

# Attachment A

## Standard and Poor's Ratings Report CAISO Series 2008 Bonds

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**Research Update:**

# Cal ISO's Series 2008 Revenue Bonds Assigned 'A-' Issue Rating

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## Research Update:

# Cal ISO's Series 2008 Revenue Bonds Assigned 'A-' Issue Rating

## Rationale

Standard & Poor's Ratings Services today assigned its 'A-' issue rating to the California Infrastructure and Economic Development Bank's proposed \$198 million debt issuance, series 2008 revenue bonds, maturing 2014, issued for the California Independent System Operator Corporation (Cal ISO). Proceeds of the proposed offering will be used to refinance \$139 million of variable-rate demand notes, which are insured by MBIA Insurance Corp. ('AA/Watch Neg') and Ambac Assurance Corp. ('AA/Watch Neg'), and to fund an estimated \$60 million in computer and technology upgrades needed to support the Cal ISO's market redesign and technology upgrade (MRTU) project, expected to be implemented by year-end 2008.

The offering is the first under the Cal ISO's new indenture, which permits the Cal ISO as a nonprofit 501(c)(3) corporation to issue fixed-rate revenue bonds via a conduit structure in which the California Infrastructure and Economic Development Bank (CIEDEB) is the issuer. Via a loan agreement the Cal ISO, as the obligor, pledges to the CIEDEB revenues sufficient to meet the principal and interest obligations on the bonds. CIEDEB in turn assigns these revenues received from the Cal ISO to a trustee that makes debt service payments on the obligations. Under the terms of the loan agreement, CIEDEB is not required to meet debt service obligations in the event the Cal ISO does not make payments to the CIEDEB.

The rating reflects the stable, solidly investment-grade credit profile of California's three largest investor-owned utilities, which collectively provide the Cal ISO with more than 60% of its grid management charges (GMC) that the Cal ISO collects monthly to pay operating expenses, including debt service. Support for bondholder repayment is also afforded by favorable language in the Cal ISO's tariff that allows it to "skim" market revenues owed to participants if there is a shortfall in GMC collections. State growth prospects remain solid, and expectations of increasing electricity consumption are projected to sustain volumetric flows through the Cal ISO that are sufficient to support existing and future debt requirements.

While we would note that there is some near-term event risk associated with the implementation of the Cal ISO's long-delayed MRTU that is now planned for fall 2008, we expect coverages will continue to be strong after MRTU is in place. There is also potential that the proposed market structure could enhance market volumes in the Cal ISO, which would provide a greater breadth of market revenues to backstop GMC payments in the event of the default of large participants. Critical to credit quality will be the Cal ISO's ability to execute MRTU in a manner that does not threaten market stability or introduce volatile pricing.

Operational since 1998, the Cal ISO manages over 75% of the California transmission system, operating markets for ancillary services, providing



congestion management and transmission services, and executing a real-time market for balancing energy. Additionally, the Cal ISO administers reliability must-run contracts and is a clearinghouse, collecting payments from users of Cal ISO services (e.g., load) and passing these revenues on to providers of these services (e.g., generators and transmission owners).

The Cal ISO is regulated by the Federal Energy Regulatory Commission (FERC), which oversees Cal ISO operations and has ratemaking authority over it. Since 2004 the Cal ISO has set its GMC rate under a formula ratemaking process, requiring no formal FERC approval, so long as the methodology is followed. The Cal ISO sets its annual GMC revenue requirement to meet its expenses, which include operations and maintenance (O&M), debt service, and capital investment. The Cal ISO budgets into its annual GMC revenue requirement a 1.25x coverage target for debt service, which is held in an operating reserve account. To prevent the growth of the operating reserve in instances in which the GMC is overcollected, the Cal ISO's tariff and bond documents permit it to offset future year revenue requirements if the operating reserve is in excess of 15% of the budgeted O&M.

The GMC's budgeted billing determinants are based predominately on volumetric charges (approximately 73% of GMC revenues are based on volumetric charges). As a result, shortfalls could occur if there are significant deviations in actual versus forecasted volumes in the Cal ISO. But the Cal ISO's rate setting process allows it to adjust rates quarterly if its current forecast differs from the volume forecast used to set rates by more than by more than 5%. While the Cal ISO advises its board of such an increase, neither FERC nor board approval is required, and the rate change takes effect the first of the following month.

We would note that the Cal ISO is not afforded the opportunity to adjust rates within a budget year if its expenses deviate from budget. The majority of the Cal ISO's expenses are stable and predictable, which should generally result in an ability to accurately forecast expenses collected through the GMC. We would note however, that all of the Cal ISO's rated debt outstanding is in variable-rate demand bonds that are wrapped by bond insurer AMBAC for the term of the debt and remarketed weekly. The Cal ISO is incurring higher-than-expected interest expense on its debt obligations, but it is exploring options to manage this exposure and its operating reserve provides a measure of cushion if the debt continues to reset at a high coupon rate. Cash coverage of debt service in 2006 and 2007 was around 1.0x without the operating reserve, and 1.4x and 1.5x, respectively, including the operating reserve.

The most critical underpinning of the Cal ISO's credit ratings (and one that allows us to assign the issue credit ratings above those of the senior unsecured ratings of its largest participants, Pacific Gas and Electric, or PG&E, and Southern California Edison, or SCE), is a feature in the entity's tariff that allows it to dip into market revenues to fund its GMC monthly revenue requirements if there is a shortfall in payment, such as would occur if there were a participant default.

Specifically, GMC revenues have a priority claim against any market-related receipts. Because the dollar value of the revenues that flow through the Cal ISO for market services is well in excess of the GMC's revenue requirements, there is substantial cushion to meet the GMC. For example, in

2007 the Cal ISO billed all market participants \$194 million to meet its GMC revenue requirement. At the same time, in its role as a clearinghouse, the Cal ISO billed and collected approximately \$617 million from participants that had net load requirements, which it then paid to parties that provided these services. Including the availability of these payments, GMC coverage (calculated as net total market and GMC billings divided by GMC billings) exceeded 4x in 2006 and 2007.

This mechanism was put to the test during the western energy crisis when the California Power Exchange (CalPX), PG&E, and SCE defaulted on GMC and other payments owed to market participants. Partial market collections were sufficient for the Cal ISO to comfortably collect its GMC and meet debt service -- that is, there were enough market participants that paid their bills for services provided by other members of the Cal ISO that when the Cal ISO exercised its first claim on these revenues, there was sufficient cash to meet its own obligations. This resulted, however, in shortfalls in the payments that were owed to generators and other participants that provide services within the Cal ISO system. These claims are still being resolved.

Through the period when the Cal ISO's revenues were under the most pressure from participant defaults (e.g., February through June 2001), the ratio of total collections to GMC billings for each month stood at 12x, 5x, 5x, 3x, and 8x. (Actual coverage of the debt was much higher, as during that time only about 27% of the GMC charges collected were for debt service.)

It should be noted, however, that part of the strong coverage seen during the western energy crisis was due to the enormous increase in energy supply that flowed through the Cal ISO real-time market. When the CalPX collapsed, energy volumes that typically flowed through its day-ahead market moved to the Cal ISO's real-time market, meaning that about 30% of all the state's energy was purchased in the real-time Cal ISO market. In contrast, only 2%-3% of the energy supply is purchased in the Cal ISO real-time market today, which explains the high coverage of the GMC during a period of dramatic instability in the California wholesale market. Nevertheless, based on 2007 data we estimate that even under a default scenario of PG&E and SCE, the priority claim the Cal ISO has on market revenues would be adequate to meet all GMC obligations. Such a calculation, however, assumes implicitly that the factors that would cause a default of California IOUs would not affect other market participants, which may not be the case. For this reason, the credit quality of the pool of participants in the Cal ISO, and particularly that of the largest utilities, remains a primary rating consideration. The average credit quality of all Cal ISO participants, weighted by their payment of the 2007 GMC, is between 'BBB' and 'BBB+'.

No transmission service owners have exited the Cal ISO since 2006, which is a credit concern because the GMC coverage is eroded by shrinkage of the Cal ISO control area, as volumes are reduced. Management has addressed cost creep by aggressively reducing its O&M budget in recent years. Reduction in staffing, communication costs, computer outsourcing costs, and legal costs, and a one-time operating reserve drawdown have resulted in a decrease in the O&M budget to \$153 million in 2008 from \$172 million in 2001 and the total revenue requirement to \$192 million from about \$225 million during the same period. The ISO's overall GMC costs in 2007 were \$0.76 per megawatt-hour, which are lower than even 1998 levels, on par with 2006 rates, and about 9%

lower than 2005, when the company began cost reduction strategies. However, going forward, debt financing used to fund a portion of the MRTU and plans to build a new facility to relocate the Cal ISO's operations and headquarters will pressure management's goal to keep its rates in their current range, in line with its peer ISOs across the U.S. of similar size.

MRTU is the greatest near-term challenge faced by the Cal ISO, which will significantly restructure its electricity market. MRTU involves the introduction of locational marginal pricing (LMP) and a day-ahead market, the latter of which has been missing from state's wholesale power market design since the demise of the CalPX in 2001. In 2007, the Cal ISO announced it was again delaying introduction of the MRTU, which is now scheduled to go live in the fall of 2008. Simulations are expected to be ongoing throughout the summer. If the Cal ISO, the California Public Utilities Commission, the FERC, and others who oversee the operation of California's electricity markets fail to create a market that is stable over the long term and exhibits predictable, reasonable prices, there could be credit quality implications for the state's utilities. Poor utility credit quality and an unstable market structure could indirectly negatively affect the ISO's rating. There is also significant pressure on the Cal ISO to deliver on its plans as scheduled.

While there is risk in moving to LMP pricing and a day-ahead market, if in the long run MRTU proves successful from an operations standpoint and provides value to its customers, MRTU could be a credit benefit. It is possible that the addition of a day-ahead market may actually strengthen the financial cushion provided by market funds given that the Cal ISO will serve as the clearinghouse for the day-ahead market as well.

### **Liquidity**

Liquidity is adequate, despite the absence of credit lines. The company relies largely on cash balances for working capital needs and has substantial investments, some of which it could readily liquidate in a funding emergency, which we view as unlikely given the stability of the Cal ISO's business and the lack of exposure to any form of commodity risk.

At year end 2007, the Cal ISO recorded \$221 million in cash and cash equivalents on its balance sheet; however, a portion of this is restricted and represents items such as participant security deposits. Unrestricted liquidity consists of \$60 million in cash and cash equivalents, nearly \$4 million in short-term investments (maturing in less than a year), and \$64 million in investments maturing between one and five years out. This \$128 million compares to the Cal ISO's annual revenues requirements that are expected to be in the range of \$200 million in the coming years.

Of note is that the Cal ISO has recorded a \$52 million liability on its balance sheet in association with generator noncompliance fines that were paid to it by some market participants during the western energy crisis. The company has accrued interest on this potential liability, which is included in the total liability. The resolution of litigation around this matter is expected in the next several years and could result in the Cal ISO having to make a cash payout that would have to be internally funded (e.g., cannot be collected as part of the GMC). Unrestricted cash and short-term investments totaling about \$64 million are expected to be adequate to meet a refund, if it

is ordered. We expect the Cal ISO to have ample notice on the refund amount and timing so as to prepare to meet the obligation. If needed it could liquidate some of its longer-term investments (\$54 million at year end 2007). We would note, however, that a refund of this size will reduce cash balances, relative to historical levels.

## Outlook

The stable outlook assumes that coverage levels for the Cal ISO debt will continue to be robust, largely due to its ability to skim market funds from participants in the event of a GMC shortfall. The outlook also presumes no adverse change in the underlying credit quality of the Cal ISO's largest participants and that management will maintain a cost structure that ensures GMC rates are maintained at approximately current levels. Ratings upside is limited, as there is uncertainty over the timing and ultimate success of MRTU. If the MRTU fails to create a stable market that exhibits predictable, reasonable prices, there could be downward pressure on the ratings, as these events could have credit implications for the state's utilities and in turn indirectly affect the Cal ISO.

## Ratings List

California Independent System Operator Corporation

Rating assigned

Senior unsecured debt rating      A-/Stable

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