

# Memorandum

**To:** ISO Board of Governors

**From:** Philip Leiber, Treasurer & Director of Financial Planning  
William J. Regan, Jr., Chief Financial Officer

**Date:** March 18, 2008

**Re:** **Decision on 2008 Bond Issuance and Facility Reimbursement Resolution**

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*This memorandum requires Board action.*

## EXECUTIVE SUMMARY

The purpose of this memo is to request Board authorization for CAISO's proposed 2008 bond issue to fund budgeted 2008-2009 capital expenditures and to request authorization to restructure CAISO's existing debt as a prudent contingency measure in light of current bond market conditions.

On January 28, 2008, Management briefed the Board on CAISO's planned 2008 bond issue to provide approximately \$60 million to fund 2008-2009 capital expenditures, and obtained the Board's approval of a related reimbursement resolution. Management requests that the Board now authorize the issuance of bonds sufficient to fund that \$60 million capital expenditure and provide for related bond funding requirements including issuance costs, capitalized interest and potentially, a debt service reserve fund, for a new bond issue not to exceed \$69 million. A related resolution would authorize Management to reimburse the temporary use of corporate funds to support the design of the new headquarters facility until permanent financing for the building is obtained in 2009.

Since January, concerns about the financial strength of the insurers of CAISO's bonds (Ambac and MBIA), have caused significant increases in the CAISO's interest expense. Accordingly, we believe it is prudent to proceed with a plan to refinance existing debt. Management requests that the Board authorize the issuance of 2008 bonds for the purpose of retiring all of CAISO's outstanding debt, which will total \$135.1 million as of April 1, 2008<sup>1</sup>. However, if confidence in the financial markets and in the capital adequacy of the bond insurers is restored in the next few weeks, and CAISO's interest expenses return to levels more consistent with historic experience, then Management will seek to schedule a special meeting of the Board of Governors on or about April 15, 2008 to cancel the refinancing component of the transaction. In such an event, CAISO would still proceed with the new money component of the bond issuance.

The significant uncertainty in the financial markets complicates the decision as to whether to proceed with the refinancing, and what type of bonds to use for the transaction. We propose in this memorandum to proceed with a modified variable rate demand bond structure, but this recommendation is tentative, and based on continued analysis and discussion with the Board on March 26, we will adjust course as appropriate. CAISO's most recent interest rate resets on March 18 give us hope that the need for refinancing is lessening.

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<sup>1</sup> After purchase and early retirement of \$3.9 million of Series 2000 bonds from general corporate funds planned for April 1, 2008.

These issues are discussed in this memorandum as follows:

- New money component of the bond offering
- Refinancing component of the bond offering
- Bond structures, including discussion of the use of synthetic fixed rate debt (using variable rate demand bonds and a swap) compared with the option of issuing fixed rate bonds
- Conclusion and proposed board resolutions

## **NEW MONEY COMPONENT OF THE BOND OFFERING**

This portion of the proposed bond offering will provide \$60 million to fund 2008-2009 capital expenditures, including compliance and regulatory requirements (such as market design enhancements including convergence bidding and scarcity pricing), essential projects (including an Energy Management System operating system upgrade), strategic initiatives (including Payment Acceleration) and other future market system enhancements. These proceeds would also be used to provide temporary funding of up to \$18 million for the development of CAISO's new headquarters facility<sup>2</sup>. Upon the availability of permanent building program financing, the temporary use of funds from this bond offering would be repaid, and made available for other capital expenditures.

This portion of the bond offering would also provide funding for associated bond issuance costs, capitalized 2008 interest (as CAISO's 2008 revenue requirement does not include interest costs for the new bonds), and approximately \$7 million for a debt service reserve fund (the need for a debt service reserve fund is still under discussion as of March 18). Additional details of the proposed bond structure are provided in Appendix 1.

Management expects that the impact of the debt service for the new money component of the bond offering on CAISO's revenue requirement can be accommodated in a manner consistent with CAISO's target for a stable Grid Management Charge. Appendix 3 provides additional details of the GMC impacts.

The need for approximately \$60 million of capital expenditure funding for 2008-2009 was identified through the development of the 2007-2011 strategic plan, and further validated in the 2008 capital budgeting process, and in the 2008-2012 strategic plan. With the deferral of the startup of MRTU later into 2008, the duration of the commitment of CAISO's personnel to testing and simulation of operations with MRTU will also be extended, limiting the CAISO's ability to undertake other capital projects, and reducing CAISO's need for other capital expenditure funding during 2008. Accordingly, the proposed bond offering may ultimately be sufficient to cover capital spending requirements over a longer period (2008-2010). However, because we do not foresee a reduction in the number of important projects that need to be implemented and funded for the two years after MRTU startup, we believe maintaining the size of the offering at \$60 million is the preferred approach for several reasons, including:

- Obtaining funds sooner than needed is very unlikely to have an economic cost to CAISO. As long as bond proceeds can be invested at a rate equal to or higher than the cost of the bonds, there is no cost to holding unspent bond proceeds. Because CAISO can borrow at a tax-exempt interest rate, and invest at a taxable interest rate, achieving this is not typically a challenge. While current turbulence in the municipal bond markets results in potentially greater volatility of CAISO's borrowing rates, we believe we can effectively manage this risk with the investment strategy we adopt for our unspent bond proceeds.

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<sup>2</sup> Management is presenting a request to proceed to the next stage of the building design at that March 26, 2008 Board meeting to spend a lesser amount. This higher figure will be used in CAISO's Section 204 regulatory filing to provide additional authority to use 2008 bond proceeds on the facility, should 2008 facility funding needs exceed the amount being requested now. However, Management will not exceed the March 26, 2008 facility funding request without additional Board approval.

- While it might be possible to delay this portion of the bond offering to reflect the delay in MRTU, as discussed later in this memorandum, the bulk of the savings associated with refinancing existing debt are likely to be realized in the near term, suggesting that if a refinancing is to be executed, then it should be completed as soon as possible. Also, there are substantial cost savings and efficiencies to be achieved by executing the new money and refinancing portions of the transaction concurrently.

Based on these factors, Management believes that proceeding with the full \$60 million new money portion of the offering in May is prudent, particularly if CAISO also refinancing existing debt, as described below.<sup>3</sup>

## **REFINANCING COMPONENT OF THE BOND OFFERING**

### **Need for the Refinancing**

CAISO issued variable rate demand bonds (“VRDBs”) supported by bond insurance and standby bond purchase agreements in 2000, 2004 and 2007. Effective April 1, 2008, CAISO will have outstanding \$135.1 million in Series 2004 and Series 2007 variable rate demand bonds (VRDBs) insured by Ambac Assurance Corporation. All the Series 2000 Bonds, insured by MBIA, will be retired by April 1, 2008 (through regularly scheduled amortization and a special retirement of the remaining \$3.9 million).

These bonds are offered to investors by remarketing agents, who set interest rates weekly at the level necessary to place the bonds with investors. CAISO also has interest rate swaps in place on a significant portion of this debt, creating a “synthetic” fixed rate issue that has, over the long run, provided significant savings to CAISO’s totaling more than \$21 million, as explained in Appendix 2. However, the interest rate swaps do not cover all outstanding debt, and do not at all times act as a perfect hedge for the variable interest rate exposure.<sup>4</sup>

The last several months have been extraordinarily challenging times for the municipal and variable rate bond market. The sub-prime mortgage crisis has impacted the “mono line” bond insurers, and investors are skeptical that the bond insurers will be able to meet their guarantees on mortgage related and municipal debt. The bond insurers went beyond their traditional business of insuring municipal bonds, into the business of offering guarantees on mortgage related debt, and this has proven to be a riskier endeavor than they anticipated. Ambac Assurance Corporation (Ambac), one of the largest bond insurers to be affected by this situation, provided insurance for CAISO’s 2004 and 2007 bonds. Ambac has been viewed as being at significant risk of losing their Moody’s “Aaa” and Standard & Poor’s “AAA” credit ratings. Various plans have been discussed, and certain capital improvement plans have already been effectuated<sup>5</sup>, but it is unclear whether these measures will be sufficient in the longer-term to maintain Ambac’s financial strength, and investors remain skeptical based on the high interest rates they continue to demand for debt insured by Ambac (although as noted in the footnote on page 1, recent interest rate resets appear to indicate the crisis is passing).

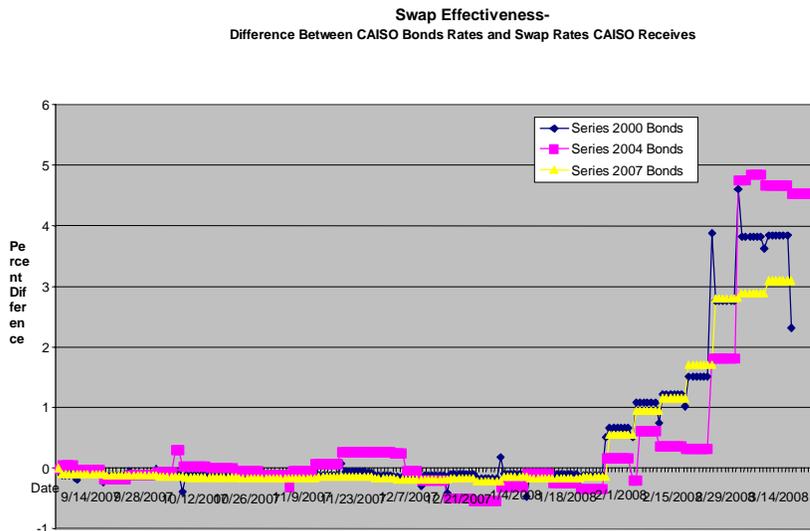
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<sup>3</sup> If CAISO opts against refinancing existing debt, then the new money financing might also be deferred. The need for the new money offering could otherwise reasonably be delayed a few months, or potentially, until late in 2008, and combined with a fixed rate bond offering for the proposed new facility. CAISO could obtain a bank line of credit to fund 2008 financing needs until such funding was available.

<sup>4</sup> CAISO pays a fixed rate, and receives variable interest based on an index (SIFMA or LIBOR), which has not been affected to the same degree as CAISO’s bonds by the concerns about the insurers.

<sup>5</sup> The situation with the bond insurers is very fluid, and relevant developments are occurring daily. On February 25, S&P affirmed Ambac’s AAA rating, apparently confirming speculation that Ambac was to announce a possible recapitalization plan that would involve a capital infusion. On March 7, Ambac raised \$1.5 billion selling common stock and equity units in an attempt to keep its Aaa/AAA ratings.

As a result, CAISO has had to pay substantially higher interest rates to place its bonds with investors on a weekly basis<sup>6</sup>. Interest rates on the CAISO bonds have increased to levels significantly above the Securities Industry and Financial Markets Association (“SIFMA”) index, which is a composite index of municipal bonds and is a standard benchmark used by issuers to monitor rates of their bonds. Historically, the interest rate on CAISO bonds have been about 10 basis points below this index, but recently have increased to nearly 500 basis points above the index. This has resulted in higher interest costs for the portion of debt that CAISO has not hedged with interest rate swaps, and has also resulted in decreased effectiveness of the interest rate swaps, as CAISO receives a variable interest payment under the swap arrangements based on the SIFMA and a similar index, but has had to pay substantially higher rates on its weekly VRDBs. This differential, or “basis risk” is illustrated in the following chart:



Through mid-March 2008, CAISO has paid approximately \$510,000 more interest expense than would be expected under normal conditions (if CAISO’s bond rates approximated the SIFMA index), and \$426,000 more interest than what was budgeted for that period (interest was budgeted in December 2007 based on a forecast of interest rates). For as long as these conditions continue, CAISO will pay \$300,000-\$400,000 more interest per month than we anticipated in setting the 2008 annual budget.

**Alternatives to Address the Current Situation**

CAISO has two potential approaches to respond to this situation:

1. **Take no action--wait for the current financial crisis to pass.** Taking no action might be a reasonable response if there were a reasonable expectation that the bond insurers would resolve their problems in a timely manner, and that investor confidence in their ability to meet their financial obligations over the long term would be quickly restored. At present, there is sufficient doubt about this that investors continue to view securities backed by the impaired bond insurers skeptically, despite the quality of the underlying issuers (CAISO has relatively strong underlying credit ratings of A2/BBB+, but is still paying abnormally high rates). Until such concerns of investors pass, CAISO may face

<sup>6</sup> Further, there is a potential that the remarketing agents will not find investors for the bonds even at the maximum interest rate of 12 percent specified in bond documents, and this could trigger a draw by the remarketing agents on the bank standby bond purchase agreement (SBPA), placing the bonds with the SBPA banks. CAISO would then be required to pay the prime rate (currently 6%) plus one percent on the bonds, and pay off the bonds over the lesser of five years or the remaining original term.

these high interest costs. It is important to note that rates have declined on the interest rate resets on March 11 and March 18—should this trend continue, the “take no action” approach may be warranted<sup>7</sup>.

2. ***Refinance outstanding CAISO bonds concurrently with the new money issuance.*** We would increase the size of the May 2008 bond offering to provide sufficient funds to retire existing debt and fund associated issuance and other costs. The new debt would be supported by a bank letter of credit<sup>8</sup> rather than bond insurance. The refinanced debt would be structured to provide essentially the same overall amortization schedule as existing debt. Further, we have also been advised that an announcement of the planned refinancing would likely increase investor confidence in the security of the existing bonds, resulting in lower rates prior to the actual refinancing.

### **Analysis and Recommendation to Proceed with Refinancing**

After consideration and analysis of these alternatives, Management has concluded that refinancing the Series 2004 and 2007 bonds is the prudent and economic course of action to pursue at this time. We are hopeful that the situation with the bond insurers will stabilize and that market confidence in the validity of the insurance coverage they provide will be restored, but we are uncertain as to when or even whether this may occur. Accordingly, Management proposes to refinance all outstanding debt (\$135.1 million) as of May 2008, concurrently with the \$60 million new money issue. Refinancing would mitigate risk associated with the current bond structure due to exposure to impaired bond insurers, reduce higher interest costs that CAISO is currently paying, and can be coordinated with the new money issue to reduce certain issuance costs.

We propose the VRDB structure noted earlier in this memorandum, based on the projected cost savings over a traditional fixed rate bonds of at least \$1.3 million.<sup>9</sup> The cost advantage of a VRDB offering is further compounded by our ability to complete that transaction sooner, with an additional potential value of approximately \$300,000-\$400,000 monthly based on current conditions.<sup>10</sup> A synthetic fixed rate bond structuring using VRDBs does present some additional risk as compared to fixed rate bonds. However we believe this marginal additional risk is worth assuming given the lower interest costs that this structure should provide. Appendix 4 provides a sensitivity analysis testing the decision to pursue the refinancing.

We are aiming to execute the refinancing transaction as soon as possible to eliminate the ongoing interest rate differential. We will aim for a May 1 issuance date, which would be the earliest date that the existing bonds can be

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<sup>7</sup> Rates from one remarketing agent decreased from 5.1000 to 4.5000 to 3.8500 in the three weekly interest rate resets from March 4, 11, 18 respectively. The spread of CAISO's bonds vs. the rate at which similar bonds backed by a letter of credit has also decreased somewhat from 2.2% to 1.7%. However, it may be too early to conclude the problems have passed. According to CAISO's financial advisor, the money market funds have faced a cash influx, and are appear to be relaxing their standards and purchasing issues backed by bond insurers that they previously avoided, but this may be a temporary phenomena.

<sup>8</sup> CAISO requested a letter of credit from the existing bank group (led by Bank of America) and other banks including Wells Fargo and RBC. Bank of America offered a letter of credit with either a one-year or three year term. The pricing of the letter of credit for this portion of the bond offering will be 60 basis points annually, compared with an indicative quote of 32.5 basis points provided by the bank in January for the new money portion of the bond offering. The substantial increase in pricing in the past several weeks is due to continued high demand and limited supply. The Banks have also taken the position that the 60bps pricing will apply to the entire transaction.

<sup>9</sup> The estimated savings of VRDBs over fixed rate bonds is based on the difference in cumulative net debt service over the life of the bonds assuming that debt is issued on May 1, 2008. If the CAISO uses VRDBs, then we expect to transfer the swaps, but if we use a fixed rate structure, then an estimated swap termination fee of \$1.8 million will be required by CAISO.

<sup>10</sup> Since a fixed rate refinancing could not be completed by May 1, any additional interest expense incurred by the CAISO on outstanding debt between May 1, 2008 and the date on which the refinancing is completed would represent additional potential savings to the VRDB structure.

called. If the transaction cannot be completed by May 1, and is deferred until later in May, proceeds of the bond offering related to the refinancing would be held in escrow to retire the bonds on June 1.

Over the next several weeks, Management will continue to monitor developments with the Bond insurers, and the effect of such developments on the current and projected interest rates of the CAISO bonds to determine whether to it remains advisable to continue with the plan to refinance existing debt. If the excessive rates that CAISO is paying on its VRDBs are substantially reduced as we approach the scheduled bond issuance date<sup>11</sup>, CAISO will request Board approval to terminate plans to refinance the existing debt.

## BOND STRUCTURES

### Synthetic Fixed Rate Debt Using Variable Rate Demand Bonds vs. Traditional Fixed Rate Bonds

CAISO's underwriter prepared and CAISO reviewed a comparison of the costs of two types of bonds: (1) VRDBs backed by a bank letter of credit and (2) fixed rate bonds. The attributes of each form of financing are compared in the table below.

Attribute	Synthetic Fixed Rate Debt consisting of VRDBs and an Interest Rate Swap	Traditional Fixed Rate Bonds
Overall cost	Lower Projected Cost. Debt service savings of \$1.3 million over the life of the bonds vs. traditional fixed rate bonds for the refinancing component of the offering, and another \$1.3 for the new money component of the financing. (Amounts subject to change based on bond market conditions)	Higher Projected Cost vs. synthetic fixed rate debt as noted to the left. Assumes issuance of uninsured fixed rate bonds. Difference could be reduced depending on availability and pricing of bond insurance. Assumes both offerings could be executed on the same date. We believe a fixed rate offering would take at least one-two additional months preparation (resulting in June/early July issuance).
Certainty of projected cost	Less certain. CAISO may experience: <ul style="list-style-type: none"> <li>• "Basis risk", due to holding an imperfect interest rate swap, where the amount of interest CAISO must pay on its bonds differs from the variable payment stream it receives under the interest rate swap.</li> <li>• Letter of Credit renewal and pricing risk. CAISO has obtained a commitment by banks to provide a letter of credit with a three year term. Upon expiration of that term, CAISO will either extend with the existing banks, or will have to obtain a letter of credit from other banks, subjecting CAISO to pricing and availability risks at that time.</li> <li>• On March 17, Banks also requested pricing triggers in the letter of credit reimbursement agreement that would increase pricing if CAISO's underlying credit rating falls below the current level.</li> </ul>	Highest degree of certainty of ongoing costs once the debt has been issued. Once issued, CAISO would continue to pay the interest rate specified at issuance.
Required time to execute	Can likely execute by May 1, 2008 (with potential slippage to mid-May).	Can execute by July 1, 2008
Up-front and ongoing administrative support required	<ul style="list-style-type: none"> <li>• Minimal disclosure in official statement</li> <li>• Need for one-time renewal and repricing of bank letter of credit after three years</li> </ul>	<ul style="list-style-type: none"> <li>• Comprehensive disclosures would be required in the official statement, and Board review and concurrence with the disclosures would be necessary.</li> <li>• Ongoing reporting requirements</li> </ul>

<sup>11</sup> CAISO will be scheduled to obtain approval for the transaction from the California Infrastructure and Economic Development Bank, the state agency that serves as a conduit issuer for the Bonds, on April 22. After this approval, we will generally be obligated to proceed with the refinancing.

Based on our experience and information provided by CAISO's financial advisors, CAISO Management recommends at this time proceeding with a VRDB offering for the new money need and to refinance existing debt. The VRDBs would be backed by a bank letter of credit ("LOC") rather than bond insurance. VRDBs backed by high-quality bank letters of credit have not been impacted by the concerns about bond insurers, and accordingly, have remained a viable and attractive form of financing. Interest rates on VRDBs backed by bank letters of credit have continued to bear interest at reasonable levels consistent with historical norms. This structure would also provide for a "synthetic fixed rate", through the maintenance of the existing interest rate swaps on the refinanced portion of the new bonds, and the procurement of a new interest rate swap on part of the new money component.

The cost advantage of a VRDB offering over a fixed rate offering is further compounded by our ability to complete that transaction sooner, and gain the benefits of restructuring earlier. A delay in refinancing could cost CAISO as much as \$300,000-\$400,000 monthly, if the higher weekly interest rates CAISO is experiencing on its outstanding VRDBs continue. Due to the efficiencies of executing a single transaction, it is appropriate to choose the same bond type for both the new money and refinancing needs.

### **Are the Expected Savings of VRDBs Sufficient to Offset the Increased Risks?**

As previously noted, the CAISO has saved more than \$21 million using VRDBs and interest rate swaps to achieve partially "synthetic" fixed rate bonds. Historically, this structure has provided savings because over the long run, the combined interest costs CAISO pays on its bonds plus the cash flows CAISO pays under the swap arrangement have been less than the interest costs CAISO would have paid to issue traditional fixed rate bonds. However, CAISO has also experienced two periods during which this structure did not perform well, when short-term interest rates CAISO paid on its bonds were significantly increased.

The first such event was the energy crisis, when energy prices increased dramatically, leading to the significant deterioration in the credit quality of the CAISO's key customers as they were unable to pay their obligations, and this led to significant reductions in CAISO's credit ratings in January 2001. These concerns resulted in increased interest rates on our Series 2000 VRDBs, and such rates remained above the comparative SIFMA index into 2002. It is highly unlikely that we will see events of a similar nature again<sup>12</sup>, but these events illustrate that events that call into question CAISO's ability to meet its obligations, even with the availability of credit enhancement on the bonds, can cause investors to demand a higher rate to hold CAISO's bonds. It would in such a case be difficult to resolve the higher interest costs CAISO would face, as we would not be able to economically refinance into an alternative bond structure such as fixed rate bonds.

The second such event is the current financial situation caused by the "sub-prime" mortgage meltdown and the effect that this has had on CAISO's bond insurers. To date, these problems have not had a material impact on the proposed providers of the letter of credit to support the proposed VRDB issuance. However, if investor concerns with the banks issuing the letter of credit increase as they have with the bond insurers, then it is possible that the CAISO would incur higher interest expenses with the VRDBs than would apply with a fixed rate financing. In such case, CAISO could seek to obtain a replacement letter of credit from another bank. If that is not available, or is prohibitively costly, CAISO could refinance to a traditional fixed rate bond structure at that time. Accordingly, a likely "worst case" scenario here is where CAISO notes the problem with the credit enhancement provider through paying higher rates, then would continue to pay higher interest rates for two or three months while it arranges a fixed rate financing, and we pay the additional issuance costs associated with the refinancing. Costs of \$1-3 million are possible in such a scenario. While possible, we believe such a scenario is unlikely. Based on the value we have realized through the synthetic fixed structure, and the continued

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<sup>12</sup> Significant improvements in infrastructure, long term contracting for energy, and resource adequacy requirements significantly reduce the risk that the CAISO will be engulfed in a credit crisis driven by inadequate electric infrastructure

stability we are observing with VRDBs backed by high-quality letters of credit, Management believes that the CAISO should proceed with the VRDB structure.

This recommendation to proceed with a VRDB offering rather than a fixed rate offering is tentative, based on circumstances that exist as of the date of this memorandum. Developments in the financial markets are occurring rapidly, many of which bear on this decision in important ways. Management will continue to assess this important issue and will bring further analysis to the Board for discussion on March 25.

## **Other Bond Structure Issues**

### ***Amount of Bond Offering***

CAISO intends to issue bonds in an amount necessary to provide for new Capital Expenditure funding (\$60 million), restructure existing debt (\$135.1 million of debt outstanding as of April 1, 2008), fund 2008 capitalized interest costs (approximately \$1.3 million), and fund issuance costs of the transaction. The amount of funding necessary for this is known, but the size of the bond offering may vary depending on whether or not the new bonds will have a debt service reserve fund (DSRF), as discussed further below. Management requests Board authorization for a larger bond issuance amount assuming the transaction will have a DSRF, but if the transaction does not, the size of the offering will be reduced accordingly.

### ***Assurance of Repayment***

The bonds are to be supported by a pledge of CAISO GMC revenues, as with existing debt. Bondholders also have assurance of timely interest and principal payments through a bank letter of credit. The cost of this credit support is funded by CAISO, and is described below. The bonds may also have a debt-service reserve fund ("DSRF") as additional assurance of repayment to investors. The need for a DSRF is still under discussion at this time. If the DSRF is unnecessary, the overall size of the bond offering would be reduced accordingly. There is no economic cost to CAISO for maintaining the DSRF, as earnings on the fund can be expected to offset interest costs payable on the debt issued to fund the DSRF.

### ***Credit Enhancement: Letter of Credit***

Credit enhancement means a third party provides some assurance of payment of CAISO's obligations in exchange for a payment from CAISO. CAISO benefits from credit enhancement to the extent that the interest savings exceed the cost of the credit enhancement. CAISO investigated different bond structures and determined that variable rate demand bonds, which require credit enhancement, were the most economic. A bank letter of credit is the most viable form of credit enhancement available to CAISO at this time. CAISO requested pricing for letters of credit from several banks in January for the new money component of the financing, and obtained a commitment of a letter of credit with either a one-year or three year term with a competitive rate. CAISO recommends the three-year instrument to avoid the need for more frequent renewals with uncertainty regarding the pricing terms and availability of such renewals. CAISO also requested pricing for a letter of credit for the refinancing component of the transaction in February, and found that pricing had increased and availability had decreased, due to significant increased demand from other issuers also attempting to restructure their debt. CAISO obtained a commitment for a three-year letter of credit from the same lead bank, but at a substantially higher cost.

### ***CAISO Credit Ratings and Bond Ratings***

CAISO Management met with representatives of Moody's and Standard & Poor's on March 7 to discuss the proposed financing. These agencies assign two ratings of importance to CAISO. The first is an "underlying" or "issuer" rating

that addresses CAISO's ability to meet its ongoing corporate financial obligations. Management expects that S&P will reaffirm or potentially upgrade the existing BBB+ rating with a positive outlook, and that Moody's will reaffirm or potentially upgrade CAISO's A2 rating. CAISO's ratings will affect the availability and pricing of the credit enhancement necessary for the VRDBs on this and future transactions, and the rate CAISO can receive on a fixed rate bond offering that CAISO will likely pursue for the permanent facility financing.

The second rating to be assigned by Moody's and Standard and Poor's applies to the bonds. The rating of CAISO's existing bonds is AAA/VMIG-1 and AAA/A-1+, respectively. We expect the 2008 bonds will receive the same strong ratings, based on the strength of the bank letter of credit. Bonds supported by such letters of credit have had short-term interest rates that have been essentially unaffected by the market turbulence that has affected bonds supported by Ambac and MBIA insurance.

### ***Interest Rate Swaps***

Management recommends the continued use of interest rate swaps to manage exposure to fluctuating interest rates. With a interest rate swaps, CAISO agrees to pay a fixed interest rate on a notional principal amount in exchange for a variable payment stream calculated as a variable interest rate index times the notational principal amount that decreases as the bonds are amortized. The variable payment stream CAISO will receive, under normal conditions, will closely match the interest payable on CAISO's VRDBs. The net result of this is that CAISO achieves a "synthetic fixed rate" for a portion of its variable rate bond program. As shown by recent conditions, and during the energy crisis of 2000-2001, there is a risk (referred to as "basis risk") that the variable interest payments that CAISO receives will not match the rate CAISO must pay on its bonds. Despite this, CAISO believes the synthetic fixed rate structure is still attractive, and that basis risk for bonds supported by a bank Letter of Credit will be minimal.

Interest rate swaps are in place on approximately 60% of the CAISO's 2004 bonds, and 100% of outstanding principal on the 2007 bonds (in total, \$105,060,000 of the \$135,100,000 for these outstanding bonds on April 1). Management will aim to retain the existing interest rate swaps on the refinanced debt. Management has negotiated with the current swap counterparty to revise the terms of the swaps to remove reference to the existing bond insurer, in exchange for requirements that CAISO post collateral to support the unwind value of the swaps if such values exceed certain thresholds. If it is necessary to terminate the existing swaps for tax or other reasons, Management would enter into new interest rate swap arrangements to provide for the similar overall coverage profile as currently exists.

Management recommends obtaining an interest rate swap to cover between 50%-100% of the new money portion of the 2008 bonds. CAISO's past retention of some variable interest rate exposure has resulted in substantial interest cost savings, as presented in Appendix 2. However, there is the need to balance those potential savings against the possibility that short-term interest rates could increase significantly<sup>13</sup>. The determination of whether to swap 50%, or closer to 100% of the new money bond offering will be made closer to the closing date of the transaction in May. To ensure that the fixed interest rate that CAISO will pay to the swap counterparty is reasonable, we will use the services of a "pricing agent" with swap expertise to assist CAISO in reaching a negotiated rate or holding a competitive process with at least two swap counterparties. CAISO will include in the bidding process at least JPMorganChase and Bank of America, who our independent swap pricing advisor believes to be the most competitive swap counterparties.

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<sup>13</sup> Short-term interest rates have historically been below longer-term rates. That is the case currently, but as the economy stabilizes the Federal Reserve will likely increase rates to guard against inflation.

## CONCLUSION AND PROPOSED BOARD RESOLUTIONS

The significant uncertainty in the financial markets at this time complicates the decision as to whether to proceed with the refinancing, and what type of bonds to use for the transaction. While we currently propose proceeding with the refinancing, and the continued use of a modified form of synthetic fixed rate bonds (VRDBs with a letter of credit with interest rate swaps), we receive additional data daily that impacts this recommendation, and we recognize the Board may prefer the certainty of a traditional fixed rate bond structure. We will continue between now and the Board meeting to update our analysis, and take appropriate steps to proceed in the direction of a fixed rate offering should we conclude at the March 26 meeting to pursue that structure. We note that we have preserved the flexibility to proceed with a fixed rate offering in the Section 204 application for bond issuance filed on March 17. Should the Board opt to proceed with a fixed rate bond transaction on March 25, we will update the proposed resolutions contained in this memorandum as necessary.

In summary, the transaction as proposed above includes:

- A variable rate demand bond offering with a new-money component (including associated debt service reserve fund, capitalized interest and costs of issuance) not to exceed \$69,000,000 together with \$137,000,000 to refinance existing debt for a total bond issuance not to exceed \$206,000,000.
- Procurement of a three-year letter of credit at a cost for 60 basis points for the refinancing portion of the transaction, plus associated costs<sup>14</sup>.
- Authorization to amend as necessary the existing swap agreements for the refinancing portion of the transaction, and enter into a new interest rate swap agreement for the new money portion of the transaction to cover not less than 50% and up to 100% of the new money component of the bonds.

Management is preparing for execution of this bond issuance on May 1, 2008. Drafting of bond related documents is ongoing as of the date of this memorandum. The final version of these documents will be comparable to those from CAISO's previous 2007 bond transaction, with the exception of the changes related to the use of a bank letter of credit rather than bond insurance and a bank standby bond purchase agreement. Final documents including the Official Statement, Loan Agreement, Indenture of Trust, Reimbursement Agreement (related to the bank Letter of Credit) will be made available for Board review prior to the close of the transaction. FERC will act on our recently filed Section 204 application (authorization for the bond issuance) subsequent to CAISO Board approval of the transaction.

Management requests that the Board authorize the transaction as outlined in this memorandum by adopting two proposed issuance resolutions related to the new money and refinancing portion of the bond offering. Management further requests Board approval of a reimbursement resolution to permit the use of permanent facility funding proceeds to repay the temporary use of proceeds from this May 2008 bond offering.

## **Issuance Resolutions**

### **NEW MONEY BORROWING RESOLUTION (2008-03-26)**

**MOVED**, that the Board authorize and empower the Chief Executive Officer or the Chief Financial Officer of the California Independent System Operator Corporation (the "Corporation") in the name and on the behalf of the Corporation, to perform the following:

- **Issue variable rate demand bonds in an amount not to exceed \$69,000,000 through the California Infrastructure and Economic Development Bank (Bond Offering).**
- **Borrow money, incur other obligations and guarantee the obligations of the Corporation in an amount not to exceed \$69,000,000, and in furtherance thereof to execute and deliver from time to time any note or other instrument evidencing indebtedness or other obligations of the Corporation, including related agreements and documents and guarantees of obligations or endorsements of notes, when deemed to be in the best interests of the Corporation, at a rate or rates of interest, and upon such other term or terms as shall be agreed upon by such officers.**
- **Procure a bank letter of credit for a term of three years at a cost not to exceed 60 basis points annually (based on CAISO's current ratings) plus other associated expenses.**

**MOVED FURTHER**, that the Board authorize and direct Management to take any and all actions necessary and appropriate to execute an interest rate swap to partially hedge the bonds and provide for synthetic fixed rate debt for not less than 50% and up to 100% of the outstanding bond principal amount.

**MOVED FURTHER**, that the Board authorize the Chief Executive Officer or the Chief Financial Officer of the Corporation to take any and all other action necessary to effectuate the Bond Offering, and further authorize any other agent(s) of the Corporation to whom the Chief Executive Officer or the Chief Financial Officer may delegate such necessary actions in writing.

### **REFINANCING RESOLUTION (2008-03-26)**

**MOVED**, that the Board hereby authorized and empower the Chief Executive Officer or the Chief Financial Officer of the California Independent System Operator Corporation (the "Corporation") in the name and on the behalf of the Corporation, to perform the following:

- **Retire the Corporation's existing debt, consisting of Series 2004 and Series 2007 bonds with an outstanding amount of \$135,100,000 as of April 1, 2008, through the issuance of new variable rate demand bonds in an amount not to exceed \$137,000,000 through the California Infrastructure and Economic Development Bank (the "Refinancing").**
- **In order to effectuate the refinancing: borrow money, incur other obligations and guarantee the obligations of the Corporation in an amount not to exceed \$137,000,000, and in furtherance thereof to execute and deliver from time to time any note or other instrument evidencing indebtedness or other obligations of the Corporation, including related agreements and documents and guarantees of obligations or endorsements of notes, when deemed by them to be in the best interests of the Corporation, at a rate or rates of interest, and upon such other term or terms as shall be agreed upon by such officers.**
- **Procure a bank letter of credit for a term of three years at a cost not to exceed 60 basis points annually (based on CAISO's current ratings) plus other associated expenses.**

**MOVED FURTHER**, that the Board authorize and direct Management to take any and all actions necessary and appropriate to maintain or modify existing interest rate swaps, or procure new interest rate swaps so that the refinanced bonds are partially hedged for not less than 60% and up to 100% of the outstanding bond principal amounts.

**MOVED FURTHER**, that the Board authorize the Chief Executive Officer or the Chief Financial Officer of the Corporation to take any and all other action necessary to effectuate the Bond Offering, and further authorize any other agent(s) of the Corporation to whom the Chief Executive Officer or the Chief Financial Officer may delegate such necessary actions in writing.

## **Reimbursement Resolution**

**RESOLUTION DECLARING OFFICIAL INTENT OF  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION  
TO REIMBURSE CERTAIN EXPENDITURES FROM PROCEEDS OF INDEBTEDNESS  
AND TO USE MAY 2008 BORROWINGS ON AN INTERIM BASIS PRIOR TO THE AVAILABILITY OF PROCEEDS FROM SUBSEQUENT  
FACILITY RELATED FINANCING  
ADOPTED MARCH 26, 2008**

*WHEREAS, the California Independent System Operator Corporation (the "Corporation") expects to pay certain expenditures (the "Expenditures") in connection with its new facility program (collectively, the "Project") prior to and in anticipation of the issuance of indebtedness for the purpose of financing the Project on a long-term basis;*

*WHEREAS, the Corporation intends to fund such Expenditures on an interim basis with either general corporate funds, or the proceeds from the planned May 2008 bond issuance;*

*WHEREAS, the Corporation reasonably expects that debt obligations will be issued during 2009 in one or more series and that certain of the proceeds of such debt obligations will be issued to pay or reimburse either general corporate funds or the May 2008 bond construction fund the Expenditures for the Project in an amount not to exceed \$18,000,000;*

*WHEREAS, Section 1.150-2 of the Treasury Regulations requires the Corporation to declare its official intent to reimburse itself for prior expenditures for the Project with proceeds of debt obligations;*

**NOW, THEREFORE, THE CORPORATION hereby resolves:**

- 1. The Corporation finds and determines that the foregoing recitals are true and correct.*
- 2. The Corporation hereby declares its official intent to use proceeds of the facility indebtedness to be incurred in 2009 to pay or reimburse itself or the 2008 bond offering construction fund for Expenditures in an amount not expected to exceed \$18,000,000<sup>15</sup>.*
- 3. This Resolution shall take effect from and after its adoption.*

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<sup>15</sup> \$18 million consisting of money that may be spent during 2008 for plan development and other associated pre-construction actions, and the 2007 commitment of \$2 million for high-level building plans.

## Appendix 1 – Proposed Bond Structure

CAISO proposes to issue variable rate demand bonds supported by a bank letter of credit to obtain funding for necessary capital expenditures and to refinance existing debt.

### Summary of Use of Bond Proceeds

#### New Money Portion of Bond Offering

<u>Bond Funding Requirement</u>	<u>Amount</u>	<u>Comments</u>
Project Fund	\$60,000,000	\$21.5 million for 2008 capital expenditures and \$38.5 million for 2009 capital expenditures. Allocation between years and availability of funds for 2010 capital expenditures is subject to the MRTU schedule.
Debt Service Reserve Fund (DSRF)	\$6,163,000	This fund is accessible by the bond trustee and is used to fund interest and principal payments to bondholders if CAISO does not make such payments on a timely basis. The funds are to be available to meet the final year's payments. There is no anticipated economic cost of this fund to CAISO, as earnings on the fund are expected to offset interest payable by CAISO on the outstanding bonds. <b><i>The transaction may or may not include a DSRF, depending on additional negotiations with banks that are yet to be finalized.</i></b>
Capitalized 2008 Interest Costs	1,400,000	This fund is established to pay interest expense that accrues in 2008 on the 2008 bonds because such interest expense was not included in the CAISO 2008 Revenue Requirement.
Costs of Issuance	<u>230,000</u>	Costs of issuance include counsel, underwriter's fees, and other miscellaneous issuance costs.
Total, new money component	\$61,630,000- \$67,800,000.	Range of bond value varies due inclusion or exclusion of a DSRF. Proposed resolution requests authorization for a \$69,000,000 offering, in the event we do not proceed with the refinancing transaction, in which a larger portion of the costs of issuance would be attributed to this transaction.
	<b>Requested Authorization: \$69,000,000</b>	

#### Refinancing Portion of Bond Offering

<u>Bond Funding Requirement</u>	<u>Amount</u>	<u>Comments</u>
Bond Repayment Fund	\$135,100,000	\$135.1 million in existing debt from CAISO's 2004, 2007 bonds are outstanding as of May 2008.
Debt Service Reserve Fund (DSRF)	0 to (18,410,000)	If a Debt Service Reserve Fund is unnecessary on this transaction, the required issuance amount of the refinanced bonds could be decreased, as the currently outstanding 2004/2007 bonds have a DSRF that could be applied to pay down the debt at this time.
Costs of Issuance	785,000	Costs of issuance include counsel, underwriter's fees, and other miscellaneous issuance costs.
Total, refinancing component	\$117,475,000 \$135,885,000	Range of bond value varies due inclusion or exclusion of DSRF.
	<b>Requested Authorization:</b>	

\$137,000,000
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Total requirement for VRDB offering	\$179,105,000 to 203,685,000
<b>Requested Authorization:</b>	<b>\$206,000,000</b>

**Comparison of Proposed VRDB Structure vs. Existing VRDB Structure**

The attributes of the variable rate demand bonds to be used in the refinancing are comparable in most regards to existing debt, as shown in the following table.

<u>Element</u>	<u>Existing Debt</u>	<u>Restructured Debt</u>
Credit Enhancement	<ul style="list-style-type: none"> <li>• Bond Insurance</li> <li>• Standby Bond Purchase Agreement</li> </ul>	<ul style="list-style-type: none"> <li>• Bank Letter of Credit</li> </ul>
Assurance of Repayment	<ul style="list-style-type: none"> <li>• Pledge of CAISO GMC revenues</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
Amortization	<ul style="list-style-type: none"> <li>• 2004 Bonds: due 2/2010</li> <li>• 2007 Bonds: due 2/2013</li> </ul>	<ul style="list-style-type: none"> <li>• Same</li> </ul>
Bond Ratings	<ul style="list-style-type: none"> <li>• S&amp;P: AAA / A-1+</li> <li>• Moodys: Aaa/VMIG1</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipated to be the same</li> </ul>
Interest Rate Swap	<ul style="list-style-type: none"> <li>• 2004 Bonds: ~60% covered</li> <li>• 2007 Bonds: 100% covered</li> <li>• 2008 Bonds: 60% to 100% (proposed)</li> </ul>	<ul style="list-style-type: none"> <li>• Will retain existing interest rate swaps, or if necessary for tax purposes, obtain swaps with the same overall terms.</li> </ul>
Bond Trading Level vs. SIFMA benchmark	<ul style="list-style-type: none"> <li>• Under normal conditions, 10-15 bps <u>below</u> SIFMA.</li> <li>• Since January 24, 2008: 50-400 bps <u>above</u> SIFMA</li> </ul>	<ul style="list-style-type: none"> <li>• At or below SIFMA</li> </ul>

**Financing Team**

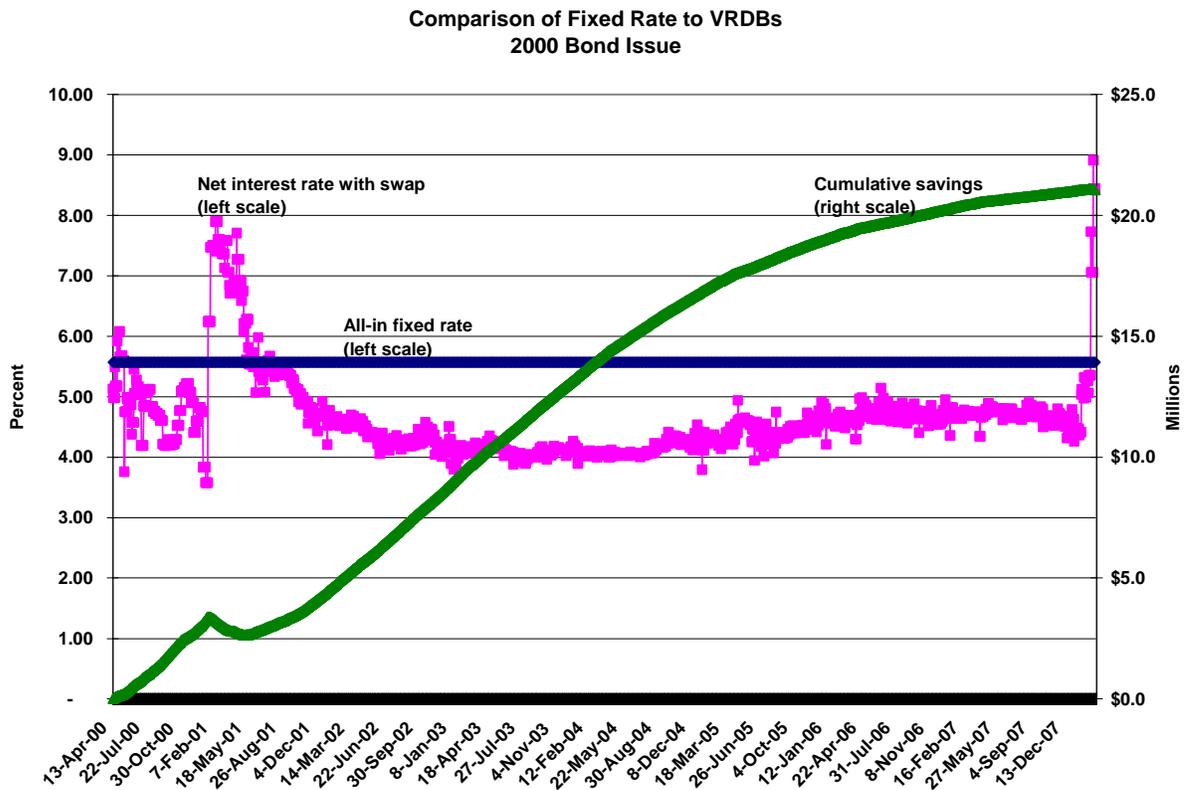
The financing team that will execute the proposed bond offering includes:

Underwriter:	Bank of America (Senior underwriter), JPMorgan (co-underwriter), RBC Capital Markets (co-underwriter)
Conduit Issuer:	California Infrastructure and Economic Development Bank
Bond Counsel:	Stradling, Yocca, Carlson & Rauth
Corporate Counsel:	Hawkins, Delafield & Wood
Letter of Credit Provider:	Bank of America / JPMorganChase
Pricing Agent and Independent Financial Advisor	Sperry Capital
Bond Rating Agencies:	Standard & Poor's and Moody's

## Appendix 2 – Historic Savings with VRDB Structure

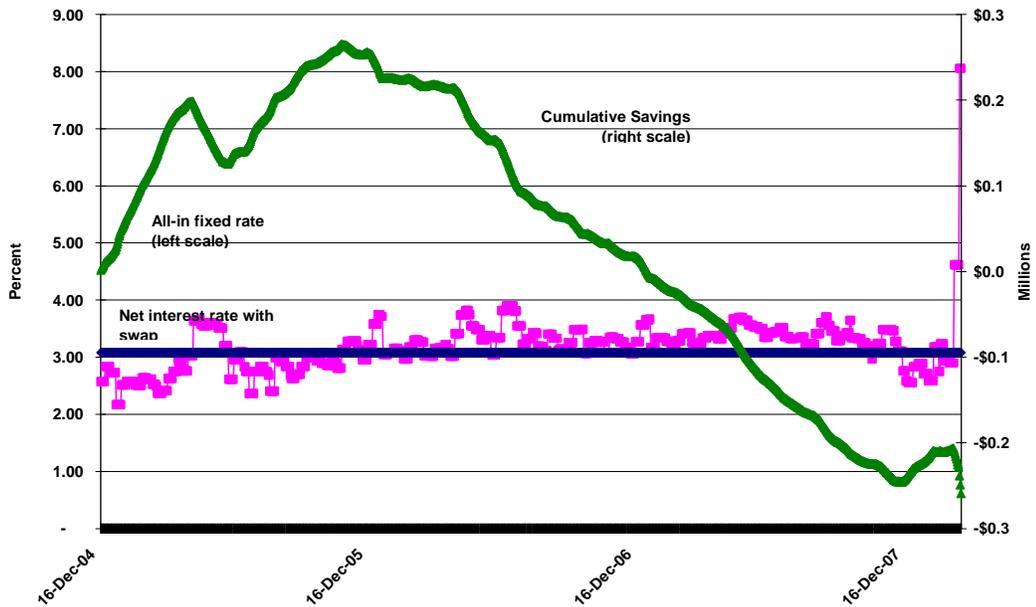
Since 2000, short-term interest rates have been below the price at which CAISO could have obtained fixed rate bonds in the previous transactions, and overall, below the rate at which CAISO could obtain a synthetic fixed rate through an interest rate swap.

On CAISO's series 2000 bonds, cumulative savings for the synthetic fixed rate transaction where CAISO has retained approximately 35% -40% variable rate exposure has been approximately \$21 million versus a comparable fixed rate transaction since April 2000:



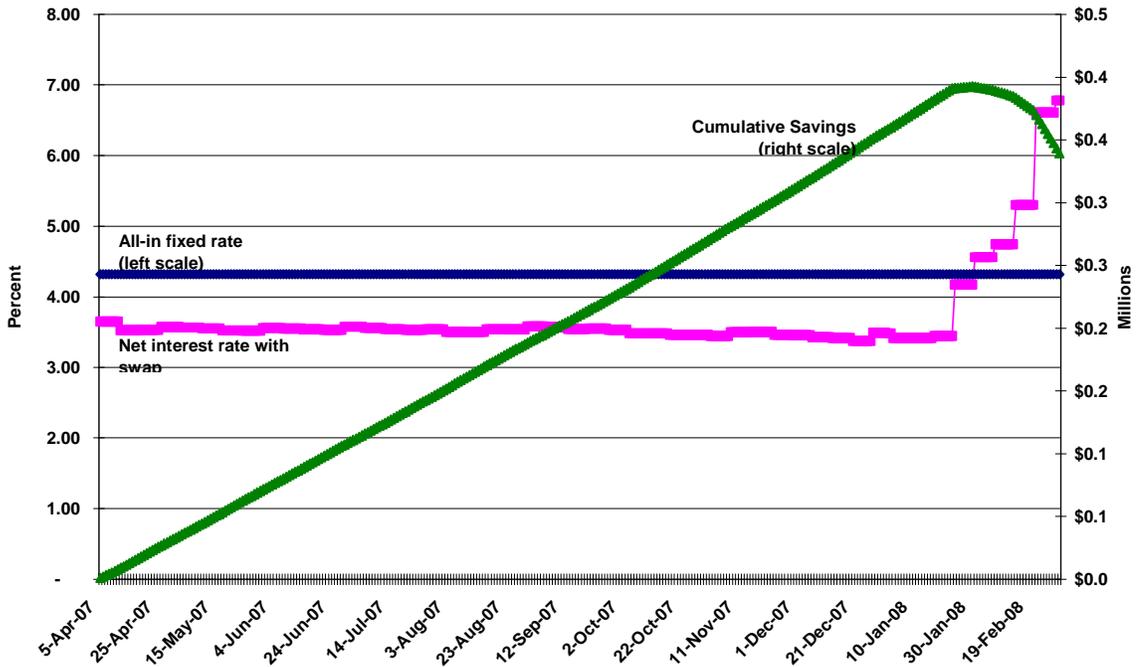
For the Series 2004 bonds, CAISO retained floating rate exposure for about 40% of the bonds. Through the end of February 2008, there has been a marginal cost of about \$200,000 from this strategy.

Comparison of Fixed Rate to VRDBs  
2004 Bond Issue



For the Series 2007 bonds, CAISO obtained an interest rate swap to cover all the bonds. Through the end of February 2008, there have been savings of approximately \$400,000 from this strategy.

Comparison of Fixed Rate to VRDBs  
2007 Bond Issue



### Appendix 3 – Debt Service and GMC Impacts

The following summary table lists the annual debt service, operating reserve requirements, and net impact on CAISO's Revenue Requirement of the new money component of the proposed bond issuance. Management has structured the bond repayments from 2009-2013 to facilitate achieving the goal of a stable to declining bundled GMC. Higher amortizations of the proposed 2008 bonds in 2010-2012 are offset by reductions in debt service on CAISO's existing bonds, which are fully retired by February 2012.

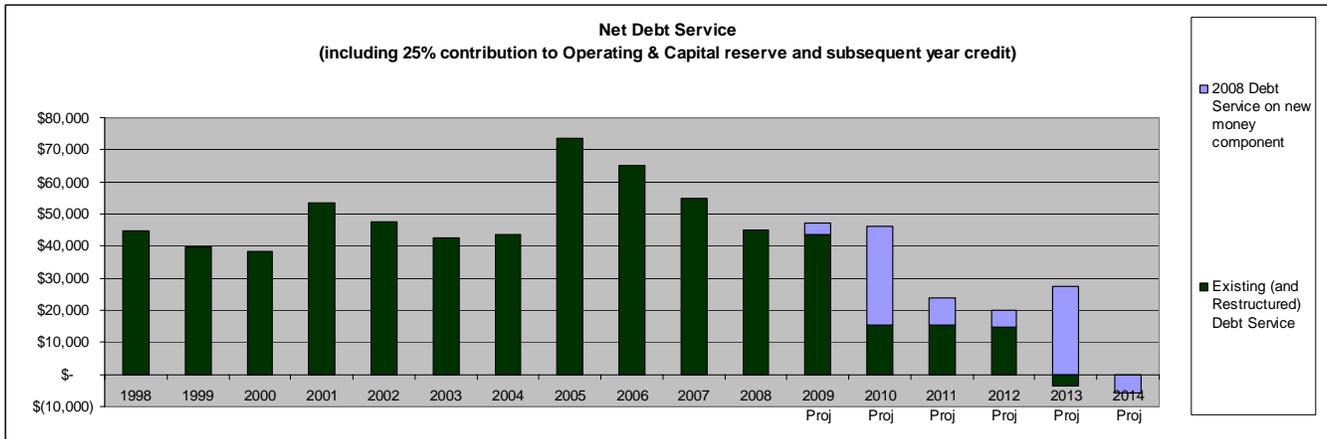
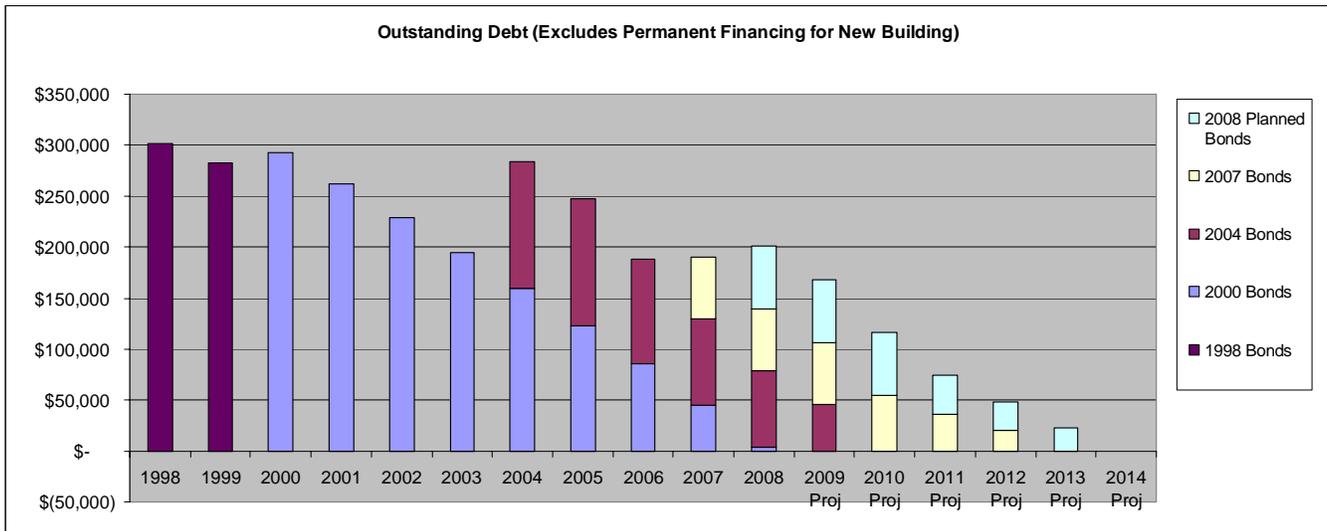
#### New Money Financial Impact Summary

\$ in thousands	(a)	(b)	(c)	(d)	(e)	(f)
Year	New Bond Debt Service- Principal	New Bond Debt Service- Net Interest	New Bond Debt Service- Total	Operating Reserve Collection (25% of debt service)	Operating Reserve Credit from Previous Year	Net Impact of Debt Service on Revenue Requirement
Rate Collection Year 2008, Debt Repayment Date 4/2009		Paid from bond proceeds	Paid from bond proceeds	0	0	0
Rate Collection Year 2009, Debt Repayment Date 4/2010	600	2,236	2,836	709		3,545
Rate Collection Year 2010, Debt Repayment Date 4/2011	23,000	2,215	25,215	6,304	-709	30,810
Rate Collection Year 2011, Debt Repayment Date 4/2012	10,451	1,387	11,838	2,960	-6,304	8,494
Rate Collection Year 2012, Debt Repayment Date 4/2013	5,549	1,011	6,560	1,640	-2,960	5,240
Rate Collection Year 2013, Debt Repayment Date 4/2014	22,400	811	23,211	5,803	-1,640	27,374
Rate Collection Year 2014,					-5,803	-5,803
Total	62,000	7,659	69,659	17,415	-17,416	69,658

Notes:

- Figures above are to change based on the final bond pricing and amortization schedule, and if existing debt is restructured, the treatment of existing debt service reserve fund proceeds. The overall goal will be to maintain a stable GMC through 2013.

The following charts illustrate outstanding debt at year-end and annual debt service (principal and interest) payments for the outstanding and planned 2008 new money bond issuance. Outstanding debt in future years will be lower on average, than in past years. As shown in the second chart, annual debt service payments are also manageable.



Refinancing Impact Summary

Management recommends we proceed with the refinancing only if the projected cash flows of the refinanced debt are lower than the projected cash flows of retaining the existing debt structure. However, it is important to recognize that the cash flows related to retaining the existing structure are uncertain. If bond market investors regain confidence in the bond insurers quickly, CAISO's existing debt costs should return to a "normal" situation where CAISO's bonds bear interest comparable to the SIFMA index. Refinancing involves two incremental costs: issuance costs, and higher ongoing costs for a bank letter of credit versus a bank standby bond purchase agreement. Appendix 4 compares these known incremental costs against the uncertain benefits of the restructuring, which are the elimination of the current differential of CAISO bond costs versus the SIFMA index.

## Appendix 4 – Refinancing Sensitivity Analysis

There is significant uncertainty about how long investors will require interest rate premiums to hold insured bonds. If the problem is short-lived and contained, then issuers such as CAISO should accept the higher interest costs as a temporary condition inherent in a variable rate bond structure. However, if the problems with the bond insurers persist, or increase in severity, then it is likely worthwhile to restructure variable rate debt supported by those bond insurers.

An appropriate consideration for whether to refinance is whether the costs of the refinanced debt will be less than the current debt over the remaining life of the bonds. Accordingly, we compare the anticipated cash flows under each alternative. We can limit the analysis to incremental costs of the refinancing versus savings of the restructured debt. These costs include:

- Incremental bond issuance costs including: underwriting costs, incremental legal costs, and miscellaneous issuance costs.
- Ongoing incremental costs of restructured debt are limited to the higher cost CAISO will pay for a bank letter of credit (60 basis points annually) versus the current bank standby bond purchase agreement (18 basis points annually). CAISO's current standby bond purchase agreements have three year terms expiring on April 5, 2010 for the 2007 bonds, and December 16, 2010 for the 2004 bonds. Accordingly, the differential cost is 42 basis points from the date of the restructuring until those dates. Thereafter, the cost differences is assumed to drop to 20 basis points, as the cost of standby bond purchase agreements will likely increase compared to our current low rate of 18 basis points.

CAISO paid in advance for bond insurance for the 2004 and 2007 bonds. That bond insurance premium is a sunk cost, and need not be considered in the analysis. The benefits of restructuring to be considered are the differential costs between CAISO's weekly variable insured bond rates less what the bonds would yield if backed by a letter of credit. This is the part of the analysis that is uncertain, and involves speculation as to:

- Will the additional capital raised by Ambac be sufficient to retain its "AAA" credit rating? Will additional housing market deterioration result in further exposure to Ambac several months from now and more pressure on its ratings? Will the higher interest rates seen since January 24, 2008 attract additional investors and mitigate interest rates on VRDBs backed by bond insurers?
- In summary: How long will bond investors continue to view bonds supported by Ambac bond insurance as risky and warranting a premium interest rate?

We have prepared two scenarios to examine possible outcomes around this:

- Scenario 1: Confidence is generally restored in the bond insurers by the end of July 2008, and thereafter we see a small premium of 25 basis points on bonds supported by bond insurance rather than the now preferred bank letter of credit structure.
- Scenario 2: Confidence takes longer to restore. Confidence is generally restored by the end of September 2008, and thereafter we see a premium of 35 basis points on bonds supported by bond insurance rather than the now preferred bank letter of credit structure.

### Conclusion

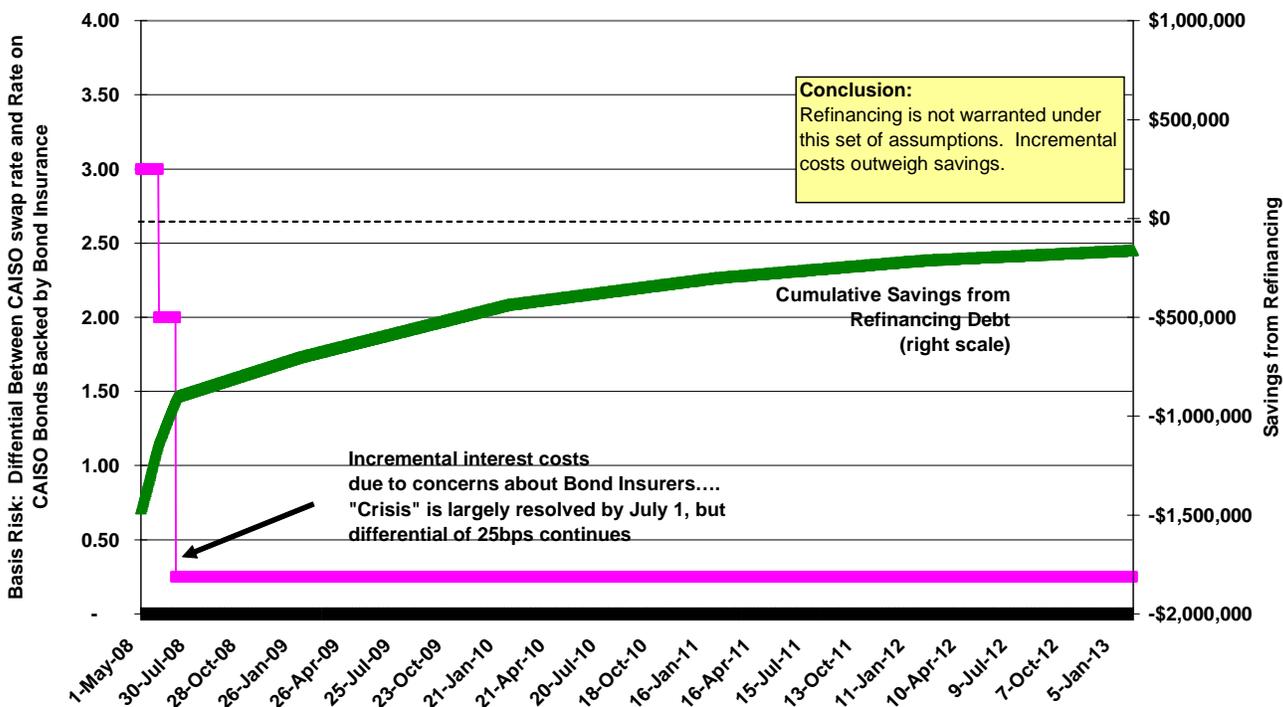
The benefit of refinancing is significantly affected by (1) how soon the refinancing can be implemented and (2) the extent and severity of the higher interest costs to be avoided. The earliest that a VRDB refinancing bond offering can be implemented is May 1, 2008, and the highest differentials between CAISO's bond rates and the

benchmark SIFMA index are likely to be between now and that date. The differentials are likely to decrease if the bond market believes that Ambac's financial viability and AAA credit ratings will be maintained. CAISO has already seen this differential reduced slightly from the week of March 3 to March 10, indicating a possible "turn of the corner" and restoration of confidence. However, we can have no certainty that this is the case, and it is possible this improvement will reverse.

Management will continue monitor bond market conditions and update our projections as additional information becomes available. If the projected costs of refinancing outweigh the benefits, we will seek Board approval to cancel the planned refinancing.

### Sensitivity Analysis for Refinancing: Scenario 1

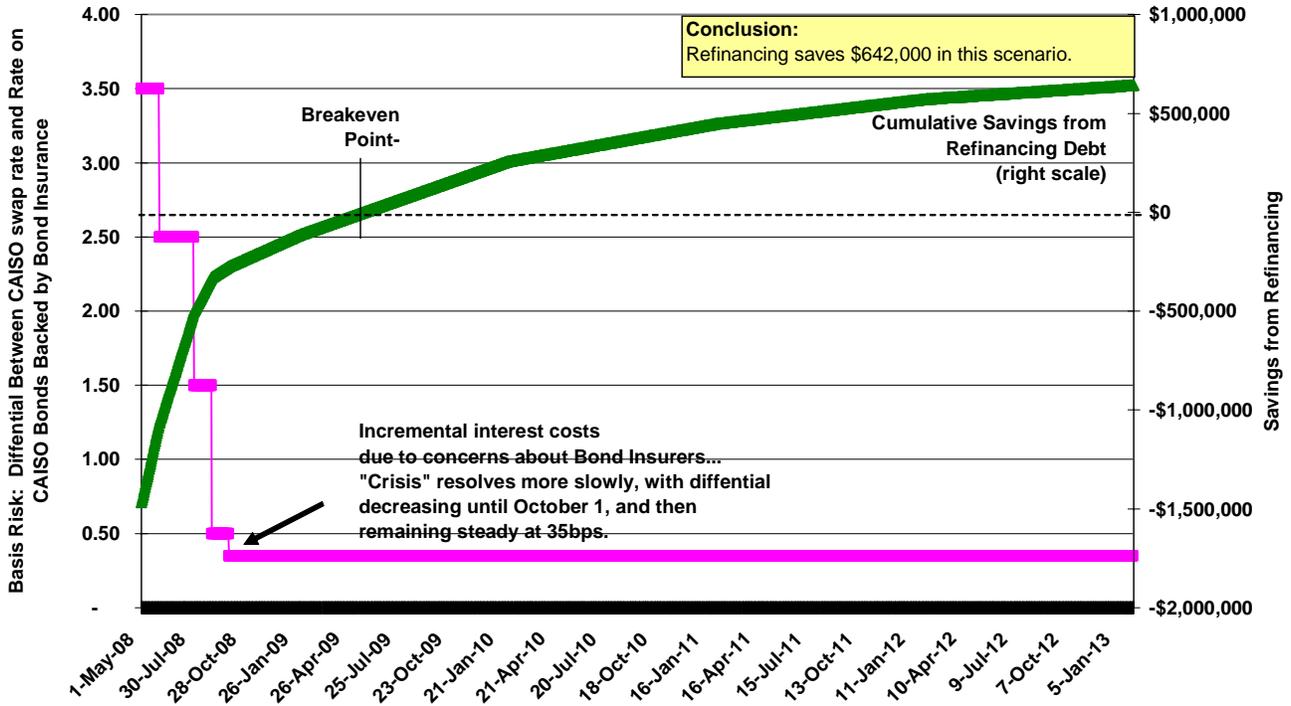
Market regains confidence in bond insurers relatively quickly (by July 1) and thereafter imposes a 25bps pricing differential on bonds supported by bond insurance



Under this scenario, the costs of refinancing outweigh the benefits by \$161,000 over the life of the bonds. Accordingly, if over the next several weeks, it appears more likely that this scenario is occurring, as demonstrated by generally positive market commentary about Ambac and a reducing differential of CAISO bond interest costs versus the SIFMA index, we would seek Board approval to cancel the planned refinancing.

### Sensitivity Analysis for Refinancing: Scenario 2

Market takes longer to regain confidence in bond insurers (Until September 30) and thereafter imposes a 35 bps pricing differential on bonds supported by bond insurance



Under this scenario, the benefits of refinancing outweigh the costs by \$642,000 over the life of the bonds. Accordingly, if over the next several weeks, it appears more likely that this scenario is occurring, as demonstrated by continued speculative commentary about Ambac's financial health and CAISO bond interest costs that remain significantly higher than the SIFMA index, we would continue with the planned refinancing.