UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Midwest Independent Transmission System Operator, Inc.	Docket Nos. ER05-667-000 ER05-667-001 ER05-667-002 ER05-667-003

ORDER CONDITIONALLY ACCEPTING IN PART AND REJECTING IN PART INTERCONNECTION AGREEMENT

(Issued October 24, 2005)

1. In this order, we conditionally accept in part and reject in part an unexecuted Large Generator Interconnection Agreement (Interconnection Agreement) between the Midwest Independent Transmission System Operator, Inc. (Midwest ISO), Dakota Wind Harvest, LLC (Dakota Wind) and Montana-Dakota Utilities, Inc. (Montana-Dakota), effective February 28, 2005. Below, the Commission addresses issues concerning reactive power output for a wind generator, transmission credits, and deviations from the *pro forma* interconnection agreement.

Background

2. On March 2, 2005, Midwest ISO filed the Interconnection Agreement to interconnect a proposed 180 megawatt generator to Montana-Dakota's transmission grid. The planned facility is a wind farm with 120 wind generating turbines manufactured by GE Wind and rated at 1.5 megawatts each. The costs under the Interconnection Agreement include $1.8 million for transmission network upgrades.

3. On April 28, 2005, Commission staff issued a deficiency letter to Midwest ISO and a data request to Dakota Wind directing them to provide additional cost and technical information. Dakota Wind, joined by FPL Energy, LLC (FPL Energy), filed its response with the Commission on May 13, 2005, and Midwest ISO filed its response on August 29, 2005.

4. On September 23, 2005, Midwest ISO amended its filing to include a red-line version of the Interconnection Agreement comparing it to Midwest ISO's *pro forma* interconnection agreement.[1] Midwest ISO states that it inadvertently omitted the red-line version from the original filing and that there are no changes to the original filing as a result of the amendment.

5. Midwest ISO requests waiver of the Commission's 60-day prior notice requirement so that the proposed Interconnection Agreement may become effective February 28, 2005.

6. Notice of Midwest ISO's March 2, 2005, filing was published in the *Federal Register*, 70 Fed. Reg. 12,863 (2005), with comments, interventions and protests due on or before March 23, 2005. The North Dakota Public Service Commission (North Dakota Commission) filed a notice of intervention and comments. Dakota Wind and FPL Energy filed a timely joint motion to intervene and protest. Montana-Dakota filed a timely motion to intervene, comments and protest. Midwest ISO filed an answer to Dakota-Wind and FPL Energy's protest.

7. Notice of Dakota Wind and FPL Energy's data request response was published in the *Federal Register*, 70 Fed. Reg. 30,431 (2005), with comments, interventions and protests due on or before June 3, 2005. None was filed.

8. Notice of Midwest ISO's deficiency letter response was published in the *Federal Register*, 70 Fed. Reg. 53,653 (2005), with comments, interventions and protests due on or before September 19, 2005. None was filed.

9. Notice of Midwest ISO's September 23, 2005, amendment was published in the *Federal Register*, 70 Fed. Reg. 57,580 (2005), with comments, interventions and protests due on or before October 4, 2005. None was filed.

Discussion

A. Procedural Matters

10. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2005), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

---

[1] *See Midwest Independent Transmission System Operator, Inc.*, 112 FERC ¶ 61,172 (2005).

11. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2005), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept Midwest ISO's answer because it has provided information that assisted us in our decision-making process.

B. Non-Conforming Changes

12. In Order No. 2003, the Commission required Transmission Providers (such as Midwest ISO) to file *pro forma* interconnection documents and to offer their customers interconnection service consistent with these documents.[2] The use of *pro forma* documents ensures that Interconnection Customers receive non-discriminatory service and that all Interconnection Customers are treated on a consistent and fair basis. Using *pro forma* documents also streamlines the interconnection process by eliminating the need for an Interconnection Customer to negotiate each individual agreement. This reduces transaction costs and reduces the need to file interconnection agreements with the Commission to be evaluated on case-by-case basis.[3]

13. At the same time, the Commission recognized in Order No. 2003 that there would be a small number of extraordinary interconnections where reliability concerns, novel legal issues or other unique factors would call for a non-conforming agreement.[4] The Commission made clear that the filing party must clearly identify the portions of the interconnection agreement that differ from its *pro forma* agreement and explain why the unique circumstances of the interconnection require a non-conforming interconnection agreement.[5] The Commission analyzes such non-conforming filings, which we do not expect to be common, to ensure that operational or other reasons necessitate the non-conforming agreement. Except as explained below, Midwest ISO has not shown that operational or other reasons necessitate the deviations. Therefore, we will conditionally

---

[2] *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 68 Fed. Reg. 49,845 (Aug. 19, 2003), FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh'g*, Order No. 2003-A, 69 Fed. Reg. 15,932 (Mar. 26, 2004), FERC Stats. & Regs., ¶ 31,160 (2004), *order on reh'g*, Order No. 2003-B, 70 Fed. Reg. 265 (Jan. 4, 2005), FERC Stats & Regs. ¶ 31,171 at P 56 (2004), *order on reh'g*, Order No. 2003-C, 70 Fed. Reg. 37,661 (June 30, 2005), FERC Stats. & Regs. ¶ 31,190 (2005).

[3] *See, e.g.*, PJM Interconnection, L.L.C., 111 FERC ¶ 61,098 at P 10 (2005) (PJM Order); *El Paso Electric Co.*, 110 FERC ¶ 61,163 at P 4 (2005)..

[4] Order No. 2003 at P 913-15.

[5] Order No. 2003-B at P 140.

accept the Interconnection Agreement, subject to Midwest ISO's re-filing of the agreement within 30 days of the issuance of this order to conform with its *pro forma* Interconnection Agreement that was in effect when the proposed Interconnection Agreement was filed, except for those deviations accepted below.

1. Reactive Power Considerations Under Article 9.6

14. In its transmittal letter, Midwest ISO states that Montana-Dakota wants to revise Article 9.6.2 of the Interconnection Agreement to differ from Midwest ISO's *pro forma* interconnection agreement. Montana-Dakota wants to require the generating facility to provide reactive power within its design limitations at all levels of power output. Specifically, Montana-Dakota wants to add the italicized language to and delete the strike-out language from Article 9.6.2 of the *pro forma* to provide that Dakota Wind must

> operate the Generating Facility to produce or absorb reactive power within the design limitations of the Generating Facility set forth in Article 9.6.1 (Power Factor Design Criteria), *at all levels of power output where practically achievable above minimum power output,* to maintaining the output voltage ~~or power factor~~ at the Point of Interconnection *within the range of reactive capability* as specified by the Transmission Provider.

Midwest ISO states that the proposed language is needed based on Dakota Wind's last representation regarding the proposed design of its wind generating facility. It states that the interconnection studies performed support the application of Montana-Dakota's power factor requirements to the generating facility.

15. In their protest, Dakota Wind and FPL Energy argue that the Commission should reject this proposed language. They argue that there is no suggestion in any study that the GE Wind turbines produce insufficient amounts of reactive power to maintain adequate transmission system reliability without additional capacitor banks being added at the generating facility. They state that Dakota Wind is being interconnected as an Energy Resource under Midwest ISO's open access transmission tariff (OATT) and that any upgrades needed for delivery of output from the generator are not required until a separate request for transmission service is made. They conclude that any reliability concerns associated with actual transmission (delivery) service will be addressed when a request for transmission service is submitted, in accordance with the terms of the Midwest ISO OATT, and that any system upgrades required for further voltage stability will be determined at that time.

16. In addition, Dakota Wind and FPL Energy state that GE Wind turbines can maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the wind turbine generator terminals. However, GE Wind turbines cannot meet this standard over the full range of real power output. Dakota Wind and FPL Energy state that, in general, GE Wind turbines cannot provide reactive power when generating between 0 and 100 kilowatts. In order to meet the standard proposed in the Interconnection Agreement, they argue that dynamic or static capacitor banks are needed at the generating facility, even if the capacitor banks are not needed to interconnect reliably to the transmission grid. Dakota Wind and FPL Energy also argue that there is an internal inconsistency in the proposed Interconnection Agreement because, on the one hand, Dakota Wind is required to produce or absorb reactive power *within the design limitations* of the generating facility, while at the same time it is required to produce reactive power at *all levels of power output above minimum power output*.

17. In its answer, Midwest ISO argues that given the large size of the proposed generating facility and Montana-Dakota's historical operating data showing that the area of the interconnection is prone to under-voltage violations, the proposed requirement that reactive capacitors be installed is reasonable. In addition, Midwest ISO maintains that its original study (which stated that no system improvements were needed for the interconnection) was based on Dakota Wind's representations that it would operate over a required reactive power range of 0.95 leading and 0.95 lagging.

18. In response to the Commission staff's deficiency letter, Midwest ISO states that it has restudied the interconnection of Dakota Wind's generating facility using updated reactive capability provided by Dakota Wind. It states that the results of the initial interconnection studies and the restudies indicate that the generating facility, if designed as represented by Dakota Wind, will perform satisfactorily to meet the reliability needs of the bulk transmission system assuming a transfer limit of 1,950 megawatts.[6] Midwest ISO also states that for Energy Resource Interconnection service, the initial studies and restudies did not show a need for remote reactive compensation; thus, the required reactive capabilities are those capabilities studied and included in the Interconnection Agreement.

19. We will reject as unnecessary the proposed non-conforming reactive power language in Article 9.6.2 of the Interconnection Agreement. Though Midwest ISO's initial studies of the interconnection request supported the need for additional reactive power capabilities (and thus, according to Montana-Dakota, necessitated the revised language), further studies based on additional information provided by Dakota Wind

[6] Midwest ISO states that at the time of the original studies of the generating facility were performed the North Dakota Export Transfer Limit was 1,950 megawatts.

show that additional reactive power capability is not needed. Midwest ISO has now concluded that for purposes of interconnection, if the wind generators' reactive power capability is as represented by Dakota Wind,[7] no additional equipment is needed to reliably interconnect.[8]

20. In addition, we find that the *pro forma* interconnection language addresses Dakota Wind and FPL Energy's concern about not being able to provide reactive power when the wind generators are producing less than 100 kilowatts. The *pro forma* language states that "…Transmission Provider shall require Interconnection Customer to operate the Generating Facility to produce or absorb reactive power *within the design limitations of the Generating Facility…*"[9] We find that the 100 kilowatt minimum output that Dakota Wind states its 1.5 megawatt wind generators need to meet the reactive power requirements is covered by the "within the design limitations of the Generating Facility" limitation in the *pro forma* language. We also note that this is consistent with the Commission's *pro forma* wind interconnection agreement adopted in Order No. 661,[10] which states that for wind generators that must meet reactive power requirements, the generator must meet the power factor range of 0.95 leading to 0.95 lagging "taking into account any limitations due to voltage level, real power output, etc."[11] The Commission explained that this language is intended to address concerns about a wind generator not

---

[7] The proposed generators have the ability to meet reactive power requirements when generating above 100 kilowatts.

[8] Midwest ISO states, however, that the Mid-Continent Area Power Pool has recently approved the Western Area Power Administration's (WAPA) request to make certain system changes to accommodate WAPA's desire to increase the limit to 2,080 megawatts. Midwest ISO states that sensitivity studies performed in conjunction with the restudies of the Dakota Wind generating facility indicated that if the proposed project was studied after establishment of the new transfer limit, then additional remote support would be needed.

[9] Article 9.6.2 of the *pro forma* interconnection agreement (emphasis added).

[10] *Interconnection for Wind Energy*, Order No. 661, 70 Fed. Reg. 34,993 (June 16, 2005), FERC Stats. & Regs. ¶ 31,186 (2005), *reh'g pending*. Order No. 661 is not retroactive and thus does not apply to this case. However, the reasoning in that order makes sense for this case.

[11] *Id*. at Appendix B - Interconnection Requirements for a Wind Generating Plant, § A(ii).

being able to meet reactive power requirements when generating below 10 percent of its rated output.[12]

2. Other Non-Conforming Changes

21. Midwest ISO states that the Interconnection Agreement includes other negotiated deviations from Midwest ISO's *pro forma* interconnection agreement. However, Midwest ISO does not provide any justification or support for the proposed deviations. These non-conforming provisions include: (1) eliminating provisions that do not apply to the specific interconnections at issue; (2) revising the meter testing as well as the modification cost provisions; (3) revising Article 11.3 concerning what parties must do if the transmission owner elects to fund Network Upgrades and (4) making various non-substantive editorial changes.

22. We reject as unsupported the stylistic and non-substantive deviations from Midwest ISO's *pro forma* Interconnection Agreement, as well as the non-conforming terms and conditions negotiated by the parties. Consistent with the PJM Order, we also reject the deletion of non-applicable terms for the Interconnection Agreement as being unnecessary.[13] If Midwest ISO wishes to change a provision of its *pro forma* Interconnection Agreement, it must make a separate filing to make the change on a generic basis.[14]

23. We will however accept changes to the *pro forma* interconnection agreement necessitated by Midwest ISO's transition from its Attachment R to Attachment X. Several non-conforming provisions are designed to "bridge" the transition from Midwest ISO's pre-Order No. 2003 processing of interconnection requests.[15] These include allowing the Interconnection Customers to select a higher level of interconnection service (which was not available under Attachment R), pending the completion of further studies. Midwest ISO also proposes several non-conforming provisions reflecting that several

---

[12] *Id.* at P 56.

[13] PJM Order at P 14.

[14] *See, e.g., Sierra Pacific Power Company* 111 FERC ¶ 61,415 (2005).

[15] Before the approval of Midwest ISO's Order No. 2003 compliance filing, interconnection requests in Midwest ISO were processed according to Attachment R to its tariff. After the approval of Midwest ISO's Order No. 2003 compliance filing, interconnection requests are processed according to Attachment X to its tariff.

interconnection studies were completed under the Attachment R process, which we also accept as changes necessitated by the transition from Attachment R to Attachment X.[16]

C. Transmission Credits under Article 11.4

24. Article 11.4 of the Interconnection Agreement requires Montana-Dakota, the transmission owner, to provide credits to Dakota Wind, the interconnection customer, to repay to Dakota Wind the amount Dakota Wind advances to fund the required network upgrades.

25. In its protest, Montana-Dakota objects to this provision by arguing that it forces Montana-Dakota to reimburse Dakota Wind for network upgrades without sufficient transmission revenue to do so. Montana-Dakota argues that it would be forced to seek recovery from its native load customers, who would receive no benefits from the interconnection. It proposes that the Commission reject the *pro forma* crediting language and defer action on replacement language pending Commission action on Midwest ISO's new crediting mechanism that is expected to be filed in response to recommendations of Midwest ISO's Regional Expansion Criteria and Benefits Task Force (Task Force).

26. The North Dakota Commission states that it does not want the cost allocation issue to delay the project. At the same, however, it does not believe that Montana-Dakota's native load customers should be solely responsible for the network upgrade costs.

27. We will not require Midwest ISO to change the *pro forma* crediting language in the Interconnection Agreement, as the revision Montana-Dakota wants does not meet the standard for non-conforming provisions. As explained above, the Commission has stated that non-conforming changes must be necessitated by unique circumstances or other operational reasons. The circumstances described by Montana-Dakota do not warrant the approval of its proposed non-conforming change. In this instance, the interconnection itself is not unusual in the sense that it does not raise unusual reliability concerns or involve other unusual technical characteristics that require changes to the agreement. Nor are novel legal issues involved. Since there are numerous interconnection

[16] The Midwest ISO *pro forma* interconnection agreement was in Attachment R to the Midwest ISO's OATT, but has been transferred to Attachment X of the Midwest ISO's Open Access Transmission and Energy Market Tariff, which superseded the OATT effective April 1, 2005. *See Midwest Independent Transmission System Operator, Inc.*, 108 FERC ¶ 61,163 (2005).

agreements that contain the Midwest ISO's current network upgrade crediting provision, the Interconnection Agreement hardly could be considered unique or extraordinary.[17]

28. In addition, Order No. 2003-B placed the burden on the transmission owner to support its claim that native load customers would be harmed. Montana-Dakota has not provided sufficient support for its claims that it and its native load customers are harmed by the transmission crediting provisions under the current *pro forma* interconnection agreement.[18]

D. Waiver

29. We will grant the Midwest ISO's request for waiver of our 60-day prior notice requirement, given that the Interconnection Agreement was filed within 30 days of the proposed effective date,[19] and allow the Interconnection Agreement to be effective on February 28, 2005, as requested.

The Commission orders:

(A) The Midwest ISO's proposed Interconnection Agreement is hereby rejected in part and conditionally accepted for filing in part, effective February 28, 2005.

(B) The Midwest ISO is directed to make a compliance filing within 30 days of the date of this order, as discussed herein.

By the Commission.

(S E A L)

Magalie R. Salas,
Secretary.

---

[17] We note that the Interconnection Agreement gives the parties the opportunity to submit revised provisions and have the Commission review those proposed changes under either section 205 or 206 of the Federal Power Act. While it is unclear whether or when Midwest ISO will implement a new cost recovery method, it would be premature to revise the interconnection agreement to incorporate the change Montana-Dakota seeks here.

[18] Order No. 2003-B at P 56.

[19] *Prior Notice and Filing Requirements Under Part II of the Federal Power Act*, 64 FERC ¶ 61,139 at 61,984, *order on reh'g*, 65 FERC ¶ 61,081 (1993).