

Decision 99-11-029

November 4, 1999

## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of San Diego Gas &  
Electric Company for Authority To  
Implement A Distribution Performance  
Based Ratemaking Mechanism.

A. 98-01-014  
(Filed January 16, 1998)

**ORDER MODIFYING DECISION NO. 99-05-030 AND DENYING  
REHEARING OF THE DECISION AS MODIFIED**

**I. SUMMARY**

On June 17, 1999, the Natural Resources Defense Council (NRDC) and the Utility Consumers Action Network (UCAN) filed a joint application for rehearing of Decision (D.) 99-05-030 in which the Commission determined the performance indicators and design of a performance-based ratemaking (PBR) mechanism for San Diego Gas & Electric Company (SDG&E). NRDC and UCAN have also requested oral argument on the issue pursuant to Rule 86.3 of the Commission's Rules of Practice and Procedure.

NRDC and UCAN contend that the Commission's decision to base SDG&E's PBR mechanism on a rate indexing formula rather than a revenue-per-customer formula is not sufficiently supported by material findings. The applicants also argue that the rate indexing formula is not consistent with the Commission's energy efficiency and conservation policies.

On July 6, 1999, SDG&E timely filed a reply to the rehearing application contending that there is evidence in the record to support the Commission's adoption of the rate indexing mechanism.

After careful review of our decision, the issues raised by the rehearing application, and SDG&E's reply, the Commission has concluded that legal error has been shown by the applicants with respect to the sufficiency of the findings. Accordingly, we will modify and supplement our discussion to clarify the reasons for our decision. In addition, our discussion in D.99-05-030 includes a statement reflecting the testimony of NRDC which may have lent some confusion as to the characteristics of the revenue-per-customer formula, the formula we rejected. Another statement errs in describing SDG&E's prior experimental PBR mechanism.<sup>1</sup> These statements will also be corrected. Upon modification of our decision, as set forth herein, the Commission concludes that our policy choice of the rate indexing formula is reasonable. Rehearing, therefore, of D.99-05-030, as modified and supplemented, will be denied.

The Commission also will deny the request for oral argument. We find that the parties have been given full opportunity to present their views and provide information to the Commission. Further debate of the issues and the record is not required.

## II. DISCUSSION

At issue in the present proceeding is the formula to be used for a new PBR mechanism for SDG&E. The PBR mechanism will establish customer rates each year for SDG&E's regulated electric distribution and natural gas services from January 1, 1999 through 2002. There are two formulas in contention. One is of the rate indexing type used in the setting of rates for Southern California Edison Company (Edison), and the other is of the revenue-per-customer type used for the PBR of Southern California Gas Company (SoCalGas), an affiliate of SDG&E. (See, D.99-05-030, at 12-14, 45.)

The rate indexing formula we adopted for SDG&E in D.99-05-030 is basically the Edison type formula. It increases rates each year by applying an

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<sup>1</sup> SDG&E's prior PBR mechanism had been in effect from September 1, 1994 through 1998.

inflation factor, reduced by a productivity factor to encourage utility efficiencies. The SoCalGas type revenue-per-customer formula also revises rates each year to reflect inflation, less a productivity factor, but the adjustment is made not to the prior year's rate, but to the prior year's calculation of the revenue required per customer.

In D.99-05-030, the Commission opted for the Edison rate indexing formula although we did not adopt the precise components requested by SDG&E. For example, rather than include a productivity factor of .92% for electricity distribution and .68% for gas distribution, we decided that to encourage management efficiencies, a higher productivity factor should be applied to reduce the effect of the inflation increase. For electricity distribution, we found that 1.32%, 1.47%, and 1.62% were appropriate for the rate years of 2000, 2001, and 2002, respectively. Similarly, for natural gas distribution, we found that 1.08%, 1.23% and 1.38% for the same rate years was reasonable.

As an adjunct to the rate indexing formula, we also adopted a profit-sharing schedule similar to that used for both Edison and SoCalGas. Here again, however, we made significant changes from the sharing percentages and gradations proposed by SDG&E. The schedule we ordered provides ratepayers greater opportunity to share in the profits which may be achieved by SDG&E above the anticipated rate of return that is included in the rate indexing formula. Our decision was based in part on the generally accepted assumption that SDG&E would experience profits in the near future because of customer growth resulting from general economic conditions, not just from SDG&E management efforts. Therefore, rather than assigning SDG&E shareholders the first 1% of earnings above or below the anticipated return set in the formula (i.e., the "deadband"), we decided to reduce that amount to the first .25% (one-quarter of a percent) above the anticipated rate of return. Similarly, although SDG&E proposed a sharing of earnings above or below the deadband with 80% assigned to shareholders and 20% to customers, we decided on a more graduated and

“progressive” sharing schedule. Customers are assigned from 75% to 0% of the earnings as they increase relative to the return beyond the .25% deadband to more than 3%. Shareholders are assigned 25% to 100% over the same progressive increases relative to the .25% deadband.

Nonetheless, NRDC and UCAN argue that our decision to reject the revenue-per-customer type of formula in favor of rate indexing is not supported by sufficient findings. They contend that the Commission did not sufficiently consider the potential adverse impact on state energy efficiency and environmental policies. They claim that the rate indexing formula gives SDG&E a strong incentive to promote energy sales, which is not consistent with the countervailing demand-side management programs of the Commission. (Application for Rehearing, at 9-11,13.) NRDC and UCAN are correct that the rate indexing formula rather than the revenue-per-customer formula could promote energy sales, as we indicated in Findings of Fact 25 and 26 of D.99-05-030.<sup>2</sup> However, that result is neither necessary nor probable, as we shall discuss.

NRDC and UCAN also argue that the rate indexing formula provides SDG&E shareholders with “windfall” profits. They appear, however, to have overlooked the progressive sharing schedule we included in the PBR mechanism, a schedule which provides a reasonable opportunity for ratepayer benefits. Nonetheless, a further clarification of the two formulas in contention and the basis for the formula adopted for SDG&E is in order.

The rate-indexing formula develops a new rate each year based on the prior year’s rate multiplied by an inflation (or escalation) factor which is reduced by a productivity factor. The productivity factor encourages operational efficiencies since appropriate cost-cutting must overcome the reduction of the

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<sup>2</sup> Finding of Fact 25 states: “Under a rate indexing approach, SDG&E would have a direct interest in increasing electricity usage and gas throughput since its base rate revenues would increase with increases in usage.” Finding of Fact 26 states: “The revenue-per-customer approach would increase revenue requirements as the number of customers increases but does not allow additional revenue recovery due to sales increases.”

inflation factor. The resulting rate may also be subject to a “Z” factor for one-time unforeseen and unavoidable utility costs which the Commission determines, on a case-by-case basis, is a just and reasonable adjustment to rates. The basic elements of the rate indexing formula are expressed as follows:

$$\text{Rate} = (\text{Rate} * (1 + \text{esc} - X)) + Z$$

(n-1)

where n = year for which rates or revenue requirements are determined  
 esc = inflation measure  
 X = productivity factor  
 Z = unforeseen, unavoidable cost, or unexpected savings

As for the revenue-per-customer formula, it is first necessary to clarify the descriptions in D.99-05-030. At page 39, the revenue-per-customer formula was referred to in connection with a description offered by UCAN during the proceeding. However, the UCAN description is not consistent with the kind of revenue-per-customer formula which was under consideration. (See D.99-05-030, at 13 where the formula being used by SoCalGas is described.) The record established by NRDC and UCAN, moreover, is deficient in that their proposal failed to provide evidence of the relative impacts of the two formulas. They instead concentrated on arguing that there are defects with the rate indexing formula. This argument is not persuasive, however, because NRDC and UCAN do not proffer a comparison of the two formulas to demonstrate that revenue-per-customer formula is clearly more reasonable than the rate indexing formula for SDG&E’s PBR mechanism.

What the Commission considered as an option to the rate indexing formula is a revenue-per-customer formula which, like the rate indexing formula, uses an incentive factor to adjust rates for inflation minus a productivity factor. The Z factor is also included. However, unlike the rate-indexing formula, the

adjustment is made not to the prior year's rate, but to the prior year's calculation of the revenue required per customer. The result is then multiplied by the total number of customers, which reflects customer growth or declines, to obtain a revised total revenue requirement. The revenue requirement is then divided by the total sales, in Kwhs, to arrive at a new rate. The basic revenue-per-customer formula is expressed as follows:

$$\begin{aligned} R_{pc} &= r_{pc} * (1 + esc - X) + Z \\ (n) & \quad (n-1) \\ Rev &= R_{pc} * \text{no. of customers} \\ (n) & \\ Rate &= Rev/Sales \end{aligned}$$

where n = year for which rates or revenue requirements are determined

R<sub>pc</sub> = revenue requirement per customer

esc = inflation measure

Rev = total revenue requirement

X = productivity factor

Z = unforeseen, unavoidable utility cost

The ultimate net effect of each formula on stockholders and ratepayers, however, must also take into consideration any allocations made through the earnings sharing schedule we adopted in D.99-05-030.<sup>3</sup>

The Commission summarized reasons for adopting the rate indexing formula at page 45 of D.99-05-030, and in Finding of Fact 27 which states:

“Adopting the rate indexing formula is simpler, more relevant to SDG&E's circumstances, and more compatible with an emerging competitive market.”

Upon reconsideration prompted by the rehearing application, we recognize that this finding is incomplete.

<sup>3</sup> Edison's schedule differs from the one adopted in D.99-05-030 in that the deadband which applies only to shareholders ranges from 0 to .50% above the return on equity.

Although simplicity alone may not be solely dispositive for our policy choice, it is a significant factor that contributed to our decision and relates to our goal of streamlining regulation. This goal, we should add, is supported by the Office of Ratepayer Advocates (ORA), which ultimately agreed with our decision to adopt a rate indexing formula in conjunction with some of the adjustments made to SDG&E's original proposal. ORA opposed what was described as the revenue cap approach of the revenue-per-customer formula and found that formula was overly complex, requiring more regulatory involvement than the rate indexing formula. (ORA's Opening Brief, at 18; ORA's Reply Brief, at 15-16; ORA's Exhibit 24, at 1-6.) Similarly, one of SDG&E's largest customers, the Federal Executive Agencies (FEA) opposed the revenue-per-customer formula. (FEA Opening Brief, at 10.)

In contrast, for the revenue-per-customer formula to work, there are certain factors which could lead to protests by the parties and administrative hearings. For example, the annual determination of the revenue requirement must be accomplished by adoption of a methodology to capture customer growth trends. Parties could contest the precise elements of that methodology. SDG&E also contends that the revenue requirement changes can only be done with balancing accounts such as were used with the Energy Rate Adjustment Mechanism (ERAM), a mechanism the Commission eliminated from its ratemaking proceedings as of 1997.<sup>4</sup> There may be other alternatives to ERAM balancing accounts, such as applying an average of customer growth and sales over four or five years when the formula is used to adjust rates each year. Nonetheless, even this alternative would require adopting the right methodology and allowing parties to comment on the various outcomes.

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<sup>4</sup> In its Reply Brief, at 23-24, SDG&E summarizes various elements of the revenue-per-customer formula that could require ongoing regulatory oversight and lead to the litigation of issues in an administrative hearing.

Furthermore, once determined, the total revenue requirement must then be allocated among the different customer classes, e.g., commercial, residential, etc. Revenue requirement allocations are often the subject of contested hearings. UCAN and NRDC have not shown how the administrative and party involvement required by the revenue-per-customer would be cost-effective in terms of ratepayer benefits, or how the formula could be applied within a reasonable time to be practicable in adjusting rates each year for both electricity and natural gas service. The relative simplicity or complexity of implementing the formulas is significant for regulatory purposes and was reasonably considered in adopting the rate indexing formula for SDG&E.

We also stated in FOF 27 that the rate indexing formula is more compatible with SDG&E's circumstances. We meant that approximately 77% of SDG&E's revenues derive from its distribution of electricity rather than from its natural gas service. (Tr. Vol. 3, at 56; testimony of Reed for SDG&E.) Edison's PBR mechanism also incorporates a rate indexing formula for its electric distribution services. In the record before the Commission in this proceeding, there is no evidence of Edison's rate indexing formula causing a shareholder windfall or compromising Edison's Demand Side Management (DSM) programs. We find no reason, therefore, not to align our adoption of the rate indexing formula for both Edison and SDG&E.

Our third statement in FOF 27, we acknowledge, does not distinguish one formula from the other. The reference to the competitive market was an allusion to our established policy of developing incentive ratemaking as a regulatory approach that is more efficient and effective than the prior cost-of-service ratemaking procedures. Both the rate indexing and revenue-per-customer formulas, however, incorporate incentives for utility efficiencies in the provision of distribution services. On this issue, therefore, we intended to indicate in FOF 27 only that the adoption of the rate indexing formula was consistent with the Commission's regulatory policies.



What we omitted from FOF 27, and is appropriate to add here, is that the rate indexing formula provides for rate stability and avoids the uncertainties of applying the revenue-per-customer formula. As indicated, major parties who represent customer interests, ORA and FEA, were in fact opposed to the revenue-per-customer formula, and neither has sought rehearing of our adoption of the rate indexing formula. For them, a principal attraction of the rate indexing formula with respect to ratepayers is that rates can increase only by a factor less than inflation.

In comparison, under the revenue-per-customer formula, because the last calculation for determining rates requires dividing the total revenue requirement by total sales, there can be some unpredictable fluctuation in rates. There is the possibility of rate decreases, particularly with respect to electric rates, but only under fairly extraordinary circumstances when there is an ongoing increase in energy usage in excess of average sales increases due to customer growth. There is also some chance for rates to increase if energy usage declines and sales decreases outstrip any increases in the revenue requirement. We saw no compelling reason to opt for a formula that had this kind of relative rate instability, and reject the rate indexing formula which holds rates steady by increasing them only by an amount less than the rate of inflation.

In the application for rehearing, NRDC and UCAN also assert that the Commission did not sufficiently consider their contention that the rate indexing formula provides a windfall for SDG&E. That claim, which may have had merit with respect to SDG&E's original proposal, is not justified given the earnings sharing schedule we approved. The progressive nature of the earnings sharing schedule the Commission adopted in place of that proposed by SDG&E allows ratepayers a reasonable share of profits resulting from management actions or sales increases. We are, therefore, not persuaded by NRDC's and UCAN's windfall argument which, furthermore, does not substantiate legal error. The Commission's consideration and weighing of the facts concerning the possibility

of a SDG&E windfall is fully set forth in the decision and in numerous findings of fact. (D.99-05-030, at 53-57; FOFs 38 - 47.)

In addition, as SDG&E points out in its reply to the rehearing application, the relationship of marginal costs to marginal revenues remains a controlling economic factor in guiding management behavior. (SDG&E's Reply to Application for Rehearing, at 9.) UCAN and NRDC have not explained how an effort to increase sales would ineluctably translate into increased earnings for SDG&E's distribution service in an amount, as it argues, that would be a windfall. Because costs are implicated in sales, a concerted drive to increase sales could be counter to SDG&E's self-interest in achieving the productivity factor and holding costs down.

Finally, with respect to NRDC's and UCAN's main concern, we again do not find that the rate indexing mechanism is likely to adversely impact our energy conservation and environmental policies. It is correct that there are two incentives inherent in the rate indexing formula. One encourages utility operational efficiencies. The other provides the opportunity for shareholder benefits, and potentially for ratepayers through the sharing schedule, from increased energy sales since the rate indexing formula does not divide the revenue requirement by total sales as the last step in arriving at a new rate.

Like the "windfall" argument, however, UCAN and NRDC have not shown that SDG&E would inevitably promote energy sales and degrade energy conservation policies, or that SDG&E could do so without negative repercussions from both the Commission and other agencies mandated to carry out the states environmental policies. Monitoring of utility operations is ongoing, as NRDC is well aware. It would certainly be more prudent and effective for SDG&E to work for higher earnings by cost cutting and efficient operations rather than by challenging important state policies or skirting state laws.

Moreover, since the issuance of D.99-05-030, the Commission has received the July 1999 Annual Report of the California Board for Energy

Efficiency (CBEE 1999 Report), of which it hereby takes official notice.<sup>5</sup> The report summarizes the results of the prior year's energy efficiency programs of SDG&E, Edison, SoCalGas, and Pacific Gas and Electric Company. It indicates that in 1998 SDG&E achieved a net ratepayer benefit (\$64 million) which was approximately double the costs incurred (\$34 million). (CBEE 1999 Report, at 18.) Significantly, although SDG&E was not operating with the rate indexing formula in 1998, it was no longer using the balancing accounts of the ERAM which we eliminated for electric utility services in D.97-10-057. SDG&E had the opportunity in 1998, therefore, to take advantage of the elimination of the ERAM, since load building or the promotion of electricity sales could have benefited shareholders. Instead, as the CBEE report indicates, SDG&E achieved excellent energy efficiency results for 1998.

We do not have grounds to assume, therefore, that the rate indexing mechanism would cause SDG&E to abandon its commitment to the state's energy conservation policies and programs. Further, the fact that the energy sales incentive is an inherent element of the formula does not diminish the other aspects of the rate indexing formula, which the Commission and major customer representatives find preferable to the revenue-per-customer formula. The sales incentive may be a facet of the formula design, but it is not one that must take effect for the formula to work, nor is it one that SDG&E can take advantage of with impunity in face of the strong public interest concerns reflected in state energy efficiency and related environmental policies.

On this subject, a misstatement in our decision needs to be corrected. In D.99-05-030, at page 45, SDG&E is said to have been operating under a rate indexing formula during its PBR experimental period (from 1994 to January, 1999) and that no party has represented that SDG&E has failed to put forth

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<sup>5</sup> The members of the California Board for Energy Efficiency include representatives of UCAN and NRDC (Michael Shames and Peter Miller, respectively), the California Energy Commission, ORA, Greenlining Institute, San Diego State University, independent (QF) generation companies, and the CPUC.

appropriate efforts to achieve energy efficiency. This historical note is not accurate. Since 1994, and up to the implementation of D.99-05-030, SDG&E had been using a PBR mechanism that adjusted the revenue requirement of the utility's various divisions (e.g., operations and maintenance, distribution, nuclear, etc.) for inflation, less a productivity factor. The total revenue requirement was then, in basic terms, divided by total sales. This kind of rate adjustment does not reflect a rate indexing formula. We, therefore, will delete the reference at page 45. This deletion is consistent with the Commission's correct reference to SDG&E's prior experimental PBR at page 10 of D.99-05-030.

The revenue requirement type mechanism which SDG&E used from 1994 through 1998, furthermore, caused considerable debate over the way it was applied and over the results of its application. UCAN, for example, contested the load forecasts incorporated in the formula. (See, Reply Brief of SDG&E, October 23, 1998, at 22, n.8.) ORA and UCAN also complained that there were problems achieving ratepayer benefits with the prior revenue requirement type mechanism. (ORA's Reply Brief, at 7-12; UCAN's Opening Brief, at 6 - 9.) NRDC and UCAN have not shown how the revenue-per-customer formula, as they described it in the present proceeding, or how the SoCalGas type revenue-per-customer formula would work better than the formula SDG&E had been using prior to 1999, or precisely how it could be considered preferable to a rate indexing formula.

NRDC and UCAN have not sufficiently analyzed in support of their rehearing request the impact of the revenue-per-customer formula on rates and energy efficiency goals. For example, under the revenue-per-customer formula as we considered it, for rates to decrease for customers, there would have to be an ongoing increase in energy usage so that in the last computation, which divides the revenue requirement by sales, the denominator is greater. This aspect of the formula would come into play even if a higher revenue requirement resulted from an increase due to customer growth. With more customers accounting for a higher revenue requirement, in order to have the rate decrease, customers would have to

use increasingly more energy each year, a result quite opposite that sought by energy conservation proponents. In other words, for customers to possibly gain a rate benefit under the revenue-per-customer formula greater than is possible under the rate indexing formula, customers would have to increase their energy usage steadily and significantly. There is in this way what NRDC and UCAN would call the possibility of a perverse incentive with respect to energy efficiency and conservation objectives. On the other hand, if customers did not increase their energy usage because they found that lower rates and increased usage do not necessarily translate into a lower utility bill, then there would not be a ratepayer benefit that outweighs the rate stability of the rate indexing formula. We are not convinced, therefore, that the revenue-per-customer formula can be expected to provide lower energy bills for ratepayers from lower rates, or that it will with any certainty generate results regarding energy usage that is necessarily more compatible with state conservation policies than the expected results of the rate indexing formula. The potential impacts of the revenue-per-customer formula do not outweigh the inefficiencies of applying that formula, as we have discussed. To the extent, furthermore, that there is a concern about a perverse sales increase incentive, the fact that it may be available to SDG&E in the rate indexing formula means that the Commission can monitor and control it through regulatory means.

### **III. CONCLUSION**

With the modification and supplementation of D.99-05-030, rehearing is not warranted. The rate indexing formula is consistent with our policy for streamlining regulation while preserving ratepayer interests. It provides for rate stability, keeping rate increases to less than the rate of inflation. It does not require, as would the revenue-per-customer formula, devising and overseeing a methodology for determining the revenue requirement and its allocation, matters which could continually be subject to annual controversy, thereby creating possible obstructions to putting rate adjustments into effect efficiently each year. At the same time, rate indexing is consistent with our goals of using incentive

rather than cost-of-service ratemaking. In conjunction with the earnings sharing schedule, it allows ratepayers to share in earnings resulting from the efficiencies of utility management.

**IT IS THEREFORE ORDERED** that:

1. The rehearing request of UCAN and NRDC is granted for the purpose of modifying D. 99-05-030 only.
2. D.99-05-030 shall be modified as follows:
  - a. At page 13, at the end of the last paragraph ending with "per customer adjustment," the following shall be added:
 

"The revenue-per-customer formula is expressed as follows:

$$R_{pc} = r_{pc} * (1 + esc - X) + Z$$

$$\begin{matrix} (n) & (n-1) \\ Rev = R_{pc} * \text{no. of customers} \\ (n) & (n) \end{matrix}$$

$$\text{Rate} = \text{Rev/Sales} "$$

Where n = year for which rates or revenue requirements are determined  
 R<sub>pc</sub> = revenue requirement per customer  
 esc = inflation measure  
 Rev = total revenue requirement  
 X = productivity factor  
 Z = unforeseen, unavoidable utility cost."
  - b. at page 39, the following shall be added at the end of the middle paragraph which begins with "NRDC therefore supports UCAN's proposal" and ends with "is similar to that adopted for SoCalGas."
 

"Though the UCAN proposal is similar, it is not the SoCalGas type of formula that was under consideration in this proceeding."
  - c. at page 45, the following statement in the last paragraph on the page shall be deleted:
 

"SDG&E has been operating under a rate indexing method throughout its PBR experiment; no party represents that SDG&E has failed to put forth appropriate efforts to achieve energy efficiency."

d. Finding of Fact 25 shall be modified to read as follows:

“Under a rate indexing approach, SDG&E would have a direct interest in an increase of energy sales because the rates for its distribution services are not affected by sales fluctuations. Increased sales can therefore produce earnings above the set rate of return depending on the relationship of marginal costs to marginal revenues.”

e. Finding of Fact 26 shall be modified to read as follows:

“The revenue-per-customer approach would allow revenue requirements for SDG&E to increase as the number of customers increase. Sales increases, however, would not necessarily increase SDG&E’s earnings above its rate of return. .”

3. The following Findings of Fact shall be added to our decision:

27 a.) “A possible tendency of the revenue-per-customer formula could result in customer rate increases when sales decreased, depending on the revenue requirement and its allocation among customer classes. Conversely, customer rates could decrease if energy usage increased at a greater rate than increases in customer growth and the revenue requirement.”

27 b) “No evidence has been presented that demonstrates that DSM or other state energy conservation policies are likely to be compromised by the use of the rate indexing type of formula rather than a revenue-per-customer formula.”

27 (c) In 1998 SDG&E was operating without ERAM balancing accounts and thereby an incentive was available to increase energy sales to increase shareholder profits. The 1999 Annual Report of the California Board of Energy Efficiency shows that in 1998, SDG&E achieved the highest ratio of net ratepayer benefits relative to costs expended in energy efficiency programs.

27 (d) "The rate indexing formula provides for rate stability which outweighs the uncertain impacts on customers and the possible regulatory delays in determining and computing the elements of the revenue-per-customer formula."

4. The request for oral argument is denied.
5. Rehearing of D.99-05-030, as modified and supplemented, is denied.

This order is effective today.

Dated November 4, 1999, at San Francisco, California.

RICHARD A. BILAS  
President  
HENRY M. DUQUE  
JOSIAH L. NEEPER  
JOEL Z. HYATT  
CARL W. WOOD  
Commissioners