | 515.7 | 161.0 | 354.7 | $31.8 \%$ | 68.2 |
|  | Percent | 4.8\% | 95.2\% | 100.08 | 31.25 | 68.8\% |  |  |

B. Forecast Period Kithout Rate Relief

| 10. | 1980 | $\$ 84.6$ | $\$ 6-0.2$ | $\$ 754.8$ | $\$ 85.9$ | $\$ 668.9$ | 11.48 | $88.6 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 11. | 1981 | 143.7 | 516.2 | 659.9 | 63.2 | 596.7 | 9.6 | 90.4 |
| 12. | 1982 | 121.0 | 478.2 | 599.2 | 145.6 | 453.6 | 24.3 | 75.7 |
| 13. | 1983 | 53.2 | 581.7 | 634.9 | 157.7 | 477.2 | 24.8 | 75.2 |
|  |  |  |  |  |  |  |  |  |
| 14. | Total | $\$ 402.5$ | $\$ 2,246.3$ | $\$ 2,648.8$ | $\$ 452.4$ | $\$ 2,196.4$ | $\ldots .$. | $\ldots .$. |
| 15. Average | 100.6 | 561.6 | 662.2 | 113.1 | 549.1 | $17.5 \%$ | $82.5 \%$ |  |
| 16. Percent | $15.2 \%$ | $84.8 \%$ | 100.08 | 17.18 | 82.98 | $\ldots \ldots$ | $\ldots .$. |  |

C. Forecast Period With Rate Reliof

| 17. | 1980 | $\$ 84.6$ | $\$ 670.2$ | $\$ 754.8$ | $\$ 85.9$ | $\$ 668.9$ | $11.4 \%$ | $88.6 \%$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 18. | 1981 | 143.7 | 516.2 | 659.9 | 263.8 | 396.1 | 40.0 | 60.0 |
| 19. | 1982 | 121.0 | 478.2 | 599.2 | 257.4 | 341.8 | 43.0 | 57.0 |
| 20. | 1983 | 53.2 | 581.7 | 634.9 | 412.5 | 222.4 | 65.0 | 35.0 |
|  |  |  |  |  |  |  |  |  |
| 21. | Total | $\$ 402.5$ | $\$ 2,246.3$ | $\$ 2,648.8$ | $\$ 1019.6$ | $\$ 1,629.2$ | $\ldots .$. | $\ldots$ |
| 22. Average | 100.6 | 561.6 | 662.2 | 254.9 | 407.3 | $39.9 \%$ | 60.18 |  |
| 23. Percent | $15.2 \%$ | $84.8 \%$ | $100.0 \%$ | $38.5 \%$ | $61.5 \%$ | $\ldots .$. | $\ldots .$. |  |

## Sources: Annual Reports <br> Plant Construction Budget and Fcrecast, Second Quarter, 1979

## $\frac{\text { SCE FINANCINGS }}{(\text { M1.111ons })}$

Long-Term

A. Recorded Period
2. 1974
3. 1975
4. 1976
5. 1977
6. 1978
7. 1979

| $\$ \ldots$. | $\$ \ldots$ |
| :--- | :--- |
| 222.5 | 50.0 |
| 161.6 | 50.0 |
| 126.3 | $\ldots .$. |
| 200.0 | 102.4 (a) |
| 200.0 | $(14.5)($ a |
|  | 305.0 |
|  | 113.7 |

$\begin{array}{ccc}\$ \ldots & \$ & \$ \ldots \\ 67.2 & 339.7 & 66.7 \\ \ldots . . & 211.6 & \ldots . \\ 123.9 & 250.2 & \ldots \\ 43.3(a) & 345.7 & \ldots . \\ 203.3(a) & 388.8 & 80.5 \\ 62.0 & 480.7 & \ldots\end{array}$

| $\$ 92.5$ | $\$ \ldots$ | $\ldots$ |
| ---: | :---: | :---: |
| $\ldots .$. | $(159.2)$ | 180.5 |
| 50.0 | 116.7 | 328.3 |
| 36.0 | $(14.0)$ | 236.2 |
| 135.4 | 99.4 | 445.1 |
| 20.0 | $(195.9)$ | 192.9 |
| 204.2 | 264.7 | 745.4 |

8. Total
$\$ 301.6$
$\$ 499.7$ \$2,016.7 $\quad .$.
..- $\quad \$ 111.7 \quad \$ 2,128.4$

$\begin{array}{lllllllll}\text { 10. } & \text { Percent } & 57.1 \% & 14.2 \% & 23.5 \% & 94.8 \% & \cdots & \cdots & \\ & \cdots .2 \% & 100.0 \%\end{array}$

## B. Forecast Period Kithout Rate Relief

| -1 1980 | \$ 400.0 | \$ 63.0 (b) | \$231.0 | \$ | 694.0 | -.. | \$179.1 | \$(25.1) | 668.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | 300.0 | $63.0{ }^{\text {(b) }}$ | 220.8 |  | 583.8 | ... | 192.0 | 12.9 | 596.7 |
| (3. 1982 | 300.0 | 45.1 (b) | 155.0 |  | 500.1 | .-- | 145.5 | (46.5) | 453.6 |
| 14. 1983 | 300.0 | 50.0 | 120.0 |  | 470.0 | -.- | 152.7 | 7.2 | 47-. 2 |
| 15. Total | \$1,300.0 | \$221.1 | \$726.8 |  | 247.9 | --- | --. | \$(51.5) | \$2.196.4 |
| 16. erage | 325.0 | 55.3 | 181.7 |  | 562.0 | ... | ... | (12.9) | 549.1 |
| 17. Percent | 59.2\% | 10.0\% | 33.18 |  | 102.3\% |  | --- | (2,3) | 100. |

C. Forecast Period with Rate Relief

| 18. 1980 | \$ 400.0 | \$ 63.0 (b) | \$231.0 | \$ 694.0 | --- | \$179.1 | \$(25.1) | \$ 668.9 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19. 1981 | 300.0 | 63.0 (b) | 80.0 | 443.5 | --- | 132.5 | (47.4) | 396.1 |
| 20. 1982 | 300.0 | 45.1 (b) | 85.3 | 430.4 | -.. | 43.9 | (88.6) | 341.8 |
| 21. 1983 | 250.0 | 50.0 | 94.3 | 394.3 | \$128.0 | --- | (171.9) | 222.4 |
| 22. Total | \$1,250.0 | \$221.1 | \$491.1 | \$1,962.2 | --- | --- | \$(333.0) | \$1,629.2 |
| 23. Average | 312.5 | 55.3 | 122.8 | 490.6 |  | --- | (83.3) | $40^{-} .3$ |
| 24. Percent | 76.7\% | 13.6\% | 30.18 | 120.4\% | --- | --- | (20.4)8 | : 100.05 |

(a)Convertible preference stock was converted to comunon stock; $\$ 19.6$ million in 1977 , and $\$ 14.5$ million in 1978.
b) Convertible preference stock is projected to be converted to comnon stock through 1982; $\$ 12$ million in 1979,1980 , and 1981 ; and $\$ 4.9$ million in 1982.
ces: Financial \& Statistical Report, 1978
Financial Simulation, July, 1979

## PRICE INDICES

| $\begin{aligned} & \text { Line } \\ & \text { No. } \\ & \hline \end{aligned}$ | Year | $\begin{gathered} \text { GNP } \\ \text { Implicit } \\ \text { Price } \\ \text { Deflator } \\ (1969=100) \end{gathered}$ | Percent Change | Consumer Price Index United States $(1969=100)$ | Percent <br> Change | Producer <br> Price Index $(1969=100)$ | $\begin{aligned} & \text { Percent } \\ & \text { Cl.ange } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. | 1969 | 100.00 | -- | 100.00 | -- | 100.00 |  |
| 2. | 1970 | 105.35 | 5.35\% | 105.92 | 5.92\% | 103.66 | $3.66 i$ |
| 3. | 1971 | 110.72 | 5.10 | 110.47 | 4. 30 | 106.95 | 3.17 |
| 4. | 1972 | 115.31 | 4.15 | 114.12 | 3.30 | 111.83 | 4.56 |
| 5. | 1973 | 122.00 | 5.80 | 121.22 | 6.22 | 126.48 | 13.10 |
| 6. | 1974 | 133.79 | 9.66 | 134.52 | 10.97 | 150.33 | 18.86 |
| 7. | 1975 | 146.62 | 9.59 | 146.81 | 9.14 | 164.23 | 9.25 |
| 8. | $19^{76}$ | 154.24 | 5.20 | 155.28 | 5.77 | 171.83 | 4.63 |
| 9. | 1977 | 163.30 | 5.87 | 165.30 | 6.45 | 182. 35 | 6.12 |
| 10. | 1978 | 175.38 | 7.40 | 177.87 (a) | 7.60 | 196.53 | 7.78 |
| 11. | 1979 | 190.80 | 8.79 | 195.27 (a) | 11.47 | 221.22 | 12.56 |

Average Annual Trend Rite (b)
12. 1970-1979
$6.96 \%$
$7.32 \%$
$9.21 \%$
13. $1970-1974$
5.92
5.88
7.65
9.54
6.77

1975-1979

| $7.32 \%$ | $9.21 \%$ |
| :--- | :--- |
| 5.88 | 9.54 |
| 7.65 | 7.57 |

${ }^{\text {(a) }}$ CPI revised in 1978; hence not directly comparable to prior years.
(b) Exponential Curve Fit $\left(y=a e^{b x}\right)$

Sources: Col. 2, lines 1-11: Survey of Current Business Cols. 4 and 6, lines 1-11: Monthly Labor Review, Bureau of Labor Statistics

## SHORT-TERM MONEY RATT S(a)

| Line No. | Year | Prime (a) | $\begin{gathered} \text { Commercial } \\ \text { Paper } \\ 3 \text {-months (b) } \\ \hline \end{gathered}$ | Banker's Acceptance $\qquad$ $90 \text { Day }$ | $\begin{gathered} \text { Treasury } \\ \text { Bills } \\ 90 \text { Day }(\mathrm{c}) \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) |
| 1. | 1970 | $7.91 \%$ | $7.72 \%$ | $7.31 \%$ | 6.39\% |
| 2. | 1971 | 5.72 | 5.11 | 4.85 | 4.33 |
| 3. | 1972 | 5.25 | 4.69 | 4.47 | 4.07 |
| 4. | 1973 | 8.03 | 8.15 | 8.08 | 7.03 |
| 5. | 1974 | 10.81 | 9.87 | 9.92 | 7.84 |
| 6. | 1975 | 7.86 | 6.33 | 6.30 | 5.80 |
| 7. | 1976 | 6.84 | 5.35 | 5.19 | 4.98 |
| 8. | 1977 | 6.83 | 5.60 | 5.59 | 5.27 |
| 9 | 1978 | 9.06 | 7.99 | 8.11 | 7.19 |
| 10. | 1979 | 12.67 | 10.98 | 11.04 | 10.07 |
| 11. | Average | $8.10 \%$ | $7.18 \%$ | $7.09 \%$ | $6.30 \%$ |
|  |  |  | 79 Monthly |  |  |
| 12. | January | 11.75\% | $10.32 \%$ | 10.29\% | 9.35\% |
| 13. | February | 11.75 | 10.01 | 10.01 | 9.32 |
| 14. | March | 11.75 | 9.96 | 9.94 | 9.48 |
| 15. | April | 11.75 | 9.87 | 9.90 | 9.46 |
| 16. | May | 11.75 | 9.98 | 9.98 | 9.61 |
| 17. | June | 11.65 | 9.71 | 9.79 | 9.06 |
| 18. | July | 11.54 | 9.82 | 9.99 | 9.24 |
| 19. | August | 11.91 | 10.39 | 10.62 | 9.52 |
| 20. | September | 12.90 | 11.60 | 11.70 | 10.26 |
| 21. | October | 14.39 | 13.23 | 13.44 | 11.70 |
| 22. | November | 15.55 | 13.57 | 13.53 | 11.79 |
| 23. | December | 15.30 | 13.24 | 13.31 | 12.04 |
|  |  |  | 980 Monthly |  |  |
| 24 | January | 15.25\% | 13.04\% | $13.15 \%$ | 12.00\% |
| 25. | February | 15.63 | 13.78 | 14.01 | 12.86 |
| 26. | March | 18.31 | 16.81 | 17.10 | 15.20 |
| 27. | April | 19.77 | 15.78 | 15.63 | 13.20 |
| 28. | May | 16.57 | 9.49 | 9.60 | 8.58 |
| 29. | June | 12.63 | 8.27 | 8.31 | 7.07 |
| 30. | July | 11.48 | 8.41 | 8.58 | 8.06 |
| 31. | August | 11.12 | 9.57 | 9.85 | 9.13 |
| 32. | September | 12.23 | 10.97 | 12.13 | 10.21 |

[^0]Sources: Federal Reserve Bulletins Federal Reserve Statistical Release G-13.

## LONG TERM BOND YIELDS

| $\begin{aligned} & \text { Line } \\ & \text { No. } \\ & \hline \end{aligned}$ | Year | Moody's Public Utilities (a) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bond Rating |  |  | Difference |  |
|  |  | Aa | A | Baa | A-Aa | Baa-A |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | 1970 | 8.52\% | $8.69 \%$ | 9.18\% | . 17 | . 49 |
| 2 | 1971 | 8.00 | 8.16 | 8.63 | . 16 | . 47 |
| 3. | 1972 | 7.60 | 7.72 | 8.17 | . 12 | . 45 |
| 4. | 1973 | 7.72 | 7.84 | 8.17 | . 12 | . 33 |
| 5 | 1974 | 9.04 | 9.50 | 9.84 | . 46 | . 34 |
| 6. | 1975 | 9.44 | 10.09 | 10.96 | . 65 | . 87 |
| 7. | 1976 | 8.92 | 9.29 | 9.82 | . 37 | . 53 |
| 8 | 1977 | 8.43 | 8.61 | 9.06 | . 18 | . 45 |
| 9 | 1978 | 9.10 | 9.29 | 9.62 | . 19 | . 33 |
| 10. | 1979 | 10.22 | 10.49 | 10.96 | . 27 | . 47 |

$\begin{aligned} & \text { U.S. Government } \\ & \text { Long-Ter } \\ & \text { Differenct } \\ & \frac{\text { Yield }}{(7)}\end{aligned} \frac{\text { From AA }}{(8)}$

Averages

| 11. | $1970-1979$ | $8.70 \%$ | $8.97 \%$ | $9.44 \%$ | .27 | .47 | $7.57 \%$ | $(1.13) \%$ |
| :--- | :--- | :--- | :--- | :---: | ---: | :--- | :--- | :--- |
| 12. | $1975-1779$ | 9.22 | 9.55 | 10.08 | .33 | .53 | 8.30 | $(0.92)$ |

19-9 Mon:hly Yields

| 13 | January | 9. 705 | 9.90\% | $10.29 \%$ | . 20 | . 39 | $8.98 \%$ | (0.72 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14. | February | 9.74 | 9.84 | 10.27 | . 10 | . 43 | 9.03 | (0.71) |
| 15. | March | 9.89 | 10.04 | 10.53 | . 15 | . 49 | 9.08 | (0.81) |
| 16. | April | 9.92 | 10.10 | 10.56 | . 18 | . 46 | 9.12 | (0.80) |
| 17. | May | 10.19 | 10.30 | 10.70 | . 11 | . 40 | 9.21 | (0.98) |
| 18. | June | 9.95 | 10.14 | 10.56 | . 19 | . 42 | 8.91 | (1.04) |
| 19. | July | 9.72 | 9.98 | 10.48 | . 26 | . 50 | 8.92 | (0.80) |
| 20. | August | 9.75 | 10.14 | 10.50 | . 39 | . 36 | 8.97 | (0.78) |
| 21. | September | 9.94 | 10.36 | 10.78 | . 42 | . 42 | 9.21 | (0.73) |
| 22. | October | 10.85 | 11.40 | 11.89 | . 55 | . 49 | 9.91 | (0.94) |
| 23 | November | 11.57 | 11.89 | 12.48 | . 32 | . 59 | 10.37 | (1.20) |
| 24. | December | 11.47 | 11.79 | 12.51 | . 32 | . 72 | 10.18 | (1.29) |

1980 Monthly Yields

| 25. | January | $11.95 \%$ | $12.27 \%$ | $12.92 \%$ | .32 | .65 | $10.65 \%$ | $(1.30) \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 26. | February | 13.19 | 13.55 | 14.42 | .36 | .87 | 12.21 | $(0.98)$ |
| 27. | March | 14.09 | 14.65 | 15.26 | .56 | .61 | 12.49 | $(1.60)$ |
| 28. | April | 13.49 | 13.87 | 14.35 | .38 | .48 | 11.42 | $(2.07)$ |
| 29. | May | 11.99 | 12.53 | 12.93 | .54 | .40 | 10.44 | $(1.55)$ |
| 30. | June | 11.73 | 12.21 | 12.63 | .48 | .42 | 9.89 | $(1.84)$ |
| 31. | July | 11.96 | 12.26 | 12.75 | .30 | .49 | 10.32 | $(1.64)$ |
| 32. | August | 12.73 | 12.96 | 13.50 | .23 | .54 | 11.07 | $(1.66)$ |
| 35. | September | 13.18 | 13.43 | 14.07 | .25 | .64 | 11.47 | $(1.71)$ |

(a)Yields are based on prices for the last Friday of each month. Series began $19-5$.

Sources: Moody's Bond Record Moody's Public Utility Manual

| $\begin{aligned} & \text { Line } \\ & \text { No. } \\ & \hline \end{aligned}$ | Quarter | Moody's Ratings (a) |  |  | $\begin{aligned} & \text { Difference } \\ & \text { from aa } \\ & \hline \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | aa | a | bra | a | baa |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| 1977 |  |  |  |  |  |  |
| 1. | March | 8. 215 | $8.75 \%$ | $9.01 \%$ | 0.58\% | 0.808 |
| 2. | June | 8.03 | 8.47 | 8.92 | 0.44 | 0.89 |
| 3. | September | 7.95 | 8.32 | 8.87 | 0.37 | 0.92 |
| 4. | December | 8.14 | 8.59 | 9.03 | 0.45 | 0.89 |
| 5. | Average | 8.12\% | 8.55\% | 8.93\% | $0.43 \%$ | 0.818 |
| $\underline{1978}$ |  |  |  |  |  |  |
| 6. | March | 8.35\% | 8 79\% | 9.34\% | 0.44\% | 0.995 |
| 7. | June | 8.84 | 9.39 | 9.81 | 0.55 | 0.97 |
| 8. | September | 8.43 | 8.82 | 9.62 | 0.59 | 1.19 |
| 9. | December | 8.94 | 9.65 | 10.48 | 0.71 | 1.54 |
| 10. | Average | $8.59 \%$ | $9.06 \%$ | $9.61 \%$ | $0.47 \%$ | 1.02\% |
| 1979 - Monthly |  |  |  |  |  |  |
| 11. | January | $9.05 \%$ | 9.615 | $10.42 \%$ | 0.56\% | 1.378 |
| 12. | February | 9.11 | 9.66 | 10.37 | 0.55 | 1.26 |
| 13. | March | 9.10 | 9.63 | 10.35 | 0.53 | 1.23 |
| 14. | April | 9.14 | 9.71 | 10.43 | 0.57 | 1.29 |
| 15. | May | 9.19 | 9.91 | 10.82 | 0.72 | 1.63 |
| 16. | June | 9.03 | 9.55 | 10.49 | 0.52 | 1.46 |
| 17. | July | 8.98 | 9.60 | 10.33 | 0.62 | 1.35 |
| 18. | August | 9.07 | 9.74 | 10.49 | 0.67 | 1.42 |
| 19. | September | 9.60 | 10.34 | 10.97 | 0.74 | 1.37 |
| 20. | October | 10.62 | 11.38 | 11.94 | 0.76 | 1.32 |
| 21. | November | 10.66 | 11.23 | 12.18 | 0.57 | 1.52 |
| 22. | December | 10.86 | 11.49 | 12.75 | 0.63 | 1.89 |
| 23. | Average | 9.53\% | 10.15\% | $10.96 \%$ | 0.628 | 1.43\% |
| 1980 - Monthly |  |  |  |  |  |  |
| 24. | January | 10.96\% | 11.79\% | 12.74\% | $0.83 \%$ | $1.78 \%$ |
| 25. | February | 11.62 | 12.92 | 14.08 | 1.30 | 2.46 |
| 26. | March | 13.09 | 14.74 | 15.22 | 1.65 | 2.13 |
| 27. | April | 11.67 | 12.22 | 13.13 | 0.55 | 1.46 |
| 28. | May | 10.80 | 11.69 | 12.29 | 0.89 | 1.49 |
| 29. | June | 10.59 | 10.97 | 12.05 | 0.38 | 1.46 |
| 30. | July | 10.98 | 11.49 | 12.32 | 0.51 | 1.34 |
| 31. | August | 11.47 | 12.15 | 13.05 | 0.68 | 1.58 |
| 32. | September | 12.02 | 12.92 | 13.76 | 0.90 | 1.74 |
| 33. | Average ${ }^{(b)}$ | 11.47 | 12.32 | 13.18 | 0.85 | 1.72 |

(a) Yields are based on prices for the last Friday of each month. Series began 1975.
(b) Year-end, September, 1980.

Sources: Moody's Bond Record

SCE IMRFDNED COST
OF
DEBT AND PRIFIRRED STOCK

A. Recorded Period

| 1. | 1975 | \$2,088, 218 | \$128,030 | 6.13\% | 6.02\% | \$602,106 | \$41,751 | $6.93 \%$ | 6. $82 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | 1976 | 2,130,512 | 136,899 | 6.43 | 6.28 | 602,106 | 41,751 | 6.93 | 6.93 |
| 3. | 1977 | 2,328,243 | 152,795 | 6. 56 | 6. 50 | 714,431 | 49,985 | 7.10 | 7.02 |
| 4. | 1978 | 2,490,007 | 171,067 | 6.87 | 6.72 | 690,257 | 49,230 | 7.13 | 7.12 |
| 5. | 1979 | 2,756,831 | 204,154 | 7.41 | 7.14 | 805,062 | 59,579 | 7.40 | 7.27 |
|  | B. Forecast Period |  |  |  |  |  |  |  |  |
| 6. | 1980 | \$3,066,241 | \$258,515 | 8. 43 \% | 7.92\% | \$867,675 | \$67,955 | 7.83\% | 7.62\% |
| 7. | 1981 | 3,222,453 | 289,655 | 8.99 | 8.71 | 930,288 | 76,331 | 8.21 | 8.02 |
| 8. | 1982 | 3,399,430 | 320,032 | 9.41 | 9.20 | 975,062 | 81,576 | 8.37 | 8.29 |

## WEIGITED AVERAGE COST OF CAPITAL

| Line No. | Capital Ratio | Year-End Cost <br> Factor | Weighted Cost | After Tax Interest Coverage | Average Year Cost | Weighted | After Tax Interest |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | (2) | Factor |  | Coverage | Factor |  | $\frac{\text { Coverage }}{(8)}$ |

A. Projected Rate of Return with 15\% Return on Common Equity Test Year 1980

| . | Long-term Debt | 47.00\% | 8.43\% | 3.96\% |  | $7.92 \%$ | 3.724 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2. | Preferred Stock | 13.00 | 7.83 | 1.02 |  | 7.62 | . 99 |  |
| 3. | Senior Capital | $60.00 \%$ | 8.30 | 4.98\% | 10.98\% | 7.85 | 4.71\% | 10.71\% |
| 4. | Common Equity | 40.00 | 15.00 | 6.00 | $+3.96$ | 15.00 | 6.00 | $+3.72$ |
| 5. | Total Equity | 100.00\% |  | 10.98\% | 2.77 x |  | 10.71\% | 2.88 x |

B. Test Year 1981

Preferred Stock Senior Capital

| $47.00 \%$ | 8.99 |
| :--- | ---: |
| 13.00 | 8.21 |
| $60.00 \%$ | 8.83 |
| 40.00 | 15.00 |


| $4.23 \%$ |  |
| :--- | :--- |
| $\frac{1.07}{5.30 \%}$ | $11.30 \%$ |
| $\frac{6.00}{11.30 \%}$ | $\frac{ \pm 4.23}{2.67 x}$ |


| $8.71 \%$ | $4.09 \%$ |  |
| ---: | :--- | :--- |
| 8.02 | $\frac{1.04}{5.13 \%}$ | $11.13 \%$ |
| 8.55 | $\frac{6.00}{11.13 \%}$ | $\frac{44.09}{2.72 x}$ |
| 15.00 |  |  |

C. Test Year 1982

| Long-term Debt | 47.00\% | 9.41\% | 4.42\% |  | 9.20\% | 4. $32 \%$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Preferred Stock | 13.00 | 8.37 | 1.09 |  | 8.29 | 1.08 |  |
| Senior Capital | $60.00 \%$ | 9.18 | $5.51 \%$ | 11.51\% | 9.00 | $5.40 \%$ | $11.40 \%$ |
| Common Equity | 40.00 | 15.00 | 6.00 | 44.42 | 15.00 | 6.00 | +4.32 |
| Total Equity | 100.00\% |  | 11.51\% | 2.60 x |  | $11.40 \%$ | 2.6 |


[^0]:    (a) Average of daily effective rates.
    (b) Prior to $11 / 79$ the Federal Reserve reported 4-6 Month Commercial Paper which closely follows the 3 -month rate.
    (c) Average market yields.

