



Memorandum

To: ISO Finance Committee
From: Phil Leiber, Treasurer and Director of Financial Planning
Ben Arikawa, Senior Financial Analyst
Cc: ISO Board of Governors, ISO Officers
Date: September 2, 2005
Re: *Report on the Effectiveness of Credit Management Tools During a Credit Crisis*

This memorandum does not require Committee action.

During the presentation on credit policy at its June 15, 2005 meeting, the Finance Committee discussed the effectiveness of the ISO's credit management policies in the event of the market default of large load-serving entity during a period of extraordinarily high market prices (as occurred during the energy crisis of 2000-2001). The Committee requested that ISO Management frame this issue, including options to minimize the potential for and ensure an adequate response to a subsequent credit crisis.

As described below, the ISO has credit management tools that serve to mitigate the risk and impact of a payment default by market participants. However, these tools may be less than entirely effective to prevent or respond to potential defaults by many load-serving entities. Management views payment acceleration, scheduled for implementation in 2006, as a tool that will reduce the severity of potential defaults, but not eliminate the risk. As discussed at the June 15th meeting, we were considering credit insurance as an additional tool to provide assurance to suppliers of payment and mitigate the impact of any defaults. However, upon further discussion, Management concluded that credit insurance did not offer cost effective coverage for the most critical areas of risk.

Additional coordination with regulatory authorities is needed. The ISO will continue to seek direction on enforcement protocols from the Federal Energy Regulatory Commission (FERC)¹. The ISO also has begun informal discussions with the California Public Utilities Commission (CPUC) on market credit issues as they affect the investor owned utilities. However, a default by a Provider of Last Resort, a risk for all ISOs/RTOs, is a challenge that may not be overcome solely through the regulatory process.

Credit Crisis Scenario

It is worth noting that many of the factors that contributed to the 2000/2001 energy crisis and the resulting financial fallout are materially different now. A unique, volatile combination of elements contributed to the particular severity of that crisis, including the retail rate freeze, lack of forward contracting, regulatory/political inaction, market abuses, and supply availability. This combination is not likely to reoccur. That being said, from the perspective of

¹ In its comments on credit policy in 2004, the ISO sought direction from the FERC on the issue of the Provider of Last Resort. For this discussion see "Continuing Issues to be Addressed," below.

contingency planning, it is reasonable to consider the events that might lead to some of the same negative outcomes of that crisis, including payment defaults and severe credit concerns.

A potential credit crisis might be triggered during a period of high electricity demand with insufficient generation and transmission available to meet that demand. Higher prices in ISO markets would result, and be charged to load-serving SCs. Insufficient forward contracting could result in higher volumes in ISO markets and accordingly greater exposure to higher prices (though spot prices are currently capped at \$250/MWh). With payment timelines relatively long, up to 95 days, outstanding market liabilities would dramatically increase if market prices stay consistently high. Several of the larger load-serving SCs could have a limited ability to immediately pass on these costs through higher retail rates or could face obstacles to increasing rates from their regulator². While such SCs might initially remain current on their market invoices from the ISO, continued high outstanding charges might lead the credit rating agencies to put the SCs on "credit watch", or lower their ratings. Concerned sellers would question the financial viability of the load-serving SCs and the ability of the ISO to collect these funds. The sellers may refuse to supply at needed levels. A large load-serving SC may declare bankruptcy or may not pay the latest market invoice when the regulatory authorities refuse to allow adjustments to rates. The ISO may not have sufficient funds or collateral postings to fully pay the market for energy purchased on behalf of load-serving SCs. It is also possible that heightened concerns over credit might also be triggered through concerns about creditworthiness, or an actual payment default by an SC, due to factors not related to ISO markets.

Current ISO Credit Management Tools

The ISO's credit management process involves monitoring SC liabilities and requesting collateral when required.

The Scheduling Coordinator Aggregate Liability Estimator, or "SCALE" tool, was deployed in 2003, and it allows the ISO to accurately monitor SC liabilities. Entities that exceed their credit limits are requested to post additional collateral. If the SC does not post the collateral, the ISO can reject the SC's energy schedules. However, this enforcement mechanism is ineffective for load serving entities, as the load still appears in real-time and would be served from the ISO imbalance market, further increasing liabilities for the SC. The ISO has the ability to transfer load from defaulting SCs. Unfortunately, this is not feasible for load serving entities that are Providers of Last Resort³.

With respect to credit limits, SCs with an Approved Credit Rating⁴ are not required to post collateral. Entities without an Approved Credit Rating must secure their obligations with collateral (cash, letter of credit, or other instrument) or obtain a guarantee from an entity with an Approved Credit Rating. In a potential credit crisis, it is not the SCs that post collateral that are the major source of the default risk. These SCs post and adjust their collateral as their market liabilities change.⁵ Rather, it is the entities with an Approved Credit Rating that do not post collateral that are largest potential source of default risk⁶. The recently approved changes to the ISO's credit policy (Board approved in June) would eliminate the Approved Credit Rating designation and set individual credit limits by SC, with an overall cap of \$250 million or less. However, for entities that reach their maximum credit limit

² Legislation and rulings subsequent to the 2000/2001 crisis provided greater certainty that entities would be able to recover such costs, as discussed later in this memorandum.

³ Providers of Last Resort include the IOUs and municipal utilities. The probability of an IOU defaulting is significantly lower today than in 2001. See the discussion of AB 57 under "Legislative and Regulatory Changes" below.

⁴ Defined in the ISO Tariff, in short, a high credit rating per the National Credit Rating Agencies, or obligations backed by the State or Federal Government.

⁵ The posting of increased collateral is not automatic. Sometimes an ongoing dialogue and an exchange of data with the SC are necessary before the SC posts the additional collateral.

⁶ Though an Approved Credit Rating connotes a degree of financial stability, the SC with the rating does not post collateral and the ISO market only has unsecured recourse if that SC defaults. This is all the more true since the larger SCs typically have Approved Credit Ratings.

and do not post additional collateral as requested by the ISO, the ISO lacks effective enforcement tools to prevent additional liabilities from being incurred.

Additional Credit Management Tools

As noted at the June 15th Finance Committee meeting⁷, the ISO was studying the feasibility of procuring credit insurance to reduce credit risk. Credit insurance would pay suppliers in the event of a covered default, less a deductible or coinsurance percentage. Such insurance has an overall limit and limits per named entity. In the credit crisis scenario, after a load-serving SC declared bankruptcy, the ISO could make a claim on the insurance policy for the defaulted amount. However, the insurer's liability ends at the moment the load-serving SC declares bankruptcy. If the SC continues to schedule load without posting collateral or an alternative provider is not found, payment risk to the market continues. As noted earlier, management determined credit insurance was an "inefficient" risk management tool, given the structure of the offered coverage.

During 2006, the ISO's accelerated payment project will reduce the level of risk by reducing the days of outstanding market liabilities. However, though there is a reduction in outstanding liabilities, a defaulting load-serving SC could continue to schedule load thereby continuing to incur liabilities.

As Governor Cazalet noted at the Finance Committee meeting, the ISO could reduce market default risk by requiring that all outstanding market liabilities be secured by collateral. This is the approach used by commodity exchanges, which require hard collateral to secure traded positions, regardless of the financial strength of the traders. However, this approach may run counter to recent FERC credit policy directives, which indicated that unsecured credit should be granted based on qualitative and quantitative factors of the participants. FERC's intention appears to be in one sense to establish a "level playing field" that all financially viable entities should be considered for unsecured credit versus denying unrated entities credit "solely" because they lack an investment grade rating. However, the guidance might also reasonably be interpreted to provide for a "level playing field" by requiring all entities to secure their obligations. It should be noted that the credit policy changes approved by the Board in June could permit this approach, as it would be within the discretion of the Board to adjust collateral requirements. The revised credit policy changes provides for a single entity cap of "not to exceed \$250 million", and Tariff language would be written to provide that the cap could be reduced if deemed appropriate. If conditions in the energy markets warranted it, the ISO could demand greater collateral from all SCs. However, as noted previously, if a large load-serving SC near or in bankruptcy was unable to post security, the ISO currently has no effective means to prevent the incurrence of additional liabilities by that SC without compromising reliability.

Continuing Issues to be Addressed

The issues of credit policy enforcement and responses to defaults by Providers of Last Resource require additional attention. The ISO emphasized this issue in its response to FERC's credit policy discussion questions issued in June 2004:

The CAISO further believes that any effort to establish [credit] standards should also specify how they are to be enforced. Credit requirements that cannot be enforced undermine the very purpose of having credit requirements. In this regard, the CAISO urges the Commission and state regulatory authorities to address the treatment of providers of last resort. Suspension and termination are effective enforcement tools for non-utility ESPs but not for IOUs and other load serving entities such as POUs that serve as default providers or providers of last resort. (p. 4)

⁷ We discussed the merits and shortcomings of credit insurance in more detail in a separate memorandum.

After the Commission held a creditworthiness technical conference in July 2004, we anticipated it would offer guidance on ISO/RTO credit policy enforcement. When the Commission issued a credit policy statement in November 2004, however, it did not address enforcement or the Provider of Last Resort issues.

The difficulty of resolving these issues is revealed by the fact that all U.S. ISO/RTOs are facing the same problem. As the Committee of Chief Risk Officers (CCRO) points out in its *DRAFT* "Market Clearing in the Energy Industry" whitepaper dated June 15, 2005:

Clearing of energy products in power pools can greatly reduce the credit risk of individual pool participants in the event of a default by another pool participant. However, all pools have an obligation to continue to supply the load obligation of each pool load serving entity (LSE) even if that LSE stops paying for services and products provided by the pool. The pool in effect becomes the provider of last resort (POLR). ... Providing a clear and efficient regulatory process for power pools to collect payments from defaulting pool participants is essential to ensure pool participation and continued operability following a significant default. (p. 14)

Legislative and Regulatory Changes

Improving the effectiveness of existing credit management tools and addressing the deficiencies noted above could require coordination with regulatory agencies and, possibly, the State Legislature. As an example, one aspect of the credit crisis, adjustment of retail rates to wholesale price changes, has been partially addressed by the State Legislature and the California Public Utilities Commission (CPUC). After the energy crisis of 2000-2001, the California Legislature acted to provide the CPUC and the investor-owned utilities (IOUs) with tools to manage energy supply risk. In addition to allowing longer term contracting, the Legislature enacted AB 57 in 2002 that gave the IOUs the ability to submit procurement plans to the CPUC for approval prior to the actual energy purchases. Each IOU now has a balancing account, the Energy Resource Recovery Account (ERRA), to absorb deviations in costs from the procurement plan. Until January 1, 2006, the IOUs can apply to the CPUC to adjust retail rates when the ERRA exceeds 5% of the total revenue requirement. After January 1, 2006, the 5% trigger is no longer required. By allowing increases in wholesale energy costs to be passed through to retail customers, AB 57 ensures that the IOU is able to recover its procurement costs. However, there still is regulatory risk as the IOU must apply to the CPUC to adjust rates; i.e., the rate increase is not automatic.

We have contacted the CPUC to further our understanding of these issues, in particular the function of the ERRA and whether development of a plan to transition load from a defaulting is feasible or necessary, and will be scheduling a meeting with them in the near future. In our conversations to date, CPUC staff have emphasized that the IOUs are extremely focused on credit and risk. We have also contacted former Governor Florio, for his views, as he is a member of a "Procurement Review Group," or PRG. There is a PRG for each of the IOUs that review the utility's procurement activities on a monthly basis in lieu of lengthy regulatory proceedings at the CPUC. Former Governor Florio's response was that the IOUs are very creditworthy and are able to pass through wholesale costs to their retail customers with a high degree of certainty.

Other important differences between the regulatory environment now versus 2000/2001 are the ability of the IOUs to pass through increases in wholesale energy costs to retail customers, and the fact that such costs are not likely to reach levels seen during that crisis, due to various market mitigation measures that were not in place then. Such measures include a \$250 price cap, other price volatility mitigation measures such as AMP, and additional attention and enforcement tools available to FERC. Regardless, the issues of effective enforcement of the credit policy provisions, especially with respect to default service providers (also known as Providers of Last Resort), remain. No readily practical solutions are foreseeable here. It is difficult to envision how IOU or municipal customers could be "switched" to another provider. Further the option of the ISO "attaching" the cash flow stream

from utility customers to pay market liabilities on an ongoing basis would not work if cash flow is insufficient to meet ongoing needs, which was the case during the 2000/2001 crisis⁸.

Summary

As described in this memorandum, the ISO has or will have credit management tools in its "toolbox" that will be reasonably effective in "normal" circumstances. The ISO should be able to plan for and effectively mitigate the vast majority of these risks. With these tools and the enactment of AB 57, a severe credit crisis of the type described at the beginning of this memorandum also is far less likely. With the already approved changes in credit policy, the ISO's continued monitoring of SCs financial status and the assistance of credit rating agencies, the likelihood of a unanticipated credit crisis is even less.

Though reduced, the possibility of another credit crisis cannot be ruled out. In such an event, measures such as "attachment" of an SC's cash flow stream are unlikely to be workable. Apart from the legal challenges of establishing such a lien, there would likely be insufficient revenues to pay market liabilities (as was the case in 2000/2001 for the IOUs). We think that it would be more fruitful to begin discussions with the CPUC on the load transfer mechanism from a defaulting SC and to consider whether regulatory changes at the CPUC are sufficient to address the Board's concerns for the IOUs.

⁸ We do not attempt to address the many legal issues that would arise if the ISO attempted attachment of a portion of an SC's cash flow.