Introduction

This is the Department of Market Analysis' (DMA) report on the performance of the markets managed by the California Independent System Operator (ISO) during the period of January 1, 2002 through December 31, 2002. The ISO is continuing to evolve its markets towards a more efficient and stable structure designed to prevent a repeat of the market meltdown experienced during the period of May 2000 through June 2001.

The electric market structure in California went through significant change in 2002 with several new market design elements being implemented. Further significant market design changes are planned for 2003 and 2004. Chapter 1 outlines the market design changes implemented in 2002 and provides an overview of proposed changes for 2003 and 2004.

California continued to place emphasis on securing reasonably priced long-term contracts for the state's three utility distribution companies (UDCs) to minimize their exposure to the often volatile spot markets. The California Energy Resource Scheduler (CERS) also pursued renegotiation of the long-term contracts it entered into during early 2001. New generation within California has helped to meet the state's growing energy needs and increased the competitiveness of the overall wholesale energy market. However, this new generation has also exacerbated the amount of intrazonal congestion that ISO grid operators must address. This problem is compounded by the current market structure which forces ISO operators to deal with this problem entirely in real-time. Chapter 2 provides a listing of new generation resources added and existing generation that was retired in the California ISO service territory during 2002. It identifies and discusses the transmission issues associated with the new generation landscape in California. Chapter 2 also enumerates the amount of long-term contracts entered into by load serving entities.

Chapter 3 provides an overview of the 2002 market performance. The chapter discusses supply and demand conditions, energy and ancillary service costs and the overall competitiveness of the markets. Chapters 4 through 7 provide a more detailed review of market performance in the Imbalance Energy Market, Ancillary Services Markets, and Congestion Management Markets.

The ISO continues to investigate market participant behavior during the period of market turmoil from mid-2000 through mid-2001. Chapter 8 discusses the issues under review and the investigations that the ISO undertook during 2002. It includes the results of an in-depth investigation of the well-publicized Enron scheduling and trading practices and their impacts on the market. It also identifies and discusses the potential impacts of locational market power.

Significant market inefficiencies are caused by congested transmission interfaces that limit the scope of the market. To address this issue, in 2002 the ISO made a significant effort to establish a methodology for evaluating the economic benefits of transmission investments in a restructured electricity market. Chapter 8 provides a summary of this work including issues under review and investigation. Finally, Chapter 8 also contains a summary of the activities of the Market Surveillance Committee during 2002.

The ISO's markets are significantly impacted by other western markets due to their proximity and the physical nature of the western interconnection. Two new RTOs are being proposed; RTO West in the Northwest and WestConnect in the Southwest. Once these new market entities are established, significant impacts where the markets interact (seams issues) are likely to surface. Chapter 9 discusses the current work being done to address these potential seams issues and minimize them as efficiently as possible to meet the objective of having a seamless western interconnected market.