

114 FERC ¶ 61,271
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

New York Independent System Operator, Inc.

Docket Nos. ER06-506-000
and ER06-506-001

ORDER ON COMPLIANCE FILING

(Issued March 17, 2006)

1. On January 18, 2006, as amended on January 19, 2006,¹ the New York Independent System Operator, Inc. (NYISO) and the New York Transmission Owners² (collectively, Joint Filing Parties) jointly submitted a compliance filing proposing revisions to the Large Generator Interconnection Procedures (LGIP) and Large Generator Interconnection Agreement (LGIA) contained in NYISO's Open Access Transmission Tariff (OATT), to incorporate, with certain modifications, the standard procedures and technical requirements for the interconnection of large wind generators adopted by the Commission in Order Nos. 661³ and 661-A.⁴ In this order, we accept the compliance filing, subject to certain Commission-ordered modifications, as discussed below.

¹ The January 19, 2006 filing corrected a reference to FERC Electric Tariff, Original Volume No. 1 in place of an erroneous reference to FERC Electric Tariff, Original Volume No. 2.

² The New York Transmission Owners are: Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; LIPA; New York Power Authority; New York State Electric & Gas Corporation (NYSEG); Niagara Mohawk Power Corporation d/b/a National Grid; Orange and Rockland Utilities, Inc.; and Rochester Gas and Electric Corporation (RG&E).

³ *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186 (2005) (Final Rule).

⁴ *Interconnection for Wind Energy*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

A. Background

2. In Order No. 2003,⁵ the Commission adopted standard interconnection procedures and a standard agreement for the interconnection of generating facilities having a capacity of more than 20 megawatts. The Commission required public utilities that own, control, or operate facilities for transmitting electric energy in interstate commerce to file revised OATTs containing the *pro forma* interconnection procedures and agreement prescribed in the rule, and requiring their use to provide interconnection service. The use of *pro forma* provisions ensures that interconnection customers receive non-discriminatory service and that treatment of all interconnection customers is consistent and fair. Using *pro forma* provisions also streamlines the interconnection process by eliminating the need for an interconnection customer to negotiate each individual agreement; this reduces transaction costs and reduces the need to file interconnection agreements with the Commission to be evaluated on case-by-case basis.⁶

3. At the same time, the Commission recognized that there may be instances that call for non-conforming agreements.⁷ In addressing the issue of variations from the *pro forma* interconnection procedures and agreement set forth in Order No. 2003, the Commission indicated that “non-independent Transmission Providers” would be permitted to propose deviations from the Commission’s *pro forma* LGIP and LGIA only if the deviations were in response to established regional reliability standards or were “consistent with or superior to” the *pro forma* LGIP and LGIA.⁸ In contrast, the Commission stated that it would allow regional transmission organizations (RTOs) and independent system operators (ISOs) more flexibility to customize an LGIP and LGIA to meet their regional needs. Thus, RTOs and ISOs were permitted to submit LGIP and LGIA terms and conditions with regional differences that need only meet an “independent entity variation” standard that is more flexible than the “consistent with or superior to” standard.⁹

⁵ *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 (2004), *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).

⁶ Order No. 2003 at P 10 (“it has become apparent that the case-by-case approach is an inadequate and inefficient means to address interconnection issues”).

⁷ *Id.* at P 913-15.

⁸ *Id.* at P 26.

⁹ *Id.*

4. The Commission has also made clear that filing parties must identify those portions of their proposed interconnection agreement that differ from the *pro forma* interconnection agreement and explain why unique circumstances required a non-conforming interconnection agreement.¹⁰ The Commission has explained that it analyzes such non-conforming filings (which were not expected to be common) to ensure that operational or other reasons necessitate the non-conforming provisions.¹¹

5. In Order No. 2003-A, the Commission clarified that the standard interconnection procedures and agreement were based on the needs of traditional generation facilities and that a different approach might be more appropriate for generators relying on other technologies, such as wind plants.¹² Accordingly, the Commission added a blank Appendix G to the *pro forma* LGIA to allow for future adoption of requirements specific to other technologies, including wind plants.¹³

6. In Order No. 661, the Commission adopted standard technical requirements and procedures for the interconnection of large wind plants, to be included in the blank Appendix G, and added a new Appendix to the *pro forma* LGIP. In particular, the Commission adopted standards for power factor design criteria (reactive power) and for low voltage ride-through (LVRT), but required that wind plants meet those standards only if the transmission provider shows, in a system impact study, that they are needed to ensure the safety or reliability of the transmission system.¹⁴

7. The Commission for the most part denied rehearing of Order No. 661. In particular, the Commission denied requests that Appendix G to the *pro forma* LGIA require wind plants to possess reactive power capability in all cases, instead of only when the system impact study shows that such capability is necessary for safety or reliability.¹⁵ The Commission also denied rehearing regarding the special interconnection procedures adopted in Order No. 661, which allow wind plants to complete an interconnection request with only a simplified set of preliminary data depicting the wind plant as a single equivalent generator, and could provide more detailed electrical design specifications within six months.¹⁶ In Order No. 661-A, the Commission also renamed Appendix G to the LGIA as Appendix 7 to avoid confusion.

¹⁰ Order No. 2003 at P 915; Order No. 2003-B at P 140.

¹¹ *Id.* at P 822-27.

¹² Order No. 2003-A at P 407 & n. 85.

¹³ *Id.*

¹⁴ Order No. 661 at P 26-28.

¹⁵ Order No. 661-A at P 6, 41.

¹⁶ *Id.* at P 60-63.

8. The Commission, however, adopted new LVRT provisions developed by the North American Electric Reliability Council (NERC) and the American Wind Energy Association (AWEA) after consideration of reliability concerns raised by NERC regarding the LVRT standard originally adopted in Order No. 661.¹⁷ In Order No. 661-A, the Commission also required that all wind plants have LVRT capability.¹⁸

9. The Joint Filing Parties' compliance filing at issue here proposes to modify certain sections of NYISO's LGIP and LGIA, *i.e.*, Appendices 7 and H,¹⁹ respectively, in accordance with Order Nos. 661 and 661-A. The Joint Filing Parties set out proposed independent entity variations that they argue are essential in light of New York's reliability needs and other New York specific circumstances.

B. Notice of Filing and Responsive Pleadings

10. Notice of the Joint Filing Parties' January 18, 2006 submittal was published in the *Federal Register*, 71 Fed. Reg. 5,307 (2006), with interventions and protests due on or before February 1, 2006. Notice of the Joint Filing Parties' January 19, 2006 submittal was published in the *Federal Register*, 71 Fed. Reg. 5,823 (2006), with interventions and protests due on or before February 8, 2006.²⁰

11. AWEA and the Alliance for Clean Energy New York (ACENY) jointly filed a timely motion to intervene and protest. The New York State Reliability Council, L.L.C. (NYSRC) filed a timely motion to intervene and comments supporting the Joint Filing Parties' filing. The Public Service Commission of the State of New York (New York Commission) filed a notice of intervention.

12. On February 24, 2006, the Joint Filing Parties filed, individually and collectively, an answer to the protest filed by AWEA/ACENY.

C. Discussion

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

¹⁷ See Order No. 661-A at P 13-14, 21-30.

¹⁸ *Id.* at P 25.

¹⁹ Appendix H to the NYISO's LGIA corresponds to Appendix G of the Commission's *pro forma* LGIA.

²⁰ On February 3, 2006, the Commission issued an errata notice correcting the comment due date from February 3, 2006 to February 8, 2006.

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

14. The Commission will accept in part and reject in part the Joint Filing Parties' proposed modifications, as discussed below.

1. Non-Substantive Changes

15. Order No. 2003 established standardized terminology to describe the interconnection process. The Joint Filing Parties propose to replace the *pro forma* term "Transmission Provider" with "Transmission Owner for the Transmission District to which the wind generating plant will be interconnected." The Joint Filing Parties also propose to revise the first sentence of the Transition Period LVRT provision to clarify that those provisions will also apply to interconnection agreements that are "finally executed as conforming agreements." Further, the Joint Filing Parties propose a minor revision to the language describing how power factor range standards can be met to clarify that the list of options is not exhaustive.

Commission Conclusion

16. We will accept the proposed changes because, as applied to New York, they are both "consistent with or superior to" the terms in the *pro forma* LGIP and LGIA and they reflect regional needs.

2. Role of Transmission Owners and Independent Entity Variations

17. In Order No. 661, the Commission allowed public utilities to seek variations from the Order No. 661 Appendix G: based on regional reliability council requirements;²¹ when proposed variations are "consistent with or superior to" the Order No. 661 Appendix G.²² In addition, independent transmission providers, such as RTOs and ISOs, are permitted greater flexibility in adopting Appendix G.²³

18. The Joint Filing Parties assert that New York has reliability needs that support the independent entity variations proposed in this filing and cites newly-added section 215(i)(3) of the FPA that authorizes New York, but no other state, to "establish rules that result in greater reliability" in New York than would be required under national reliability standards "as long as such action does not result in lesser reliability outside the State than

²¹ See *Id.* at P 67.

²² See *Id.*

²³ See *Id.*

that provided by the reliability standards.” The Joint Filing Parties further state that the justification for an independent entity variation is even more powerful with respect to wind plants, particularly since New York’s Renewable Portfolio Standard has sparked a major influx of proposed wind plants. The Joint Filing Parties add that all of the independent entity variations proposed in this filing are ultimately based on New York’s reliability needs.

Protest

19. AWEA/ACENY acknowledge that section 215(i)(3) was referenced in Order No. 661-A (as section 1211 of the Energy Policy Act).²⁴ However, AWEA/ACENY argue that the Joint Filing Parties are not proposing any rules for New York or refer to any existing rules or reliability authorities that require a deviation from Order Nos. 661 and 661-A. AWEA/ACENY contend that what the Joint Filing Parties are proposing is not about reliability, but rather about cost and cost allocation. Thus, absent such a showing, AWEA/ACENY argue that section 215(i)(3) does not apply here.

20. AWEA/ACENY reiterate that Order No. 2003 stated that an independent entity variation was a “balanced approach that recognizes that an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in an unduly discriminatory manner than a transmission provider that is a market participant. The RTO or ISO shall therefore have greater flexibility to customize its interconnection procedures and agreements to fit regional needs.”²⁵

21. According to AWEA/ACENY, the independent entity variation is also inappropriate here because NYISO, filing jointly with the non-independent transmission owners, is requesting that the Commission allow each of the individual non-independent transmission owners to adopt and administer unique reactive power criteria instead of adopting a common reactive power range. Thus, the transmission owners would set and enforce interconnection standards instead of the ISO and, under Order Nos. 661 and 661-A, the transmission owners are not eligible for independent entity variation.

Answer of the Joint Filing Parties

22. The Joint Filing Parties dispute the assertion that the New York Transmission Owners will be “in charge.” They argue that New York Transmission Owners are in no way “in charge” or play a role in developing or implementing the proposed variations. NYISO reasons that it is governed by a fully independent, non-stakeholder Board of Directors that do not answer to any outside party.

²⁴ See Order No. 661-A at P 33.

²⁵ Order No. 2003 at P 827.

23. The Joint Filing Parties attest that the Commission has repeatedly confirmed that NYISO is an independent entity and has previously accepted independent entity variations that were jointly filed by NYISO and its member transmission owners.²⁶ The various transmission districts, therefore, reflect the significant differences in characteristics related to load density and geography among other things. These differences have led to slightly different reactive power requirements that have been recognized by the Commission.

24. They further argue that the AWEA/ACENY protest does not offer any evidence that the proposed variations are rooted in “cost and cost allocation.” The Joint Filing Parties explain that all generators are compensated for reactive power under NYISO rate schedules that are not at issue here. Therefore, load pays for and, in no way avoids, the costs of reactive power-related reliability requirements imposed on wind plants. Furthermore, because wind plants are paid for providing voltage support in New York,²⁷ the transmission owners have no incentive to impose unnecessary reactive power requirements that they and their customers will bear.

25. Moreover, the Joint Filing Parties argue that, as a not-for-profit entity with no commercial interests, NYISO has no incentive to disfavor wind plants for “cost or cost allocation” reasons. Its only objective is to ensure that its tariff includes interconnection rules that are consistent with New York’s reliability needs without unnecessarily burdening wind, or any other type of resource. They argue that NYISO has consistently supported efforts to attract new resources to New York. Similarly, the Joint Filing Parties argue that, because the New York Transmission Owners have divested virtually all of their own generation, they have no competitive reason to discriminate against wind plants.

26. The Joint Filing Parties argue that AWEA/ACENY is unduly focused on cost, rather than reliability, issues; thus, it is argued that the entire basis of the protest is a desire to avoid reliability requirements that they fear will increase their operating costs.

Commission Conclusion

27. The Commission recognizes that independent entity variations have been approved for NYISO. However, while the Commission affords RTOs and ISOs greater flexibility under this standard when complying with its interconnection rules, we “nonetheless review the proposed variations to ensure that they do not provide an unwarranted opportunity for undue discrimination or produce an interconnection process

²⁶ See *New York Independent System Operator, Inc.*, 108 FERC ¶ 61,159 (2004) (*NYISO LGIP Order*).

²⁷ See Rate Schedule 2 of the NYISO’s Market Administration and Control Area Services Tariff.

that is unjust and unreasonable.”²⁸ In this case, we agree that allowing non-independent transmission owners to maintain their own reactive power criteria vests too much authority in individual transmission owners and not enough with NYISO. Moreover, in Order No. 2003, the Commission took an approach that recognized that individual RTOs and ISOs may have different operating characteristics, depending on their geographic size and location, and are less likely to act in an unduly discriminatory manner than non-independent transmission providers.²⁹ Though the Commission has allowed certain regional variations jointly to both the New York Transmission Owners and NYISO,³⁰ nevertheless here the Joint Filing Parties propose to provide the individual transmission owners with decisional authority over the reactive power criteria that must be met by wind plants proposing to build in the service territory of each transmission owner. This provides an opportunity for unduly discriminatory behavior by the transmission owner, which is not an independent entity and is not entitled to the independent entity variation allowed by the Commission in Order No. 2003.

3. Power Factor Requirements

28. Order No. 661 does not require compliance by wind plants with a power factor standard unless, on a case-by-case basis, based on a system impact study, the transmission provider determines that this is needed to ensure the safety or reliability of the transmission system. When so justified, Order No. 661 adopts a power factor range of 0.95 leading and 0.95 lagging (+/- 0.95) for wind plants.³¹ If a transmission provider seeks a variance establishing a wider power factor range than +/- 0.95, Order No. 661-A allows them to file a non-conforming agreement that will be evaluated on a case-by-case basis under the Commission’s variance standards.³²

29. The Commission has previously granted the Joint Filing Parties an independent entity variation to allow each New York transmission owner to set its own leading/lagging criteria for large generating facilities, so long as the criteria are applied comparably to all such generators in a control area.³³ The Joint Filing Parties, in responding to Order Nos. 661 and 661-A, contend that they have considered the

²⁸ *PJM Interconnection, L.L.C.*, 108 FERC ¶ 61,025 at P 7 (2004).

²⁹ Order No. 2003 at P 827.

³⁰ See *NYISO LGIP Order* at P 36, where, for example, we allowed NYISO to deviate from the *pro forma* LGIP and LGIA and allow NYISO to draft disputed contract provisions as an allowed independent entity variation.

³¹ Order No. 661 at P 50.

³² Order No. 661-A at P 41-43.

³³ *NYISO LGIP Order* at P 104. This order, we note, pre-dates Order Nos. 661 and 661-A, where we addressed the requirements that would apply to wind plants.

continuing need for such a variation and have concluded that the previously granted variance should remain in effect. Further, the Joint Filing Parties believe that wind plants should not be treated differently than other plants. The Joint Filing Parties argue that it is inappropriate to force New York Transmission Owners to adopt a single power factor range for non-wind plants and exclude wind plants.

30. The Joint Filing Parties propose an independent entity variation to provide that wind plants be able to provide “sufficient dynamic support.” The Joint Filing Parties assert that this is consistent with existing practices in New York. Further, the Joint Filing Parties state that the power factor range standard can be met using, for example and without limitation, power electronics designed to supply the required level of reactive capability (taking into account any limitations due to voltage level, real power output, etc.), or fixed and switched capacitors if agreed to by the transmission owner for the transmission district where the wind plant will be interconnected, or some combination of the two.

Protest

31. AWEA/ACENY argue that the special exemption that the Joint Filing Parties seek to the procedures adopted in Order No. 661 will make reactive power capability a requirement in all cases, without regard to a system impact study showing that reactive power capability is needed. AWEA/ACENY argue that requiring all wind plants to provide reactive power as a condition of interconnection would require additional equipment which would impose significant additional costs on such wind plants. The majority of wind farms are located on radial transmission lines, distant from major load centers, and thus the installation of reactive power sources at wind farms will almost always require that the reactive power supply travel substantial distances to be used. AWEA/ACENY state that NERC has explained that such installations are not generally useful. AWEA/ACENY state that wind farms must procure additional equipment for the specific purpose of adding reactive power. They argue that such costs can only be just and reasonable where there is a showing of real system benefit and a reliability need, particularly in light of the typical location of wind generation distant from load. They further argue that the requirement to add reactive power capability discriminates against wind plants because it adds far more costs to wind plants than to other technologies.

32. AWEA/ACENY argue that a provision to provide that wind generating plants be able to provide “sufficient dynamic support” creates an unlimited burden on interconnection customers to install facilities that may not be needed, at the discretion of the transmission owner, and is unnecessary because Order No. 661-A already provides transmission owners with the flexibility to determine a facility-specific need for dynamic capability through the required facility-specific assessment required at the time of interconnection.

33. AWEA/ACENY contend that the Joint Filing Parties' proposed language is also unclear about the level of dynamic capability that will be required. The proposed language does not state how the transmission owner should determine the appropriate power factor requirements, nor does the language indicate that the transmission owner will conduct studies to determine actual need. Further, they state that there is no indication what "sufficient dynamic support" is or how it will be determined and there is no limit to what the transmission owner might require.

Supporting Comment

34. NYSRC supports the request for an independent entity variation. In its comments, NYSRC states that it shares NYISO's concern that a general requirement allowing wind plants to maintain a power factor range of 0.95 leading and 0.95 lagging, subject to a demonstration by the transmission provider on a case-by-case basis that a different power factor is necessary, could adversely affect reliability. NYSRC argues that reactive power requirements for generators in the New York control area are established on a transmission district basis, consistent with the reliability needs in each transmission district. NYSRC further states that wind plants interconnecting in transmission districts should not be granted a presumption in favor of a reactive power requirement that would be inconsistent with the reliability needs of those transmission districts.

Answer of the Joint Filing Parties

35. The Joint Filing Parties point out that the Commission previously approved an independent entity variation allowing the transmission owners to maintain their own reactive power standards and state that circumstances justifying the variation have not changed. Transmission owners have made numerous system design and planning decisions based on the assumption that their standards would apply to all interconnecting generators. Moving to a case-by-case demonstration system, or even a single statewide standard, would be disruptive.

36. The Joint Filing Parties argue that AWEA/ACENY ignore the relevant reliability considerations in New York. They assert that its proposed independent entity variation for power factor is rooted in the reliability needs and regional characteristics of the New York State Transmission System, as confirmed by a study conducted by the New York State Energy and Research Development Authority (NYSERDA Study), and supported by the NYSRC.

37. Further, the Joint Filing Parties argue that AWEA/ACENY are wrong to claim that the generic rule requiring transmission providers to conduct studies demonstrating that individual wind plants need reactive power capability could be readily implemented in New York. NYISO's System Reliability Impact Study (SRIS) procedures do not currently address this issue because there has never been any question that wind plants must meet reactive power standards in New York. They add that the Commission has

provided no guidance as to what an SRIS study would have to show to justify requiring individual plants to adopt reactive capability and NYISO believes that it would be extremely difficult to establish such a criterion.

38. The Joint Filing Parties state that Order No. 661-A left the door open to the possibility that NERC would develop new reactive power standards for wind plants that would supercede the Commission's generic case-by-case demonstration rule.³⁴ The Joint Filing Parties state that it is a possibility that the NYSRC will follow up on its comments in this proceeding sometime in the future by adopting a new standard for New York State consistent with new Federal Power Act (FPA) section 215(i)(3).³⁵ However, in the meantime, the Joint Filing Parties argue that New York should not be forced to operate under reactive power rules that its primary reliability authorities have stated would be inconsistent with reliability.

39. The Joint Filing Parties further argue that AWEA/ACENY misrepresent the views of New York Commission and NERC. The Joint Filing Parties state that New York Commission's quote, which was taken from the Commission's 2005 inquiry into reactive power issues, implies that New York Commission does not support requiring all wind plants to satisfy reactive power requirements, when in fact New York Commission favored this requirement in that proceeding. The Joint Filing Parties state that NERC's comments that installations of reactive resources "are not generally useful" for wind generators is misconstrued, which is evident by NERC's challenge to Order No. 661-A's only requiring wind plants to meet reactive power requirements after a case-by-case demonstration.

40. Regarding AWEA/ACENY's comment that the majority of wind farms are located on radial transmission lines, distant from major load centers, the Joint Filing Parties argue that NYISO's interconnection queue includes many wind projects that are proposing to connect at voltages of 115 KV or greater. They contend that none of the twenty-two large wind farms interconnecting to the NYSEG and RG&E transmission system are expected to be on radial lines, nor are those interconnecting to the New York Power Authority system, and only four of the seventeen interconnecting to National Grid's New York transmission facilities are expected to be on radial lines.

41. The Joint Filing Parties state that the fact that the Commission generically held that wind plants should not have to bear the cost of meeting reactive power requirements does not decide the question of whether it is reasonable to impose such costs in New York. They argue that the issue is different in the NYISO context, where all generators are compensated for reactive power under rate schedules not at issue here. The Joint

³⁴ Order No. 661-A at P 42.

³⁵ Pub. L. No. 109-58, § 1211, 119 Stat. 594, 941 (2000) (adopting new FPA section 215).

Filing Parties' proposed variations do not seek to shift costs from load to generators and are based solely on reliability needs, the costs of which are borne by customers. They state that wind plants will also be eligible for up to \$885 million in additional payments to help cover their incremental costs relative to traditional generating technologies. They note further that the new technology in doubly excited or variable speed wind generators has made it easier for wind plants to meet reactive power requirements than in the past. Given New York's reliability needs, the Joint Filing Parties do not believe it is unreasonable to expect wind plants to bear their fair share of costs and believe it is not unduly discriminatory to expect wind plants to comply with the same requirements as all other generators even though it would impose extra costs on them.

Commission Conclusion

42. The Joint Filing Parties request that NYISO allow New York transmission owners to impose reactive power requirements on wind plants without regard to whether a system impact study establishes that reactive power is needed for a particular facility. However, the Commission has determined as a general matter that individual wind plants should be required to provide reactive power capability only to the extent that transmission providers demonstrate that it is necessary.³⁶

43. In the case of new wind projects that were required to install reactive power equipment where none was needed, the requirement proved costly and can act as an impediment to entry of those new wind projects into the marketplace. For this reason, the Commission has determined that a system impact study is needed before a requirement to provide reactive power can be imposed. As discussed above, in Order No. 2003, the Commission stated that it would allow an RTO or ISO to seek "independent entity variations" to recognize "that an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in a discriminatory manner."³⁷ However, as we discussed above, we find that this variance is not applicable to New York transmission owners requiring reactive power without regard to the findings in a system impact study. In addition, the development of wind generation in the NYISO footprint is not a different regional operating characteristic that would justify NYISO's proposed deviation from the interconnection rules that the Commission developed specifically to recognize and accommodate wind generation.³⁸ Indeed, this is precisely the result the Commission intended, *i.e.*, removing impediments to the development of wind projects. We are concerned that the Joint Filing Parties' proposal to require all

³⁶ Order No. 661 at P 50-57, 59.

³⁷ Order No. 2003 at P 827; *see also* Order No. 2003-A at P 759. The Commission stated that it would apply this independent entity variation standard to proposed variations from Order No. 661. *See* Order No. 661 at P 109.

³⁸ Order No. 661 at P 11.

wind plants to possess reactive power capability, regardless of a determination that it is needed for safety or reliability, could effectively discriminate against wind plants located in areas where reactive power is not needed due to the potentially prohibitive cost for them to possess such capability.

44. Furthermore, the proposed revisions are not otherwise justified. The Commission adopted the reactive power provisions in Order No. 661 in part to limit the opportunities for discrimination that could arise when reactive power capability, which can be prohibitively expensive for some wind plants, is required even where not necessary for safety or reliability.³⁹ While, in the case of NYISO, the Commission is not concerned that it would discriminate in the sense that it could favor its own generators over other generators (which was the concern of the Commission in Order No. 2003 with regard to transmission providers who are also market participants), the Commission here and in Order No. 661 is focused on the possibility of inherent discrimination against wind plants as a class because they have different technical characteristics and produce reactive power (which may be unnecessary) only at significant expense.

45. In Order No. 661, the Commission expressly declined to require dynamic reactive power capability in all wind plants, stating that it was unconvinced such capability is needed in every case.⁴⁰ As the Commission explained in Order No. 661, if a particular wind plant must have dynamic reactive power capability to maintain reliability, the system impact study should demonstrate that need.⁴¹

46. Moreover, in Order No. 661-A, we expressly rejected requests that we modify the *pro forma* Appendix G to require that wind plants provide reactive power in all cases. The Joint Filing Parties' attempt to justify proposed deviations employs several arguments that the Commission addressed and dismissed in Order No. 661-A. For example, the Joint Filing Parties argue that requiring all wind plants to provide reactive power is necessary to ensure reliability. The Commission explicitly concluded in Order No. 661-A, however, that the case-by-case approach will not threaten reliability, because the system impact study will determine if the particular wind plant at issue must provide reactive power to protect the safety and reliability of the transmission system.⁴² The Joint Filing Parties have not offered any evidence that a system impact study is inadequate to

³⁹ See Order No. 661 at P 51; Order No. 661-A at P 41, 45 (concluding that the case-by-case approach will limit opportunities for undue discrimination because an interconnecting wind plant will not have its interconnection frustrated by a requirement that it install costly equipment that is not necessary for safety or reliability).

⁴⁰ Order No. 661 at P 66.

⁴¹ *Id.* at P 66-67.

⁴² Order No. 661-A at P 41.

determine reliability needs. Nor have they offered any other arguments that persuade us to revisit our conclusion in Order No. 661-A that reliability is adequately protected under the case-by-case approach.

47. Additionally, as the Commission stated in Order No. 661-A, “the System Impact Study, as well as the other interconnection studies, should take into account a variety of assumptions concerning anticipated system conditions.”⁴³ Again, the Joint Filing Parties have not demonstrated that a system impact study fails in this respect. Even if some modified studies are required, the Commission specifically concluded in Order No. 661-A that any additional burden is outweighed by “the cost considerations underlying the case-by-case approach.”⁴⁴ As the Commission noted in both Order Nos. 661 and 661-A and as protestors point out here, reactive power is a significant added cost for wind plants as opposed to conventional generators, which produce reactive power inherently.

48. Additionally, AWEA/ACENY points out that because wind plants are often located at the end of radial lines far from load, reactive power capability would often be wasted. Given these technical differences, we believe that it is appropriate to require NYISO to use the case-by-case approach of Order Nos. 661 and 661-A.

49. While Order Nos. 661 and 661-A recognized that New York has special reliability concerns, nothing in the Joint Filing Parties’ submittal provides any reason why a regional variation is needed on this issue, or that a regional variation would accomplish anything beyond imposing additional costs on wind plants that might not be needed to protect system reliability.

50. Thus, for all these reasons, we reject the proposed variation requiring all wind plants to have reactive power capability.

4. Supervisory Control and Data Acquisition Capability

51. Order No. 661 allows an interconnecting wind plant to satisfy the requirements of the interconnection request by providing a set of preliminary electric design specifications depicting the wind plant as a single equivalent generator. Upon satisfying these and other applicable Interconnection Request requirements in Order No. 2003, the wind plant may enter the queue and receive the base case data as provided for all large generators in Order No. 2003.

52. The Joint Filing Parties propose an independent entity variation that would require all wind projects to have sufficient power curtailment capability that would allow the

⁴³ Order No. 661-A at P 44.

⁴⁴ *Id.*

Reliability Authority, as defined by NERC,⁴⁵ *i.e.*, the NYISO or, if designated, the New York Transmission Owner for the Transmission District to which the wind plant will be interconnected, to impose a limit on their power output when necessary to preserve reliability. The Joint Filing Parties state that the NYSERDA Study specifically recommends that new wind plants in New York have this capability, and that NYISO explore market design changes to ensure that wind projects have financial incentives to shut down in appropriate circumstances.

Protest

53. AWEA/ACENY argue that such a proposal would create a “power curtailment capability” in the LGIA that is different from the existing provisions for Automatic Generator Control (AGC) and congestion management that are embedded in the NYISO market system. Furthermore, the LGIA already provides the Joint Filing Parties with the right to interrupt service to any generator. AWEA/ACENY suggest that the proposed change is not appropriate for the LGIA without greater development of market rules that govern operations and asserts that any additional restrictions above and beyond the requirements already found in the LGIA be rooted in market rules.

Answer of the Joint Filing Parties

54. The Joint Filing Parties contend that, while it may be determined in the future that market rule changes are needed to ensure that wind generators have financial incentives to limit their power output in certain situations, that determination has not been made. Until any such changes are determined to be appropriate and are implemented, the proposed variation is a reasonable interim measure that the NYSERDA Study found to be necessary for the reliable integration of a large number of wind plants in New York. Further, the Joint Filing Parties state that, even after market-based curtailment rules are in place, New York will still need administrative curtailment rules to address system emergencies. They also argue that imposing the standard rules in New York would be inconsistent with New York’s reliability needs.

Commission Conclusion

55. We find that it is not necessary at this time to create a separate power curtailment capability in the LGIA that would allow the Reliability Authority to impose a limit on the power output of wind plants. While the NYSERDA Study may have recommended that new wind plants in New York have power curtailment capability, we find that this matter is already adequately covered by the AGC provisions of the LGIA. However, the Joint Filing Parties may revisit this matter upon further development of the market rules.

⁴⁵ Under the NERC Functional Model Version 2, the “Reliability Authority” is responsible for real-time system operating reliability functions.

5. Queue Positioning/Base Case Data

56. Order No. 661 seeks to aid wind plant developers that need base case data to prepare a complete interconnection request. It does this by allowing wind plant developers to enter the interconnection queue and receive necessary data after providing preliminary electric design specifications depicting their wind farms as single equivalent generators. Among other things, the Commission reasoned that a modified process was necessary to prevent transmission providers from creating unreasonable impediments to wind plants seeking to enter the interconnection queue.

57. The Joint Filing Parties propose a variation of these rules; wind plant developers would be given access to base case data if they submitted an Interconnection Request Form, without the detailed technical data required in Attachment A to the Interconnection Request, and submitted a \$10,000 deposit. The Joint Filing Parties state that this variation would allow serious projects to gain access to base case data, which they could use as they saw fit. They would be able to get the data without first preparing complete design specifications. The Joint Filing Parties state that the requirement to complete the Interconnection Request Form and provide a deposit will also act as a screen to ensure that base case data is only available to parties seriously committed to building new plants. However, they argue that wind plants would not enter the interconnection queue until they submitted detailed designed specifications. The Joint Filing Parties state that this proposal is necessitated by the large number of wind projects that are already in, or that are expected to soon enter, the NYISO's interconnection queue and by the need to process the interconnection requests quickly if New York's Renewable Portfolio Standard goals are to be met.

Protest

58. AWEA/ACENY state that Order No. 661 provides a wind farm up to six months to complete a detailed design after entering the interconnection queue and receiving base case transmission parameters. AWEA/ACENY state that the Joint Filing Parties seek to alter this process by allowing a wind farm to receive base case data after paying the \$10,000 interconnection application fee, but would not allow a wind farm to enter the queue until it provides a detailed design.

59. AWEA/ACENY state that several parties in the rulemaking raised this exact issue on rehearing of Order No. 661 and the Commission denied those requests. AWEA/ACENY cites to P 60 of Order 661-A, where the Commission stated:

To accommodate the [technical differences of wind plants' design], the Final Rule permits wind plants to enter the interconnection queue with a set of preliminary electrical design specifications depicting the wind plant as a single generator, instead of providing detailed design specifications as required by Order No. 2003. Treating wind plants differently in this regard

is not unduly discriminatory or preferential, but as noted elsewhere, simply recognizes that wind plants have different technical characteristics than the more traditional forms of generation that the LGIP and LGIA were designed to accommodate.

AWEA/ACENY state that the Commission also addressed and rejected the argument that the delay would delay the queue processing.⁴⁶

60. AWEA/ACENY proposes the following compromise: when the Joint Filing Parties demonstrate they are ready to begin work on the SRIS by signing the SRIS agreement, the interconnecting wind plant would be required to file detailed designs within five days after the interconnecting wind plant signs the SRIS agreement. AWEA/ACENY states that this approach recognizes that NYISO and the transmission owners are not meeting the schedule in NYISO's OATT for processing Interconnection Requests, but it introduces no delays if and when the queue processing can meet the existing OATT requirements.

Answer of the Joint Filing Parties

61. The Joint Filing Parties believe that the compromise proposed by AWEA/ACENY is ill-defined, unsupported and fails to address the underlying need for the variation. The Joint Filing Parties contend that its proposed variations were intended to balance wind plant developers' legitimate need for access to system information against the danger of complicating interconnection studies by forcing NYISO to evaluate an overwhelming number of wind proposals that lacked adequate detail. They argue that the *pro forma* provisions are not well-suited to New York given the number of wind projects that NYISO will have to study. NYISO asserts that under the *pro forma* process there will be so many projects offering so little information that the interconnection study process will be under great strain. As a result, if wind plants are allowed to go forward without providing the necessary information, other generators (including other wind plants) with

⁴⁶ AWEA/ACENY cites P 61 of Order No. 661-A:

We are not persuaded that the reasonable self-study provision we adopted will make the interconnection queue process significantly more difficult or complex. Wind plant Interconnection Customers who provide the preliminary single generator equivalent data are required to provide final detailed electrical design specifications no later than six months after submitting the initial Interconnection Request. This six-month time period takes into account the procedures needed before the start of the System Impact Study, including the Feasibility Study and negotiation of study agreements.

lower queue positions will have studies performed that are based on inaccurate information and which may lead to inaccurate results, unnecessary costs, and unreasonable delays.

Commission Conclusion

62. The Commission will maintain the queue processing timeline prescribed in Order Nos. 661 and 661-A and will reject both the modifications proposed by the Joint Filing Parties and the proposed alternative approach suggested by AWEA/ACENY. While AWEA/ACENY's suggested approach offers no delays with respect to the queue, it would allow for other delays, for which time frames have already been established in Order No. 2003.

63. The Joint Filing Parties state that their proposed revisions would allow serious wind plant developers to gain access to base case data to use as they see fit, without first preparing complete design specifications. However, the Joint Filing Parties propose to delay assigning a queue position until the detailed specifications are completed. Order No. 2003 provides that a queue position is assigned based upon the date and time stamp of the Interconnection Request. Furthermore, delaying queue positions would be unreasonable and the Joint Filing Parties have offered no justification that persuades us to allow adoption of their proposed changes. Nor have any circumstances, unique to New York, been alleged that would justify a regional variation to the Commission's requirements established in Order Nos. 661 and 661-A.

64. The Commission adopted the special procedures in Appendix 7 to the LGIP in recognition of the technical differences of wind plants that prevent them from providing detailed design specifications at the time they submit interconnection requests.⁴⁷ As the Commission noted in Order No. 661, the physical placement of wind turbines and other equipment that affect the specific electrical characteristics of a wind plant depends on the location of the wind plant and the location of other generators on the system.⁴⁸ Thus, the Commission adopted the procedures in Appendix 7 to allow wind plants to provide simplified design data and enter the interconnection queue, which is a prerequisite to obtaining the system data necessary to complete their detailed electrical design.⁴⁹

65. The Joint Filing Parties believe that, if wind projects are allowed to go forward without providing the necessary information, other generators with lower queue positions will have studies performed that are based on inaccurate information and which may lead to inaccurate results, unnecessary costs, and unreasonable delays. Allowing wind plants to submit simplified design specifications when submitting an interconnection request

⁴⁷ See Order No. 661 at P 94-100.

⁴⁸ *Id.* at P 97.

⁴⁹ *Id.* at P 99.

should not result in delay, since the *pro forma* procedures require the wind plant to submit its detailed design specifications within six months.⁵⁰ The six-month time period takes into account the other procedures that must take place before the system impact study can even be commenced, including the feasibility study and the negotiation of study agreements.⁵¹ Thus, we anticipate no delays in the interconnection process. In addition, we find no support for the contention that allowing access to the base case information prior to the completion of detailed design specifications would lead to “inaccurate results” or “unnecessary costs” for others lower in the queue.

6. Effective Date and Waiver

66. The Joint Filing Parties state that they do not intend to implement their compliance filing until the Commission has acted on the filing. The Joint Filing Parties propose to submit revised tariff sheets in a subsequent compliance filing to incorporate the actual effective date once the Commission’s order is issued. In the interim, the Joint Filing Parties state that they will continue to comply with the previously-approved interconnection provisions of the NYISO LGIP and LGIA.

67. The only exception to the proposed effective date is that the Joint Filing Parties are proposing to make Order No. 661-A’s Transition Period LVRT technical requirements effective as of January 1, 2006. The Joint Filing Parties state that it is appropriate to have a separate effective date for these provisions because they apply, by their own terms, starting on January 1, 2006.

Commission Conclusion

68. Order No. 661 became effective on October 14, 2005. Order No. 661-A revised all but two provisions of Order No. 661, with the Order No. 661-A *pro forma* provisions to become effective on January 18, 2006. The Commission stated in Order No. 661-A that provisions of Order No. 661 that were not revised in Order No. 661-A would remain effective as of October 14, 2005. The Commission directs the Joint Filing Parties to submit a compliance filing within 30 days of the date of issuance of this order showing an effective date of October 14, 2005 for the Power Factor Design Criteria and the SCADA provisions, and an effective date of January 18, 2006 for the remaining *pro forma* provisions required by Order No. 661-A.

The Commission orders:

(A) The Joint Filing Parties’ proposed modifications to the LGIP and LGIA are hereby accepted in part and rejected in part, as discussed in the body of this order.

⁵⁰ *Id.*

⁵¹ *Id.*

(B) The Joint Filing Parties are hereby directed to submit a compliance filing, as discussed in the body of this order, within 30 days of the date of issuance of this order.

By the Commission. Chairman Kelliher dissenting in part with a separate statement attached.

(S E A L)

Magalie R. Salas,
Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.

Docket Nos. ER06-506-000
and ER06-506-001

(Issued March 17, 2006)

Joseph T. KELLIHER, Chairman, *dissenting in part*:

I support renewable resources and I am hopeful that wind will prove to be a viable, long-term option for a greater share of our nation's electric generating portfolio. However, in our consideration of proposals relating to wind energy development, we are barred by the Federal Power Act from granting any undue preference favoring any class of generators. In my view, we crossed that line in this order and granted an undue preference in favor of wind energy.

I dissent to that part of the Commission's order that denies the Joint Filing Parties' proposal to require wind plants within the NYISO to provide reactive power support. In so doing, I renew my opposition to granting this class of generators an undue preference, which is expressly prohibited by section 205 of the Federal Power Act. As I stated in my separate statement in Order No. 661-A, "I do not believe that the record or the explanation offered in this order provides a basis for giving preferential treatment to wind generators when it comes to meeting the power factor requirement."¹

In addition to my opposition to granting wind plants undue preference, I disagree with my colleagues' denial of the Joint Filing Parties' request for a deviation from the *pro forma* wind interconnection rule to require wind facilities to provide reactive power support under the "independent entity variation" standard. As a general matter, the Commission allows an RTO or ISO "to seek 'independent entity variations' to recognize 'that an RTO or ISO has different operating characteristics depending on its size and location and is less likely to act in a discriminatory manner.'"² Indeed, the Commission routinely defers to the judgment and local experience of RTOs and ISOs when considering whether to

¹ *Interconnection for Wind Energy*, Order No. 661A, 113 FERC ¶ 61,254 (2005), Chairman Kelliher *dissenting* at p. 2.

² Order at P 43 *citing* Order No. 2003 at P 827.

grant independent entity variations – even on matters implicating reliability.³ The Commission has also allowed variations from *pro forma* agreements on issues with significant policy implications.⁴

In support of its independent entity variation, the Joint Filing Parties present compelling support. First, many wind projects in the NYISO region will be connecting at voltages of 115 KV or greater, and the vast majority of the projects in the queue will not be located on radial lines far away from load centers.⁵ Thus, the argument that reactive power capability from wind facilities would be wasted cannot be sustained. Second, New York State has adopted an aggressive renewable portfolio standard that “has sparked a major influx of proposed wind plants,” which heightens the need for renewable resources, such as wind, to provide reactive power support.⁶ Third, the New York State Reliability Council, LLC – the entity responsible for ensuring reliability within the State of New York – supports the Joint Filing Parties’ request for an independent entity variation.⁷ Fourth, the Energy Policy Act of 2005 entitles New York State to adopt reliability standards that are specific to the State.⁸ In my view, by adopting section 215(i)(3), Congress has weighed-in on whether the Commission should

³ See *e.g.*, *California Independent System Operator Corp.*, 112 FERC ¶ 61,009 (2005) at P 167 (accepting CAISO’s proposal to require compliance with transmission owner’s interconnection handbooks, and agreeing with SoCalEd that each transmission owner may have requirements that must be followed to protect safety and reliability); *ISO New England, Inc.*, 110 FERC ¶ 61,335 (2005) at P 23-25 (accepting NEPOOL’s proposal to revise definition of “Adverse System Impact” to more closely track the reliability-related provisions of the NEPOOL Agreement); *New York Independent System Operator, Inc.*, 108 FERC ¶ 61,159 (2004) at P 85-96 (accepting proposed revision to the definition of “Applicable Reliability Standards” to specify that an interconnection is subject to the reliability requirements of individual transmission districts).

⁴ In Order Nos. 2003 and 2003-A, the Commission stated that it would allow independent entities the flexibility to propose “participant funding” of network upgrade costs because such entities’ independence satisfies concerns about abuse of the cost allocation and determination process. See, *e.g.*, Order No. 2003-A at P 587; see also, *e.g.*, *Midwest Independent Transmission System Operator, Inc.*, 114 FERC ¶ 61,106 (2006) (accepting a portion of a cost allocation proposal for transmission upgrades as consistent with the flexibility provided in Order No. 2003); *Southwest Power Pool*, 112 FERC ¶ 61,319 (2005) (denying rehearing of a cost allocation proposal for transmission upgrades, reiterating a finding of consistency with Order No. 2003’s flexibility).

⁵ Order at P 40.

⁶ *Id.* at P 18.

⁷ *Id.* at P 34.

⁸ Energy Policy Act of 2006, section 1211.

give deference to New York on reliability-related issues such as reactive power support. The order gives no such deference.

In reaction to the Joint Filing Parties' arguments, and notwithstanding the Commission's prior practice of liberally allowing independent entity variations, the order denies the variation based primarily on the cost of meeting power factor requirements. In fact, the order is replete with statements such as: "reactive power is a significant added cost for wind plants"⁹; it is a "potentially prohibitive cost for [wind facilities] to possess such capability"¹⁰; and "wind plants . . . produce reactive power . . . only at a significant expense."¹¹ These statements would indicate that cost considerations are paramount. By relying so heavily on cost considerations it appears the purpose of the order is to improve the economics of wind plants compared to other classes of generators.

I cannot ignore the fact that giving wind facilities a pass on providing reactive power can adversely affect reliability; nor can I dismiss the fact that the reliability entity in the region supports the Joint Filing Parties' proposal. I would have allowed the independent entity variation and then addressed the cost issue for wind facilities in a separate proceeding. The Joint Filing Parties indicate that there is an appropriate venue for addressing reactive power compensation. As noted in the order, "all generators are compensated for reactive power under rate schedules not at issue here."¹² Thus, the order should have approved the requirement that wind generators meet power factor requirements, and then directed parties to seek appropriate compensation for their reactive power support pursuant to a section 205 proceeding.

For these reasons, I accordingly dissent in part from the order.

Joseph T. Kelliher

⁹ Order at P 47.

¹⁰ *Id.* at P 43.

¹¹ *Id.* at P 44.

¹² *Id.* at P 41 (emphasis added).