UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Nora Mead Brownell, and Suedeen G. Kelly.

Tucson Electric Power Company — Docket Nos. ER98-1150-004, ER98-1150-005, ER98-1150-006, EL05-87-000

ORDER ON MARKET-BASED RATES, TERMINATING SECTION 206 PROCEEDING, AND ACCEPTING TARIFF REVISION

(Issued July 20, 2006)

1. On April 14, 2005, the Commission issued an order[1] on an updated market power analysis filed by Tucson Electric Power Company (Tucson) instituting a proceeding under section 206 of the Federal Power Act (FPA)[2] to investigate generation market power issues in the Tucson control area. In this order, the Commission finds that Tucson has rebutted the presumption of market power in the Tucson control area and satisfies the Commission's generation market power standard for the grant of market-based rate authority. Accordingly, this order terminates the section 206 proceeding in Docket No. EL05-87-000.

2. In this order, the Commission also accepts revisions to the Tucson market-based rate tariff to incorporate the Commission's change in status reporting requirement.

I. Background

3. On February 7, 2005, Tucson submitted for filing an updated generation market power analysis pursuant to the requirements of the Commission's order granting Tucson

[1] *Tucson Electric Power Co.*, 111 FERC ¶ 61,037 (2005) (Tucson Order).

[2] 16 U.S.C. § 824e (2000).

authority to sell capacity and energy at market-based rates.[3] Tucson's generation market power analysis indicated that, among other things, Tucson passed the pivotal supplier screen in all control areas considered, but failed the wholesale market share screen for each of the four seasons in the Tucson control area.

4. In an order issued on April 14, 2004,[4] the Commission stated that, where an applicant is found to have failed either generation market power screen, such failure provides the basis for instituting a proceeding pursuant to section 206 of the FPA and establishes a rebuttable presumption of market power in the section 206 proceeding.[5] Accordingly, in the Tucson Order, the Commission instituted a proceeding pursuant to section 206 of the FPA to determine whether Tucson may continue to charge market-based rates in the Tucson control area and established a refund effective date pursuant to the provisions of section 206.

5. Tucson was directed to file a compliance filing within 60 days from the date of issuance of that order to either: (1) file a Delivered Price Test (DPT) analysis; (2) file a mitigation proposal tailored to its particular circumstances that would eliminate the ability to exercise market power; or (3) inform the Commission that it would adopt the April 14 Order's default cost-based rates or propose other cost-based rates and submit cost support for such rates.[6]

6. In addition, the Commission found that Tucson satisfied the Commission's requirements for market-based rates regarding transmission market power, other barriers to entry, and affiliate abuse. The Commission conditionally accepted Tucson's analysis for the Arizona Public Service Company, El Paso Electric Company, Public Service Company of New Mexico, Salt River Project, and Western Area Power Administration – Lower Colorado (collectively, first-tier) control areas. The Commission found that Tucson's submittal was incomplete because Tucson did not file any data or work papers to support its indicative screens and did not file a simultaneous transmission import capability study. In particular, the Tucson Order directed Tucson to file data and work papers as required in Appendix G of the April 14 Order and a simultaneous transmission

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[3] *Tucson Electric Power Co.*, 81 FERC ¶ 61,131 (1997).

[4] *AEP Power Marketing, Inc.*, 107 FERC ¶ 61,018 (April 14 Order), *order on reh'g*, 108 FERC ¶ 61,026 (2004) (July 8 Order).

[5] *See* April 14 Order, 107 FERC ¶ 61,018 at P 201.

[6] *Id*. at P 201, 207-209.

import capability study, including data and work papers, consistent with the requirements set forth in Appendix E of the April 14 Order, for its first-tier control areas, within 30 days of the date of that order.[7] The Commission also directed Tucson to revise its market-based rate tariff to incorporate the change in status reporting requirement adopted in Order No. 652.[8]

7. On May 16, 2005, Tucson submitted revised sheets for its market-based rate tariff to incorporate the change in status reporting requirement[9] and submitted work papers supporting its indicative screens for the first-tier control areas in compliance with the Commission's April 14 Order. Tucson additionally requested a 15-day extension of time to submit the balance of materials it had not included. On May 20, 2005, the Commission issued a notice denying extension of time.

8. On May 25, 2005, Tucson submitted updated generation market power analyses, including simultaneous transmission import capability studies, for Tucson's first-tier control areas.

9. On June 13, 2005, Tucson submitted mitigation tailored to its particular circumstances which is a combination of market-based rate caps and cost-based rates.

10. On January 24, 2006, Tucson filed an amendment to its June 13, 2005 compliance filing, submitting a DPT analysis for the Tucson control area.

11. On January 27, 2006, the Director, Division of Tariffs and Market Development – West, acting pursuant to delegated authority, issued a data request seeking additional information relating to Tucson's compliance filings. Specifically, the requested information pertained to Tucson's first-tier control area studies, and Tucson's mitigation proposal. On February 27, 2006, Tucson filed its response to the data request.

12. On April 19, 2006, the Director, Division of Tariffs and Market Development – West, acting pursuant to delegated authority, issued a data request seeking additional

[7] Tucson Order, 111 FERC ¶ 61,037 at P 20-22.

[8] *Reporting Requirement for Changes in Status for Public Utilities with Market-Based Rate Authority,* Order No. 652, 70 Fed. Reg. 8,253 (Feb. 18, 2005), FERC Stats. & Regs. ¶ 31,175, *order on reh'g,* 111 FERC ¶ 61,413 (2005).

[9] FERC Electric Tariff, First Revised Volume No. 3, First Revised Sheet No. 3 (supersedes Original Sheet No. 3) and Original Sheet No. 3A.

information relating to Tucson's simultaneous import capability study. On May 19, 2006, Tucson filed its response to the data request.

II. Notice of Filing and Responsive Pleadings

13. Notice of Tucson's May 16, 2005 filing was published in the *Federal Register*, 70 Fed. Reg. 30,099 (2005), with interventions or protests due on or before June 6, 2005. None was filed.

14. Notice of Tucson's June 13, 2005 filing was published in the *Federal Register*, 70 Fed. Reg. 36,931 (2005), with interventions or protests due on or before July 5, 2005. None was filed. On September 7, 2005, Phelps Dodge Corporation (Phelps Dodge) filed a motion to intervene out-of-time in support of Tucson's filing.

15. Notice of Tucson's January 24, 2006 filing was published in the *Federal Register*, 71 Fed. Reg. 8,300 (2006), with interventions or protests due on or before March 3, 2006. None was filed.

16. Notice of Tucson's February 27, 2006 filing was published in the *Federal Register*, 71 Fed. Reg. 12,694 (2006), with interventions or protests due on or before March 20, 2006. None was filed.

17. Notice of Tucson's May 19, 2006 filing was published in the *Federal Register*, 71 Fed. Reg. 32,068 (2006), with interventions or protests due on or before June 9, 2006. None was filed.

III. Discussion

A. Procedural Matters

18. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2005), we will grant Phelps Dodge's unopposed motion to intervene out-of-time, given the early stage of this proceeding, and the absence of any undue delay, prejudice or burden to the parties.

B. Generation Market Power

1. Amended Indicative Screens for First-Tier Control Areas

19. In the May 16, 2005 and May 25, 2005 filings, and the February 27, 2006 data request response, Tucson submitted amended analyses for its first-tier control areas. Tucson specifically: (1) included the required simultaneous transmission import capability studies; (2) updated the analyses to account for the new simultaneous

transmission import capability studies; and (3) submitted data and work papers. The updated analyses indicate that Tucson passes both the pivotal supplier and wholesale market share screens in each of the directly interconnected first-tier control areas.

20. The Commission concludes that, with the additional submittals, which include required data and amended generation market power screens for its first-tier control areas, Tucson satisfies the Commission's generation market power standard for market-based rate authority in each of the directly interconnected first-tier control areas examined.

2. **Delivered Price Test**

21. As discussed more fully below, after reviewing Tucson's DPT analysis the Commission finds that Tucson satisfies the Commission's generation market power standard for the grant of market-based rate authority. Accordingly, the presumption of market power as it relates to the generation part of the Commission's four part market-based rate analysis has been rebutted.

22. In the April 14 Order, the Commission stated that an applicant's failure of one or more of the indicative screens establishes a rebuttable presumption of market power. If such an applicant chooses not to proceed directly to mitigation, it must present a more thorough analysis using the Commission's DPT.[10] The DPT is used to analyze the effect on competition for transfers of jurisdictional facilities in section 203 proceedings,[11] using the framework described in Appendix A of the Merger Policy Statement and revised in Order No. 642.[12] The DPT is a well established test that has been used routinely to analyze market power in the merger context for many years, and it has been affirmed by

[10] April 14 Order, 107 FERC ¶ 61,018 at P 105-112.

[11] 16 U.S.C. § 824b (2000).

[12] *Inquiry Concerning the Commission's Merger Policy Under the Federal Power Act: Policy Statement*, Order No. 592, 61 Fed. Reg. 68,595 (1996), FERC Stats. & Regs., Regulations Preambles July 1996-December 2000 ¶ 31,044 (1996), *reconsideration denied*, Order No. 592-A, 62 Fed. Reg. 33,341 (1997), 79 FERC ¶ 61,321 (1997) (Merger Policy Statement); *see also Revised Filing Requirements Under Part 33 of the Commission's Regulations*, Order No. 642, 65 Fed. Reg. 70,984 (2000), FERC Stats. & Regs., Regulations Preambles July 1996-December 2000 ¶ 31,111 (2000), *order on reh'g*, Order No. 642-A, 66 Fed. Reg. 16,121 (2001), 94 FERC ¶ 61,289 (2001).

the courts.[13] The DPT has also been used to examine generation market power for the grant of market-based rate authority.[14]

23. The DPT defines the relevant market by identifying potential suppliers based on market prices, input costs, and transmission availability, and calculates each supplier's economic capacity and available economic capacity for each season/load period.[15] The results of the DPT can be used for pivotal supplier, market share and market concentration analyses. A detailed description of the mechanics of the DPT is provided in Appendix F of the April 14 Order which refers to Appendix A of the Merger Policy Statement and Order No. 642 for a complete description of the DPT and its requirements.

24. Using the economic capacity for each supplier, applicants should provide pivotal supplier, market share and market concentration analyses. Examining these three measures with the more robust output from the DPT will allow applicants to present a more complete view of the competitive conditions and their positions in the relevant markets.

25. Under the DPT, to determine whether an applicant is a pivotal supplier in each of the season/load periods, applicants should compare the load in the destination market to the amount of competing supply (the sum of the economic capacities of the competing suppliers). The applicant will be considered pivotal if the sum of the competing suppliers' economic capacity is less than the load level (plus a reserve requirement that is no higher than state and regional reliability council operating requirements for reliability) for the relevant period. The analysis should also be performed using available economic capacity to account for applicants' and competing suppliers' native load commitments. In that case, native load in the relevant market would be subtracted from the load in each season/load period. The native load subtracted should be the average of the actual native load for each season/load period.

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[13] *See, e.g., Wabash Valley Power Associates, Inc. v. FERC*, 268 F. 3d 1105 (D.C. Cir. 2001).

[14] *Duke Power*, 111 FERC ¶ 61,506 (2005); *Kansas City Power & Light Co.*, 113 FERC ¶ 61,074 (2005); *PPL Montana, LLC*, 115 FERC ¶ 61,204 (2006), *reh'g pending*; *PacifiCorp*, 115 FERC ¶ 61,349 (2006).

[15] Super-peak, peak, and off-peak, for winter, shoulder and summer periods and an additional highest super-peak for the summer.

26. Each supplier's market share is calculated based on economic capacity (the DPT's analog to installed capacity). The market shares for each season/load period reflect the costs of the applicant's and competing suppliers' generation, thus giving a more complete picture of the applicant's ability to exercise market power in a given market. For example, in off-peak periods, the competitive price may be very low because the demand can be met using low-cost capacity. In that case, a high-cost peaking plant that would not be a viable competitor in the market would not be considered in the market share calculations, because it would not be counted as economic capacity in the DPT. Applicants must also present an analysis using available economic capacity (the DPT's analog to uncommitted capacity) and explain which measure more accurately captures conditions in the relevant market.

27. Under the DPT, applicants must also calculate the market concentration using the Hirschman-Herfindahl Index (HHI) based on market shares.[16] HHIs are usually used in the context of assessing the impact of a merger or acquisition on competition. However, as noted by the U.S. Department of Justice in the context of designing an analysis for granting market-based pricing for oil pipelines, concentration measures can also be informative in assessing whether a supplier has market power in the relevant market.[17]

28. A showing of an HHI less than 2,500 in the relevant market for all season/load periods for applicants that have also shown that they are not pivotal and do not possess more than a 20 percent market share in any of the season/load periods would constitute a showing of a lack of market power, absent compelling contrary evidence from intervenors. Concentration statistics can indicate the likelihood of coordinated interaction in a market. All else being equal, the higher the HHI, the more firms can extract excess profits from the market. Likewise a low HHI can indicate a lower likelihood of coordinated interaction among suppliers and could be used to support a claim of a lack of market power by an applicant that is pivotal or does have a 20 percent

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[16] The HHI is the sum of the squared market shares. For example, in a market with five equal size firms, each would have a 20 percent market share. For that market, HHI = $(20)^2 + (20)^2 + (20)^2 + (20)^2 + (20)^2 = 400 + 400 + 400 + 400 + 400 = 2{,}000$.

[17] *See Comments of the United States Department of Justice in response to Notice of Inquiry Regarding Market-Based Ratemaking for Oil Pipelines*, Docket No. RM94-1-000 (January 18, 1994) ("The Department and the Commission staff have previously advocated an HHI threshold of 2,500, and it would be reasonable for the Commission to consider concentration in the relevant market below this level as sufficient to create a rebuttable presumption that a pipeline does not possess market power.")

or greater market share in some or all season/load periods. For example, an applicant with a market share greater than 20 percent could argue that that it would be unlikely to possess market power in an unconcentrated market (HHI less than 1,000).[18]

29. As with our initial screens, applicants and intervenors may present evidence such as historical wholesale sales data, which can be used to calculate market shares and market concentration and to refute or support the results of the DPT. We encouraged applicants to present the most complete analysis of competitive conditions in the market as the data allow. We have used actual data in our analysis of mergers and other section 203 jurisdictional transactions to supplement or support the analysis of the effect of such transactions on competition. As we stated in Order No. 642:

> If sales data indicate that certain participants actually have been able to reach the market in the past, it is appropriate to consider whether they are likely candidates to be included in the market in the future. It is for this reason that we will require a "trade data check" as part of the competitive analysis test.[19]

3. Tucson control area

a. Delivered Price Test

30. Tucson's DPT analysis for the Tucson control area indicates that when the economic capacity measure is used, Tucson is pivotal in five season/load periods (summer extreme super-peak, super-peak, and peak, winter super-peak, and shoulder super-peak). Tucson exceeds the thresholds set forth in the April 14 Order for the market share analysis in all ten season/load periods with market shares above 20 percent in all season/periods (highest in the summer and winter peak periods), and Tucson exceeds the thresholds set forth for the market concentration analysis in eight periods using the economic capacity measure.

31. Tucson's DPT analysis for the Tucson control area indicates that Tucson is not a pivotal supplier in any season/load periods using the available economic capacity measure. Tucson's market share using available economic capacity is below the 20 percent threshold for all of the season/load periods under study (with zero percent market share in six season/load periods). Additionally, using the available economic capacity measure, Tucson's market concentration analysis indicates that the HHIs are all below

[18] April 14 Order, 107 FERC ¶ 61,018 at P 111.

[19] Order No. 642 at n. 41.

2,500 (the threshold set forth in the April 14 Order) for all ten season/load periods under study (the lowest being 672 in shoulder super-peak and the highest being 1,300 in shoulder peak).[20]

32. Tucson states that the available economic capacity measure is the appropriate indicator for the Commission to rely on in this case. Tucson states that it is a franchised utility and that it retains significant native load obligations that require the output of the majority of its installed capacity. Tucson states that this capacity is thus not available to compete in wholesale markets during most periods, and thus the only appropriate measure for the current analysis is available economic capacity not economic capacity.

b. <u>Commission Determination</u>

33. After weighing all of the relevant factors, the Commission finds that, on balance, based on Tucson's DPT analysis in its control area, Tucson has rebutted the presumption of generation market power and satisfies the Commission's generation market power standard for the grant of market-based rate authority.[21] As noted above, Tucson's DPT analysis for the Tucson control area varies depending on whether the economic capacity or available economic capacity measure is used. As the Commission has stated, the DPT does not function like the initial screens – *i.e.*, failure of either the economic capacity or available economic capacity analyses does not result in an automatic failure of the test as a whole. Neither measure is definitive; the Commission weighs the results of both the economic capacity and the available economic capacity analyses and considers the arguments of the parties.[22]

34. The Commission has recognized that not all generation capacity is available all of the time to compete in wholesale markets and that some accounting for native load requirements is warranted.[23] Available economic capacity accounts for native load requirements. While available economic capacity reflects native load obligations when assessing the potential for generation market power, a clear distinction between generation serving native load and generation competing for wholesale load is not easily made.[24] The portion of capacity that will be solely dedicated to serving native load

[20] April 14 Order, 107 FERC ¶ 61,018 at P 111.

[21] *Id*.

[22] July 8 Order, 108 FERC ¶ 61,026 at P 26.

[23] April 14 Order, 107 FERC ¶ 61,018 at P 67.

[24] *Id*.

changes as market conditions change.[25] The Commission therefore also considers economic capacity in assessing generation market power because it is the maximum capacity available for all types of sales.[26] Because Tucson must have sufficient generation capacity to meet its retail load obligations, the results using economic capacity are higher than those using available economic capacity (which is expected for a traditional utility with native load service obligations in its own control area). The HHIs using the economic capacity measure are below the 2,500 threshold for two of the season/load periods, and the pivotal supplier results indicate that for half of the season/load periods Tucson is not pivotal.

35. Under the available economic capacity measure of the DPT, Tucson is not pivotal, has less than a 20 percent market share in all season/load periods, and does not exceed the 2,500 HHI threshold in any season/load period.

36. Our analysis indicates that these results are robust even when available economic capacity is increased. For example, our review shows that a 20 percent increase in Tucson's available economic capacity in all season/load periods still yields market shares below 20 percent in all season/load periods, with the exception of winter off-peak, in which the market share is only slightly above 20 percent at 21.1 percent. At the same time, Tucson remains a non-pivotal supplier, and the market concentration as measured by the HHIs remains below 2,500. In addition, Tucson's sensitivity analysis indicates that the results do not vary significantly in response to small variations in price.

37. Tucson is a utility with a native load obligation that is obligated to secure and devote resources to that native load. Some or all of those resources are not available to the wholesale market depending on load conditions. The DPT analyses balance both the recognition of the obligations to serve native load and the Commission's need to ensure that supplier's generation presence in the wholesale markets is accurately measured.[27] Accordingly, after weighing all of the relevant factors, the Commission concludes that, on balance, based on Tucson's DPT analysis in its control area, Tucson has rebutted the presumption of generation market power and satisfies the Commission's generation market power standard for the grant of market-based rate authority.

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[25] *Id*. at P 90.

[26] *Id*. at P 89.

[27] *Id*. at P 90.

c. **Docket No. EL05-87-000**

38. The Commission terminates Docket No. EL05-87-000. That proceeding was established to investigate generation market power issues in the Tucson control area. Based on the above findings, the Commission finds that there is no need for further investigation in this docket.

4. **Mitigation**

39. The Commission directed Tucson in the Tucson Order to: (1) file a DPT analysis; (2) file a mitigation proposal tailored to its particular circumstances that would eliminate the ability to exercise market power; or (3) inform the Commission that it would adopt the April 14 Order's default cost-based rates or propose other cost-based rates and submit cost support for such rates. In the June 13, 2005 filing, Tucson submitted a tailored mitigation proposal for the Tucson control area, which was a combination of market-based rate caps and cost-based rates. We note that Tucson submitted the mitigation proposal in compliance with the Tucson Order and that Tucson stated that, because it was considering submitting revised indicative screens for the Tucson control area that may show that Tucson passes the wholesale market share screen, it was unclear whether market power mitigation measures would prove necessary.

40. In light of our determination that Tucson has rebutted the presumption of generation market power for the Tucson control area, we need not address the mitigation proposal submitted by Tucson and will not discuss the merits of the proposal here.

C. **Revised Tariff**

41. In the May 16, 2005 filing, in compliance with the Tucson Order, Tucson submitted revised tariff sheets to incorporate the change in status reporting requirement pursuant to Order No. 652.[28] Tucson's tariff revision is accepted effective March 21, 2005.

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[28] *Reporting Requirement for Changes in Status for Public Utilities with Market-Based Rate Authority,* Order No. 652, 70 Fed. Reg. 8,253 (Feb. 18, 2005), FERC Stats. & Regs. ¶ 31,175*, order on reh'g*, 111 FERC ¶ 61,413 (2005).

D. **Reporting Requirement**

42. Tucson must timely report to the Commission any change in status that would reflect a departure from the characteristics the Commission relied upon in granting market-based rate authority.[29]

43. Tucson is directed to file an updated market power analysis within three years of the date of this order. The Commission also reserves the right to require such an analysis at any time.

The Commission orders:

(A) Tucson's updated market power analysis is accepted for filing, as discussed in the body of this order.

(B) The Commission hereby terminates Docket No. EL05-87-000.

(C) Tucson's next updated market power analysis is due within three years of the date of this order.

(D) Tucson's tariff revision is accepted for filing, as discussed in the body of the order.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

[29] *Id.*