



City of Seattle

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Seattle City Light

Review of Financial Policies

October 2001

This paper was prepared by City Light staff during the course of the review of financial policies in 2001. The Council ultimately adopted policies that differed from the recommendations at the end of the paper. Specifically, the Council opted for a policy requiring 95% confidence of positive net revenue for the capital program and a \$25 million cash reserve.

Introduction

Since 1977, the City Council has prescribed explicit financial policy guidelines for use by City Light in setting rates. The Council sets rates that are sufficient to cover operating costs and debt service and to provide a portion of the financing of the capital improvement and conservation programs from current revenues. Financial policies serve the function of determining how much capital spending in each year is to be financed from revenues generated through customer rates. In doing so, the financial guidelines also determine the remaining amount of capital financing that must be borrowed.

Financial policies influence the profile of customer rates over time. Policies which require more financing of capital expenditures from current revenue require rates to be higher in the near term. However, with more capital financing from revenue, borrowing and debt service can be lower. Eventually the effect of the lower debt service will offset the effect of the more stringent financial policies, and rates in the long term will be lower. Financial policies therefore have implications for the way in which the costs of long-lived capital assets are spread over time. The use of debt financing tends to spread the cost of capital assets evenly over time, so that all customers benefiting from the services provided by the capital assets over the life of the bonds will share in the financing of those assets. To the extent that financial policies require more capital financing to be derived from current revenues and less from debt, current customers will bear a greater share of the burden of financing capital assets, and the burden on future customers will be less.

The amount of capital financing expected to be derived from current revenues also provides some protection against fluctuations in operating revenues or expenses. When revenues are less or expenses are greater than anticipated when rates were set, revenues planned to be spent on capital projects can instead be used to support operations, and a higher share of capital spending can be financed with debt. By the same token, higher than expected revenue or lower expenses will provide more revenue financing of capital and require less debt. In setting financial policies, therefore, it is important to recognize the likelihood of deviations in revenues or expenses from the levels assumed in setting rates, and the likely magnitude of such deviations.

City Light had planned to review its financial policies in 2001 because the utility recognized that its exposure to fluctuations in revenues and expenses had increased. As a predominantly hydroelectric utility, City Light has always been exposed to the risk that poor water conditions could lower the output of power from its own hydroelectric resources. As of October 1, 2001, under the terms of its new contract with the Bonneville Power Administration (BPA), City Light will purchase a fixed percentage of the actual output of the Federal Columbia River Power System, a product commonly referred to as the "Slice of the System", or "Slice". Since the Federal system is primarily hydroelectric, City Light's share of the output will fluctuate with water conditions, compounding the effect of the variability in the output of City Light's own resources. This in itself would have required a review of the adequacy of existing financial policies to deal with increasing risk.

City Light's perception of its exposure to fluctuations in market prices has also changed as a result of the recent turbulence in Western power markets. From May 2000 through May 2001 prices in the wholesale power market were at levels never before experienced. This period of extremely high prices coincided with a regional drought which severely lowered the amount of energy available to the Department and increased its dependence on market purchases. It has become apparent that City Light's exposure to the risk of fluctuations in market prices has increased at the same time that its exposure to fluctuations in the amount of power available has also increased. It is also clear that the financial policies that were used to set rates in 1999 were inadequate to deal with the financial effects of poor water conditions and high market prices in 2000 and 2001.

This does not mean that financial policies need to be designed to deal with a recurrence of the experience of the past two years. In recent months market prices have stabilized at levels comparable to those experienced prior to May 2000. Whether prices will stay at these levels, and if so for how long, is not known. Nevertheless, it is a premise of this paper that prudence requires the City to assume that the Department's risk exposure has increased and to set its financial policies accordingly.

Objectives of Financial Policies

The present review of financial policies may be viewed as having two major objectives:

1. To restore the financial health of the utility to levels comparable to those which prevailed prior to the onset of the Western power crisis in 2000.
2. To recognize the higher degree of risk to which the utility is exposed and to provide greater protection against the financial consequences of that risk.

Restoring Financial Health. At the end of 1999, City Light had \$1.041 billion in long-term debt outstanding. Debt represented 72% of total capitalization¹. A rate ordinance was passed in

¹ Capitalization is equal to outstanding debt plus equity. Equity is defined as accumulated net income over the life of a business entity, plus accumulated contributions in aid of construction. In City Light's case, contributions in aid of construction consist mainly of connection charges paid by customers when they are connected to the system. As of

November 1999 which assumed that average rates would increase from \$40.35 per MWh in 2000 to \$42.73 per MWh in 2003. The financial forecast underlying the adopted rates assumed that current revenues would finance 23.7% of capital requirements over the 2000-2003 period. The coverage ratio on first-lien debt was expected to average 1.80 over the same period. Long-term debt was projected to increase to \$1.204 billion as of the end of 2003, or 71% of total capitalization.

Actual results in 2000 and 2001 have varied drastically from these assumptions. The Department will incur power costs in those two years which exceed the assumptions in the adopted rates forecast by over \$500 million. The Department has offset the financial impact of the high power costs by increasing rates by 58%, by issuing long-term debt to finance 100% of capital expenditures in 2000 and 2001, by refunding a portion of debt service payments in 2001, by refinancing some of its outstanding debt, and by issuing short-term notes for cash flow purposes. As a result, debt outstanding at the end of 2003 is now projected to be \$1.557 billion, or 85% of capitalization. An average rate of \$58.73 per MWh is projected for 2003. Debt service coverage over the 2000-2003 period is expected to average 1.26 times first-lien debt service.

These trends show significant deterioration in City Light's financial condition over the past two years. As a result, Standard & Poor's has lowered the utility's long-term bond rating twice in a period of ten months. The rating now stands at its lowest level in three decades.

Financial policies for rate-setting in 2004 and beyond must take into account the need to restore the Department's financial condition to pre-crisis levels. Financial recovery is essential because the Department may be facing a number of major issues within the next decade, the resolution of which might require the Department to undertake significant financial commitments. Both the license for the Boundary Project and the current power sales contract with the Bonneville Power Administration will expire in the 2011-2012 time frame. It is essential that the Department's financial status be sound at that point in order to provide the capability to address the widest range of policy options that might be presented.

Recognition and Mitigation of Risk. The rates adopted in November 1999 reflected a perception of the risk of fluctuations in revenues and expenses that was based on past experience. However, past experience proved to be a poor guide to the actual events of 2000 and 2001. New financial policies will need to recognize the likelihood that wholesale price volatility in the future will be greater than in the past. City Light's exposure to price fluctuations has also increased because under the Department's resource strategy City Light will expect to have more surplus energy available for sale in the wholesale market. The value of that surplus energy will vary with the quantity available and with wholesale market prices.

The Analytical Framework

City Light's financial guidelines for rate-setting can be viewed as consisting of three elements:

December 31, 1999, City Light's accumulated net income totaled \$300.0 million, and accumulated contributions were \$113.3 million.

- ◇ A financial measure, such as debt service coverage
- ◇ A target for that measure, such as 1.80 coverage of first-lien debt
- ◇ A probability of achieving that target, either explicit or implicit.

Since 1990, City Light’s financial targets for rate-setting have been defined in terms of the Department’s “flow of funds”. The flow of funds is a statement of operating revenues and expenses in terms of cash or cash equivalents. It recognizes each category of expense in the order of its claim on the Department’s revenues. Payment of operating and maintenance expenses has the first claim on the Department’s financial resources, followed by payment of first-lien debt service, second-lien debt service and City taxes, in that order. Next, a deposit to the Bond Reserve Account is made, as required by the Department’s bond covenants, other miscellaneous cash needs are accounted for, and the amount remaining is available to finance capital requirements. Non-cash items, such as depreciation, which appear on the income statement and affect net income, do not enter into the flow of funds. The amount of net revenue available to fund capital requirements may be considered to be the “bottom line” of the flow of funds.

The table below illustrates the flow of funds for the year 2002 as projected in the forecast that was used to set rates for the 2000-2002 period.

Figure 1

Flow of Funds for 2002 in Adopted Rates Forecast		
(Millions of \$)		
Revenue Required from Energy Sales to Retail Customers		\$400.7
Other Revenue		15.7
Wholesale Market Revenue		24.5
Operating Revenue		\$440.9
Power Expenses		\$133.6
Non-power O&M Expense		126.7
Taxes Excluding City Taxes		<u>19.4</u>
Total Expenses before Debt Service		\$279.7
Revenue Available for Debt Service		<u>\$161.2</u>
Debt Service		97.4
City Taxes		24.1
Add to Bond Reserve Fund		3.4
Other Uses/(Sources) of Funds		(0.1)
Revenue Available for Capital Requirements		<u>\$36.4</u>
Revenue Available for Debt Service		<u>\$161.2</u>
First-Lien Debt Service		\$89.5
Total Debt Service		\$97.4
First-Lien Coverage		1.80
Total Coverage		1.66
Sales (MWh)	4	9,677,994
Average Rate		\$41.40

City Light's current financial policy is stated in terms of one of the items on the flow of funds statement: net revenue available to pay debt service. The measure used in defining the financial policy is debt service coverage. The target for that measure is 1.80 coverage of first-lien debt service. This means that the City must set rates at levels sufficient to ensure that projected net revenue available after payment of projected expenses is equal to 1.80 times the amount of projected first-lien debt service. Given the amount of expected net revenue available for debt service, and assuming the amounts that must be paid for debt service, City taxes, the Bond Reserve deposit and other cash needs, the Department can project the amount of net revenue available for the capital program. However, there is no explicit financial guideline targeting the amount of net revenue for the capital program. Projected net revenue is a function of all the items above the bottom line in the flow of funds. Current financial policies state that this quantity should be positive "with a high degree of confidence", but there is no explicit definition of what would constitute a "high degree of confidence".

The major element of uncertainty affecting City Light's finances is the level of output from the Department's owned and contracted hydroelectric resources, which, together with system load, determines the amount of energy the Department either must buy, or will have available to sell, in the wholesale market. This amount varies with water conditions. The Department can calculate the amount of energy available under each of the annual water conditions in the 50-year period from 1928 through 1978. By making assumptions about prices in the wholesale market, the Department can estimate the value of the energy surplus or deficit under each of the 50 water conditions. The average of those 50 values is included in the Department's financial forecast for rate-setting purposes. Since there is about a 50% probability that the average of the 50 values will be realized or exceeded in a given year, it follows that the probability of achieving or exceeding the 1.80 coverage target on first-lien debt is about 50%.

Meeting the debt service coverage target also implies realizing the amount of net revenue associated with 1.80 debt service coverage to support the capital program. There is a 50% probability that this level of net revenue would be realized or exceeded. The estimates of revenue or expense from surplus energy sales in the wholesale market under varying water conditions can be used to determine the probability that net revenue for capital will be greater than zero. Given the variability of water conditions and the projections of market prices that were used in rate-setting prior to 1999, there was an estimated probability of approximately 90% that net revenue for capital would be greater than zero.

The Department's exposure to risk has increased since 1999. The amount of energy that the Department expects to have available to sell in the wholesale market has increased greatly, as a result of the Department's acquisition of additional power from the Bonneville Power Administration, the Klamath Falls Project and the State Line Wind Project, and the reduction in the Department's load over the past year. At the same time, the experience of the past 18 months suggests that future wholesale market prices may be more volatile than in the past. Using the latest information on energy available under varying water conditions, and making assumptions about price variability that are more consistent with recent experience, the Department now estimates that using the current financial target of 1.80 to set rates in 2004 and beyond would provide only about

82% probability of having positive net revenue available for capital. Continued use of the 1.80 coverage target alone would imply that in about one year out of five, the Department would have to take extraordinary action (rate surcharges, expense reductions, short-term borrowing) in order to deal with a deficit in the bottom line of the flow of funds. Failure to realize positive net revenue available for capital means that the Department would be unable to cover all of its current obligations from current revenues.

Proposed New Financial Policy for Rate-Setting

We are proposing changes in financial policies in order to restore the financial health of the utility and to deal with the likelihood that the level of risk facing the Department has increased. The principal guideline for rate-setting should continue to be stated in terms of the flow of funds. However, rather than expressing the guideline in terms of debt service coverage, we would shift the focus to the bottom line of the flow of funds statement: net revenue available for the capital program. The proposed new policy would set the target that net revenue available for the capital program should be positive and would specify a level of confidence for achieving it throughout the rate period. The new planning guideline would imply that expected debt service coverage would be at a certain level, but the level of debt service coverage would be an outcome of the net revenue target, rather than an explicit target in itself.

In order to assist policy makers in targeting the appropriate level of confidence, the Department has modeled uncertainty in its financial projections. Three variables are included in the analysis of risk: system load, wholesale market prices, and the amount of energy available from the Department's hydro resources and from BPA. System load is assumed to vary along two dimensions. From year to year load can vary with such factors as temperature and economic conditions. In addition, uncertainty is assumed with respect to long term load growth trends. Wholesale market prices are also assumed to be subject to two types of variability. Prices are assumed to be related to water conditions, with good water conditions bringing lower than average market prices and poor water conditions associated with higher market prices. Prices are also assumed to vary independently of water conditions within a defined range. Finally, the uncertainty of water conditions is taken into account. Each of the 50 water conditions experienced in the 1928-1978 period of record is assumed to have an equal chance of recurring in each future year.

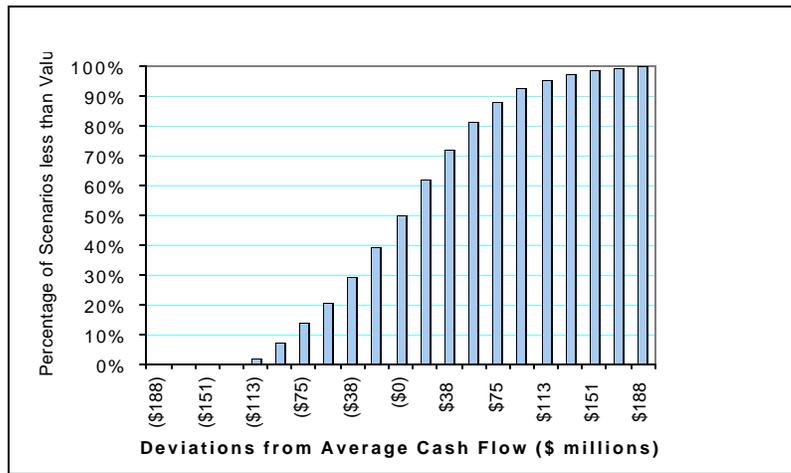
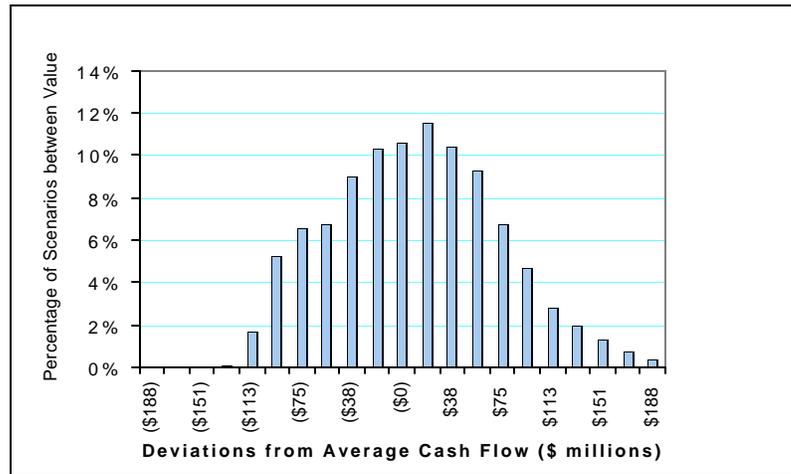
A simulation model allows us to examine the interactions among these three sources of uncertainty and their net effect on cash flow. We assumed reasonable ranges of variability for market prices and system load and ran two thousand scenarios through the simulation model. In each scenario, a specific annual water condition for each year of the forecast period was selected at random from the 50 annual water conditions in the historical record. Values for market prices and system load were also randomly selected from the assumed distribution of values for these variables. The net annual cash flow associated with power costs and revenue from retail sales to customers in each scenario was calculated. The average cash flow across all 2000 scenarios was computed, as well as the deviation from that average in each of the scenarios.

Figure 2 displays the distribution of deviations from the average cash flow for the year 2004. The distribution indicates that there is a 5% probability that cash flow would fall short of the average by

\$100.7 million or more. The probability is 10% that cash flow be less than the average by \$86.4 million or more. At the other end of the distribution, there is a 5% probability that cash flow would exceed the average by \$106.9 million or more, and a 10% probability that the deviation would be greater than \$82.0 million. Therefore, there is a 90% probability that cash flow associated with retail load and wholesale market activity will deviate from the average within a range of \$207.6 million -- from minus \$100.7 million to plus \$106.9 million.

Figure 2

Million \$ of Operating Cash Flow in 2004
Deviations from Average



With a better understanding of the range of variability in cash flows resulting from the uncertainty of system load, market prices and water conditions, it is now possible to discuss the implications of this variability for new financial policies. Figure 3 presents a forecast of the flow of funds statement for 2004 with rates set to achieve the current financial planning target of 1.80 coverage of first-lien debt

service, assuming the expected amount of revenue from wholesale market sales and from retail sales to customers. In order to achieve 1.80 coverage of first-lien debt, average rates would have to be \$47.99 per MWh. Revenue available for debt service would be \$225.2 million. Given the projected amounts of debt service, City taxes, Bond Reserve deposits and other cash requirements, revenue available for the capital program would be \$62.1 million.

Figure 3

Expected Flow of Funds for 2004	
(Millions of \$)	
Revenue Required from Energy Sales to Retail Customers	\$434.0
Other Revenue	11.7
Wholesale Market Revenue	<u>177.5</u>
Operating Revenue	<u>\$623.1</u>
Power Expenses	\$230.5
Non-power O&M Expense	145.7
Taxes Excluding City Taxes	21.7
Total Expenses before Debt Service	\$398.0
Revenue Available for Debt Service	<u>\$225.2</u>
Debt Service	138.4
City Taxes	26.0
Add to Bond Reserve Fund	9.2
Other Uses/(Sources) of Funds	(10.5)
Revenue Available for Capital Requirements	<u>\$62.1</u>
Revenue Available for Debt Service	\$225.2
First-Lien Debt Service	\$125.1
Total Debt Service	\$138.4
First-Lien Coverage	1.80
Total Coverage	1.63
Sales (MWh)	9,043,280
Average Rate	\$47.99

However, the results of the simulation analysis indicated that there was a probability of about 18% that cash flows would be lower than the expected levels by an amount which exceeded \$62.1

million. This means that in almost one year out of five special action would have to be taken in order to avoid negative cash flow from operations. If this level of risk is considered to be unacceptable, then rates would have to be set at higher levels to provide greater confidence that operating cash flow would be positive. For example, if it is decided that rates should be set to provide 95% confidence that operating cash flow would be positive, then revenue requirements in 2004 would have to be increased by an amount which would result in net revenue for the capital program of \$100.7 million, or \$38.6 million greater than the amount in the expected case. The \$38.6 million increase is equal to the difference between the expected net cash flow at the 95% confidence level (\$100.7 million) and the \$62.1 million in net revenue projected in the expected case. Rates would have to be set at \$52.67 per MWh in order to achieve 95% confidence that net revenue available for capital would be positive. This represents an increase of about 10% above the rates required by the 1.80 coverage target. However, the 2004 rate would be 16.1% lower than the rate projected for 2002, when the surcharges imposed in 2001 would have their maximum impact on average rates.

City Light feels that it is important to state the new financial policy guideline in terms of the bottom line of the flow of funds statement (net revenue available for the capital program) because this measure is a more comprehensive indicator of the cash needs of the utility than the existing measure (net revenue available for debt service). Furthermore, the Department feels that it is important to set the target for this measure at least at zero, since it is important to demonstrate that all current obligations are being paid from current revenues. The 1.80 coverage guideline in 2004 would imply a probability of 82% that net revenue for capital would be zero or greater. The new policy should require a higher level of confidence than the current policy in order to recognize the Department's higher risk exposure and to restore the financial condition of the utility to pre-crisis levels. The Department therefore suggests that the new financial guideline should provide at least 90% probability of generating positive net revenue for capital. The desired confidence level will depend to some extent on the mechanisms put in place to deal with very bad years. In the sections that follow, the implications of alternative confidence levels will be examined by displaying a number of financial indicators at confidence levels of 90%, 95% and 99%.

Worse-Case Scenarios

If the new financial policy were set to provide less than 100% confidence of achieving positive net revenue for capital, there would still be some probability that net revenue would be negative. At the 95% confidence level, net revenue would be negative in one year out of twenty. At 90% confidence, negative net revenue would be expected once per decade. At 99% confidence, positive net revenue would be a virtual certainty, with negative net revenue expected only once per century. Financial policies should also be established to guide Council action when worse-case scenarios such as these are realized.

The Council would have three alternatives for dealing with negative net revenue for capital:

- ◇ Interim rate increases (surcharges) could be imposed;

- ◇ Funds could be borrowed to cover the shortfall in net revenue in a given year, either by increasing the size of that year's long-term bond issue to reimburse the operating account for past capital expenditures financed from revenues, or by issuing short-term revenue anticipation notes; or
- ◇ Operating cash balances could be drawn down to offset the operating deficit.

The third option would be feasible only if a sufficiently large operating cash balance had been accumulated. This could be done in a number of ways:

- ◇ With rates set to provide a confidence level of 90% or 95% that net revenue will be positive, some of the net revenue expected to be available for the capital program could instead be used to fund an operating cash reserve that could be used in the event of extremely bad financial results. Using simulation methods similar to those which were used to explore the variability of cash flow from customer rates and wholesale market sales, it is possible to determine the level of a cash reserve that would provide a 99% confidence of covering operating cash deficits in those bad water years not covered by the new policy. For the case in which the financial guideline specifies a 95% probability of positive net revenue for capital, the cash reserve would have to be funded at a level of \$30 million. For the 90% confidence alternative, the cash reserve would have to be maintained at a level of \$64 million. These reserve levels would be over and above the cash balances the Department maintains to handle normal fluctuations in its cash flow. The current financial forecast sets the size of each year's bond issue at a level which provides a minimum cash balance of \$30 million to cover normal cash flow variances in the expected scenario.
- ◇ Rates could be set at a higher level than required by the 95% or 90% confidence rule, and the additional cash generated by the higher rates could be used to fund a cash reserve, rather than to offset borrowing. For example, the new financial policy could require a 99% probability of positive net revenue for capital until the balance in the reserve account had reached the desired level. Once that level had been achieved, the financial guideline would be lowered to either 90% or 95% confidence. With rates set to achieve 99% confidence, it should be possible to fund the reserve to the desired level in at most three years, even under adverse water conditions.
- ◇ The balance in the Bond Reserve Account (currently at \$69 million) could be liquidated and replaced with an insurance policy. Such a change is permitted under the Department's current bond covenants. This option has been explored a number of times in the past, but each time it has been found not to be cost-effective, for two reasons. First, if an insurance policy were substituted for the cash account, the Department would incur the cost of the insurance premium, a cost that would not be incurred if the cash reserve were maintained. The premium is usually paid in the form of a single payment at the point the insurance is initiated. Replacement of the current \$69 million balance with insurance would cost \$2-3 million. Additional coverage would have to be purchased as the reserve requirement increased with increasing debt service in the future. Second, under certain conditions, the Department's interest earnings on funds in the Reserve Account can exceed the carrying cost of the Reserve, and the excess interest earnings,

normally not allowable under the Federal Government's arbitrage regulations, can be used to offset negative arbitrage on some of the Department's refunding escrow accounts. This benefit would not be available if the cash reserve were replaced by an insurance policy. Nevertheless, the Bond Reserve does constitute a source of cash that can be accessed if the Department wishes to use insurance in lieu of a cash reserve.

Implications of the Proposed Financial Policy

This final section will discuss the implications of the new financial planning guideline in terms of a number of the Department's financial indicators. Historical values for each indicator from 1990 through 2000 and projected values from 2001 through 2012 are displayed for four scenarios:

- ◇ continued application of the current 1.80 coverage policy
- ◇ use of the proposed new policy of positive net revenue available for capital, with confidence levels of 90%, 95% and 99%.

Average Rates. Figure 4 displays average customer rates from 1990 through 2012 in constant dollars. From 1990 through 2000 average rates fell by 8% in real terms as rate increases lagged behind inflation. Surcharges raised rates in 2001, 2002 and 2003 far above their historical levels. Rates in 2004 are projected to be lower than in 2003 in all cases. In the 99% confidence alternative, rates in 2004 are 9.1% lower in real terms than in 2003 and 12.9% below the 2002 peak. Under the current 1.80 debt service coverage policy rates would fall by 21.6% from 2003 to 2004. The rate decreases in the 95% and 90% confidence alternatives would be 13.7% and 15.6% respectively. Under the 90% confidence option, average rates in 2004 would be only slightly higher in real terms than in 1990. Beyond 2004 rates decline in real terms in all alternatives except the current policy. With 1.80 debt service coverage, the average rate in 2012 is slightly higher than in 2004. The differences among the rates in the various alternatives narrow with the passage of time. If the chart were extended to show additional future time periods, the lines would cross in 2014-16 time frame. Beyond that point, the 99% confidence alternative would show the lowest rates, and rates under the current policy would be the highest.

The upper line in this chart represents an estimate of the market cost of power. In constructing this line, the projected market price of power, adjusted for losses, taxes, and ancillary services was added to an estimate of the Department's non-power costs in future years. The estimated market cost is higher than the Department's projected rates in all future years, indicating that City Light rates will continue to be competitive under all proposed policy alternatives.

Figure 5 shows the same data for average rates in actual dollar terms.

Figure 4

Average Rate

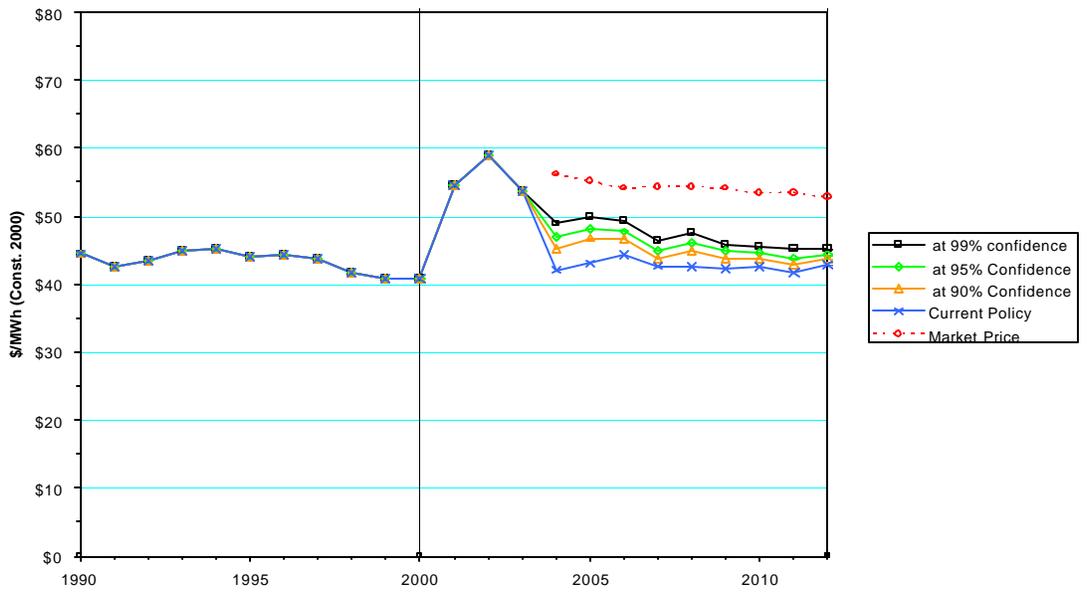
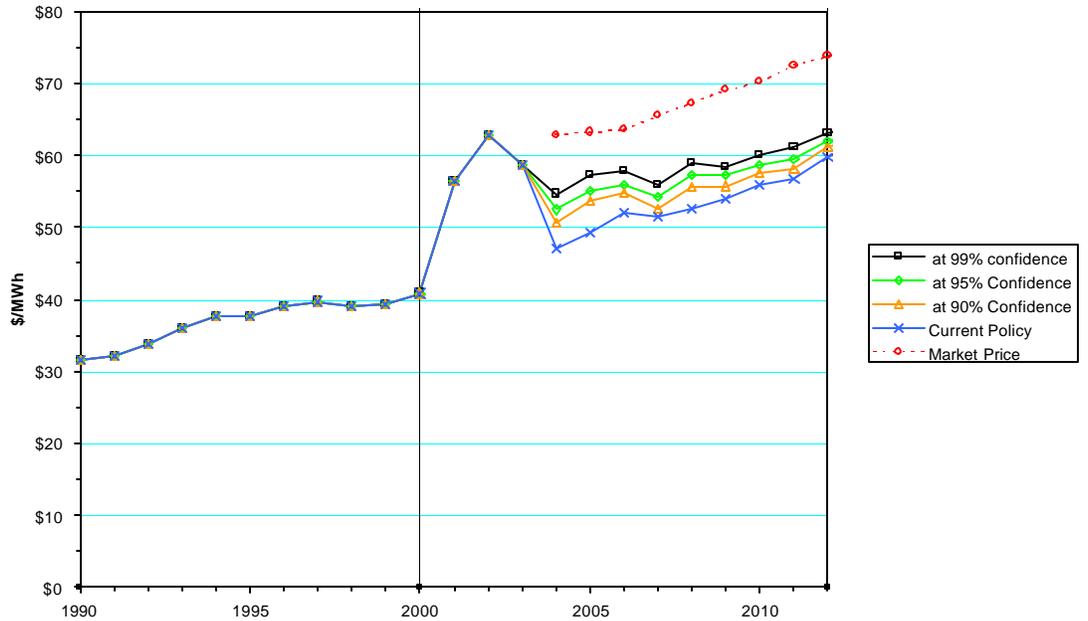


Figure 5

Average Rate



Outstanding Long-Term Debt. Figure 7 shows the amounts of long-term debt that would be outstanding under the various policy alternatives. From 1990 through 1999, long-term debt more than doubled, from \$489 million to \$1.041 billion. By the end of 2003 debt outstanding will have increased by another 50%, to \$1.557 billion. The 99% confidence alternative is the only scenario in which long-term debt actually decreases from 2004 to 2012. Under this policy, debt outstanding at the end of 2012 would be \$1.390 billion. The 95% confidence, 90% confidence and current policy alternatives all result in continued growth in debt outstanding through 2012 -- to \$1.603 billion, \$1.792 billion and \$1.965 billion in the three cases respectively.

Figure 6 shows the same information on long-term debt in constant dollar terms. In constant dollars debt outstanding in 2012 is lower than in 2003 in all four cases. Under both the current policy and the 90% confidence alternative, debt outstanding increases at a higher rate than inflation for a number of years before falling relative to inflation. In the 99% confidence alternative, debt outstanding in constant dollars at the end of 2012 is at about the same level as at the end of 1998.

Debt as a Percentage of Capitalization (Figure 8). The relationship between debt and equity is a commonly used financial indicator which measures how a business has financed its assets. In the decade of the 1990s, debt as a percentage of City Light's capitalization rose from 59% at the end of 1990 to 72% at the end of 1999. At the end of 2003 debt is projected to constitute 85% of capitalization. In all alternatives, this percentage falls steadily from 2003 through 2012, as substantial net income contributes to a buildup of equity that more than offsets the increase in debt outstanding. In the 99% confidence alternative, debt as a percentage of capitalization falls to 52% by the end of 2012. Continued application of the 1.80 coverage policy would leave debt at 72% of capitalization at the end of 2012. In the 95% confidence and 90% confidence alternatives, the percentages would be 58% and 64% respectively.

Debt Service Coverage. While the debt service coverage ratio would not be targeted in the proposed alternatives, coverage levels would result from the application of the positive net revenue target. Figure 9 shows the coverage ratio for all debt service (including both first-lien and second-lien debt) under the four alternatives. The current policy of targeting 1.8 coverage of first-lien debt actually is equivalent to a target of about 1.6 coverage on all debt. Providing 99% confidence of positive net revenue would result in debt service coverage of about 2.1 times total debt service through 2012. The 95% and 90% confidence alternatives yield coverage ratios of 1.9 and 1.8 respectively.

Debt Service as a Percentage of Revenue. The impact of debt on revenue requirements is shown in Figure 10, which displays total debt service as a percentage of revenue from customers. In 1990 debt service represented 17.2% of customer revenue. By 2000 this figure had grown to 23.5%. This measure decreased in 2001 as a large portion of 2001 debt service was refinanced in the March 2001 bond issue. The share of revenue requirements represented by debt service continues to increase through 2010 in all alternatives and then starts to decline in 2011. By 2012 debt service constitutes 25.6% of revenue requirements in the 99% confidence alternative, 28.5% with 95% confidence, 31.0% with 90% confidence, and 33.4% if the 1.80 coverage policy were maintained.

Figure 6

Outstanding Long-Term Debt

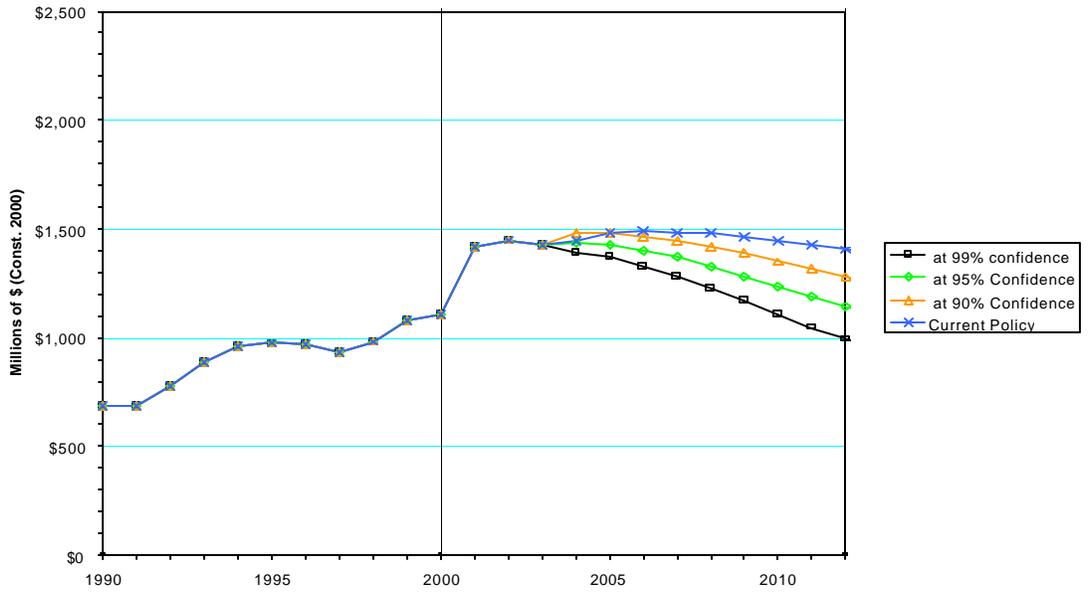


Figure 7

Outstanding Long-Term Debt

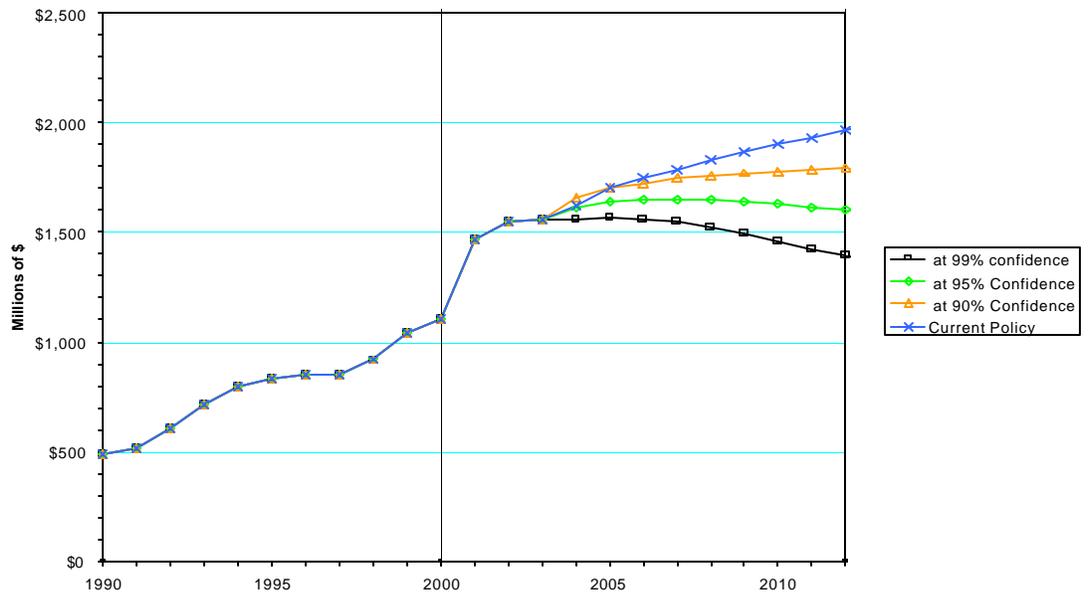


Figure 8

Debt as Pct of Total Capitalization

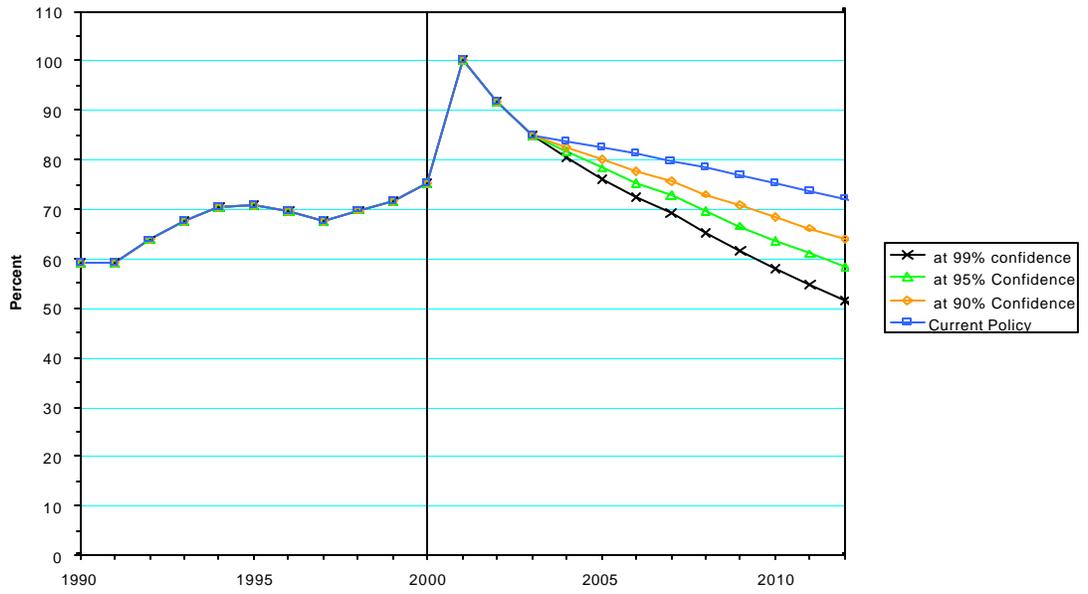


Figure 9

Total Debt Service Coverage

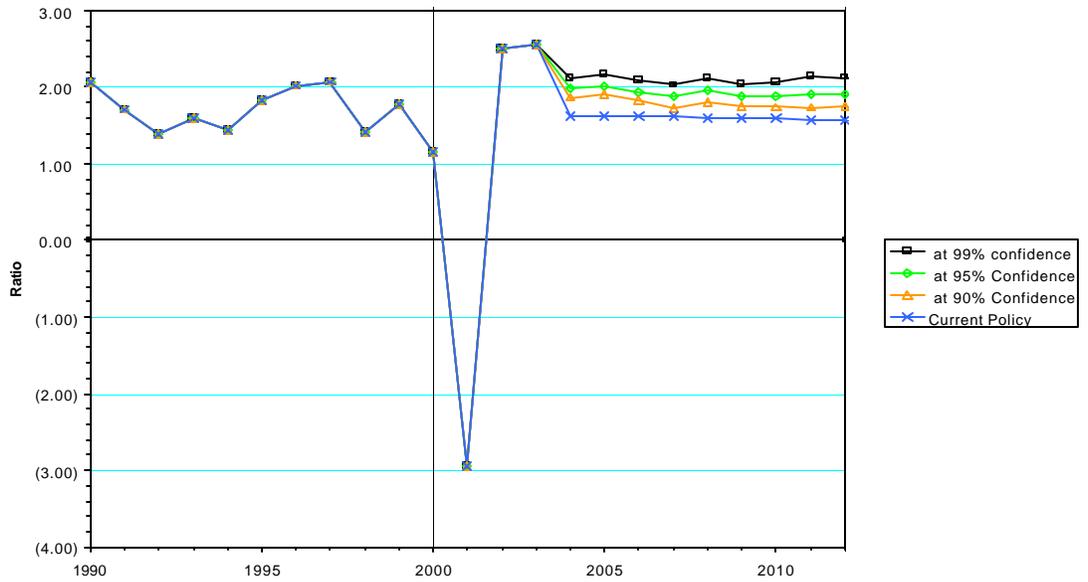
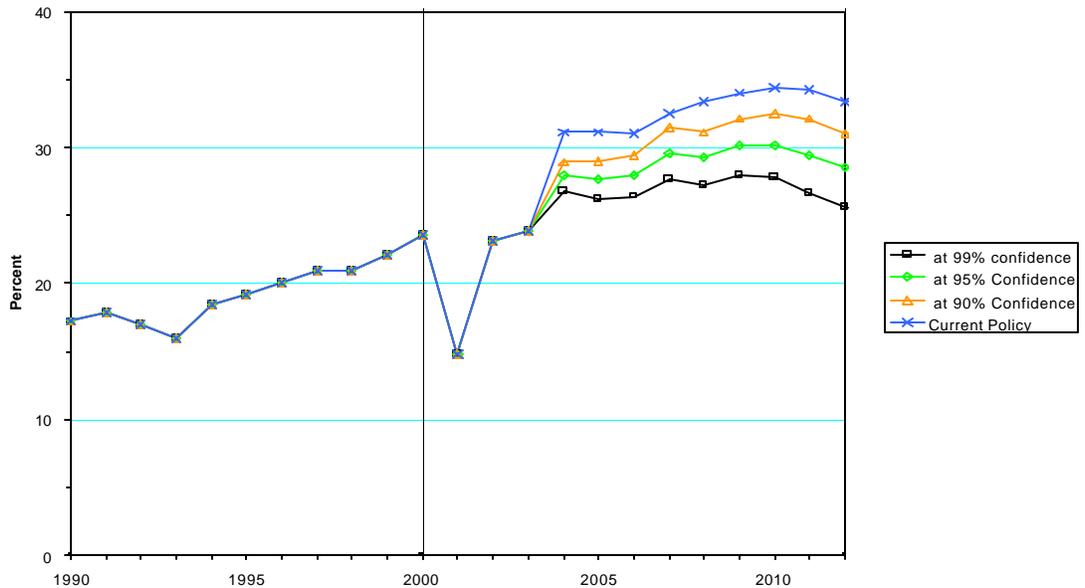


Figure 10

Debt Service as a Pct of Revenue from Customers



Net Income. Figures 11 and 12 display net income in actual dollars and constant 2000 dollars respectively. Prior to 1992, City Light had never recorded negative net income. From 1990 through 2000, net income was negative in five out of eleven years. A sixth year of negative net income is guaranteed in 2001. In 1996 and 1997 the Department recorded two consecutive years of positive net income at record levels.

Net income will be higher than in the past in all of the alternatives under consideration. Even with the current policy of 1.80 coverage net income will be high because debt service has seen substantial growth as a result of large bond issues in 1999, 2000 and 2001. Application of the 1.8 coverage factor to the high levels of debt service yields net income of \$29.8 million in 2004 and \$60.2 million in 2012. The 99% confidence alternative generates net income that rises from \$92.1 million in 2004 to \$121.3 million in 2012, but in constant dollar terms net income is relatively constant. With 95% confidence net income in 2004 would be \$74.0 million, increasing to \$102.6 million in 2012. The 90% confidence level produced net income of \$59.0 million in 2004, a figure which rises to \$88.5 million in 2012.

Net Revenue for Capital as a Percentage of Capital Requirements. The percentage share of capital financing that is derived from net revenue is displayed in Figure 13. From 1990 to 2000, this percentage ranged from a high of 60% (1990) to a low of -7% (2000). In 2001 the bottom-line deficit in the flow of funds will be almost three times as great as capital requirements in that year, which are defined to include not only the Capital Improvement Program, but also conservation investments and other financing requirements. Under the current financial policy, net revenue as a

percentage of capital would range from 23.9% to 35.7%. Under the 99% confidence policy, this percentage would be between 65% and 70% in most of the years from 2004 to 2012. The

Figure 11

Net Income

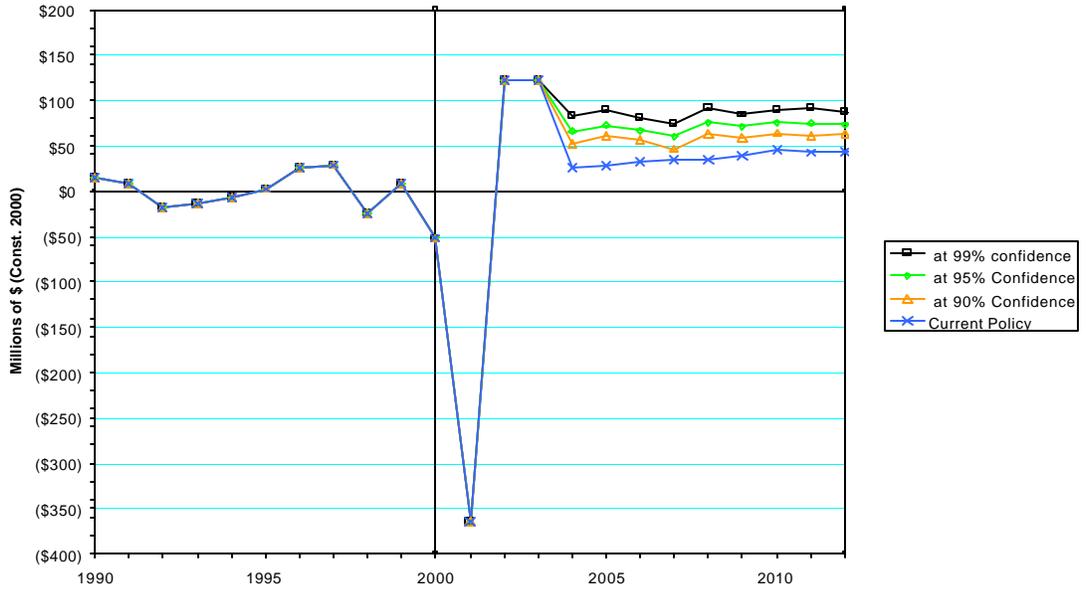


Figure 12

Net Income

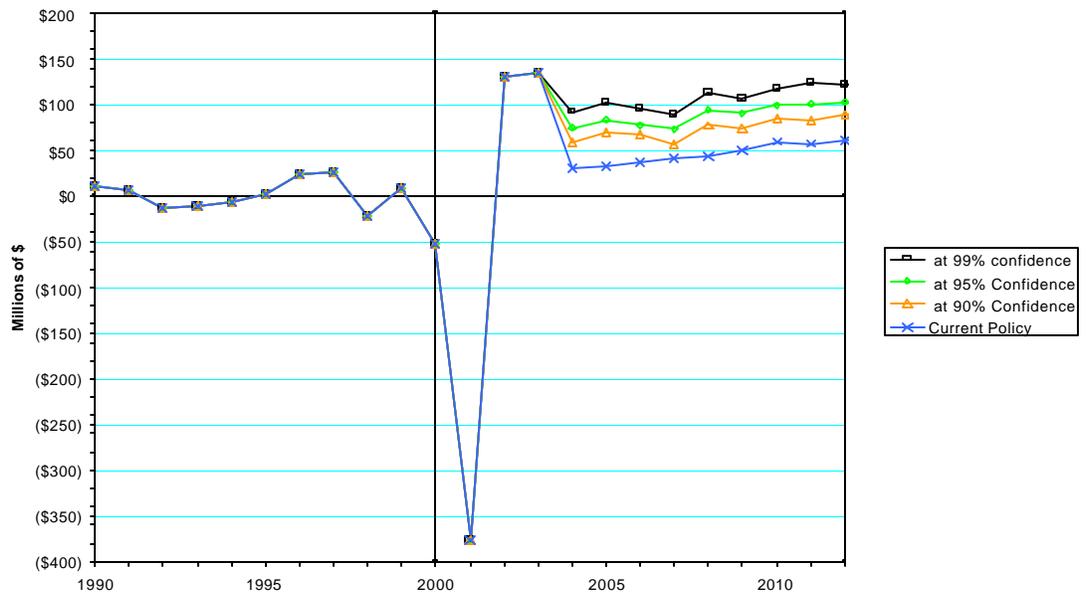
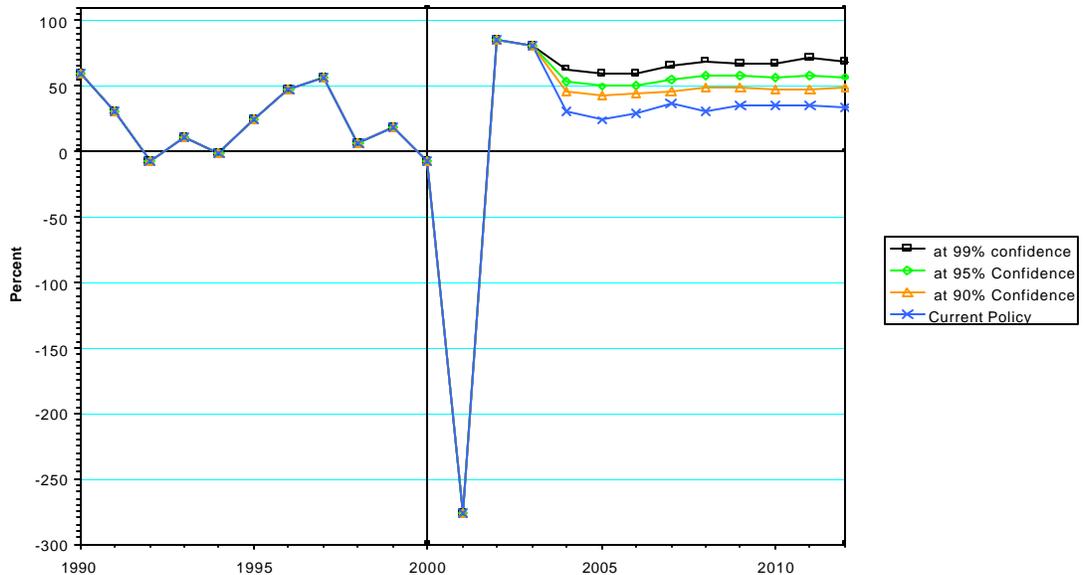


Figure 13

Share of Capital Financing from Net Revenue



percentages associated with the 95% confidence policy would be about 10 percentage points lower than the 99% confidence alternative. Lowering the confidence level to 90% would reduce the percentage of capital financed from net revenues by approximately 10 more percentage points.

Recommendation

Two goals have been proposed for the current review of financial policies:

- ◇ Recovery from the financial effects of the power crisis in 2000 and 2001, and
- ◇ Providing greater protection against the impact of fluctuations in load, market prices and water conditions on financial results.

Given these two goals, the Department feels that a strengthening of financial policies is required. The Department recommends that the new rate-setting guideline be stated in terms of net revenue available to fund capital requirements. There are a number of ways in which the new policy can be stated, each involving a unique combination of targets for net revenue, confidence levels of achieving the target, and cash reserves to provide for extreme circumstances. The Department looks forward to its discussions with the Council and with representatives of the financial community in determining the optimum combination of these factors. The following set of policies is put forward as one combination that would meet the goals of the financial policy review.

The flow of funds should continue to be used as the basic framework within which financial policies are stated. The flow of funds is a comprehensive statement of all of the Department's operating revenues and expenses in terms of cash or cash equivalents. Working within this framework ensures that the Department's cash obligations will be met.

Rates should be set at levels which ensure that net revenue available for capital will be positive with a high degree of confidence. Net revenue available for the capital program is the bottom line on the flow of funds statement. It is important that this bottom line be positive under all but the most unusual circumstances. Setting rates to ensure positive net revenue with a high degree of confidence means that extraordinary action in the form of rate surcharges, drastic expense reductions or borrowing for operating purposes will be required very rarely.

Rates in 2004 should be set at the level required to provide 99% probability of positive net revenue for capital. If actual results in 2004 generate positive net revenue, funds will be set aside in a reserve account up to a maximum of \$64 million. When the balance in the reserve account reaches the \$30 million level, rates can be set to achieve positive net revenue with 95% probability. When the balance reaches \$64 million, the 90% confidence standard can be used to set rates. The actual rate at which balances accumulate in the reserve account will depend on water conditions, market prices and load.

Adoption of these policies will require rates to be set in the near term at levels higher than what would be required by the current 1.80 debt service coverage target. However, with higher rates in the near term, borrowing will be lower. Over the long run the reduction in borrowing and debt service costs will outweigh the impact of the strengthened financial policies, and rates will be lower than they would be with 1.80 coverage. Furthermore, the need for special action by the Council to deal with unfavorable financial results will be reduced.