

134 FERC ¶ 61,141
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Midwest Independent Transmission
System Operator, Inc.

Docket No. ER11-1991-000

ORDER CONDITIONALLY ACCEPTING IN PART AND REJECTING IN PART
TARIFF FILING AND REQUIRING COMPLIANCE FILINGS

(Issued February 28, 2011)

1. On November 1, 2010, the Midwest Independent Transmission System Operator, Inc. (Midwest ISO) submitted proposed revisions to its Open Access Transmission, Energy and Operating Reserve Markets Tariff (tariff)¹ to create a new category of resources called Dispatchable Intermittent Resources, which would be treated in a manner similar to Generation Resources in the Midwest ISO's real-time energy market. In this order, we conditionally accept in part and reject in part the Midwest ISO's proposed tariff revisions, subject to further compliance filings.

I. Background

2. In its November 1, 2010 filing, the Midwest ISO proposes a new category of resources, Dispatchable Intermittent Resources, which would be treated similarly to other Generation Resources² in the Midwest ISO's real-time energy market. The Midwest ISO explains that, under its existing tariff, the Midwest ISO treats Intermittent Resources³

¹ Midwest ISO, FERC Electric Tariff (0.0.0).

² The Midwest ISO tariff requires that Generation Resources be capable of complying with the Midwest ISO's setpoint instructions and have the appropriate metering equipment installed. Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Sheet No. 163, § 1.267. The Midwest ISO proposes to make Dispatchable Intermittent Resources a subset of the Generation Resource category.

³ The Midwest ISO defines Intermittent Resources as “[a] [r]esource that is not capable of being committed or decommitted by, or following [s]etpoint [i]nstructions of, the [Midwest ISO]. . . .” *Id.*, First Revised Sheet No. 184, § 1.329.

differently than traditional Generation Resources in the real-time energy market due to the variability of Intermittent Resources' fuel source, including by excluding Intermittent Resources from consideration in the real-time security-constrained economic dispatch process. The Midwest ISO states that as a result, Intermittent Resources do not receive dispatch instructions, and the Midwest ISO must manually curtail their output in order to manage congestion and minimum load conditions. The Midwest ISO explains that, by allowing Intermittent Resources to instead register as Dispatchable Intermittent Resources, the proposal would utilize the capability of some variable resources to respond to instructions to reduce output (e.g., via pitch control) and, thus, allow Dispatchable Intermittent Resources to participate in the real-time security-constrained economic dispatch process. The Midwest ISO asserts, among other things, that the Dispatchable Intermittent Resource proposal would address the market and operational inefficiencies caused by the manual curtailment of Intermittent Resources and would increase the participation of variable resources in the Midwest ISO markets.

3. The Midwest ISO proposes to require that, after a two-year transition period, all Intermittent Resources must register as Dispatchable Intermittent Resources, unless they either have commercial operating dates prior to April 1, 2005 or show that any of the following apply to the total capacity of the resource, either separately or combined: (1) the resource has been interconnected through Network Resource Interconnection Service (NRIS); (2) the resource has been designated as a Network Resource; or (3) the energy produced by the resource is subject to an agreement for Long-Term Firm Point-to-Point Transmission Service. The Midwest ISO also states that the proposal does not impose any registration or other requirements on owners of Qualifying Facilities (QF) under the Public Utility Regulatory Policies Act of 1978 (PURPA).⁴

4. Under the proposal, the Midwest ISO states that Dispatchable Intermittent Resource energy offers would include Forecast Maximum Limits that would reflect the maximum megawatt level at which the resources could operate for each five-minute interval during the real-time energy market. The Midwest ISO states that Dispatchable Intermittent Resources could update their Forecast Maximum Limits up to 10 minutes prior to each interval in order to reflect forecast changes, allowing resources to be dispatched based on the most accurate forecast available. In certain cases, the Midwest ISO states that it will use a default Forecast Maximum Limit instead of the limit submitted by the market participant. In addition, the Midwest ISO proposes to conduct hourly Intermittent Resource and Dispatchable Intermittent Resource forecasts as part of the Reliability Assessment Commitment process.

⁴ 16 U.S.C. § 824a-3 (2006).

5. Unlike settlements for Intermittent Resources, Dispatchable Intermittent Resources would be subject to Excessive/Deficient Energy Deployment Charges,⁵ would be eligible to receive real-time make-whole credits (i.e., real-time Revenue Sufficiency Guarantee credits,⁶ Real-Time Offer Revenue Sufficiency Guarantee Payments,⁷ and Day-Ahead Margin Assurance Payments⁸), and would be allocated real-time Revenue Sufficiency Guarantee charges in a manner similar to Generation Resources. The Midwest ISO states that it will evaluate Dispatchable Intermittent Resources' ability to follow five-minute, energy-only dispatch signals to determine their capability to provide operating reserves (i.e., spinning, supplemental, and regulating reserves) in the future. The Midwest ISO requests that the Dispatchable Intermittent Resource proposal be accepted to become effective March 1, 2011, which it states, would allow newly-registered Dispatchable Intermittent Resources to begin participating in the real-time energy market on June 1, 2011.

⁵ The Excessive/Deficient Energy Deployment Charge is assessed to resources whose average output deviates from their dispatch targets by an amount that exceeds the tolerance band for four consecutive five-minute intervals. *See* Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, 1st Rev. First Revised Sheet No. 1116C, § 40.3.4.

⁶ Resources that are committed in the Reliability Assessment Commitment process after the day-ahead market closes receive real-time Revenue Sufficient Guarantee credits to the extent that their start-up, no-load, and incremental energy costs are not recovered through real-time energy and operating reserve market revenues. These credits are allocated to market participants as real-time Revenue Sufficiency Guarantee charges based on their deviations from day-ahead schedules, virtual offers, and other factors. *See, e.g., id.*, Second Revised Sheet No. 1111, § 40.3.3.

⁷ The Midwest ISO states that resources receive Real-Time Offer Revenue Sufficiency Guarantee Payments when their real-time dispatch is above their day-ahead dispatch, but the real-time price is below their offer cost. Midwest ISO Filing at 9; *see also id.*, Original Sheet No. 1145E, § 40.3.5.1.

⁸ The Midwest ISO states that resources receive Day-Ahead Margin Assurance Payments when their real-time dispatch is below their day-ahead dispatch but their day-ahead dispatch was more profitable. Midwest ISO Filing at 9; *see also* Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, Third Revised Sheet No. 1165, § 40.3.6.

II. Notice of Filing and Responsive Pleadings

6. Notice of the Midwest ISO's filing was published in the *Federal Register*, 75 Fed. Reg. 68,777 (2010), with interventions and protests due on or before November 22, 2010.

7. Numerous parties filed timely motions to intervene: Acciona Wind Energy USA LLC; Ameren Services Company (Ameren);⁹ American Municipal Power, Inc.; Coalition of Midwest Transmission Customers; Constellation Energy Commodities Group, Inc. and Constellation NewEnergy, Inc.; Consumers Energy Company; The Detroit Edison Company; Duke Energy Corporation (Duke);¹⁰ E.ON Climate & Renewables North America, LLC; Edison Mission Energy; Electric Power Supply Association; Indianapolis Power & Light Co.; Invenergy Wind Development LLC; NextEra Energy Resources, LLC; Otter Tail Power Company; and Wisconsin Electric Power Company. In addition, several parties filed motions to intervene and comments and/or protests: American Wind Energy Association and Wind on the Wires (collectively, AWEA-WOW); Big Bog Energy LP, JPTC, LLC, Jump Power, LLC, SESCO Enterprises LLC, and Solios Power LLC (collectively, Financial Marketers); DC Energy Midwest, LLC (DC Energy); Iberdrola Renewables, Inc. (Iberdrola); John Deere Renewables, LLC (John Deere);¹¹ MidAmerican Energy Company (MidAmerican); and Xcel Energy Services Inc. (Xcel).¹² Exelon Corporation and Calpine Corporation filed motions to intervene out-of-time.

8. On December 8, 2010, the Midwest ISO filed an answer to the comments and protests. MidAmerican filed an answer to the Midwest ISO's answer on

⁹ Ameren submitted the filing on behalf of its affiliates Ameren Illinois Company and Union Electric Company, Ameren Energy Marketing Company, Ameren Energy Generating Company, and AmerenEnergy Resources Generating Company.

¹⁰ Duke submitted the filing on behalf of its affiliates Duke Energy Indiana, Inc., Duke Energy Ohio, Inc., Duke Energy Kentucky, Inc., and Duke Energy Generation Services, LLC.

¹¹ On December 12, 2010, Exelon Generation Company, LLC (ExGen) acquired all of the membership interests in John Deere, which the Commission authorized in Docket No. EC10-105-000. *See Exelon Corp.*, 133 FERC ¶ 62,174 (2010) (letter order).

¹² Xcel submitted the filing on behalf of its affiliates Northern States Power Company, a Minnesota corporation, and Northern States Power Company, a Wisconsin corporation.

December 22, 2010. In addition, Exelon Wind¹³ filed an answer to the Midwest ISO's answer and MidAmerican's comments and answer on December 30, 2010.

III. Discussion

A. Procedural Matters

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2010), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2010), the Commission will grant the late-filed motions to intervene given the entities' interests in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

10. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2010), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We will accept the answers because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

11. In this order, we conditionally accept in part and reject in part the Midwest ISO's Dispatchable Intermittent Resource proposal, subject to several compliance filings, as discussed below.¹⁴ By incorporating such resources into the security-constrained economic dispatch process and restricting those resources eligible to register as Intermittent Resources, the proposal would reduce the Midwest ISO's need to manually curtail Intermittent Resources, thereby improving the efficiency of the Midwest ISO real-time energy market and reliability function. The proposal would also allow resources that register as Dispatchable Intermittent Resources, rather than as Intermittent Resources, to set market prices and receive real-time make-whole credits.

¹³ Exelon Wind states that it is a division of Exelon Power, which is a business unit of ExGen, and accordingly, all filings in this proceeding filed on behalf of the former John Deere are now filed on behalf of Exelon Wind. Exelon Wind Answer at 1 n.2.

¹⁴ The Midwest ISO indicates that the proposed tariff revisions reflect revisions to the Fifth Revised Vol. No. 1 (0.0.0) of its tariff, which is currently pending before the Commission in Docket No. ER10-1997. Therefore, our conditional acceptance in part and rejection in part of the Dispatchable Intermittent Resource proposal is subject to the outcome of that proceeding.

12. We conditionally accept the Midwest ISO's proposal to require wind resources to register as Dispatchable Intermittent Resources by restricting their eligibility to instead register as Intermittent Resources. However, we reject without prejudice the Midwest ISO's proposal to apply this registration requirement to Intermittent Resources with non-wind fuel sources. We require the Midwest ISO to submit a compliance filing, due within 30 days of the date of this order, to revise the tariff to: (1) allow non-wind variable resources to remain eligible to register as Intermittent Resources, if they choose to do so; (2) prevent resources that register as Dispatchable Intermittent Resources from later switching back to Intermittent Resource status; (3) exempt Intermittent Resources that rely on fuel sources other than wind from the requirement to install equipment such that they can receive and respond to dispatch signals; and (4) define the term "Commercial Operation Date."

13. We conditionally accept the proposed tariff revisions defining "Dispatchable Intermittent Resource" and explaining Forecast Maximum Limits. However, to clarify the Midwest ISO's proposal, we require the Midwest ISO to submit a compliance filing, due within 30 days of the date of this order, to: (1) better demonstrate how the existing tariff provisions for Generation Resources will apply to Dispatchable Intermittent Resources; (2) further clarify the Midwest ISO's forecasting processes; (3) further clarify the methodology to determine default Forecast Maximum Limits; and (4) clarify the proposed tariff language regarding Forecast Maximum Limits.

14. We conditionally accept the Midwest ISO's proposal to apply the Excessive/Deficient Energy Deployment Charge and 8-percent tolerance band to Dispatchable Intermittent Resources. We require the Midwest ISO to submit, in a compliance filing due one year from the date of this order: (1) an analysis of whether the tolerance band continues to be appropriate for Dispatchable Intermittent Resources based on actual operating experience; and (2) the Midwest ISO's recommendations on this issue and any corresponding tariff revisions. We also require the Midwest ISO to submit, in the compliance filing due 30 days from the date of this order, an explanation of how existing Excessive/Deficient Energy Deployment Charge exemptions should apply to Dispatchable Intermittent Resources.

15. We conditionally accept in part and reject in part the Midwest ISO's proposal regarding real-time Revenue Sufficiency Guarantee charges. We conditionally accept the Midwest ISO's proposal to allocate real-time Revenue Sufficiency Guarantee costs to Dispatchable Intermittent Resources. We require the Midwest ISO to submit, in the compliance filing due 30 days from the date of this order, an explanation and tariff revisions regarding how those charges will be assessed to Dispatchable Intermittent Resources. We reject the Midwest ISO's proposed revisions to section 40.3.3 to delete pending language regarding the real-time Revenue Sufficiency Guarantee Constraint Management Charge, finding that these revisions are unsupported and unrelated to the Dispatchable Intermittent Resource proposal.

16. Finally, we find that concerns regarding the Midwest ISO's curtailment procedures for Dispatchable Intermittent Resources under Transmission Loading Relief (TLR) Level 5 procedures are outside of the scope of this proceeding. We conditionally accept the Midwest ISO's proposal to prohibit Dispatchable Intermittent Resources from providing operating reserves. However, we require the Midwest ISO to submit a compliance filing, due one year from the date of this order, addressing whether Dispatchable Intermittent Resources should be eligible to provide operating reserves and, if so, proposing corresponding tariff revisions. We also reject requests to make the proposal effective earlier than proposed and conditionally accept the Midwest ISO's proposal effective March 1, 2011.

1. Registration Requirements

a. Midwest ISO Proposal

17. In order to require certain Intermittent Resources to instead register as Dispatchable Intermittent Resources, the Midwest ISO proposes eligibility requirements to limit the types of resources that will continue to qualify as Intermittent Resources. The proposal would allow resources to register as Intermittent Resources only if they are incapable of being dispatched or following setpoint instructions and they meet at least one of two new eligibility requirements: (1) 100 percent of the resource's total capacity is delivered, either separately or combined, as Network Integration Transmission Service (NITS), NRIS, and/or Long-Term Firm Point-to-Point Transmission Service; and/or (2) the facility's commercial operation date¹⁵ is prior to April 1, 2005. For resources that do not meet at least one of these requirements, the Midwest ISO proposes a two-year transition period to allow market participants time to modify their facilities, as needed, to qualify as Dispatchable Intermittent Resources. The Midwest ISO proposes to apply this registration requirement to all Intermittent Resources regardless of their fuel source, stating that non-wind resources (e.g., run-of-the-river hydroelectric and biomass resources) would qualify as Dispatchable Intermittent Resources under the proposal.¹⁶

18. The Midwest ISO argues that, by requiring certain Intermittent Resources to instead register as Dispatchable Intermittent Resources, the proposal would address the increasing number of manual curtailments that it must use to reduce Intermittent Resource output. The Midwest ISO argues that, by incorporating such resources into the

¹⁵ The Midwest ISO's Generator Interconnection Agreement (GIA) defines the "Commercial Operation Date" of a unit as "the date on which the [g]enerating [f]acility commences [c]ommercial [o]peration as agreed to by the [p]arties. . . ." Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, Original Sheet No. 3152.

¹⁶ Midwest ISO Filing at 3 (citing Herbst Test. at 10).

security-constrained economic dispatch process, the proposal would allow the Midwest ISO to employ market-based solutions, rather than manual curtailments, to address many potential congestion and minimum generation events, thereby “improving operational efficiency, market efficiency, and market transparency.”¹⁷ Further, in testimony on behalf of the Midwest ISO, Scott Herbst estimates that uneconomic production by Intermittent Resources resulted in the loss of \$21 million for such resources in 2009, and that similar losses could be avoided in the future under the proposal.¹⁸ He also states that, while the manual curtailment process does not jeopardize the reliable operation of the Midwest ISO system, “as the amount of Intermittent Resources and frequency of manual curtailments increases, the efficiency of providing reliability to the system is reduced.”¹⁹

19. The Midwest ISO argues that Intermittent Resources that began commercial operations prior to April 1, 2005 should be exempt from the requirement to register as Dispatchable Intermittent Resources – although they would retain the option of doing so – because upgrading their facilities to become dispatchable may be too costly for these older resources. The Midwest ISO states that it consulted resource operators and turbine manufacturers and determined that, while facilities installed in the last five years can be upgraded at “minimal cost,” the cost of upgrading existing Intermittent Resources that are more than five years old is likely to be “more onerous.”²⁰ Based on this research, the Midwest ISO states that it also determined that the two-year transition period would be an appropriate interval for existing Intermittent Resources to modify their facilities, if needed, to comply with the communication and operational control requirements of the Dispatchable Intermittent Resource proposal.

20. For resources with commercial operating dates on or after April 1, 2005, the Midwest ISO argues that resources whose entire capacity is delivered as NRIS, NITS, and/or Long-Term Firm Point-to-Point Transmission Service should be permitted to register as Intermittent Resources, rather than as Dispatchable Intermittent Resources, if they so choose. The Midwest ISO claims that resources that have NRIS have undergone the studies and/or installed the facilities necessary to ensure that the facility can serve any load within the Midwest ISO as a Network Resource and, as a result, should be permitted to participate in the Midwest ISO markets without having the capability to follow

¹⁷ *Id.* at 2-3.

¹⁸ Herbst Test. at 8.

¹⁹ Mr. Herbst explains that a single curtailment event may consist of three or more telephone calls with the resource operators. *Id.* at 6.

²⁰ Midwest ISO Filing at 8.

automated dispatch instructions. In his testimony, Mr. Herbst explains that, for resources that instead rely on Energy Resource Interconnection Service (ERIS) or Temporary Interconnection Service using existing firm or non-firm transmission capacity on an as-available basis, the Midwest ISO must be capable of sending automated dispatch instructions to communicate the availability of the transmission system.²¹ For resources that did not register their entire capacity with NRIS, or that have already interconnected using a service other than NRIS, Mr. Herbst contends that the resources could qualify as Intermittent Resources if any remaining capacity is capable of being designated as a network resource or covered by Long-Term Firm Point-to-Point Transmission Service.²² The Midwest ISO states that attaining Network Resource designation or Long-Term Firm Point-to-Point Transmission Service requires an engineering study similar to the requirements for attaining NRIS.

21. In addition, the Midwest ISO proposes, under the “independent entity” standard of Order No. 2003,²³ to revise Article 8.1 of the GIA in Attachment X of the tariff to require all interconnection customers to “install communication and control equipment such that the [g]enerating [f]acility can receive and respond to the appropriate dispatch signals while operating under the [t]ariff.”²⁴ The Midwest ISO contends that the proposed revisions are just and reasonable because they implement “a uniform process to apply improved communications and control technology standards to all generators on a comparable basis,” consistent with the goals of Order No. 2003.²⁵ The Midwest ISO argues that the communications standards are necessary to implement the Dispatchable Intermittent Resource proposal. The Midwest ISO adds that requiring all generators to incorporate improved communications and control technology would avoid undue

²¹ Herbst Test. at 23.

²² *Id.* at 23-24.

²³ Midwest ISO Filing at 10 (citing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh’g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh’g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh’g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007)).

²⁴ Midwest ISO, FERC Electric Tariff, Att. X (2.0.0), app. 6, art. 8.1.

²⁵ Midwest ISO Filing at 11.

discrimination and increase the efficiency of, and participation by, Dispatchable Intermittent Resources in the Midwest ISO markets.²⁶

b. Comments

22. AWEA-WOW generally support the proposed registration requirements, stating that existing technology would enable new wind facilities to install equipment to be dispatchable.

23. Xcel raises four issues with the Midwest ISO's proposed Intermittent Resource eligibility requirements. First, Xcel states that, if the Midwest ISO will only allow a resource to register as an Intermittent Resource if 100 percent of the capacity has been granted NRIS, then there needs to be a process that grants wind resources 100 percent NRIS. Xcel states that, when a wind resource requests NRIS, the Midwest ISO only conducts a study on 20 percent of its capacity, and thus, the resource is only granted NRIS for 20 percent of its capacity. Xcel claims that, as a result, a wind resource needs to obtain NITS and/or Long-Term Firm Point-to-Point Transmission Service for 80 percent of its capacity to be eligible to register as an Intermittent Resource. Xcel states that the Midwest ISO should offer to study 100 percent of a wind resource's capacity as part of the NRIS process, since the Midwest ISO studies 100 percent of the capacity for other resources.²⁷

24. Second, Xcel argues that the requirement for Dispatchable Intermittent Resource registration should rely only on transmission service and should not include interconnection service. It contends that NRIS does not convey transmission service, and only transmission service gives a generator the right to use the transmission system.²⁸

25. Third, Xcel believes that existing generators with commercial operating dates on or after April 1, 2005 should still be allowed to register as Intermittent Resources (i.e., without meeting additional eligibility requirements). Xcel states that the Midwest ISO held discussions with three manufacturers that together represent 50 percent of the installed wind capacity in the Midwest ISO.²⁹ Xcel argues that it is likely that some of the remaining manufacturers' specifications are significantly different, and therefore it may be burdensome for wind generators using these other turbine manufacturers to be dispatchable even with commercial operation dates more recent than April 1, 2005.

²⁶ *Id.* at 10-11.

²⁷ Xcel Comments at 5.

²⁸ *Id.* at 6.

²⁹ *Id.*

Thus, Xcel states that all wind farms should be able to remain qualified as Intermittent Resources, if conversion would be unduly burdensome.³⁰

26. Fourth, Xcel argues that the Midwest ISO should permit dual registration, so that resources may split their capacity between Intermittent Resource and Dispatchable Intermittent Resource status based on the amount of firm transmission service granted by the Midwest ISO. Xcel states that most variable resources are comprised of many small units. For example, Xcel states that a 150-megawatt (MW) wind farm with 100 MW of firm transmission service and 50 MW that are dependent on network upgrades that are not planned until 2020, the Midwest ISO should permit 100 MW to register as a Dispatchable Intermittent Resource and 50 MW as an Intermittent Resource.³¹

27. Iberdrola raises concerns regarding jointly-owned resources that qualify for, and may choose between, Dispatchable Intermittent Resource and Intermittent Resource status. Iberdrola argues that it is unclear how the Midwest ISO's market operations would treat a jointly-owned resource in the event that market participants having rights to the output of the same unit elect different resource classifications (e.g., if one market participant chooses to designate its portion of a unit as a Dispatchable Intermittent Resource, while the other market participant chooses Intermittent Resource status for the remaining portion). Iberdrola contends that resource operators may have difficulty administering wind facilities that have such dual registrations. However, Iberdrola also maintains that prohibiting dual registration (i.e., requiring a jointly-owned resource to register for a single resource status) could be complicated in situations where firm transmission has been secured for only a portion of a jointly-owned resource.³²

28. AWEA-WOW argue that the Midwest ISO should amend the proposal to clarify that, once a resource registers as a Dispatchable Intermittent Resource, the resource would remain eligible to return to registration as an Intermittent Resource in the future, subject to the proposed registration requirements. AWEA-WOW maintain that "[t]his is necessary to preserve the options of units that are not compatible with the [Dispatchable Intermittent Resource] requirements, and can instead better operate as network resources."³³

³⁰ *Id.*

³¹ *Id.*

³² Iberdrola Limited Protest at 7.

³³ AWEA-WOW Limited Protest at 9.

29. Finally, Xcel supports the Midwest ISO's proposed revisions to the GIA describing the required communication and control equipment for new interconnections. Xcel argues that these requirements should be clear up front so that they are incorporated into the design of Dispatchable Intermittent Resource projects.³⁴

c. Answer

30. The Midwest ISO opposes Xcel's request to allow dual registration on the basis of the quantity of firm transmission service that a resource holds. The Midwest ISO argues that allowing dual registration on this basis would be unacceptable because the registration status would be based, not on the physical characteristics of the resource, but instead on the unrelated nature of the transmission service being procured. The Midwest ISO also contends that allowing dual registration could allow a market participant to manipulate the output of a resource in order to artificially reduce its exposure to real-time Revenue Sufficiency Guarantee charges and "dispatch failure consequences" through the market participant's choice of market registration, market offers, and telemetry submittals.³⁵

31. In response to Iberdrola's concerns regarding dual registration for jointly-owned units, the Midwest ISO notes that "the object of Intermittent Resource qualification requirements is a physical resource, not a [m]arket [p]articipant."³⁶ The Midwest ISO states that, if a resource meets the requirements to register as an Intermittent Resource, then a market participant may choose to register its commercial interest in the facility as it sees fit, consistent with the applicable tariff requirements. The Midwest ISO adds that, in such a case, each market participant is responsible for following the market rules applicable to its choice of registration. To the extent that this is not possible, the Midwest ISO states that it is market participants' responsibility, not the Midwest ISO's, to agree on how a resource should be operated.

32. In response to AWEA-WOW, the Midwest ISO states that its proposed tariff revisions would not preclude a resource that registers as a Dispatchable Intermittent Resource from instead registering as an Intermittent Resource at some later point in time, provided that the resource qualifies as an Intermittent Resource.³⁷

³⁴ Xcel Comments at 8-9.

³⁵ Midwest ISO Answer at 10.

³⁶ *Id.* at 9.

³⁷ *Id.*

d. Commission Determination

33. We conditionally accept in part and reject in part, subject to a compliance filing, the Midwest ISO's proposal to require certain Intermittent Resources to register as Dispatchable Intermittent Resources. As the Midwest ISO explains, such a proposal will mitigate the growing need for the Midwest ISO to manually curtail Intermittent Resources in order to manage congestion and balance the system during low load conditions; as such, it will increase the efficiency of the real-time energy market. The proposal also improves reliability by allowing the Midwest ISO to manage Dispatchable Intermittent Resources in a manner similar to other resources, rather than taking manual curtailment actions, which may each consist of multiple telephone calls to resource operators. Finally, the change will allow Dispatchable Intermittent Resources to become eligible to receive real-time make-whole credits in a manner similar to Generation Resources in the Midwest ISO's real-time energy market.

34. However, the Midwest ISO's arguments in support of the proposed registration requirement are made primarily with regard to wind-fueled Intermittent Resources. The Midwest ISO's proposal provides little or no justification for requiring this change for other Intermittent Resources that use other fuel sources (e.g., solar, run-of-the-river hydroelectric, and biomass resources).³⁸ For example, the Midwest ISO does not address whether the costs associated with becoming dispatchable would be unduly burdensome for non-wind Intermittent Resources. Nor has it shown why non-wind Intermittent Resources must become dispatchable for market efficiency or reliability reasons. Accordingly, we have no basis for finding that the Midwest ISO's proposal is just and reasonable as it would be applied to non-wind Intermittent Resources. Therefore, we will conditionally accept the Midwest ISO's proposed registration requirement for wind-fueled Intermittent Resources, subject to the compliance requirements discussed below, and we will reject without prejudice the proposed registration requirement for Intermittent Resources that use fuel sources other than wind. We will require the Midwest ISO to submit, in a compliance filing due within 30 days of the date of this order, tariff revisions to allow Intermittent Resources that rely on fuel sources other than wind to continue to register as Intermittent Resources, rather than as Dispatchable Intermittent Resources, if they choose to do so.

35. As recognized by the Midwest ISO, there are some wind-fueled Intermittent Resources for which the costs of modifying facilities to become dispatchable would be unduly burdensome. In particular, in cases where the resource does not have the physical

³⁸ In its filing, the Midwest ISO states that it consulted only its "existing fleet of *wind* [r]esources" and three *wind* turbine manufacturers to determine the costs associated with becoming dispatchable. See Midwest ISO Filing at 8 (emphasis added); Herbst Test. at 21-22.

capability to be dispatchable, the Midwest ISO proposes two exceptions to requiring an Intermittent Resource to register as a Dispatchable Intermittent Resource. The first exception occurs for those Intermittent Resources that commenced commercial operations before April 1, 2005. The second involves Intermittent Resources that have 100 percent of their capacity covered by Long-Term Firm Point-to-Point Transmission Service, NITS, and/or NRIS.

36. We find both exceptions to be just and reasonable. With regard to the first exemption, the Midwest ISO consulted the resource operators of its existing wind fleet, as well as three of the largest turbine manufacturers, to help it determine that it would be unduly burdensome to require resources that began commercial operation before April 1, 2005 to become dispatchable. Although Xcel argues that the Midwest ISO should expand the first exception to include other Intermittent Resources based on their manufacturer, Xcel has not provided any data or specific examples to demonstrate that the costs of making any particular sub-category of such resources would be unduly burdensome. We therefore find that the Midwest ISO has supported its proposal and will not expand this exception.

37. We also find that the Midwest ISO has supported its proposal to allow certain Intermittent Resources with Long-Term Firm Point-to-Point Transmission Service and/or NITS to remain Intermittent Resources, if they do not have the necessary equipment to be dispatchable. As explained in the Midwest ISO's filing, Intermittent Resources with Long-Term Firm Point-to-Point Transmission Service and/or NITS have been studied for deliverability and any network upgrades required by such studies have been made.³⁹ As a result, the need for the Midwest ISO to resort to manual curtailments for these resources has been reduced significantly, and these resources should not be burdened with the costs necessary to upgrade their equipment. Similarly, resources with NRIS already have installed the upgrades identified in studies to determine whether the aggregate generation in the local area can be reliably delivered to the aggregate load on the transmission or distribution system, as applicable.⁴⁰ In contrast, resources without these services are more likely to be manually curtailed because they have neither undergone such studies nor installed the associated upgrades, and because they take transmission service on an as-available basis.⁴¹

³⁹ See Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, Original Sheet Nos. 433, 535, 537, §§ 13.5, 32.3, 32.4.

⁴⁰ See *id.*, First Revised Sheet No. 3067, § 3.2.2.

⁴¹ See, e.g., *id.*, First Revised Sheet No. 3066, § 3.2.1.

38. We disagree with Xcel's argument that eligibility to register as an Intermittent Resource should depend on transmission service (i.e., NITS or Long-Term Point-to-Point Transmission Service), but not interconnection service (i.e., NRIS). Since resources that attain NRIS must undergo studies and install upgrades in a manner similar to resources that acquire NITS or Long-Term Firm Point-to-Point Transmission Service, and therefore present a similar low risk of being manually curtailed, it is reasonable for the Midwest ISO to allow Intermittent Resources with NRIS to remain as Intermittent Resources.

39. We also disagree with Xcel's argument that the Midwest ISO must allow 100 percent of wind resources' capacity to qualify for NRIS in order for the proposed eligibility requirements to be just and reasonable. The Midwest ISO has designed the proposed eligibility requirements to allow resources to qualify as Intermittent Resources based on a *combination* of NRIS, NITS, and/or Long-Term Point-to-Point Transmission Service, not on NRIS alone. Therefore, while we recognize that wind resources may not receive 100 percent NRIS under the Midwest ISO's existing practices, the proposed eligibility requirements are sufficient to allow resources that are less likely to be manually curtailed to remain Intermittent Resources and, therefore, are just and reasonable. Xcel's arguments that the Midwest ISO should modify its existing NRIS procedures to allow wind resources to acquire additional NRIS are outside the scope of this proceeding, since the Midwest ISO does not propose any revisions to its existing NRIS procedures.

40. We will not permit a resource to register part of its capacity as a Dispatchable Intermittent Resource and the remainder as an Intermittent Resource. By definition, Dispatchable Intermittent Resources and Intermittent Resources are differentiated by their physical capabilities, and a single unit cannot meet both definitions simultaneously (i.e., a single unit cannot be both physically capable and physically incapable of being dispatched). Permitting dual registration based solely on the amount of firm transmission service granted to a resource, as Xcel requests, would be inconsistent with the proposed tariff revisions. Further, as the Midwest ISO explains, dual registration could allow a resource to manipulate its output in order to avoid Excessive/Deficient Energy Deployment Charges and real-time Revenue Sufficiency Guarantee charges.⁴² To the extent that an Intermittent Resource does have the physical capability to follow setpoint instructions and does not meet one of the exceptions discussed above, that resource will need to register as a Dispatchable Intermittent Resource.

⁴² For example, protestors do not address how the Midwest ISO could differentiate between the dispatchable versus non-dispatchable output of a single resource in order to assess whether the portion of its capacity registered as a Dispatchable Intermittent Resource had appropriately followed the Midwest ISO's setpoint instructions.

41. For similar reasons, we will not allow a Dispatchable Intermittent Resource to revert back to Intermittent Resource status. Once a resource qualifies as a Dispatchable Intermittent Resource and, thus, is physically capable of being dispatched, it is not reasonable to allow that resource to switch back and forth based on its whims. Such switching would defeat the significant reliability and market transparency reasons for requiring Intermittent Resources to register as Dispatchable Intermittent Resources in the first place, as well as the efficiency gains associated with the requirement. To make this point clear in its Tariff, we will require the Midwest ISO to submit, in a compliance filing due within 30 days of the date of this order, tariff revisions to section 40.3.4.d providing that resources that have previously registered as Dispatchable Intermittent Resources may not later register as Intermittent Resources.

42. In regard to the Midwest ISO's proposed GIA revisions, our understanding is that, by requiring all interconnection customers to be dispatchable in order to interconnect, the proposed GIA revisions would effectively require all new variable resources that interconnect to the Midwest ISO on or after March 1, 2011, including resources with 100 percent NRIS, NITS, and/or Long-Term Firm Point-to-Point Transmission Service, to register as Dispatchable Intermittent Resources. For wind-fueled Intermittent Resources, we consider these provisions to be just and reasonable for the reliability, transparency, and efficiency reasons discussed above. However, the proposed GIA revisions would prevent variable resources that use fuel sources other than wind and that interconnect on or after March 1, 2011 from later registering as Intermittent Resources. Consistent with our rejection of the proposed registration requirement as applied to non-wind Intermittent Resources, we will require the Midwest ISO to submit, in a compliance filing due within 30 days of the date of this order, revisions to section 8.1 of the GIA to exempt variable resources that rely on fuel sources other than wind from the requirement to install equipment such that they can receive and respond to dispatch signals.

43. Finally, we note that the Midwest ISO proposes tariff revisions to section 40.3.4.d that refer to a resource's "Commercial Operation Date." While this term is defined in Attachment X of the tariff, the term is not defined in Module A so that it may be used outside of Attachment X. We will require the Midwest ISO to submit, in the compliance filing due within 30 days from the date of this order, tariff revisions to define the term "Commercial Operation Date" in Module A.

2. Treatment of Qualifying Facilities

a. Midwest ISO Proposal

44. The Midwest ISO states that the Dispatchable Intermittent Resource proposal does not impose any requirement that the owner of a QF selling output to their host utility

under PURPA register as a resource in the Midwest ISO markets.⁴³ In his testimony, Mr. Herbst clarifies that the current tariff does not specifically reference PURPA QFs as any designation of resource class or sub-designation of the Generation Resource class. Because the Dispatchable Intermittent Resource proposal only modifies the tariff to enable full-market participation for fuel forecast-limited resources, Mr. Herbst maintains that the current tariff would continue to be applicable for all resources, including QFs. However, Mr. Herbst asserts, as the Midwest ISO noted in its transmittal letter, that the Dispatchable Intermittent Resource proposal would not impose any requirement to register a resource, including PURPA QFs, with the Midwest ISO markets.⁴⁴

b. Comments

45. John Deere argues that the Midwest ISO's Dispatchable Intermittent Resource proposal violates PURPA and the Commission's PURPA regulations by requiring QF wind generators selling under PURPA to submit to economic curtailment and additional market charges that change their avoided cost recovery. John Deere asserts that the Commission's regulations establish that a QF selling under PURPA can be curtailed for "system emergencies,"⁴⁵ but not for redispatch to address economic conditions.⁴⁶ John Deere states that forced economic dispatch and economic curtailment violates a QF's rights under PURPA. Moreover, John Deere argues that the Midwest ISO's proposal to force QFs selling under PURPA to take on new charges that change QF recovery under PURPA's purchase obligation likewise violates PURPA, as the Commission has found in similar cases.⁴⁷

46. John Deere states that the Midwest ISO's proposal provides four specific carve-outs to the requirement to register as a Dispatchable Intermittent Resource, but none of these carve-outs proposed by the Midwest ISO expressly exempt QFs selling under

⁴³ Midwest ISO Filing at 8.

⁴⁴ Herbst Test. at 27.

⁴⁵ John Deere states that a system emergency is defined under the Commission's regulations as "a condition on a utility's system which is likely to result in imminent disruption of service or is imminently likely to endanger life or property." John Deere Protest at 7 (quoting 18 C.F.R. § 292.101(b)(4) (2010)).

⁴⁶ *Id.* at 7, 9 (citing *California Indep. Sys. Operator Corp.*, 103 FERC ¶ 61,265, at P 60-63 (2003) (May 30 Order)).

⁴⁷ *Id.* at 9 (citing *Southwest Power Pool, Inc.*, 125 FERC ¶ 61,314, at P 38 (2008) (December 18 Order)).

PURPA from the requirement to participate as Dispatchable Intermittent Resources. Unlike the four specific exemptions proposed, John Deere states that the Midwest ISO's tariff is silent on QFs selling output under PURPA and requests that the Commission require the Midwest ISO to provide clarity and certainty that the rights of QFs in the Midwest ISO selling their output under PURPA are protected in the Dispatchable Intermittent Resource proposal. Although the Midwest ISO's transmittal letter and the testimony of Mr. Herbst state that the proposal would not impose any requirement on PURPA QFs to register as a resource, John Deere argues that the Midwest ISO's intent is not clear, and the proposal could be read to force all wind-generating QFs selling under PURPA to forcibly give up their PURPA rights and submit to curtailment and additional charges or to shut down operations.⁴⁸

c. Answers

47. In response to John Deere's claim that the Midwest ISO's Dispatchable Intermittent Resource proposal would require all wind generation to participate in the real-time energy market subject to economic curtailment and additional charges, the Midwest ISO states that the proposed tariff revisions would not impose any requirement that a resource register and/or participate in the Midwest ISO markets. Under the proposed tariff revisions, certain resources that are currently registered as Intermittent Resources may no longer qualify to register as this resource type. However, the Midwest ISO assures that the revisions do not establish any new registration requirement for resources that are not already registered and/or participating in the Midwest ISO markets. Moreover, the Midwest ISO states that the tariff currently makes no reference to PURPA or QFs, and the Midwest ISO is not proposing to amend the tariff in the Dispatchable Intermittent Resource proposal in a manner that is inconsistent with this approach.⁴⁹

48. In response to the Midwest ISO's answer, Exelon Wind states that "the Midwest ISO is proposing to change the rules for *all* wind generators to require economic curtailment and new charges, while ignoring the effect of the proposal on QFs selling under PURPA."⁵⁰ Without some kind of exemption or qualification, Exelon Wind asserts that the proposed Dispatchable Intermittent Resource requirements would violate the rights of QFs under PURPA and the Commission's PURPA regulations. Exelon Wind states that the PURPA purchase obligation remains in place and in use for sales by QFs under PURPA in the Midwest ISO, and the Midwest ISO's suggestion that QF wind generators do not have to connect to the Midwest ISO system rings hollow. Exelon Wind

⁴⁸ *Id.* at 10-12.

⁴⁹ Midwest ISO Answer at 10.

⁵⁰ Exelon Wind Answer at 5 (emphasis in original).

states, in effect, that the Midwest ISO's Dispatchable Intermittent Resource proposal requires that QFs connected to the Midwest ISO either accept the proposal or stop being registered and connected to the Midwest ISO and cease generation. Exelon Wind claims that this is a direct violation of PURPA. However, Exelon Wind understands the need to have any generating resources, including QFs, connected to the Midwest ISO and generating output at the point of interconnection for injection into the Midwest ISO's system to be registered as a resource on the Midwest ISO system. Accordingly, Exelon Wind does not oppose this requirement. However, Exelon Wind maintains that the Midwest ISO cannot use this requirement as a means to force QFs selling under PURPA to either disconnect and shut down or forcibly agree to violations or waive their rights under PURPA.⁵¹

49. Exelon Wind also states that the rights of its QF wind generators selling under PURPA are memorialized in PURPA contracts, which are established on the basis of existing regulations, tariffs, and PURPA rights, including the right to sell output under PURPA without economic curtailment and additional charges that would change the avoided cost received under PURPA. If the Dispatchable Intermittent Resource proposal goes forward without providing the required QF exemption, Exelon Wind asserts that the framework of these PURPA contracts and similar contracts going forward will be called into question. Exelon Wind states that the Midwest ISO needs to create a fifth carve-out from its Dispatchable Intermittent Resource proposal to protect the existing rights of QFs selling their output under PURPA.⁵²

d. Commission Determination

50. The proposal before us provides a transition process for Intermittent Resources to become Dispatchable Intermittent Resources, with certain defined exceptions. As the Midwest ISO explains, its tariff makes no reference to PURPA or QFs, and it is not establishing any new registration requirements for resources that are not already registered and/or participating in the Midwest ISO markets. We agree with the Midwest ISO that the scope of its proposal is limited to the designation of Dispatchable Intermittent Resources, and the Midwest ISO is not proposing any change in the treatment of QFs that are not already registered and/or participating in the Midwest ISO markets.

51. While Exelon Wind asserts that the proposal would force QFs to disconnect or shutdown, we have no information on the record to indicate that the proposal would result in these events. Nor do we have any information on the record to indicate that the

⁵¹ *Id.* at 5-7.

⁵² *Id.* at 7.

proposal would require QFs selling their output under PURPA to submit to economic curtailment. For these reasons, we consider these claims to be speculative, and we consider them to be beyond the scope of this proposal.

52. At the same time, we acknowledge the concerns of parties, and we recognize that the implementation of the Midwest ISO proposal is a work-in-progress that will continue into 2013.

3. Dispatchable Intermittent Resource Definition and Offer Requirements

a. Midwest ISO Proposal

53. The Midwest ISO proposes to make Dispatchable Intermittent Resources a subset of the broader Generation Resources category in order to permit Dispatchable Intermittent Resources to participate in the real-time energy market in a manner similar to other Generation Resources. In particular, the Midwest ISO proposes to define a Dispatchable Intermittent Resource as “[a] Generation Resource whose Economic Maximum Dispatch is dependent on forecast-driven fuel availability.”⁵³ In other words, it appears that the Midwest ISO is proposing to apply to Dispatchable Intermittent Resources all of the existing tariff provisions pertaining to Generation Resources.⁵⁴

54. In addition, the Midwest ISO proposes to require Dispatchable Intermittent Resources to submit Forecast Maximum Limits as part of their offers, which the Midwest ISO will use in the real-time security-constrained economic dispatch process. The Midwest ISO states that these forecast limits will equal the maximum MW level at which Dispatchable Intermittent Resources will be expected to operate for each five-minute dispatch interval, serving as the functional equivalent of the Economic Maximum Dispatch for such resources.⁵⁵ The Midwest ISO will allow Dispatchable Intermittent Resources to submit updated Forecast Maximum Limits up to the time immediately prior

⁵³ Midwest ISO, FERC Electric Tariff, § 1.162a (0.0.0). The Midwest ISO tariff defines Economic Maximum Dispatch as “[t]he maximum MW level at which a [r]esource may be dispatched by the [Midwest ISO] in real-time for [e]nergy under normal system conditions.” Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised First Revised Sheet No. 130.

⁵⁴ Midwest ISO Filing at 4; *see also* Herbst Test. at 14.

⁵⁵ The Midwest ISO proposes that Dispatchable Intermittent Resources would submit Forecast Maximum Limits instead of the Hourly Economic Maximum Limits and Hourly Emergency Maximum Limits submitted by other Generation Resources.

to each dispatch interval, so that the Midwest ISO may dispatch such resources based on the most accurate forecast available.

55. The Midwest ISO explains that, for each wind-fueled Dispatchable Intermittent Resource, it would continually calculate a default Forecast Maximum Limit and apply this default limit instead of the Forecast Maximum Limit submitted by the resource for a given interval if: (1) a Dispatchable Intermittent Resource does not provide a Forecast Maximum Limit; (2) the Forecast Maximum Limit submitted for a given dispatch interval is more than 30 minutes old; or (3) the Forecast Maximum Limit exceeds the feasibility limit of the resource.⁵⁶ For Dispatchable Intermittent Resources that do not use wind as a fuel source (e.g., run-of-the-river hydroelectric and biomass resources), the Midwest ISO states that it would not maintain a default Forecast Maximum Limit and would instead use the resource's most recent State Estimator output as the Forecast Maximum Limit in those circumstances. The Midwest ISO states that it would include additional information regarding Forecast Maximum Limits, including its methodology to calculate default limits, in its Business Practices Manuals.⁵⁷

56. The Midwest ISO argues that the inclusion of a Forecast Maximum Limit in the security-constrained economic dispatch process would improve the fuel forecast uncertainty associated with Dispatchable Intermittent Resources, and thereby address a fundamental obstacle to dispatching such resources in an efficient manner. Mr. Herbst argues in his testimony that structuring the Forecast Maximum Limit as a real-time market offer parameter, submitted as close as practicable to the dispatch instruction formulation, assures that the Midwest ISO would determine each Dispatchable Intermittent Resource's capability using the most accurate forecast possible.⁵⁸ Mr. Herbst also states that the submission of a Forecast Maximum Limit enables Dispatchable Intermittent Resources to be treated like any other Generation Resources in

⁵⁶ The Midwest ISO explains that it would use the most recent State Estimator output, rather than a Midwest ISO-determined default value, in the event that a default Forecast Maximum Limit does not exist or the calculated value is more than 30 minutes old. Midwest ISO Filing at 6. The State Estimator is a software program used by the Midwest ISO to create a real-time assessment of the condition of the Midwest ISO region, including a determination of the MW generated at a given location for each real-time interval. Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Sheet No. 281, §§ 1.625, 1.626.

⁵⁷ Midwest ISO Filing at 6.

⁵⁸ Herbst Test. at 11.

the real-time energy market, allows Dispatchable Intermittent Resources to set real-time prices, and reduces the need for manual curtailments.⁵⁹

b. Comments

57. AWEA-WOW and Xcel request further information regarding the proposed Midwest ISO-supplied Forecast Maximum Limits. AWEA-WOW claim that many Dispatchable Intermittent Resources would rely on the Midwest ISO-supplied five-minute forecasts to establish their Forecast Maximum Limits. They urge the Commission to require a clearer articulation of how the Midwest ISO would implement the proposal, including explicit and transparent performance metrics on the accuracy and availability of the Midwest ISO-supplied five-minute forecasts.⁶⁰

58. Xcel argues that the Midwest ISO should detail its methodology for circumstances in which it employs any replacement forecast, as well as the associated error of the five-minute ahead-forecast. Noting the Midwest ISO's proposal to use the State Estimator-generated real-time output as the default Forecast Maximum Limit for non-wind Dispatchable Intermittent Resources, Xcel adds that the Midwest ISO should define how it will calculate Forecast Maximum Limits when non-wind Dispatchable Intermittent Resources are dispatched down.⁶¹

59. Xcel argues that the Midwest ISO should describe, in its Business Practices Manuals, how a resource's Forecast Maximum Limit would be evaluated for accuracy by the Midwest ISO and the Midwest ISO Independent Market Monitor. Xcel states that short-term wind power production forecasting is a developing field, and forecasting wind output one hour ahead, at five-minute intervals, is mostly based on a persistence methodology.⁶² At a minimum, Xcel seeks confirmation that a market participant's Forecast Maximum Limit may be based solely on persistence.

c. Answer

60. The Midwest ISO asserts that its current approach for forecasting Intermittent Resources could be used as an appropriate forecast for Dispatchable Intermittent Resources. The Midwest ISO states that, although no specific data are currently available, it is in the process of developing a "five-minute periodicity, CP-node level

⁵⁹ *Id.* at 11-12.

⁶⁰ AWEA-WOW Limited Protest at 8.

⁶¹ Xcel Comments at 8.

⁶² Xcel explains that a persistence forecast establishes that a resource's expected output for the next interval is equal to its current output. *Id.* at 7.

forecast for each wind [r]esource,” which it expects to significantly improve upon its existing approach.⁶³ The Midwest ISO contends that the details of the Forecast Maximum Limit and market participants’ responsibilities have been explained at several stakeholder meetings, and that it will provide the relevant information via its Business Practices Manuals. The Midwest ISO adds that the details of its forecasting methods are

⁶³ Midwest ISO Answer at 7.

appropriately left to the Business Practice Manuals, since they are in the nature of implementing provisions.⁶⁴

d. Commission Determination

61. We understand that the Midwest ISO's proposal is designed to treat Dispatchable Intermittent Resources identically to Generation Resources, except under limited circumstances and, therefore, the Midwest ISO proposes to define Dispatchable Intermittent Resources as a subset of the Generation Resource category. However, the Midwest ISO needs to better demonstrate how the existing tariff provisions for Generation Resources will apply to Dispatchable Intermittent Resources without modification and, in several instances, it is unclear how the Midwest ISO could apply its existing provisions for Generation Resources to Dispatchable Intermittent Resources. For example, we agree that market monitoring and mitigation measures should apply to Dispatchable Intermittent Resources. However, the Midwest ISO has not explained how the market monitoring and mitigation measures, as set forth in section 63.3 of the tariff, would be applied to Dispatchable Intermittent Resources, including how the physical withholding thresholds under section 64.1.1 would apply to Dispatchable Intermittent Resources' Forecast Maximum Limits or how reference levels of Forecast Maximum Limits would be determined under section 64.1.4 in order to mitigate Dispatchable Intermittent Resource offers.⁶⁵

62. As another example, it is unclear how existing tariff provisions regarding Hourly Economic Maximum Limits and Hourly Emergency Maximum Limits would be applied to Dispatchable Intermittent Resources, since Dispatchable Intermittent Resources will submit Forecast Maximum Limits instead. In some cases, it is unclear whether the Midwest ISO intends to not apply certain Generation Resources requirements to Dispatchable Intermittent Resources or whether the Midwest ISO instead intends to use these provisions to limit the participation of Dispatchable Intermittent Resources in the real-time energy market.⁶⁶ In other cases, discrepancies among Generation Resource

⁶⁴ *Id.* (citing, e.g., *Midwest Indep. Transmission Sys. Operator, Inc.*, 132 FERC ¶ 61,186, at P 101 (2010) (August 30 Compliance Order)).

⁶⁵ *See* Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, First Revised Sheet No. 1383, Second Revised Sheet Nos. 1394, 1405.

⁶⁶ For example, section 39.1.2 provides that self-schedules for energy must be less than or equal to a resource's Hourly Economic Maximum Limit. *Id.*, First Revised Sheet No. 720. Since Dispatchable Intermittent Resources' offers cannot meet this requirement, it is unclear whether the Midwest ISO intends this provision to apply only to resources that submit such limits (i.e., Generation Resources) or to prevent resources that

(continued...)

provisions make it difficult to understand how the provisions could be simultaneously applied.⁶⁷ Further, existing tariff provisions for Generation Resources may conflict with the proposed treatment of Dispatchable Intermittent Resources, thereby interfering with the Midwest ISO's implementation of the proposal.⁶⁸

63. To address these concerns, we will require the Midwest ISO to again review its tariff to ensure how existing provisions regarding Generation Resources will apply to Dispatchable Intermittent Resources, and to submit, in the compliance filing due within 30 days of the date of this order, an explanation of how any additional tariff provisions that address Generation Resources may need to be modified or differently construed to apply to Dispatchable Intermittent Resources. The Midwest ISO may ultimately determine that Dispatchable Intermittent Resources should be treated as a subset of Generation Resources. But in doing so, it must explain how provisions of the tariff designed more generically for Generation Resources will apply to a specific subset of Generation Resources, i.e., Dispatchable Intermittent Resources. The Midwest ISO's compliance filing should address the examples noted above, tariff provisions that refer to Hourly Economic Maximum Limits and/or Hourly Emergency Maximum Limits, and any other provisions for which additional revisions are needed, to ensure that the existing provisions appropriately apply to Dispatchable Intermittent Resources.

do not submit such limits (i.e., Dispatchable Intermittent Resources) from submitting self-schedules.

⁶⁷ For example, section 40.2.5.b.xxvi would allow Dispatchable Intermittent Resources to submit an emergency-only commitment status (i.e., so that the Midwest ISO could commit the resources only under emergency conditions), but absent Hourly Emergency Maximum Limits, such resources could not be committed during capacity shortage conditions under section 40.2.20. *Id.*, First Revised Sheet Nos. 962A, 1081, Second Revised Sheet No. 1083. It is unclear whether the Midwest ISO intends emergency-only Dispatchable Intermittent Resources to be utilized only under capacity surplus conditions under section 40.2.21. *See id.*, Original Sheet No. 1084A.

⁶⁸ For example, the Midwest ISO proposes that Dispatchable Intermittent Resources should be eligible for Real-Time Offer Revenue Sufficiency Guarantee Payments and Day-Ahead Margin Assurance Payments, but some of the eligibility requirements for these payments are affected by a resource's Hourly Economic Maximum Limit. *See id.*, First Revised Sheet Nos. 551, 553, 556, 1152A, 1168A, Second Revised Sheet No. 1157A, Third Revised Sheet No. 1157, Fourth Revised Sheet No. 1168, §§ 33.8.2.a.1.a.iii, 33.8.2.a.2.a.iii, 33.8.2.b.iii, 40.3.5.4.b.i.3, 40.3.5.4.b.i.4, 40.3.6.4.d. It is unclear how these eligibility criteria would allow Dispatchable Intermittent Resources to qualify for these credits, particularly for manual redispatch events.

64. As for the revisions in section 40.2.5.b.xxxiii, the Midwest ISO has proposed that Forecast Maximum Limits must be “submitted for each Dispatchable Intermittent Resource and each [d]ispatch [i]nterval” in a manner “consistent with the periodicity and frequency set forth in the Business Practices Manuals.” This level of detail, however, is not commensurate with the tariff provisions applicable to the Hourly Economic Maximum Limits and Hourly Emergency Maximum Limits submitted by Generation Resources. Similar to the provisions for other offer parameters, the Midwest ISO should provide additional information, including their specifications, periodicity, and frequency (e.g., that the limits may be expressed for each five-minute dispatch interval in MWs and may be updated 10 minutes prior to each dispatch interval). In addition, we agree with Xcel that the Midwest ISO should better explain the methods the Midwest ISO and its Independent Market Monitor will permit Dispatchable Intermittent Resources to use when determining their Forecast Maximum Limits. Accordingly, we will require the Midwest ISO to submit, in a compliance filing due within 30 days from the date of this order: (1) an explanation further clarifying its forecasting processes in greater detail, as discussed above, including any criteria it will use to evaluate the forecasting methodologies employed by Dispatchable Intermittent Resources; and (2) tariff revisions providing appropriate detail of the aforementioned clarifications.

65. The Midwest ISO also does not provide information regarding its methodology for determining default Forecast Maximum Limits. The proposed revisions to section 40.2.5.b.xxxiii state only that the Midwest ISO will calculate default limits “consistent with the methodology set forth in the Business Practices Manuals,” and the Midwest ISO clarifies in its Answer that it is in the process of developing its forecasting techniques. While we agree with the Midwest ISO that the precise details of its forecasting methodologies may be specified in its Business Practices Manuals, the Forecast Maximum Limits submitted by Dispatchable Intermittent Resources, as well as the Midwest ISO-determined default Forecast Maximum Limits, will have significant rate implications,⁶⁹ and should be further specified in the tariff.⁷⁰ As such, we will require

⁶⁹ Among other things, Forecast Maximum Limits could affect the dispatch instructions given to Dispatchable Intermittent Resources, the application of Excessive/Deficient Energy Deployment Charges, and the assessment of real-time Revenue Sufficiency Guarantee charges.

⁷⁰ Contrary to the Midwest ISO’s assertion, our request for further explanation and tariff revisions regarding a rate element here is consistent with the Commission’s requirement, in the August 30 Compliance Order, that the Midwest ISO explain “how it determines the Constraint Contribution Factor, and to propose tariff language that will specify cut-off levels and any limits to the application of this rate element.” *See* August 30 Compliance Order, 132 FERC ¶ 61,186 at P 101.

the Midwest ISO to submit, in the compliance filing due within 30 days of the date of this order, a further explanation of its methodology for determining default Forecast Maximum Limits and corresponding tariff revisions. As part of this compliance filing, the Midwest ISO should also address whether Dispatchable Intermittent Resources may choose to rely on the Midwest ISO's default Forecast Maximum Limits rather than their own limits (e.g., in cases where Dispatchable Intermittent Resources prefer not to develop an independent forecasting methodology) and include any associated tariff revisions, if needed.

66. We also are concerned that the tariff revisions proposed in section 40.2.5.b.xxxiii regarding default Forecast Maximum Limits do not conform to the information provided by the Midwest ISO and in Mr. Herbst's testimony. The proposed tariff revisions provide that a default Forecast Maximum Limit determined by the Midwest ISO will be used "if a Dispatchable Intermittent Resource is unable to provide a Forecast Maximum Limit for a given [d]ispatch [i]nterval, or if the Forecast Maximum Limit submitted for a given [d]ispatch [i]nterval is submitted more than 30 minutes prior to the end of the [d]ispatch [i]nterval."⁷¹ The proposed tariff revisions do not reflect the Midwest ISO's statement that a default Forecast Maximum Limit will also be used if a Dispatchable Intermittent Resource submits a Forecast Maximum Limit that exceeds the feasibility limit of the resource.⁷² To address this discrepancy, we will require the Midwest ISO to submit, in the compliance filing due within 30 days of the date of this order, revisions that will make section 40.2.5.b.xxxiii consistent with the Midwest ISO's statements.

67. Finally, the proposed revisions to section 40.2.5.b.xxxiii refer to the "RT-SCED algorithm,"⁷³ but this term is not defined in the Midwest ISO tariff. While "SCED" is defined in the tariff to refer to "Security Constrained Economic Dispatch,"⁷⁴ and other sections of the tariff refer to the "SCED algorithm,"⁷⁵ neither "RT" nor "RT-SCED" are defined. We will require the Midwest ISO to submit, in the compliance filing due within

⁷¹ Midwest ISO, FERC Electric Tariff, § 40.2.5 (1.0.0).

⁷² *Id.* at 6. For example, Mr. Herbst explains that a default Forecast Maximum Limit would be used if a Dispatchable Intermittent Resource with a capacity of 200 MW submitted an infeasible limit of 1,000 MW. Herbst Test. at 9-10.

⁷³ Midwest ISO, FERC Electric Tariff, § 40.2.5 (1.0.0).

⁷⁴ *See* Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, Original Sheet No. 273, § 1.598.

⁷⁵ *See, e.g., id.*, First Revised Sheet No. 915, § 40.2.

30 days from the date of this order, tariff revisions to ensure that section 40.2.5.b.xxxiii refers to a defined term rather than “RT-SCED.”

4. Excessive/Deficient Energy Deployment Charges

68. Under the existing Midwest ISO tariff, the Excessive/Deficient Energy Deployment Charge is assessed to resources whose average output over a dispatch interval is outside of the 8 percent tolerance band (i.e., their output is more than 108 percent, or less than 92 percent, of the average dispatch target).⁷⁶ Minimum and maximum tolerance band thresholds also are applied, so that the Excessive/Deficient Energy Deployment Charge will not be assessed on any deviation that is less than 6 MW, but will be assessed on any deviation that is greater than 30 MW plus the sum of the average dispatch target.⁷⁷ The Excessive/Deficient Energy Deployment Charge is assessed only if a resource exceeds the tolerance band during four or more consecutive five-minute intervals within an hour.⁷⁸ The Excessive/Deficient Energy Deployment Charge is equal to the absolute value of the resource’s energy injection times a rate that is the quotient of the sum of regulating reserve credits and the sum of all energy withdrawals.⁷⁹ Generation Resources are exempt from the Excessive/Deficient Energy Deployment Charge “during events or conditions beyond the control, and without the fault or negligence, of the [m]arket [p]articipant.”⁸⁰ Intermittent Resources are also exempt from the Excessive/Deficient Energy Deployment Charge.⁸¹

a. Midwest ISO Proposal

69. The Midwest ISO proposes to subject Dispatchable Intermittent Resources to the Excessive/Deficient Energy Deployment Charge, including the 8 percent tolerance band, in a manner identical to Generation Resources so that Dispatchable Intermittent Resources will have incentives to follow Midwest ISO dispatch instructions. Mr. Herbst

⁷⁶ *Id.*, First Revised Sheet No. 1117, § 40.3.4.a.i.

⁷⁷ *Id.*, Fourth Revised Sheet No. 1121, § 40.3.4.a.iv.

⁷⁸ *Id.*, 1st Rev. First Revised Sheet No. 1116C, § 40.3.4.

⁷⁹ *Id.*, Fourth Revised Sheet No. 1137, § 40.3.4.b.i.

⁸⁰ These events and conditions include, but are not limited to: emergencies; contingency reserve deployments; start-up, shut-down, or test mode of a resource; and resources that trip and go offline. *Id.*, Second Revised Sheet No. 1142, Original Sheet No. 1142A, § 40.3.4.d.v.

⁸¹ *Id.*, First Revised Sheet No. 1140, Second Revised Sheet No. 1141, § 40.3.4.d.i.

states that the Midwest ISO conducted an analysis of whether the 8 percent tolerance band for Generation Resources should be applied to Dispatchable Intermittent Resources. The analysis found that the percentage of hours when a resource operates outside of the tolerance band for Intermittent Resources (3.3 percent) was nearly three times that for Generation Resources (1.2 percent). Mr. Herbst argues that the percentage of hours when Dispatchable Intermittent Resources would operate outside of the tolerance band would be similar (less than 1.7 percent when adjusted)⁸² to that for Generation Resources (less than 1.2 percent). As a result of this analysis, the Midwest ISO expects Dispatchable Intermittent Resources and Generation Resources to have similar capabilities to follow dispatch instructions and concludes that the existing Excessive/Deficient Energy Deployment Charge provisions should apply to Dispatchable Intermittent Resources.

b. Comments

70. DC Energy and Xcel support the Midwest ISO's proposal to subject Dispatchable Intermittent Resources to Excessive/Deficient Energy Deployment Charges using the existing tolerance band. DC Energy argues that the Midwest ISO stakeholder process and prior analysis by the Midwest ISO Independent Market Monitor provide support for the proposed charges.⁸³ Xcel contends that applying the charges to Dispatchable Intermittent Resources would reallocate any costs related to regulating reserves from load to the resources that cause the regulating reserve burden. Xcel maintains that, if the regulating reserve burden increases because of significant variable energy resource penetration, applying the charges to Dispatchable Intermittent Resources will ensure that the increased costs are appropriately allocated.⁸⁴

71. AWEA-WOW and Iberdrola oppose the Midwest ISO's proposal to apply Excessive/Deficient Energy Deployment Charges, and the associated tolerance band, to

⁸² Mr. Herbst contends that, if Dispatchable Intermittent Resources could curtail output above their dispatch target sufficient to stay within the tolerance band during just one out of the four five-minute intervals when Intermittent Resources operated outside of the tolerance band in the study, the percentage of hours when Dispatchable Intermittent Resources would operate outside of the tolerance band would be reduced by at least half compared to Intermittent Resources (1.7 percent or lower). Further, Mr. Herbst states that the 3.3 percent estimate for Intermittent Resources may have been an overestimate when applied to Dispatchable Intermittent Resources because the Intermittent Resources did not have dispatch targets to follow. Herbst Test. at 19-20.

⁸³ DC Energy Comments at 3.

⁸⁴ Xcel Comments at 8.

Dispatchable Intermittent Resources.⁸⁵ With regard to the Midwest ISO's assertion that the charges are necessary to provide Dispatchable Intermittent Resources with an incentive to follow dispatch instructions, AWEA-WOW and Iberdrola counter that incentives are only effective when the subject entity has the ability to act consistent with the incentivized behavior. AWEA-WOW argue that the complexity associated with submitting Forecast Maximum Limits could subject Dispatchable Intermittent Resources to unwarranted setpoint deviation penalties. Iberdrola argues that Dispatchable Intermittent Resources should not be unduly penalized due to their inherent variable characteristics, stating that deviations considered excessively deficient for traditional generation resources differ greatly from deviations that should be considered excessively deficient for Dispatchable Intermittent Resources. AWEA-WOW and Iberdrola claim that the Midwest ISO's analysis of the tolerance band did not conclusively show that the best available sub-hourly wind forecasting technology is capable of consistently performing within the 8 percent tolerance band over each dispatch interval.⁸⁶ They conclude that wind generators would likely be unable to stay consistently within the tolerance band and that, as a result, the Excessive/Deficient Energy Deployment Charges would function as unavoidable penalties.

72. To address their concerns, AWEA-WOW urge to Commission to require the Midwest ISO to employ specific base point deviation provisions for Dispatchable Intermittent Resources. As an example of this approach, they provide the Electric Reliability Council of Texas, Inc.'s (ERCOT) Nodal Protocols, which, they claim, apply deviation charges during a 15-minute settlement interval if an intermittent renewable resource's actual output is more than 10 percent higher than its aggregate setpoint for the interval (i.e., charges would not apply to deviations below the instructed setpoint).⁸⁷ AWEA-WOW adds that any deviation charges may be refunded if a resource shows to ERCOT's satisfaction that it was unable to comply with the setpoint instructions due solely to increasing renewable energy input. AWEA-WOW conclude that the Commission should require the Midwest ISO to revise its proposal consistent with the ERCOT Nodal Protocols because ERCOT's approach is reasonable and wind penetration in ERCOT and the Midwest ISO are comparable. At a minimum, AWEA-WOW request that the Commission direct the Midwest ISO to eliminate deviation charges for

⁸⁵ Iberdrola supports AWEA-WOW's Limited Protest, stating that they have similar concerns about the proposed settlement procedures.

⁸⁶ Iberdrola adds that forecasting "may be particularly difficult during wind down-ramping events or during extreme weather events." Iberdrola Limited Protest at 5.

⁸⁷ AWEA-WOW Limited Protest at 6-7 (citing ERCOT Nodal Protocols, Section 6: Adjustment Period and Real-Time Operations, § 6.6.5.2, *available at* <http://www.ercot.com/mktrules/nprotocols/current>).

Dispatchable Intermittent Resources when their actual output is less than their instructed setpoint, consistent with the ERCOT Nodal Protocols.⁸⁸

73. Iberdrola argues that the Commission should direct the Midwest ISO to mitigate the issues related to the application of Excessive/Deficient Energy Deployment Charges to Dispatchable Intermittent Resources, such as by expanding the tolerance band or by averaging imbalance over an hour, rather than assessing imbalance in five-minute increments within the hour. Iberdrola claims that these solutions would “recognize the inherent nature of Intermittent Resources while providing capabilities to follow dispatch instructions similar to those of other generation resources.”⁸⁹ At a minimum, Iberdrola requests that the Commission direct the Midwest ISO to submit a report based on data collected during the first year of implementation to confirm that the proposed tolerance band is appropriate for Dispatchable Intermittent Resources and, if not, to file a proposal to expand the tolerance band. According to Iberdrola, the Midwest ISO admits that its tolerance band study was based on historic data adjusted for factors not applicable to Intermittent Resources at the time. Iberdrola asserts that, in practice, the tolerance band may be too narrow for Dispatchable Intermittent Resources, resulting in the over-application of Excessive/Deficient Energy Deployment Charges.

74. Iberdrola contends that the implementation details of the proposal, including those related to Excessive/Deficient Energy Deployment Charges, are unclear. In particular, Iberdrola argues that it is unclear whether the existing exemption from Excessive/Deficient Energy Deployment Charges for Generation Resources during events or conditions beyond the control, and without the fault or negligence, of the market participant would also apply to Dispatchable Intermittent Resources. Iberdrola adds that there may be additional events, such as “high-speed cutout events and for weather-related severe wind ramping events,” specific to the operation of Dispatchable Intermittent Resources that would warrant similar exemptions.⁹⁰ Iberdrola states that Dispatchable Intermittent Resources would not receive treatment similar to other Generation Resources unless these exemptions are applied to Dispatchable Intermittent Resources.

75. AWEA-WOW state that, under the existing Midwest ISO tariff, excessive energy is settled at the lower of the applicable locational marginal price or a generator’s offer price, in order to prevent generators from strategically deviating from the Midwest ISO’s setpoint instructions (i.e., by overproducing) to capture real-time energy gains. AWEA-WOW argue that, due to their limited control over their fuel sources, Dispatchable

⁸⁸ *Id.*

⁸⁹ Iberdrola Limited Protest at 5-6 (citing Midwest ISO Filing at 9).

⁹⁰ *Id.* at 8.

Intermittent Resources are unlikely to “chase the [locational marginal price] in a way that traditional generators might be able to do.”⁹¹ AWEA-WOW further explain that, in situations where Dispatchable Intermittent Resources submit a negative offer value, the instant proposal would result in Dispatchable Intermittent Resources paying for producing excessive energy. AWEA-WOW claim that this result would be punitive and request that the Commission direct the Midwest ISO to submit a proposal to amend this provision so that Dispatchable Intermittent Resources “do not pay the excessive energy settlement charge.”⁹²

c. Answer

76. The Midwest ISO maintains that allegations that Excessive/Deficient Energy Deployment Charges should not apply to Dispatchable Intermittent Resources reflect commenters’ misunderstanding of the proposal. The Midwest ISO argues that although Dispatchable Intermittent Resources cannot control their downward movements, “the *forecast* of that downward movement *can* be controlled” because each dispatch target would account for projected changes in fuel (e.g., wind) forecasts.⁹³ For upward movements, the Midwest ISO claims that Dispatchable Intermittent Resources can choose to limit the output of the resource, even if the wind blows harder than forecasted. The Midwest ISO adds that the forecast error for Dispatchable Intermittent Resources would likely be small due to the inertia of spinning turbine blades and the resources’ ability to update their Forecast Maximum Limit ten minutes prior to the forecast time. The Midwest ISO also contends that AWEA-WOW’s assertion that Dispatchable Intermittent Resources would be capable of providing operating reserves contradicts their argument that Dispatchable Intermittent Resources should be exempt from Excessive/Deficient Energy Deployment Charges, since the requirements to provide operating reserves would be more stringent than those associated with the proposed deviation charges.⁹⁴

⁹¹ AWEA-WOW Limited Protest at 10.

⁹² *Id.*

⁹³ Midwest ISO Answer at 4.

⁹⁴ Midwest ISO states that Excessive/Deficient Energy Deployment Charges only apply to resources whose output exceeds the 8 percent tolerance band for four consecutive five-minute intervals (i.e., twenty minutes) during a single hour, whereas contingency reserves (i.e., spinning and supplemental reserves) require resources to respond in the upward direction within ten minutes and regulating reserves require resources to respond in the upward and downward directions in real time. *Id.* at 5-6.

77. The Midwest ISO disagrees with AWEA-WOW's arguments regarding excessive energy. It states that, during an interval in which a Dispatchable Intermittent Resource is able to provide more than the dispatch target, the resource would have "an incentive to 'stretch' its output based on the difference between its cost and the payment the Resource will receive."⁹⁵ The Midwest ISO contends that low-cost resources have much more to gain for each MW that they generate over their dispatch targets. In response to AWEA-WOW's argument that excessive energy should not be settled at negative offer values, the Midwest ISO maintains that resources submit negative offers only if their incremental cost of production is negative, as could be the case for resources that receive a production tax credit for each unit of energy produced. It claims that offer cost concepts do not fundamentally differ for Dispatchable Intermittent Resources and other Generation Resources, and under the proposal, Dispatchable Intermittent Resources would no more be "paying" for producing energy than would other Generation Resources being paid their offer cost amounts would be "paying" for producing energy. The Midwest ISO argues that it would be unduly discriminatory to hold Dispatchable Intermittent Resources to a standard different from that to which similarly-situated Generation Resources are held.⁹⁶

d. Commission Determination

78. We will conditionally accept the Midwest ISO's proposal to apply the Excessive/Deficient Energy Deployment Charge and 8 percent tolerance band to Dispatchable Intermittent Resources, subject to the compliance requirements discussed below.

79. We find that the Midwest ISO's proposal to apply Excessive/Deficient Energy Deployment Charges to Dispatchable Intermittent Resources is just and reasonable. Applying these charges is necessary to provide Dispatchable Intermittent Resources with incentives to follow Midwest ISO dispatch instructions, consistent with the existing treatment of Generation Resources in the real-time energy market. Further, the Forecast Maximum Limits submitted by Dispatchable Intermittent Resources are vital to ensuring that the Midwest ISO security-constrained economic dispatch process considers the availability of these resources to supply energy in a manner that reflects the variability of their fuel supply. As such, we find that the application of Excessive/Deficient Energy Deployment Charges is also necessary to provide Dispatchable Intermittent Resources with incentives to update their Forecast Maximum Limits in a timely manner and to improve their forecasting methods to make their Forecast Maximum Limits as accurate as possible. In addition, as Xcel explains, the application of Excessive/Deficient Energy

⁹⁵ *Id.* at 4-5.

⁹⁶ *Id.* at 5.

Deployment Charges will ensure that Dispatchable Intermittent Resources are allocated the regulating reserve costs caused by their deviations from Midwest ISO dispatch instructions.

80. With regard to whether the existing 8 percent tolerance bands should apply to Dispatchable Intermittent Resources, we find that the Midwest ISO has provided sufficient support for its proposal. The 8 percent tolerance band should ensure that the penalties would not be excessive, in part, because the penalties are only assessed if Dispatchable Intermittent Resources deviate from their dispatch target by the higher of 6 MW or 8 percent, up to 30 MW, of their dispatch target for at least *four consecutive* five-minute intervals within an hour and the Midwest ISO allows Dispatchable Intermittent Resources to update those limits up to ten minutes prior to each interval in order to ensure that they are as accurate as possible.⁹⁷ In his testimony, Mr. Herbst notes that the Midwest ISO also performed a study showing that the Excessive/Deficient Energy Deployment Charge would likely be assessed to Dispatchable Intermittent Resources at a rate similar to Generation Resources.

81. Notwithstanding this finding, parties raise concerns given the fact that the 8 percent tolerance band, while reasonable given the best data available at this time, may need to be adjusted to address the unique operating characteristics of Dispatchable Intermittent Resources. Accordingly, we will require the Midwest ISO to submit, in a compliance filing due one year from the date of this order: (1) an analysis of whether the 8 percent tolerance band ensures that the Excessive/Deficient Energy Deployment Charge continues to be appropriate for Dispatchable Intermittent Resources based on the Midwest ISO's first year of operating experience with those resources; and (2) the Midwest ISO's recommendations, and any corresponding tariff revisions, regarding whether the application of the Excessive/Deficient Energy Deployment Charge to Dispatchable Intermittent Resources using the 8 percent tolerance band continues to be appropriate based on such actual operating experience. Notice of this filing will be provided and a comment period will be specified.

82. The Midwest ISO proposes to define Dispatchable Intermittent Resources as a subset of Generation Resources and, therefore, the existing Generation Resources exemption from Excessive/Deficient Energy Deployment Charges "during events or conditions beyond the control, and without the fault or negligence, of the [m]arket [p]articipant" in section 40.3.4 of the tariff would apply to Dispatchable Intermittent Resources. We agree with Iberdrola, however, that Dispatchable Intermittent Resources

⁹⁷ For example, in the event that a Dispatchable Intermittent Resource exceeds the tolerance band due to a sudden, unforecasted drop in wind speed during the first interval of an hour, it could update its forecast for the fourth interval and any subsequent intervals accordingly.

may have specific events or conditions beyond their control, and these events or conditions should be specified in the tariff in a manner similar to the treatment of Generation Resources. To address this concern, we will require the Midwest ISO to submit, in the compliance filing due within 30 days of the date of this order, an explanation of the types of events or conditions that may be beyond the control of Dispatchable Intermittent Resources.

83. With regard to AWEA-WOW's concern regarding excessive energy credits, we find that Dispatchable Intermittent Resources should receive excessive energy credits in a manner similar to Generation Resources. If Dispatchable Intermittent Resources were to receive the full market price for excessive energy when those prices exceed their incremental energy offer cost, as AWEA-WOW suggests, then such resources would have an incentive to overproduce (i.e., not to curtail their output as directed) in an amount less than the 8 percent tolerance band in order to gain extra revenues but avoid Excessive/Deficient Energy Deployment Charges. Contrary to AWEA-WOW's argument that Dispatchable Intermittent Resources are less likely to engage in this behavior than traditional Generation Resources, we find that, regardless of whether a resource uses a variable fuel source, low-cost resources would gain more revenues than marginal units via overproduction and, therefore, are more likely to engage in this behavior. Further, it is appropriate that excessive energy credits for Dispatchable Intermittent Resources be settled at the lower of the resource's offer price or the market price, even in the event that such resources submit negative offer prices. Since any such negative offer prices would reflect the resources' marginal cost for producing energy, settling excessive energy credits at \$0 or at a non-negative market price instead of resources' negative offer prices would provide an incentive for Dispatchable Intermittent Resources to overproduce and gain revenues in excess of their marginal costs (e.g., via production tax credits).

5. Real-Time Revenue Sufficiency Guarantee Charges

a. Midwest ISO Proposal

84. The Midwest ISO clarifies that Dispatchable Intermittent Resources would be assessed real-time Revenue Sufficiency Guarantee charges and would be eligible to receive real-time make-whole credits, including real-time Revenue Sufficient Guarantee credits, Real-Time Offer Revenue Sufficiency Guarantee Payments, and Day-Ahead Margin Assurance Payments. The Midwest ISO explains that Dispatchable Intermittent Resource eligibility for real-time make-whole credits is appropriate, since it ensures comparable treatment to Generation Resources.⁹⁸

⁹⁸ Midwest ISO Filing at 9; *see also* Herbst Test. at 14-15.

85. The Midwest ISO's proposed tariff revisions include revisions to section 40.3.3 to remove language regarding the application of real-time Revenue Sufficiency Guarantee Constraint Management Charges after the notification deadline to Demand Response Resources – Type I and to import and export schedules. This language is highlighted, indicating that it is pending before the Commission in another proceeding.

b. Comments

86. Xcel considers the application of Revenue Sufficiency Guarantee charges to Dispatchable Intermittent Resources to be appropriate.

87. DC Energy considers it appropriate that Dispatchable Intermittent Resources are eligible to receive real-time make-whole credits and are subject to Revenue Sufficiency Guarantee charges, since all Intermittent Resources, including Dispatchable Intermittent Resources, have been proven to cause the commitment of other resources when they deviate from day-ahead schedules and dispatch instructions. DC Energy notes that a previous study by the Midwest ISO Independent Market Monitor in Docket No. ER09-411-004 found that Intermittent Resources caused the incurrence of real-time Revenue Sufficiency Guarantee costs and that the Revenue Sufficiency Guarantee Task Force voted to eliminate a Revenue Sufficiency Guarantee charge exemption for these resources, since cost causation exists and an exemption would constitute unduly discriminatory treatment.⁹⁹ DC Energy also points out that the Commission previously directed the Midwest ISO to remove a proposed Revenue Sufficiency Guarantee charge exemption for Intermittent Resources based on the evidence in that proceeding.¹⁰⁰

88. Financial Marketers assert that the proposed rolling Forecast Maximum Limit provisions would allow Dispatchable Intermittent Resources to reduce the amount of deviations subject to Revenue Sufficiency Guarantee charges. Financial Marketers contend that these provisions would unduly discriminate against virtual supply offers by failing to grant these offers similar treatment and shifting to virtual supply offers the Revenue Sufficiency Guarantee costs that otherwise would have been allocated to Dispatchable Intermittent Resources.

89. Financial Marketers argue that, to the extent that the Midwest ISO adjusts its Revenue Sufficiency Guarantee charge allocation to reflect the impact of information updates in rolling Forecast Maximum Limits for Dispatchable Intermittent Resources, it

⁹⁹ DC Energy Comments at 4-5 (citing Midwest ISO December 7, 2009 Compliance Filing, Docket No. ER09-411-004, at Tab C).

¹⁰⁰ *Id.* at 5-6 (citing *Midwest Indep. Transmission Sys. Operator, Inc.*, 132 FERC ¶ 61,184, at P 88 (2010) (August 30 Exemption Order)).

must provide an equal opportunity for all types of market participants to reduce their allocation of Revenue Sufficiency Guarantee costs by providing similar information updates. Financial Marketers consider virtual supply offers submitted in the day-ahead market to be the functional equivalent of an updated forecast and, therefore, the case for exempting virtual offers from Revenue Sufficiency Guarantee charges is stronger than for Dispatchable Intermittent Resources.

90. Financial Marketers recommend that the Midwest ISO proposal be rejected, since it evades the Commission's directive to not exempt Intermittent Resources from Revenue Sufficiency Guarantee costs¹⁰¹ by accomplishing indirectly that which the Commission has directly prohibited.

c. Answer

91. The Midwest ISO agrees that Intermittent Resources are a cause of Revenue Sufficiency Guarantee costs. It asserts that, as dispatchable resources, Dispatchable Intermittent Resources do not cause Revenue Sufficiency Guarantee costs in the same manner as Intermittent Resources and, therefore, should not be allocated Revenue Sufficiency Guarantee costs in the same manner. The Midwest ISO explains that, as is the case with Generation Resources, when a Dispatchable Intermittent Resource's real-time capabilities are limited beyond what was scheduled in the day-ahead market, it will be allocated Revenue Sufficiency Guarantee costs.

92. The Midwest ISO considers Financial Marketers' arguments to be beyond the scope of this proceeding. The Midwest ISO notes that it is not the capability to update a limit that lessens the need to commit generation in the real-time market, but rather it is the capability to update a limit, accompanied by the capability of the resource to re-dispatch based on that limit, that leads to a decrease in real-time commitments. In contrast, a virtual offer cannot be dispatched in real-time based on economic or reliability needs, according to the Midwest ISO. The Midwest ISO asserts that the Financial Marketers' positions are identical to positions they made in previous proceedings that the Commission rejected.

d. Commission Determination

93. We consider the allocation of real-time Revenue Sufficiency Guarantee costs to Dispatchable Intermittent Resources, as clarified by the Midwest ISO, to be just and reasonable. Like Generation Resources and Intermittent Resources, Dispatchable Intermittent Resources can cause the incurrence of real-time Revenue Sufficiency

¹⁰¹ Financial Marketers Protest at 8-9 (citing August 30 Exemption Order, 132 FERC ¶ 61,184 at P 88).

Guarantee costs by, among other things, deviating in real-time from their day-ahead schedules; as such, Dispatchable Intermittent Resources should be assessed real-time Revenue Sufficiency Guarantee charges.

94. We disagree with Financial Marketers' argument that, by allowing Dispatchable Intermittent Resources to potentially avoid paying some real-time Revenue Sufficiency Guarantee charges, the proposal would unduly discriminate against virtual supply offers. Under the proposal, Dispatchable Intermittent Resources could comply with the Midwest ISO's real-time dispatch instructions in order to avoid deviations that could cause them to pay real-time Revenue Sufficiency Guarantee charges. This treatment is similar to that of any other resource in the security-constrained economic dispatch process, which could engage in similar behavior to avoid paying Revenue Sufficiency Guarantee charges. Further, Dispatchable Intermittent Resources could avoid an assessment of Revenue Sufficiency Guarantee charges only to the extent that they avoid causing the incurrence of Revenue Sufficiency Guarantee costs and, therefore, this behavior should not shift costs to other resources. As for arguments relating to the treatment of Intermittent Resources, the Midwest ISO has not proposed revisions to the real-time Revenue Sufficiency Guarantee charge allocation for Intermittent Resources in this proceeding and, therefore, we will not rule on those provisions here.

95. While the Midwest ISO proposes to assess real-time Revenue Sufficiency Guarantee charges to Dispatchable Intermittent Resources in a manner identical to Generation Resources, we are concerned that the existing tariff provisions do not address how such charges could be applied to Dispatchable Intermittent Resources. In particular, the tariff assesses real-time Revenue Sufficiency Guarantee charges based, in part, on a resource's Hourly Economic Maximum Limits,¹⁰² but under the proposal, Dispatchable Intermittent Resources would instead submit Forecast Maximum Limits. To address this issue, we will require the Midwest ISO to submit, in the compliance filing due within 30 days of the date of this order, an explanation of how real-time Revenue Sufficiency Guarantee charges will be assessed to Dispatchable Intermittent Resources and corresponding tariff revisions.

96. Finally, we will reject without prejudice the proposed revisions to delete tariff language in section 40.3.3 regarding the application of real-time Revenue Sufficiency Guarantee Constraint Management Charges after the notification deadline to Demand Response Resources – Type I and to import and export schedules.¹⁰³ This language is unrelated to the Dispatchable Intermittent Resource proposal, and the Midwest ISO does not explain or otherwise support the proposed revisions in its filing. As such, we

¹⁰² Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, § 40.3.3.a.

¹⁰³ Midwest ISO, FERC Electric Tariff, § 40.3.3.a.iii(5)-(7) (1.0.0).

attribute the inclusion of this language as part of the Dispatchable Intermittent Resource filing to a clerical error, and we will reject without prejudice the proposed revisions to section 40.3.3.

6. Curtailment Procedures

a. Midwest ISO Proposal

97. The Midwest ISO argues that, by considering Dispatchable Intermittent Resources through the security-constrained economic dispatch process, the proposal would reduce the market inefficiencies associated with the manual curtailment of Intermittent Resources. The Midwest ISO states that, because Intermittent Resources are not evaluated by the Midwest ISO's security-constrained economic dispatch process, the Midwest ISO has to take manual action to curtail the output of Intermittent Resources in order to manage congestion or low load conditions. In his testimony, Mr. Herbst explains that such manual curtailments cause market inefficiencies, since the related costs are not reflected in market prices. Midwest ISO states that each manual curtailment directive may require multiple telephone calls to accomplish, which reduces the efficiency of its reliability function.¹⁰⁴

b. Comments

98. MidAmerican argues that the Midwest ISO should affirm that, under North American Electric Reliability Corporation TLR Level 5 procedures, resources relying on non-firm transmission service are curtailed prior to resources that have obtained firm transmission service. MidAmerican asserts that it is unclear whether the Midwest ISO intends for the security-constrained economic dispatch algorithm to be the primary method of curtailing Intermittent Resources, even under conditions when firm curtailments are triggered under TLR Level 5 procedures. MidAmerican claims that, under TLR Level 5 conditions, the Midwest ISO's security-constrained economic dispatch process is unacceptable, and the Midwest ISO must instead revert to manual curtailment procedures or otherwise ensure that all resources relying on non-firm ERIS are curtailed prior to resources relying on firm NRIS.¹⁰⁵ Otherwise, MidAmerican claims that, under the proposal, a Dispatchable Intermittent Resource with firm NRIS would be

¹⁰⁴ Midwest ISO Filing at 4 (citing Herbst Test. at 6).

¹⁰⁵ MidAmerican Comments at 3. MidAmerican asserts that the Midwest ISO's Congestion Management Protocol, which considers three categories of market flow priorities (i.e., Firm Priority 7, Non-Firm Priority 6, and Non-Firm Priority 7) when determining pro-rata curtailment requirements under TLR procedures, does not need to be changed. *Id.* at 6-7.

curtailed in an identical manner as a Dispatchable Intermittent Resource with non-firm ERIS. By failing to account for these differences under TLR Level 5 conditions, MidAmerican argues, the Midwest ISO proposal removes an incentive for resources to obtain firm NRIS and increases an incentive for resources to instead rely on non-firm ERIS. MidAmerican also argues that curtailing resources relying on non-firm transmission service before resources that hold firm transmission service is inconsistent with the Midwest ISO tariff,¹⁰⁶ as well as the Commission's recent Notice of Inquiry in Docket No. RM10-9-000.¹⁰⁷

c. Answers

99. The Midwest ISO claims that MidAmerican's concerns are outside of the scope of the Dispatchable Intermittent Resource proposal. However, the Midwest ISO states, for clarification purposes only, that reliability coordinators would only implement TLR Level 5 procedures if the Midwest ISO's security-constrained economic dispatch process were unable to manage the constraint and other mitigation options had been exhausted.¹⁰⁸ The Midwest ISO concurs with MidAmerican's assertion that, when resources are curtailed outside of the security-constrained economic dispatch process, Intermittent Resources taking non-firm transmission should be curtailed prior to Intermittent Resources with firm transmission, and the Midwest ISO notes that its current congestion management procedures follow this logic.

100. In its answer, MidAmerican argues that its comments are within the scope of this proceeding. MidAmerican claims that the Midwest ISO currently curtails Intermittent Resources that do not have firm transmission service when curtailments are required under TLR Level 5 and that, if the Midwest ISO proposes to alter its curtailment procedures upon implementation of the Dispatchable Intermittent Resource proposal, then this is the proceeding where MidAmerican's curtailment arguments must be addressed. MidAmerican adds that its comments are within the scope of this proceeding because, according to the Midwest ISO, the Dispatchable Intermittent Resources proposal

¹⁰⁶ MidAmerican argues, for example, that section 1.197 of the tariff provides that resources relying on ERIS should be eligible to use the existing capacity of the transmission system "on an as available basis." *Id.* at 6 (citing Midwest ISO, FERC Electric Tariff, Fourth Revised Vol. No. 1, Second Revised Sheet No. 140, § 1.197).

¹⁰⁷ MidAmerican argues that the Commission has held that, when curtailments are necessary, non-firm service shall be subordinate to firm service. *Id.* (citing *Transmission Loading Relief Reliability Standard and Curtailment Priorities*, Notice of Inquiry, FERC Stats. & Regs. ¶ 35,564, at P 1, 9 (2010)).

¹⁰⁸ Midwest ISO Answer at 11.

is intended to address the market and operational issues relating to the curtailment of Intermittent Resources.

101. MidAmerican argues that, while the Midwest ISO Answer agrees with MidAmerican's position that "*Intermittent Resources* taking non-firm transmission should be curtailed prior to *Intermittent Resources* with firm transmission,"¹⁰⁹ the Midwest ISO's statement does not address curtailments for *Dispatchable Intermittent Resources*. MidAmerican states that it is concerned because of the Midwest ISO's apparent change in the curtailment of Dispatchable Intermittent Resources versus Intermittent Resources. According to MidAmerican, the Dispatchable Intermittent Resource proposal appears to effectively grant firm service to all generation that converts from a status of Intermittent Resources to Dispatchable Intermittent Resources.

102. Exelon Wind takes issue with MidAmerican's argument that variable resources should be curtailed based on transmission service priority. Exelon Wind argues that this discussion is beyond the scope of this proceeding and fails to protect the rights of QFs selling under PURPA. However, in the event that the Commission addresses MidAmerican's request, Exelon Wind states that the Commission should clarify and reiterate that QFs selling under PURPA can be curtailed only in the event of system emergencies and then only where a specific QF is found to contribute to that system emergency. Exelon Wind asserts that adopting MidAmerican's new curtailment proposal would result in the curtailment of QFs selling under PURPA in situations that are not system emergencies and, therefore, would violate the Commission's PURPA regulations.¹¹⁰

d. Commission Determination

103. We disagree with MidAmerican's assertion that, by considering Dispatchable Intermittent Resources as part of the security-constrained economic dispatch process, the proposal could alter the Midwest ISO's procedures for curtailing resources under TLR Level 5. As the Midwest ISO explains in its answer, it would only implement its TLR Level 5 procedures when the security-constrained economic dispatch process is unable to manage a constraint and other mitigation options have been exhausted.¹¹¹ Thus, if resources are curtailed under TLR Level 5 procedures, the Midwest ISO would be working outside of the security-constrained economic dispatch process to resolve that

¹⁰⁹ MidAmerican Answer at 4 (citing Midwest ISO Answer at 11 (emphasis added by MidAmerican)).

¹¹⁰ Exelon Wind Answer at 8-9.

¹¹¹ Midwest ISO Answer at 11.

constraint. The proposal addresses the treatment of Dispatchable Intermittent Resources in the Midwest ISO's security-constrained economic dispatch process, but it would not affect the Midwest ISO's curtailment procedures outside of the security-constrained economic dispatch process under TLR Level 5.¹¹² Since we disagree with MidAmerican's arguments, we need not address Exelon Wind's related concerns regarding the treatment of QFs.

7. Operating Reserves

a. Midwest ISO Proposal

104. The Midwest ISO proposes tariff provisions to make Dispatchable Intermittent Resources ineligible to provide operating reserves. The Midwest ISO states that it will evaluate the ability of Dispatchable Intermittent Resources to follow five-minute, energy-only dispatch signals to determine the capability of such resources to provide operating reserves in the future.¹¹³ In the testimony of Mr. Herbst, he states that the Midwest ISO assured its stakeholders that Dispatchable Intermittent Resource participation in operating reserve markets can be discussed at a later date.¹¹⁴

b. Comments

105. AWEA-WOW urge the Commission to require the Midwest ISO to allow Dispatchable Intermittent Resources to provide operating reserves. They claim that modern wind generators are capable of supplying operating reserves. AWEA-WOW argue that, if Dispatchable Intermittent Resources have the technical capabilities, and if the intent of the proposal is to support full market participation, initially precluding Dispatchable Intermittent Resources from providing operating reserves would be inappropriate.¹¹⁵

c. Answer

106. The Midwest ISO states that it does not intend to preclude Dispatchable Intermittent Resources from supplying operating reserves in the future. However, the

¹¹² Under the Midwest ISO proposal, Dispatchable Intermittent Resources would be curtailed in accordance with the existing provisions applicable to Generation Resources.

¹¹³ Midwest ISO Filing at 5.

¹¹⁴ Herbst Test. at 13.

¹¹⁵ AWEA-WOW Limited Protest at 9.

Midwest ISO argues that concerns regarding the ability of Dispatchable Intermittent Resources to adequately follow dispatch instructions justify gaining experience with this new method of modeling and dispatching such resources prior to allowing Dispatchable Intermittent Resources an opportunity to provide operating reserves. The Midwest ISO adds that specific market rules would also need to be developed with stakeholders prior to allowing Dispatchable Intermittent Resources to provide operating reserves.¹¹⁶

d. Commission Determination

107. We recognize that the Midwest ISO's proposal to prohibit Dispatchable Intermittent Resources from providing operating reserves arises from its lack of experience with its new methods of modeling and dispatching such resources. We will reject requests to allow Dispatchable Intermittent Resources to provide operating reserves at this time, as there is insufficient evidence in the record to conclude that the tariff revisions proposed to allow Dispatchable Intermittent Resources to participate in the real-time energy market would be sufficient to allow such resources to reliably provide operating reserves. However, the Commission also has a strong interest in allowing market participants to offer into the market the full range of services that they are capable of reliably providing. As the Midwest ISO gains operational experience with Dispatchable Intermittent Resources under the proposed tariff provisions, it will be able to assess the capability of Dispatchable Intermittent Resources to reliably provide operating reserves in the future. Accordingly, we will require the Midwest ISO to submit, in a compliance filing due within one year of the date of this order, an explanation of its findings, based on its operational experience with Dispatchable Intermittent Resources, regarding whether such resources should be eligible to provide supplemental, spinning, and/or regulating reserves and, if so, tariff revisions allowing Dispatchable Intermittent Resources to provide such operating reserve product(s). Notice of this filing will be provided and a comment period will be specified.

8. Effective Date

a. Midwest ISO Proposal

108. The Midwest ISO requests that the Commission make the proposed tariff revisions effective on March 1, 2011. The Midwest ISO states that this date is necessary to allow registration of resources as Dispatchable Intermittent Resources to begin on March 15, 2011, during the regularly-scheduled quarterly model registration period, which takes effect on June 1, 2011. The Midwest ISO asserts that the proposed effective date also will allow the Midwest ISO the time needed to make the necessary system changes to allow for Dispatchable Intermittent Resources to participate in its real-time

¹¹⁶ Midwest ISO Answer at 12.

energy market.¹¹⁷ The Midwest ISO expects that newly-registered Dispatchable Intermittent Resources will begin to participate in the Midwest ISO energy market on June 1, 2011.¹¹⁸

b. Comments

109. AWEA-WOW generally support the Dispatchable Intermittent Resource proposal and agree that it is a positive step toward fuller market participation for variable resources. However, AWEA-WOW encourage the Commission to make the filing effective December 1, 2011. In the broader context of AWEA-WOW's comments, it appears that this date includes a typographical error, and AWEA-WOW actually requests a December 1, 2010 effective date for the proposal.¹¹⁹ Iberdrola supports AWEA-WOW's limited protest and encourages the Commission to expedite the proposal and make it effective earlier than the March 1, 2011 requested effective date.¹²⁰

c. Answer

110. In response to comments requesting an earlier effective date than requested, the Midwest ISO states that it is the responsibility of the filing party to determine an appropriate effective date for proposed tariff revisions. The Midwest ISO asserts that the requested effective date for the Dispatchable Intermittent Resource proposal, March 1, 2011, is consistent with the Commission's regulations.¹²¹ The Midwest ISO further notes that the alternative effective date suggested by AWEA-WOW, December 1, 2010, has not only passed, but also does not comply with the Commission's requirement that a proposed tariff revision be submitted no less than 60 days, and no more than 120 days,

¹¹⁷ Mr. Herbst states in his testimony that the integration of Dispatchable Intermittent Resources into market operations requires appropriate sequencing and coordination of a number of activities to be undertaken by the Midwest ISO and market participants. These activities include registration by market participants and development of appropriate network and commercial models by the Midwest ISO. Mr. Herbst also asserts that June 1, 2011 is the first date that all software upgrades, modeling changes, and other technical requirements can be completed to enable Dispatchable Intermittent Resource participation. Herbst Test. at 24-25.

¹¹⁸ Midwest ISO Filing at 12.

¹¹⁹ AWEA-WOW Limited Protest at 4-5.

¹²⁰ Iberdrola Limited Protest at 4.

¹²¹ Midwest ISO Answer at 15-16 (citing 18 C.F.R. § 35.3(a) (2010)).

before the proposed effective date. Moreover, the Midwest ISO argues that the requested effective date submitted by the Midwest ISO did not require a waiver of the Commission's prior notice requirement, and AWEA-WOW have not demonstrated good cause to support such waiver.¹²²

d. Commission Determination

111. We conditionally accept for filing the Midwest ISO's Dispatchable Intermittent Resource proposal to be effective March 1, 2011, as requested. Section 35.3 of the Commission's regulations, 18 C.F.R. § 35.3(a) (2010), requires that "[a]ll rate schedules or tariffs or any part thereof shall be tendered for filing with the Commission and posted not less than sixty days nor more than one hundred-twenty days prior to the date on which the electric service is to commence and become effective." Under section 35.11 of the Commission's regulations, 18 C.F.R. § 35.11 (2010), the Commission may waive the 60-day prior notice requirement, and the 120-day advance notice requirement, so that changes in rates, terms and conditions can become effective on less than 60 days notice, or more than 120 days in advance, if the filing party requests waiver of this requirement and can demonstrate "good cause."¹²³ Absent waiver, the filing party must give the Commission at least 60 days prior notice, and 120 days advance notice, of every proposed change in their rates, terms and conditions. However, the Commission generally will not establish an effective date earlier than the filing party requests.¹²⁴

112. With respect to AWEA-WOW's request for an earlier December 1, 2010 effective date rather than a March 1, 2011 effective date (as requested by the Midwest ISO), the Midwest ISO requested a March 1, 2011 effective date, and we note that the Midwest ISO was not obligated to file earlier than it did or to request an effective date earlier than the date it requested.¹²⁵ Accordingly, we agree with the Midwest ISO's answer that it is

¹²² *Id.* at 16 (citing *New England Power Pool*, 98 FERC ¶ 61,299, at P 20, 24 (2002)).

¹²³ See *Central Hudson Gas & Elec. Corp.*, 60 FERC ¶ 61,106, at 61,338-39, *order on reh'g*, 61 FERC ¶ 61,089 (1992); *PSI Energy, Inc.*, 56 FERC ¶ 61,237, at 61,911 (1991).

¹²⁴ *New England Power Pool*, 97 FERC ¶ 61,338 (2001), *order on reh'g*, 98 FERC ¶ 61,299 (2002); *Portland Gen. Elec. Co.*, 98 FERC ¶ 61,050 (2002).

¹²⁵ *Cf.* 16 U.S.C. § 824d (2006) (providing for public utilities to file rates); 18 C.F.R. § 35.1(a)(2006) (same); *Western Massachusetts Elec. Co.*, 23 FERC ¶ 61,025, at 61,063-64 (public utilities are vested with the right to make rate filings, i.e., "to establish and change their rates," subject only to review by Commission; public utilities are thus responsible in first instance for "timing and content" of rate filings), *reh'g*

(continued...)

the responsibility of the filing party to determine an appropriate effective date for proposed tariff revisions. Moreover, we note that the Midwest ISO did not request waiver of the 60-day prior notice requirement, which is necessary to make the filing effective December 1, 2010 as suggested by AWEA-WOW, and neither AWEA-WOW nor Iberdrola have demonstrated good cause to support such waiver. Therefore, we will not require the rates to be effective December 1, 2010. The March 1, 2011 requested effective date complies with the Commission's prior and advance notice requirements and, therefore, we conditionally accept for filing the Midwest ISO's Dispatchable Intermittent Resource proposal to be effective March 1, 2011.

The Commission orders:

(A) The Midwest ISO's proposal is hereby conditionally accepted in part and rejected in part effective March 1, 2011, as discussed in the body of this order.

(B) The Midwest ISO is hereby required to submit a compliance filing due within 30 days of the date of this order, as discussed in the body of this order.

(C) The Midwest ISO is hereby required to submit a compliance filing due within one year of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.