

An Assessment of the February through October 2000 California ISO Firm
Transmission Rights Market

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In FERC Order ER98-3594-000 issued May 3, 1999, the Commission ordered the ISO to direct the MSC to prepare an assessment of the Firm Transmission Rights (“FTR”) market by October 1, 1999. Later, in Order ER98-3594-001 issued on August 2, 1999, the Commission clarified that given the deferral in the initial auction date, the Commission would allow the reports of the ISO and the MSC to be filed by December 1, 2000.

The Commission noted that the FTR is a new market with new market rules and as with other markets, unexpected and unintended design flaws may arise that are not apparent until the market begins operating. Moreover, the Commission noted that the ISO and other stakeholders have raised concerns that should be evaluated after experience is gained with the market. The Commission found that these and other concerns should be evaluated by the MSC in a thorough assessment of the FTR market. The Commission expressed that the review should include an analysis of the policies implemented in accordance with the Commission’s Order in Docket ER98-3594-000, and a proposal to revise any policies found to be deficient.

First, it should be noted that the congestion patterns on the major transmission paths from February through October 2000 are significantly different compared to the same months of 1999. As described in the Department of Market Analysis (DMA) Report on the FTR market¹, day-ahead import congestion decreased substantially in year 2000 compared to 1999 while day-ahead export congestion, that was virtually non-existent in 1999, has increased over the same monthly time frame in 2000. The MSC believes that the significant changes in congestion patterns are more directly due to the change in hydro conditions and demand in the Pacific Northwest than the functioning of the FTR market. However, Path 26 and Mead have significant FTR ownership concentration and congestion frequency that warrants further investigations. The Mead and Path 26 market concentrations are discussed below as well as the other significant issues raised in ER98-3594-000.

Compatibility of FTR Mechanism with Congestion Management

Initially, some commenters expressed concern that FTR holders may have a reduced incentive to submit adjustment bids. TURN/UCAN feared that a non-transparent secondary market for FTRs was likely to supplant the adjustment bid market entirely as the means for managing congestion, depriving the ISO and market participants of vital information regarding the value the market places on constrained transmission interfaces. A review of the first year of the FTR market shows that the trade volume in the secondary FTR market has been negligible. In fact, only a few transactions have been recorded and those were among the primary auction winners and their affiliates.

¹ See “The Firm Transmission Rights Market,” Prepared by the ISO Department of Market Analysis, November 30, 2000 (“DMA Report”) which is being filed concurrently with this comment.

Therefore, the secondary FTR market has not to date significantly affected the adjustment bid market.

Other stakeholders² asserted that the FTR mechanism would give FTR holders a competitive advantage over those not holding FTRs when adjustment bids do not eliminate the interzonal congestion. They suggested that the scheduling priority afforded FTR holders in the day-ahead market may encourage FTR holders to withhold adjustment bids, thereby making it less likely that the congestion management procedures would actually clear the market. These stakeholders argued that giving FTRs a scheduling priority in addition to their financial characteristics could undermine the adjustment bid market and exacerbate congestion problems.

In an earlier MSC opinion on FTR proposals,³ the MSC noted that it was particularly concerned about the allocation of FTRs that include a scheduling priority to be invoked when the ISO adjustment bid market does not clear. The MSC also had concern that the issuance of such rights equivalent to 100 percent of transmission system capacity could eliminate the incentive of rights holders to participate in ISO congestion protocols and weaken the ability of the ISO to oversee the reliable operation of the transmission resources under its jurisdiction. Therefore, the MSC originally recommended that the Commission take a cautious approach to the issuance of FTRs and recommended an initial issuance of FTRs equal to no more than 1/3 of the aggregate capacity of the associated transmission interfaces.

Analysis of the first year of the FTR market shows that there has not been a significant compatibility problem between the issuance of FTRs and the ISO congestion management process. The experience to date indicates that FTRs have not reduced the incentive of FTR holders to submit adjustment bids. Furthermore, the MSC has found no evidence that the issuance of FTRs has reduced the ISO's ability to manage congestion. Additionally, DMA has been continually monitoring the impact of FTRs on the adjustment bid market. The MSC concurs with the DMA conclusions that there has not been a compatibility problem between the issuance of FTRs and the ISO congestion management process. Specifically, observation of the FTR and adjustment bid markets has shown that:

- There has been very little secondary FTR market activity;
- The use of FTRs to attach scheduling priority in the Day-Ahead market has been relatively high (70%);
- FTR ownership and control concentration on some paths is quite high; such paths need to be monitored closely for any unusual scheduling behavior during the high load periods; and
- The adjustment bid market for the majority of the paths does not seem to have been impacted by the FTR market.

² California Manufacturers Association and California Large Energy Consumers Association

³ Wolak, Frank, Shapiro, Carl, "ISO Market Surveillance Committee Opinion on Firm Transmission Rights Proposals," May 1998.

The MSC has also not found that the scheduling priority afforded to FTR holders has exacerbated the problem of managing congestion efficiently. While FTRs do hedge against the risk of uncertain congestion charges, FTR holders continue to face the congestion price signal. Although an FTR holder receives congestion revenues corresponding to its FTR holdings, it can always save money by scheduling less than its full FTR entitlement because the FTR holder must pay congestion charges for its scheduled usage. The MSC concurs with the DMA finding that the scheduling priority has not affected the congestion management mechanism in any significant manner. The scheduling priority serves only as a tiebreaker when there are no price differentials in the adjustment bids or when there are insufficient adjustment bids. As noted in the DMA Report, the financial hedge offered by FTRs has been more important to the market than the FTR physical scheduling priority. The MSC agrees with DMA that this is to be expected since usage charges occur whenever there is congestion, but pro-rata schedule curtailments occur much less frequently, only when adjustment bids are exhausted.

Long-Term FTRs and Transmission Expansion

The Commission noted in ER98-3594-000 that the current FTR mechanism does not fully address the issue of how to provide incentives for timely and efficient expansion of the transmission system. The current FTR mechanism involves short-term transactions, while expansion is a long-term investment matter. Under the congestion management reform elements the ISO is currently considering, the FTR design will retain many of the properties in place today. In particular the current proposal does not include the provision of FTRs with a term longer than one year. The MSC suggests that the ISO and the Commission consider offering a limited quantity of longer term FTRs in connection with congestion management reform. The ISO could auction FTRs of various duration such as one, two, and three-year FTRs. The offerings could be based on a staggered schedule so that all of the FTRs do not expire at the same time. Buyers of the longer term FTRs would accept the risk that zones could change or other market reforms could be implemented that would impact the value of the FTR. The MSC believes that longer term FTRs could help to attract new generation resources to the State and further help market participants to manage risk through long-term contracts.

Path 26 and Mead Market Concentrations

The activation of the newly created ZP26 zone and the management of Path 26 as an inter-zonal interface coincided with the introduction of the FTR market. Based on 1999 estimates calculated by DMA, the day-ahead congestion frequency on Path 26 (North-to-South) increased by over 40 percent from 1999 to 2000. DMA analyzed ZP26 and Path 26 in detail to separate the relative impacts of the new zone versus the opening of the FTR market. The principal conclusion of the DMA analysis is that the increase in congestion on Path 26 was primarily the result of changes in supply conditions and demand bidding behavior in northern California. More specifically, while there was very little change in the average amount of load initially scheduled for actual PG&E area load levels between 11 and 20 GW, when actual load levels exceeded 20 GW, initial load schedules actually declined. By scheduling less in the day-ahead market during high load

hours, the loads in Northern California exacerbated N-S congestion on Path 26. Their adjustment bids were then used in the day-ahead congestion market to relieve Path 26 congestion, producing an average zonal price that was significantly below the average unconstrained price. Therefore, the increase in congestion on Path 26 was not a result of either the designation of Path 26 as an inter-zonal interface or the opening of the FTR market, rather it was the result of the behavior of load serving entities that were not the primary FTR owners. It appears to the MSC that the major FTR holders on Path 26 were simply the beneficiaries of usage charge revenues resulting from the cost minimizing bidding strategy of load serving entities in Northern California.

Revenues from export congestion on Mead also increased substantially in 2000 compared to 1999. The majority of the export congestion revenues earned on Mead occurred over the peak hours of June 29-30 and July 29-30, 2000. As noted in the DMA Report, during these periods there was a significant decline in imports over the three major Southwest paths combined with a significant rise in export schedules compared to the previous week's levels when there was no export congestion on Mead. The MSC agrees with the DMA conclusion that this result indicates that the increase in export flows on Mead during these two periods was the result of a general increase in Southwestern demand for California energy rather than a change in scheduling behavior that is unique to Mead. It does not appear that export congestion can be attributed to one individual market participant trying to increase the return to FTR holdings.

Capacity Available for FTRs

In the ISO's initial auction, the FTR quantity released for each interzonal interface equaled 100 percent of the interzonal interface operating limit at 99.5 percent annual availability. This means that the quantity of FTRs released for each path would be fully available 99.5 percent of the operating hours of the year. The total FTRs offered amounted to 9689 MW, of which 9553 MW cleared the market and generated nearly \$41 million. Under the ISO's current Congestion Management Reform proposal, the FTR design will retain many of the properties in place today. However, one of the major new features is that the total amount of FTRs auctioned is defined as the difference between the WSCC non-simultaneous path rating and the total amount of Existing Contract Rights. Where no path rating exists, the ISO will develop ratings to be used for FTR allocation. 75 percent of the total amount of FTRs to be auctioned will be auctioned as long-term (yearly) rights and the remainder will be auctioned on a short-term (monthly) basis. The ISO is proposing to implement an FTR holding position limit of 50 percent in the long-term auction. Additionally, no FTR holder will be allowed to have control (direct or indirect through affiliates) over greater than 50 percent of the total FTR released in the long-term auction per direction, per inter-LPA interface. These new features are expected to take effect in conjunction with the other elements of congestion management reform. In the interim, the ISO proposes to auction FTRs having the same features as today's FTRs.

The MSC considers the ISO's latest proposal to auction the difference between the WSCC non-simultaneous path rating and the total amount of existing contract rights

December 1, 2000

Page 6

to be reasonable given the position limits proposed by the ISO. The MSC will continue to closely monitor the FTR market in conjunction with the ISO's congestion management reform to identify any unexpected and unintended design flaws. Such design flaws may not become apparent until after the FTR and congestion management design changes have been implemented and market participants gain experience operating under the new market rules.