

129 FERC ¶ 61,184
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Sudeen G. Kelly, Marc Spitzer,
and Philip D. Moeller.

Midwest Independent Transmission System Operator, Inc., PJM Interconnection, L.L.C., and Southwest Power Pool, Inc. Docket No. ER10-7-000

Midwest Independent Transmission System Operator, Inc. Docket No. ER10-8-000

Southwest Power Pool, Inc. Docket No. ER10-13-000

(not consolidated)

ORDER ACCEPTING FOR FILING REVISIONS TO JOINT OPERATING
AGREEMENTS AND REVISIONS TO THE MIDWEST ISO AND THE SPP
TARIFFS, AND GRANTING WAIVERS OF NAESB BUSINESS
PRACTICES

(Issued November 30, 2009)

1. On October 1, 2009, pursuant to section 205 of the Federal Power Act (FPA),¹ Midwest Independent Transmission System Operator, Inc. (Midwest ISO), PJM Interconnection, L.L.C. (PJM), and Southwest Power Pool, Inc. (SPP) (collectively, the RTOs) filed tariff sheets to revise the Congestion Management Process of the Joint Operating Agreement between Midwest ISO and PJM (Midwest ISO-PJM Congestion Management Process)² and the Joint Operating Agreement between Midwest ISO and

¹ 16 U.S.C. § 824d (2006).

² Midwest ISO revises tariff sheets, as designated, in Second Revised Rate Schedule FERC No. 5. PJM revises tariff sheets, as designated, in Second Revised Rate Schedule FERC No. 38.

SPP (Midwest ISO-SPP Congestion Management Process)³ in Docket No. ER10-7-000 (RTOs' Proposal). Also, on October 1, 2009, pursuant to section 205 of the FPA, Midwest ISO filed identical conforming tariff sheet revisions to Attachment LL (Congestion Management Process) and Attachment Q (North American Electric Reliability Council Transmission Loading Relief Procedure) of the Midwest ISO Open Access Transmission, Energy and Operating Reserve Markets Tariff (Midwest ISO Tariff) in Docket No. ER10-8-000 (Midwest ISO Proposal). In addition, on October 1, 2009, pursuant to section 205 of the FPA, SPP filed tariff sheet revisions to revise Attachment R-1 (North American Energy Standards Board Business Practices) of the SPP Open Access Transmission Tariff (SPP Tariff) in Docket No. ER10-13-000 (SPP Proposal).

2. The Congestion Management Process revisions proposed by the RTOs and the tariff revisions proposed by Midwest ISO and SPP reflect the completion of the North American Electric Reliability Corporation's (NERC) Market Flow Threshold Field Test (Field Test).⁴ As a result of the Field Test, the NERC Operating Reliability Subcommittee (ORS) recommended the use of a five percent market flow curtailment threshold during a TLR event.⁵

3. In addition, the RTOs (in Docket No. ER10-7-000) and Midwest ISO (in Docket No. ER10-8-000) request waiver of the North American Electric Reliability Corporation Energy Standards Board's (NAESB) Transmission Loading Relief - Eastern Interconnection Business Practices (NAESB business practices) WEQ-008-1.4 and

³ Midwest ISO revises tariff sheets, as designated, in Second Revised Rate Schedule FERC No. 6. SPP revises tariff sheets, as designated, in Second Revised Rate Schedule FERC No. 9.

⁴ NERC conducted the Field Test to determine an appropriate market flow curtailment threshold to be used when implementing Transmission Loading Relief (TLR) procedures. NERC's TLR procedures are an Eastern Interconnection-wide process that allow reliability coordinators to mitigate potential or actual operating security limit violations while respecting transmission service reservation priorities.

⁵ See http://www.nerc.com/docs/oc/ors/ORS_Conf_Call_Minutes_01Sept09.pdf, NERC ORS September 1, 2009 conference call minutes at 3, item number 2 (discussing approval of the five percent market flow curtailment threshold). See also RTOs' Proposal at 2.

WEQ-008 Appendix D, until the Commission adopts and implements Version 002.1 of the NAESB Wholesale Electric Quadrant (WEQ) Standards.⁶

4. As discussed below, we accept the RTOs' proposed tariff sheet revisions in Docket No. ER10-7-000 for filing, accept Midwest ISO's proposed tariff sheet revisions in Docket No. ER10-8-000 for filing, accept SPP's proposed tariff sheet revisions in Docket No. ER10-13-000 for filing, and grant the RTOs' and Midwest ISO's requests for waiver of the NAESB business practices WEQ-008-1.4 and WEQ-008 Appendix D.

I. Background

5. In an order issued December 16, 1998, the Commission addressed a petition for declaratory order filed by NERC regarding NERC's proposed TLR procedures.⁷ The TLR procedures were developed to provide a process to be used to return overloaded transmission equipment back within NERC's operating reliability limits by reducing or curtailing transactions that may have been scheduled over multiple transmission systems. In that order, the Commission determined that the TLR procedures must be filed with the Commission under section 205 of the FPA as tariff amendments and that they were generally consistent with or superior to the Commission's *pro forma* open access transmission tariff (OATT) with respect to these issues. The Commission also granted NERC's request to adopt an efficient mechanism for transmission-operating public utilities to incorporate the changes into their tariffs. To that end, the Commission accepted a generic amendment to the Commission's *pro forma* OATT and stated that it would deem each public utility transmission provider's own OATT to be so modified upon that utility notifying the Commission of its adoption of NERC's TLR procedures. In a number of subsequent orders, the Commission has accepted revisions to NERC's TLR procedures.

6. On March 15, 2007, in Order No. 693,⁸ the Commission approved 83 of 107 proposed reliability standards pursuant to section 215 of the FPA. Seven of the proposed

⁶ SPP, in Docket No. ER10-13-000, states that it requests waiver of NAESB business practices WEQ-008-1.4 and WEQ-008 Appendix D in Docket No. ER10-7-000. The SPP Proposal merely revises Attachment R-1 of the SPP Tariff to reflect the waiver request in the RTO Proposal in Docket No. ER10-7-000.

⁷ *North American Electric Reliability Council*, 85 FERC ¶ 61,353, at 62,362 (1998), *order on reh'g*, 87 FERC ¶ 61,161, at 61,649 (1999).

⁸ *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, 72 Fed. Reg. 16,416, (2007), FERC Stats. & Regs. ¶ 31,242 (2007), *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

reliability standards specifically incorporate one or more “regional differences,” also referred to as “waivers,” for a particular region or subregion, resulting in eight regional differences. The Commission approved six of eight proposed regional differences. One of the 83 Commission-approved standards, Reliability Standard IRO-006-3,⁹ provided a regional difference for Midwest ISO, PJM and SPP. As explained below, this regional difference was neither approved nor remanded by the Commission.

7. The regional difference under Reliability Standard IRO-006-3 implemented the Congestion Management Process in the Joint Operating Agreements among Midwest ISO, PJM and SPP, and in seams agreements reached between Midwest ISO, PJM and their neighboring non-market areas during RTOs’ market formation and expansion.¹⁰ Each RTO calculates an amount of energy from their market flowing on reciprocal coordinated flowgates¹¹ in non-market areas, and these market flows are separated into their appropriate firm and non-firm priorities and are made available for curtailment under the appropriate TLR levels in the NERC Interchange Distribution Calculator.¹² Under the TLR procedures, NERC only requires curtailment of interchange transactions with a generation to load distribution factor above a five percent threshold on a constraint

⁹ On March 19, 2009, in Order No. 713-A, the Commission approved Reliability Standard IRO-006-4. *See Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards*, Order No. 713-A, 126 FERC ¶ 61,252 (2009). On August 12, 2009, NERC filed errata changes to three Reliability Standards, including revised Reliability Standard IRO-006-4.1. Reliability Standard IRO-006-4.1 is currently pending before the Commission in Docket No. RD09-9-000.

¹⁰ *See* Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 966.

¹¹ NERC defines a flowgate as either: (1) a portion of the transmission system through which the Interchange Distribution Calculator calculates the power flow from interchange transactions; or (2) a mathematical construct, comprised of one or more monitored transmission facilities and optionally one or more contingency facilities, used to analyze the impact of power flows upon the bulk electric system. *See* page 8 of the NERC glossary at http://www.nerc.com/docs/standards/rs/Glossary_2009April20.pdf.

¹² The NERC Interchange Distribution Calculator is the mechanism used by reliability coordinators in the Eastern Interconnection to calculate the distribution of Interchange Transactions over specific flowgates. It includes a database of all interchange transactions and a matrix of the distribution factors for the Eastern Interconnection. The distribution factor is the portion of an interchange transaction that flows across a transmission facility or flowgate. *Id.*

and does not require curtailment of internal generation-to-load transactions for their impacts off the contract path. However, under the NERC waiver and corresponding NAESB WEQ-008 Appendix D, all Midwest ISO, PJM and SPP market flows with a distribution factor above zero percent on a constraint have been subject to curtailment.

8. During the reliability standard proceedings pertaining to the TLR process, the Midwest ISO and PJM expressed concerns that: (1) the Congestion Management Process could be placing an undue burden on their regions to provide redispatch, especially on remote flowgates where their market dispatch has a small impact; (2) under the Congestion Management Process, the calculation of market flows for relief assignments on reciprocal coordinated flowgates between Midwest ISO and the Mid-Continent Area Power Pool (MAPP)¹³ could create situations in which Midwest ISO is unable to meet its relief obligation without curtailing load; and (3) these concerns are exacerbated by the possibility of civil penalties for non-compliance with the existing requirement to use market flows down to zero percent for relief assignments on reciprocal coordinated flowgates.

9. In light of these issues, Midwest ISO and PJM held extensive discussions with members from the NERC ORS and the Congestion Management Process Working Group and performed analyses to examine situations where either Midwest ISO and/or PJM had experienced situations where its market was unable to accomplish its TLR obligation using a zero percent curtailment threshold. As a result of these discussions and analyses, the NERC ORS recommended that the market flow curtailment threshold used by the NERC Interchange Distribution Calculator to assign relief obligations to the RTOs be changed from zero percent to three percent for a 12-month interim period. During this interim period, the ORS would investigate all situations in which the RTOs were unable to meet their relief assignments in order to determine whether the cause was due to the market flow curtailment threshold or some other factor, and a decision would be made at the end of the 12-month field test whether to recommend a permanent change to the market flow curtailment threshold from zero percent to three percent, or whether to suggest a change to some other value.¹⁴

10. Subsequently, on May 25, 2007, Midwest ISO and PJM submitted proposed revisions to their Joint Operating Agreement to incorporate the NERC-approved Field Test market flow curtailment threshold. The Commission conditionally accepted the

¹³ MAPP is an association of electric utilities and other electric industry participants who have interests in the Upper Midwest.

¹⁴ See Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 976; Comments of Midwest ISO and PJM in Docket No. RM06-16-000 at 31 (January 3, 2007).

proposed changes and directed Midwest ISO and PJM to make a compliance filing explicitly stating the three percent market flow curtailment threshold that NERC had approved for the Field Test, the other terms and conditions of the 12-month Field Test, and the effective date on which Midwest ISO and PJM each planned to begin and end implementation of the Field Test, if known.¹⁵ Furthermore, the Commission determined that the NERC-approved 12-month Field Test, subject to conditions, would help the parties to the seams agreements, NERC, and the Commission evaluate the impact and effectiveness of the Congestion Management Process and determine what, if any, permanent modifications to the seams agreements or the NERC TLR procedures may be appropriate. Among other conditions, the Commission required Midwest ISO and PJM to file for informational purposes, within 60 days of the completion of the Field Test, a report of NERC's findings in the course of conducting these investigations. The Commission also stated that it expected NERC and other interested parties to evaluate the impacts of the Field Test on their redispatch obligations under the NERC TLR procedures and the Congestion Management Process and compile information necessary to determine whether permanent modifications to the seams agreements are appropriate.

11. Similarly, on September 27, 2007, Midwest ISO and SPP filed proposed revisions to the Midwest ISO-SPP Congestion Management Process. The revisions, among other things, added language referring to the 12-month Field Test and increased the market flow curtailment threshold from zero to three percent. The Commission conditionally accepted Midwest ISO and SPP's proposed revisions.¹⁶

12. In a subsequent order on a compliance filing, the Commission allowed the Field Test to continue through the date that NERC determines is necessary for the Field Test to yield the data needed to serve its intended purpose, and directed Midwest ISO and PJM to submit a compliance filing indicating the termination date of the Field Test within seven days of NERC's decision as to whether the Field Test should continue beyond twelve months from the date that PJM commenced implementation of the Field Test, or May 30, 2008, for either RTO.¹⁷ In a subsequent order on compliance, the Commission accepted

¹⁵ *Midwest Indep. Transmission Sys. Operator, Inc.*, 120 FERC ¶ 61,083 (2007). On May 15, 2008, the Commission accepted Midwest ISO and PJM's compliance filing. *Midwest Indep. Transmission Sys. Operator, Inc.*, 123 FERC ¶ 61,148 (2008).

¹⁶ *Midwest Indep. Transmission Sys. Operator, Inc.*, 121 FERC ¶ 61,202 (2007).

¹⁷ *Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,148 (2008).

continuation of the Field Test through October 31, 2008.¹⁸ On December 23, 2008, the Commission approved, among other things, a one year extension of the Field Test until October 31, 2009.¹⁹

13. On July 1, 2008, the Commission accepted proposed revisions to the Midwest ISO-SPP Congestion Management Process and the Midwest ISO-PJM Congestion Management Process to increase the NERC-approved market flow curtailment threshold from three percent to five percent for the remaining duration of the Field Test.²⁰ In a related action, the MAPP participants agreed on January 1, 2009 to move from a zero percent threshold to a five percent threshold²¹ as part of a three-month extension of the seams operating agreement between Midwest ISO and MAPPCOR.²²

14. Based on Field Test results from January 1, 2008, through July 20, 2009, the NERC ORS Market Flow Threshold Task Force in August 2009 recommended the use of a five percent market flow curtailment threshold. The NERC ORS approved that recommendation on September 1, 2009.²³

15. In Order No. 676-D, the Commission clarified that once NERC completed the Field Test, responsibility for the Eastern Interconnection TLR regional differences would be deleted from Section E of the NERC TLR Standard and be immediately transferred to the NAESB Business Practice Standards.²⁴ As a result of this order, upon completion of the Field Test, Midwest ISO, PJM, and SPP would immediately be required to revert

¹⁸ See *Midwest Indep. Transmission Sys. Operator, Inc. and PJM Interconnection, L.L.C.*, Docket No. ER07-940-002 (November 7, 2008) (unpublished letter order).

¹⁹ See *Midwest Indep. Transmission Sys. Operator, Inc., et al.*, 125 FERC ¶ 61,361 (2008).

²⁰ See *Midwest Indep. Transmission Sys. Operator, Inc., et al.*, 124 FERC ¶ 61,001 (2008).

²¹ RTOs' Proposal at 2. See *Midwest Indep. Transmission Sys. Operator, Inc.*, Docket No. ER09-245-000 (December 12, 2008) (unpublished letter order).

²² MAPPCOR is the service provider to members of MAPP and administers the MAPP Restated Agreement, the contract that governs the MAPP organization.

²³ RTOs' Proposal at 2.

²⁴ *Standards for Business Practices and Communication Protocols for Public Utilities*, Order No. 676-D, 124 FERC ¶ 61,317, at P 4-6 (2008).

back to the zero percent market flow curtailment threshold contained in NAESB WEQ-008 Appendix D.

16. Subsequently, on October 9, 2009, in Docket No. RM05-5-013, NAESB submitted a report that states that minor corrections to WEQ-008 were unanimously adopted by the WEQ Executive Committee on August 18, 2009, deleting WEQ-008-1.4 and WEQ-008 Appendix D from the WEQ Business Practice Standards, effectively changing the market flow curtailment threshold from zero percent to five percent and removing the regional difference for RTOs. The report further states that adopting the recommendations that were approved by NERC would result in the TLR curtailment percentage being the same for the entire Eastern Interconnection.

17. In Order No. 676-E, the Commission incorporated by reference in its regulations at 18 C.F.R. § 38.2 the latest version (Version 002.1) of certain business practice standards adopted by the Wholesale Electric Quadrant of NAESB.²⁵ NAESB's Version 002.1 Standards include standards adopted by NAESB in response to Order Nos. 890, 890-A, and 890-B. The Version 002.1 Standards incorporated by reference in Order No. 676-E modify, among other things, NAESB's Transmission Loading Relief – Eastern Interconnection Standards (WEQ-008) to add clarity and ensure that the business practice standards are consistent with NERC reliability standard IRO-006. Importantly, the Commission in Order No. 676-E incorporates by reference into its regulations the changes to WEQ-008, submitted by NAESB in its October 9, 2009 report, which consisted of deleting WEQ-008-1.4 and WEQ-008 Appendix D.²⁶ These changes remove the RTO regional difference for TLR procedures, allowing the RTOs to use a five percent market flow curtailment threshold.²⁷

II. The Filings

18. The RTOs, in Docket No. ER10-7-000, propose to revise the Congestion Management Process provisions of their respective Joint Operating Agreements which concern, among other things, market flow determination, firm market flow calculation rules, market-based operating entity real-time actions, forward coordination processes, limiting firm transmission service, sharing or transferring unused allocations, and the Field Test terms and conditions. Several of the proposed changes remove references to

²⁵ *Standards for Business Practices and Communication Protocols for Public Utilities*, Order No. 676-E, 129 FERC ¶ 61,162 (2009).

²⁶ *See supra* P 16.

²⁷ *See* Order No. 676-E, 129 FERC ¶ 61,162 at P 9, 13. Order No. 676-E becomes effective 30 days after its publication in the *Federal Register*.

conducting the Field Test. The proposed revisions allow the RTOs to continue using the five percent market flow curtailment threshold. A zero percent market flow curtailment threshold will be used for informational purposes. The RTOs also propose minor ministerial revisions as a result of the revisions described above.

19. Midwest ISO, in Docket No. ER10-8-000, proposes identical conforming changes to its Attachment LL (Congestion Management Process) and Attachment Q (North American Electric Reliability Council Transmission Loading Relief Procedure) of the Midwest ISO Tariff. SPP, in Docket No. ER10-13-000, proposes to delete references to WEQ-008-1.4 and WEQ-008 Appendix D in Attachment R-1 (North American Energy Standards Board Business Practices).²⁸

20. Based on the Field Test recommendations and NAESB's actions described above, the RTOs (in Docket No. ER10-7-000) and Midwest ISO (in Docket No. ER10-8-000) request waiver of the NAESB business practices WEQ-008-1.4 and WEQ-008 Appendix D, until the Commission takes action on the changes submitted to the Commission by NAESB on October 9, 2009 removing WEQ-008-1.4 and WEQ-008 from the WEQ Business Practice Standards Version 002.1.²⁹

21. In addition, the RTOs request waiver of the Commission's 60-day prior notice requirement to permit their proposed revisions in Docket No. ER10-7-000 to become effective November 1, 2009. They state that absent a November 1, 2009 effective date, under the NAESB WEQ-008 Appendix D criteria the RTOs would be required to revert back to a zero percent curtailment threshold after the October 31, 2009 Field Test completion date, which is contrary to the five percent threshold recommendation approved by NERC. For the same reason, Midwest ISO (in Docket No. ER10-8-000) and SPP (in Docket No. ER10-13-000) request waiver of the notice requirement and a November 1, 2009 effective date for their proposed revisions in Docket No. ER10-8-000 and ER10-13-000, respectively.

III. Notice of Filings and Responsive Pleadings

22. Notice of the RTOs' filing, in Docket No. ER10-7-000, was published in the *Federal Register*, 74 Fed. Reg. 52,478 (2009), with interventions and protests due on or before October 22, 2009. Motions to intervene, raising no substantive issues, were filed

²⁸ SPP simply incorporates by reference into the SPP Tariff at Attachment R-1 the currently effective NAESB business practice standards.

²⁹ *Op. cit.* NAESB, October 9, 2009, Docket No. RM05-05-013. *See supra* P 16-17.

by: American Municipal Power, Inc.; Consumers Energy Company; Xcel Energy Services Inc.; Duke Energy Corporation; and Exelon Corporation.

23. Notice of the Midwest ISO's filing, in Docket No. ER10-8-000, was published in the *Federal Register*, 74 Fed. Reg. 52,478 (2009), with interventions and protests due on or before October 22, 2009. Motions to intervene, raising no substantive issues, were filed by: American Municipal Power, Inc.; Consumers Energy Company; Xcel Energy Services Inc.; Duke Energy Corporation; Exelon Corporation; and Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc.

24. Notice of SPP's filing, in Docket No. ER10-13-000, was published in the *Federal Register*, 74 Fed. Reg. 52,478 (2009), with interventions and protests due on or before October 22, 2009. None was filed.

IV. Discussion

A. Procedural Matters

25. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2009), the timely, unopposed motions to intervene make the entities who filed them parties to that proceeding.

B. Substantive Matters

26. The objective of the Field Test was to determine a market flow curtailment threshold that will allow the three markets (Midwest ISO, PJM and SPP) to consistently meet their relief obligations during TLR events. To that end, the Field Test results indicate that changing to the five percent curtailment threshold will address the reliability concerns of the markets being unable to consistently meet their relief obligations under the zero percent curtailment threshold. Based on the findings of the Field Test and, subsequent NERC approval, the Commission will accept the RTOs' proposed revisions to the Midwest ISO-PJM Congestion Management Process and the Midwest ISO-SPP Congestion Management Process, the Midwest ISO's proposed revisions to Attachment LL and Attachment Q to the Midwest ISO Tariff, and SPP's proposed revisions to Attachment R-1 to the SPP Tariff. We will also grant the RTOs', Midwest ISO's, and SPP's requests for waiver of the prior notice requirement and accept the filings in Docket Nos. ER10-7-000, ER10-8-000, and ER10-13-000, respectively, effective November 1, 2009.

27. In addition, the Commission finds that the RTOs and Midwest ISO have shown good cause and, as such, the Commission will grant the RTOs' and Midwest ISO's requests for waiver of NAESB Business Practice Standards WEQ-008-1.4 and WEQ-008

Appendix D in Docket Nos. ER10-7-000 and ER10-8-000, respectively.³⁰ The waivers granted herein will allow the RTOs (under their respective Joint Operating Agreements), Midwest ISO (under the Midwest ISO Tariff), and SPP (under the SPP Tariff) to continue using a five percent market flow curtailment threshold and not be required to revert back to a zero percent curtailment threshold November 1, 2009.³¹

The Commission orders:

(A) The RTOs' proposed revisions to the Midwest ISO-PJM Congestion Management Process and the Midwest ISO-SPP Congestion Management Process, in Docket No. ER10-7-000, are hereby accepted for filing, effective November 1, 2009, as requested, as discussed in the body of this order.

(B) The RTOs' request for waiver of the NAESB business practices WEQ-008-1.4 and WEQ-008 Appendix D, in Docket No. ER10-7-000, are hereby granted, effective November 1, 2009, as discussed in the body of this order.

(C) Midwest ISO's proposed revisions to its Attachment LL and Attachment Q of the Midwest ISO Tariff, in Docket No. ER10-8-000, are hereby accepted for filing, effective November 1, 2009, as requested, as discussed in the body of this order.

(D) Midwest ISO's request for waiver of the NAESB business practices WEQ-008-1.4 and WEQ-008 Appendix D, in Docket No. ER10-8-000, is hereby granted, effective November 1, 2009, as discussed in the body of this order.

³⁰ *See supra* note 6.

³¹ Although the WEQ-008 standards incorporated by reference into the Commission's regulations in Order No. 676-E no longer contain the RTO regional difference in WEQ-008-1.4 and WEQ-008 Appendix D, granting waiver of these standards is necessary since the effective date of Order No. 676-E will be after November 1, 2009.

(E) SPP's proposed revisions to its Attachment R-1 of the SPP Tariff, in Docket No. ER10-13-000, are hereby accepted for filing, effective November 1, 2009, as requested, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.