

138 FERC ¶ 61,237
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
and Cheryl A. LaFleur.

Westar Energy, Inc.

Docket Nos. ER12-909-000

Southwest Power Pool, Inc.

ER12-891-000

ORDER ACCEPTING AND SUSPENDING PROPOSED RATES AND
ESTABLISHING HEARING AND SETTLEMENT JUDGE PROCEDURES

(Issued March 30, 2012)

1. On January 27, 2012, Westar Energy, Inc. (Westar) filed revisions to its Open Access Transmission Tariff (OATT) under section 205 of the Federal Power Act¹ to update Westar's transmission service real power loss factors. Because Westar's filing raises material issues of fact that cannot be resolved on the record before us, we will accept the filing and suspend it for a five-month period to become effective September 1, 2012, subject to refund, and establish hearing and settlement judge procedures. Additionally, we consolidate this filing with the ongoing proceeding in Docket No. ER12-891-000 for purposes of hearing and settlement judge procedures.²

I. Background

2. In Order No. 888, the Commission adopted the term Real Power Loss as an interconnected operations service. The Commission also noted the North American Electricity Reliability Council's reference to Real Power Losses as "energy consumed in transmission, much of it by resistance heating of the lines and transformers."³ The

¹ 16 U.S.C. § 824d (2006).

² *Southwest Power Pool, Inc.*, 138 FERC ¶ 61,211 (2012).

³ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036, at 31,709

(continued...)

Commission explained that the transmission customer must provide for real power loss, bringing to the transaction sufficient energy and capacity to replace the losses associated with its intended transaction. While the transmission provider is not required to provide for all losses, the transmission provider must indicate in its tariff, or on its OASIS, what the energy and capacity loss factors would be for any transmission service it may provide so that potential customers will know the amount of losses to replace.⁴

II. Westar's Filing

3. Westar's filing proposes to increase its average real power loss factor from 2.94 percent to 3.65 percent. Westar explains that its existing loss factor of 2.94 percent is based on a 1991 loss study, and has been in Westar's OATT since the OATT was first accepted by the Commission. Westar states that the physical characteristics of its system have changed over time, and that power flows have changed since Westar ceded operational control of its transmission system to Southwest Power Pool, Inc. (SPP).⁵

4. Westar's proposed OATT revisions include an updated loss factor and related changes to the language and format of the Real Power Losses sections of Westar's OATT. To support its OATT revisions, Westar filed a loss study report, and testimony explaining the proposed tariff changes.

5. Westar explains that changes to its loss application language will allow it to fully recover its loss-related costs associated with capacity and energy transported across its transmission system and distribution system, but only when the latter is used to supply transmission service. Westar notes the most significant change is the inclusion of an expanded loss factor table in section 28.5, showing loss factors based on the voltage level at which a customer takes service.⁶ Westar also filed a supporting loss study report, performed by its consultant, Mr. Paul Normand. Mr. Normand explains that he prepared a detailed analysis of Westar's power system using eight power flow studies that capture

(1996), *order on reh'g*, Order No. 888-A, FERC Stats. & Regs. ¶ 31,048, *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

⁴ *Id.* at 31,709.

⁵ Westar January 27, 2012 Filing at 2.

⁶ Westar January 27, 2012 Filing, Testimony of Robert Oakes at 6-7.

the full range of load variation to be expected over the course of a year to support his recommended loss factor.⁷

6. Westar also explains that it has not included a rate impact analysis in its filing, as required by section 35.13(c) of the Commission's rules and regulations.⁸ Westar explains that it does not provide transmission service under its OATT, and that all transmission service is provided by SPP under SPP's OATT. As a result, Westar states that it does not have its own customers, and it is not possible for it to provide an impact analysis for SPP's rates and SPP's customers. Westar states that SPP calculates and issues bills to Westar's customers, and that Westar's loss factors are only one of many inputs in SPP's calculations. Nonetheless, Westar states that it is necessary and appropriate for it to update its OATT because agreements, such as network integration transmission service agreements, reference Westar's OATT for the calculation of losses. To the extent that the filing is out of technical compliance with the regulations, Westar requests any necessary waiver of those regulations.⁹

III. Notice of Filing and Responsive Pleadings

7. Notice of Westar's January 27, 2012 filing was published in the *Federal Register*, 77 Fed. Reg. 6106 (2012), with interventions and protests due on or before February 17, 2012. Doniphan Electric Cooperative, Kaw Valley Electric Cooperative and Nemaha-Marshall Electric Cooperative (collectively, the Cooperatives), Kansas Power Pool (KPP) and Kansas Electric Power Cooperative, Inc. (KEPCo) filed timely motions to intervene and protests. Westar filed an answer on March 5, 2012. The Cooperatives filed an answer on March 21, 2012.

A. Protests and Westar's Answer

8. The Cooperatives and KEPCo argue that Westar's filing should be rejected because Westar has not included a customer rate impact analysis. Along with KPP, they also assert that for several reasons Westar's loss study methodology appears to systematically overstate losses and is inadequately explained.

⁷ Westar January 27, 2012 Filing, Testimony of Paul Normand. Mr. Normand notes that for his loss study, "point of delivery" and "meter location" have the same meaning.

⁸ 18 C.F.R. § 35.13(c) (2011).

⁹ Westar January 27, 2012 Filing at 3-4.

1. Customer Rate Impact Analysis

9. Both the Cooperatives and KEPCo assert that the Commission should reject Westar's filing because Westar does not include a customer rate impact analysis, as required by section 35.13(c) of the Commission's regulations.¹⁰ They challenge Westar's claim that it does not have customer information because SPP, not Westar, is the transmission provider. The Cooperatives note that Westar still owns its transmission system and receives revenues from SPP for the use of that system. They also point out that Westar includes the billing determinants for the use of its system in developing transmission service rates applicable to its zone in SPP, and that Westar owns most, if not all, of the metering facilities that measure the use of transmission customers over the Westar system. The Cooperatives explain that the proposed loss factors will be applied to the billing determinants that make up a customer's bill from SPP. Further, they take issue with Westar's statement that it is appropriate to update losses under its OATT despite its inability to provide a customer impact analysis, noting that the relevant network integration transmission service agreements between Westar, SPP, and transmission customers do not reference the Westar OATT (and that the Cooperatives have objected to Westar's attempts to do so). They also argue that if Westar cannot truly provide the impact of its rate increase, it is an indication of a flawed proposal and should therefore be rejected as unjust and unreasonable. Similarly, KEPCo states that it estimates the increased loss factor will have a \$500,000 per year effect on it, and thus urges that the importance of a detailed impact analysis cannot be overstated.

10. In response, Westar restates its initial rationale that these customers are not Westar's customers but are SPP's, and since Westar does not calculate transmission service bills it cannot determine the impact that the increased loss factors will have on Cooperatives and KEPCo's bill. Westar adds that the load-ratio share used to determine a customer's charge for network service is based on the customer's coincidental peak from the previous year. As a result, the changes Westar is proposing to the loss factors will have no impact until 2013, when the coincidental peaks from 2012 will be utilized. At that time, the customer's load will be only one component of the calculation of the bill.¹¹

11. Westar argues that a customer impact analysis is only applicable to a rate change. Westar contends that the Commission has previously found that a change in a loss

¹⁰ 18 C.F.R. § 35.13(c) (2011).

¹¹ Westar Answer at 5.

calculation is not a rate change but instead is a change in non-rate terms and conditions.¹² Westar concludes that, even if the Commission were convinced that the customers purchasing transmission service from SPP are Westar's customers, no customer impact analysis would be required because Westar is not proposing a rate change.

2. Point of Delivery Assumptions

12. The Cooperatives protest Westar's proposal for changing the location where a customer's usage is measured from the point of delivery to the meter location for purposes of calculating losses. They point to the proposed new OATT language, which would delete existing language that real power losses will be calculated by multiplying capacity and energy received at the receipt points and replace it with new language stating that "[c]apacity and energy received at the meter location shall be multiplied by the applicable Real Power Loss factors . . . for the voltage at the meter location in order to determine the loss-adjusted capacity and energy of the transmission service."¹³ The Cooperatives contend that Westar did not provide any evidence to support this change.

13. The Cooperatives contend that the proposal to turn every meter into a point of delivery is arbitrary. They explain that the location of a meter can be distant from the point of delivery and acknowledge that, in those cases, the meter reading may need to be adjusted to account for the locational disparity. However, they argue that this does not mean that the customer is either taking service over facilities beyond the point of delivery or should be responsible for increased losses over the facilities between the point of delivery and the meter location. In this scenario, the Cooperatives assert that Westar would arbitrarily require a customer to pay for additional losses, including losses on facilities that Westar does not own. According to the Cooperatives, another flaw in Westar's proposal is that it requires the determination of multiple delivery voltages and transformations for each transaction. They state that the proposal overcharges customers whose delivered energy is stepped down directly to a distribution level and that, in this circumstance, Westar still assesses sub-transmission losses on the customer.¹⁴ KEPCo

¹² Westar Answer at 5-6 (citing *Central Hudson Gas & Elec. Corp.*, 95 FERC ¶ 63,013, at 65,159 (2001) (*Central Hudson*)).

¹³ Cooperatives Protest at 15-16 (citing proposed revisions to section 28.5 of the Westar OATT).

¹⁴ *Id.* at 12-15.

also raises concerns about the calculation of distribution losses and states that it requires additional information to analyze the distribution loss factors.¹⁵

14. In response, Westar acknowledges that there are instances where the meter is located, not at the point of delivery, but on facilities that are owned by the customer. However, Westar states that the meter is the only means available to measure the load the customer is imposing on the system. Westar concludes that it is therefore entirely appropriate to calculate the losses based on where the meter is located because that is where the measurement occurs.¹⁶

3. Westar's Loss Study Assumptions

15. KPP argues that Westar's methodology is inadequately explained and overstates losses. According to KPP, Westar's analysis of transmission system losses has, as its sole basis, eight power flow simulations (i.e., snapshots of eight hours in the course of the year) – four each for the summer period and the winter period. The four power flow cases for each season assume 100 percent of seasonal peak load, 90 percent of peak, 75 percent of peak, and 50 percent of peak. Westar then used three linear interpolations between the four breakpoints for each season to estimate the losses at the varying load levels over the course of the year. KPP argues that Westar's linear interpolation approach biases the calculation of losses upward. KPP provides an illustrative example to demonstrate the flaw in this approach.¹⁷

16. KPP also contends that Westar's loss study overstates losses by scaling its load flow results to match generation levels to its transmission peak demand. KPP argues that the problem with this calculation is that it fails to take into account the non-linear relationship between losses and load, i.e., losses are proportional to the square of the current (load) on elements of an electric system. KPP adds that this scaling error also occurs in Westar's scaling of energy losses.¹⁸

17. The Cooperatives argue that, to avoid an inflated loss calculation using Westar's proposal for calculating losses based on the ratio of losses (the numerator) to all transmission uses that cause the losses (the denominator), all long-term and short-term

¹⁵ KEPCo Protest at 6.

¹⁶ Westar Answer at 7.

¹⁷ KPP Protest at 4-6

¹⁸ *Id.* at 6-8.

transmission transactions, including off-system sales, must be included as part of the denominator to ensure that there are no transactions getting a “free ride” at the expense of Westar’s transmission customers.¹⁹

18. Westar responds to KPP’s argument by acknowledging that losses increase exponentially to load on radial transmission lines, but asserts that this is not the case for a complex, network system with multiple sources of load and generation. Westar responds to the Cooperatives’ concern by stating that it included the hourly load on its transmission system over the entire year, not just its native load, in the denominator of its loss calculation. Westar states that the hourly load on Westar’s transmission system includes all transactions, whether short or long-term or off-system sales, that take place across the system.²⁰

4. Westar’s Loss Study Validation

19. Both KEPCo and the Cooperatives maintain that Westar failed to validate the power flow model used to calculate losses on its system, and that the model it has designed precludes meaningful validation because none of Westar’s existing studies and data was included in the filing. In addition, the Cooperatives state that transmission losses are a form of energy consumption and can and should be metered when possible to achieve an accurate accounting of actual losses, and that any shortcomings in this approach is far preferable to the sole use of power flow methodologies. The Cooperatives note that they have offered to install, at their own expense, loss compensation meters that would reduce the need to estimate losses, but that Westar has refused that offer.²¹

20. The Cooperatives argue that the most critical element of the loss study—the determination of transmission losses—is addressed only superficially, and it rests entirely on Westar’s eight power flow simulation models. The Cooperatives further state that Westar’s consultant did not perform any of the eight power flow simulations upon which his recommended loss factor is based, pointing to Mr. Normand’s statement that the loss study procedures emphasizes the use of Westar’s resources where possible and that extensive use was made of its power flow studies and transformer plant investments in

¹⁹ Cooperatives Protest at 16-17.

²⁰ Westar Answer at 7-8.

²¹ Cooperatives Protest at 17-18.

the model. The Cooperatives point out that none of Westar's existing studies or reports that was used in developing the loss study were included in the filing.²²

21. The Cooperatives argue that Westar should provide the base cases for all eight power flow studies, and provide hourly test year data related to data assumptions including area generation dispatch, area load, area interchange with other areas, and setting for VAr support/control devices. Similarly, KEPCo asserts that it does not have access to the reduced load levels that Mr. Normand used in his analysis, and that without access to the entire set of power flow models, it is impossible to verify the assumptions that impact the hourly loss values below the seasonal system peaks.²³ KEPCo notes that access to the flow models will also allow it to evaluate whether transmission and distribution facilities were appropriately separated.

22. Westar contends that arguments that Westar should have performed power flow simulations for every hour of the test year (instead of for only eight hours) is unreasonable and is not required by the Commission's standard.²⁴ Westar states that it is not required to demonstrate that its loss study was perfect or that it utilized the "best" method – only that the approach used was reasonable. Westar concedes that, in theory, it is possible to conduct power flow simulations for every hour of the test year and use the results to perform a loss study. However, such an approach would be very expensive and the costs would significantly outweigh any minimal benefit in accuracy that would result. Westar notes that this additional cost would be borne by customers in the form of higher transmission rates.²⁵

23. Westar further responds to the Cooperatives that, if the Cooperatives were to install loss compensation meters, each meter must be programmed specifically for its location, which would impose additional personnel and inventory cost on Westar. Westar concludes that the increased costs would be significant because Westar has 237 wholesale meter points.²⁶

²² *Id.* at 18-21.

²³ KEPCo Protest at 3-5.

²⁴ Westar Answer at 8-10.

²⁵ *Id.* at 8-9.

²⁶ *Id.* at 9-10.

5. Additional Loss Study Issues

24. The Cooperatives raise additional questions that they believe must be answered to validate the loss study.²⁷ Those issues include whether Westar used historical or prospective data, how the data were developed for each power flow simulation, whether all substations were modeled explicitly or whether some were modeled using an equivalent representation, how the load profile was developed, whether adjacent balancing areas or utilities were modeled and whether they enforce actual test year interchange, a description of the logic used for shunt on/off control in the model versus how shunts are used in actual operation, a description of the power factor assumptions used in the model versus historical test year power factors, and a description of how the model accounted for system improvements that occurred during the test year. Similarly, KEPCo questions whether the calculation of losses was done with or without generator step-up losses, what formula was used for calculating corona losses, and whether the value used for losses associated with substation unmetered auxiliary use is inappropriately high.

25. The Cooperatives also believe that Westar's loss study's procedure to extend the snapshot analysis of system conditions and losses to the entire year is flawed because Mr. Normand uses a single, unchanging resistance value for each transmission line. Instead, the Cooperatives argue that line resistances should be calculated at an assumed conductor temperature that provides a reasonable representation of average line resistances over the course of a year rather than one that is based on peak load conditions. The Cooperatives also argue that Mr. Normand's averaging procedure that he used in the eight power flow scenarios are flawed because it introduces error-prone compromises such as on/off shunt assumptions and generators operating at unrealistic levels.²⁸

6. Requested Relief

26. The Cooperatives argue that the Commission should either reject the filing or find it deficient.²⁹ KPP and KEPCo request that the Commission suspend Westar's filing, make it subject to refund, and set it for trial-type evidentiary hearing.³⁰ KPP notes that

²⁷ Cooperatives Protest at 21-22.

²⁸ Cooperatives Protest at 22-23. The Cooperatives question other aspects of the loss study, including why average transmission losses in winter are significantly higher than those in the summer. *Id.* at 25.

²⁹ *Id.* at 21.

³⁰ KPP Protest at 8-9; KEPCo Protest at 6-7.

Westar is seeking to increase its transmission loss factor from an existing practice of 2.94 percent losses to a proposed loss factor of 3.65 percent, i.e., a loss factor increase of 71 basis points. KPP asserts that under the *West Texas*³¹ test for maximum suspension, which is fully applicable to filings that seek to increase transmission loss factors, an increase should be suspended for a full five months if a preliminary analysis indicates that 10 percent or more of this proposed increase has not been shown to be just and reasonable. KPP argues that Westar fails to justify raising the loss factor above 3.579 percent. KPP concludes that Westar's filing therefore should be suspended for the maximum five months beyond the requested April 1, 2012 effective date, to September 1, 2012.

IV. Commission Determination

A. Procedural Matters

27. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2011), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2011), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept the answers filed by Westar and the Cooperatives because they provided information that assisted us in our decision-making process.

B. Substantive Matters

28. Westar's proposal raises issues of material fact that cannot be resolved based on the record before us, and are more appropriately addressed in the hearing and settlement judge procedures ordered below.

29. Our preliminary analysis indicates that Westar's filing has not been shown to be just and reasonable and may be unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful.³² In *West Texas*, the Commission explained that when our preliminary analysis indicates that the proposed rates may be unjust and

³¹ KPP Protest at 8 (citing *West Texas Utilities Company*, 18 FERC ¶ 61,189 (1982) (*West Texas*)).

³² In *West Texas*, the Commission held that "rate filings should generally be suspended for the maximum period permitted by statute where preliminary study leads the Commission to believe that the filing may be unjust and unreasonable" *West Texas*, 18 FERC at 61,374.

unreasonable, and may be substantially excessive, as defined in *West Texas*, the Commission will generally impose a five-month suspension.³³ In the instant proceeding, we find that the proposed rates may be substantially excessive. Therefore, we will accept Westar's proposed rates for filing, suspend them for five months, make them effective September 1, 2012, subject to refund, and set them for hearing and settlement judge procedures.

30. In addition, because the issues in this proceeding are closely intertwined with those raised in Docket No. ER12-891-000, we will consolidate the instant filing with the ongoing proceeding in Docket No. ER12-891-000 for purposes of hearing and decision, as well as settlement judge procedures.

31. While we are instituting hearing and settlement judge procedures, we find unavailing Westar's argument that it cannot provide cost information or customer impact information related to the changes it is proposing because the bills for transmission service that will be impacted by the proposed changes are calculated and issued by SPP. We place Westar on notice that we will reject as unsupported future rate change filings that do not demonstrate the effect of the rate change as required by our regulations.³⁴ If Westar cannot demonstrate the effect of the rate change on its own then it must coordinate with SPP in gaining access to the information it needs to demonstrate the effect of a rate change.³⁵

³³ *Id.* at 61,375-76.

³⁴ *See* 18 C.F.R. § 35.13(c) (2011).

³⁵ We also find unavailing Westar's argument that the proposed OATT revisions constitute non-rate terms and conditions. The *Central Hudson* initial decision that Westar cites is not on point because the transmission service agreement at issue therein was different in that the relevant provisions expressly distinguished the public utility's authority to change the transmission loss methodology from its right to seek a change in rates. *See Central Hudson Gas & Elec. Corp.*, 103 FERC ¶ 61,143, at P 9 (2003) (rehearing order addressing initial decision). However, as the Cooperatives note in their answer, the Commission has held that, in general, transmission losses are a component of overall transmission rates, absent explicit contractual language to the contrary. Cooperatives Answer at 6 (citing *PacifiCorp*, 84 FERC ¶ 61,303, at 62,393 (1998)). This general principle applies in this case. Westar is proposing to revise its real power loss factor contained in its OATT. This is a straightforward proposal to change its rates. The circumstances at issue in *Central Hudson* are thus not present here.

32. While we are setting these matters for a trial-type evidentiary hearing, we encourage the parties to make every effort to settle their disputes before hearing procedures are commenced. To aid the parties in their settlement efforts, we will hold the hearing in abeyance and direct that a settlement judge be appointed, pursuant to Rule 603 of the Commission's Rules of Practice and Procedure.³⁶ If the parties desire, they may, by mutual agreement, request a specific judge as the settlement judge in the proceeding; otherwise, the Chief Judge will select a judge for this purpose.³⁷

33. The settlement judge shall report to the Chief Judge and the Commission within 30 days of the appointment of the settlement judge concerning the status of settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions or provide for commencement of a hearing by assigning the case to a presiding judge.

The Commission orders:

(A) Westar's proposed rate changes are hereby accepted for filing, suspended for five months, to become effective September 1, 2012, subject to refund, as discussed in the body of this order.

(B) Westar's filing is hereby consolidated with the ongoing proceeding in Docket No. ER12-891-000 for the purpose of hearing and decision and settlement judge procedures, as discussed in the body of this order.

(C) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by section 402(a) of the Department of Energy Organization Act and by the Federal Power Act, particularly sections 205 and 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the Federal Power Act (18 C.F.R., Chapter I), a public hearing shall be held concerning Westar's proposed real power loss factors. However, the hearing shall be held in abeyance to provide time for settlement judge procedures, as discussed in Ordering Paragraphs (D) and (E) below.

³⁶ 18 C.F.R. § 385.603 (2011).

³⁷ If the parties decide to request a specific judge, they must make their joint request to the Chief Judge by telephone at (202) 502-8500 within five days of this order. The Commission's website contains a list of Commission judges and a summary of their background and experience (www.ferc.gov – click on Office of Administrative Law Judges).

(D) Pursuant to Rule 603 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.603 (2011), the Chief Administrative Law Judge is hereby directed to appoint a settlement judge in this proceeding within fifteen (15) days of the date of this order. Such settlement judge shall have all powers and duties enumerated in Rule 603 and shall convene a settlement conference as soon as practicable after the Chief Judge designates the settlement judge. If the parties decide to request a specific judge, they must make their request to the Chief Judge within five (5) days of the date of this order.

(E) Within thirty (30) days of the appointment of the settlement judge, the settlement judge shall file a report with the Commission and the Chief Judge on the status of the settlement discussions. Based on this report, the Chief Judge shall provide the parties with additional time to continue their settlement discussions, if appropriate, or assign this case to a presiding judge for a trial-type evidentiary hearing, if appropriate. If settlement discussions continue, the settlement judge shall file a report at least every sixty (60) days thereafter, informing the Commission and the Chief Judge of the parties' progress toward settlement.

(F) If settlement judge procedures fail and a trial-type evidentiary hearing is to be held, a presiding judge, to be designated by the Chief Judge, shall, within fifteen (15) days of the date of the presiding judge's designation, convene a prehearing conference in these proceedings in a hearing room of the Commission, 888 First Street, NE, Washington, DC 20426. Such a conference shall be held for the purpose of establishing a procedural schedule. The presiding judge is authorized to establish procedural dates and to rule on all motions (except motions to dismiss) as provided in the Commission's Rules of Practice and Procedure.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.