

169 FERC ¶ 61,222
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Richard Glick and Bernard L. McNamee.

Public Service Company of New Mexico

Docket Nos. ER19-1955-000
ER19-1955-001

ORDER ON COMPLIANCE

(Issued December 19, 2019)

1. On May 22, 2019, as amended on July 12, 2019, Public Service Company of New Mexico (PNM) submitted proposed revisions to its Open Access Transmission Tariff (Tariff) in compliance with the requirements of Order Nos. 845 and 845-A,¹ which amended the Commission's *pro forma* Large Generator Interconnection Agreement (LGIA) and *pro forma* Large Generator Interconnection Procedures (LGIP).² In this order, we find that PNM's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept PNM's compliance filing, effective May 22, 2019, and direct PNM to submit a further compliance filing within 60 days of the date of this order.

I. Background

2. On April 19, 2018, the Commission issued Order No. 845, which revised the Commission's *pro forma* LGIA and the *pro forma* LGIP to improve certainty for interconnection customers, promote more informed interconnection decisions, and enhance the interconnection process. The Commission stated that it expects that these reforms will provide interconnection customers better information and more options for obtaining interconnection service, and as a result, there will be fewer overall

¹ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *errata notice*, 167 FERC ¶ 61,123, *order on reh'g*, Order No. 845-A, 166 FERC ¶ 61,137 (2019), *errata notice*, 167 FERC ¶ 61,124, *order on reh'g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

² The *pro forma* LGIP and *pro forma* LGIA establish the terms and conditions under which public utilities that own, control, or operate facilities for transmitting energy in interstate commerce must provide interconnection service to large generating facilities. Order No. 845, 163 FERC ¶ 61,043 at P 6.

interconnection requests and fewer interconnection requests failing to reach commercial operation. The Commission also stated that it expects that, as a result of these reforms, transmission providers will be able to focus resources on those interconnection requests most likely to reach commercial operation.³ In Order No. 845-A, the Commission generally upheld the reforms it required in Order No. 845 but granted certain requests for rehearing and clarification.

3. In Order No. 845, the Commission adopted 10 different reforms in three categories to improve the interconnection process. First, in order to improve certainty for interconnection customers, the Commission: (1) removed the limitation that interconnection customers may exercise the option to build the transmission provider's interconnection facilities⁴ and stand alone network upgrades⁵ only in instances when the transmission provider cannot meet the dates proposed by the interconnection customer;⁶ and (2) required that transmission providers establish interconnection dispute resolution procedures that allow a disputing party unilaterally to seek non-binding dispute resolution.⁷

4. Second, to promote more informed interconnection decisions, the Commission: (1) required transmission providers to outline and make public a method for determining

³ *Id.* P 2; Order No. 845-A, 166 FERC ¶ 61,137 at P 1.

⁴ Transmission provider's interconnection facilities are "all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades." *Pro forma* LGIA art. 1 (Definitions).

⁵ Stand alone network upgrades are "Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement." *Id.*

⁶ Order No. 845, 163 FERC ¶ 61,043 at P 85.

⁷ *Id.* P 3.

contingent facilities;⁸ (2) required transmission providers to list the specific study processes and assumptions for forming the network models used for interconnection studies; (3) revised the definition of “Generating Facility” to explicitly include electric storage resources; and (4) established reporting requirements for aggregate interconnection study performance.⁹

5. Third, the Commission adopted reforms to enhance the interconnection process by (1) allowing interconnection customers to request a level of interconnection service that is lower than their generating facility capacity; (2) requiring transmission providers to allow for provisional interconnection agreements that provide for limited operation of a generating facility prior to completion of the full interconnection process; (3) requiring transmission providers to create a process for interconnection customers to use surplus interconnection service¹⁰ at existing points of interconnection; and (4) requiring transmission providers to set forth a procedure to follow when assessing and, if necessary, studying an interconnection customer’s technology changes without affecting the interconnection customer’s queue position.¹¹

II. PNM’s Compliance Filing

6. PNM states that it adopts all of the Commission’s *pro forma* LGIP and *pro forma* LGIA revisions as required by Order No. 845 and 845-A without modification, except where the Commission required that the transmission provider develop definitions and procedures.¹² PNM states that its revised LGIP and revised *pro forma* LGIA are

⁸ Contingent facilities are “those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request’s costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.” *Pro Forma* LGIP § 1 (Definitions).

⁹ Order No. 845, 163 FERC ¶ 61,043 at P 4.

¹⁰ Order No. 845 added a definition for “Surplus Interconnection Service” to section 1 of the *pro forma* LGIP and article 1 of the *pro forma* LGIA, defining the term as “any unused portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if Surplus Interconnection Service is utilized the Interconnection Service limit at the Point of Interconnection would remain the same.” *Id.* P 459.

¹¹ *Id.* P 5.

¹² PNM Compliance Filing, Transmittal at 2.

contained in Attachment N of its Tariff. PNM requests that the proposed revisions to Attachment N of its Tariff become effective on May 22, 2019.

III. Notice and Responsive Pleadings

7. Notice of PNM's May 22, 2019 filing was published in the *Federal Register*, 84 Fed. Reg. 25,251 (2019), with interventions and protests due on or before June 12, 2019. Avangrid Renewables, LLC (Avangrid) filed a timely motion to intervene.

8. On June 13, 2019, Commission staff issued a deficiency letter that requested additional information regarding PNM's procedure for allowing surplus interconnection service (Deficiency Letter). On July 12, 2019, PNM filed a response to the Deficiency Letter (Deficiency Response). Notice of PNM's Deficiency Response was published in the *Federal Register*, 84 Fed. Reg. 34,882 (2019), with interventions and protests due on or before August 2, 2019. None was filed.

IV. Discussion

A. Procedural Matters

9. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), Avangrid's timely, unopposed motion to intervene serves to make it a party to this proceeding.

B. Substantive Matters

10. As discussed below, we find that PNM's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept PNM's compliance filing, effective May 22, 2019, and direct PNM to submit a further compliance filing within 60 days of the date of this order.

1. Proposed Variations

11. As discussed further below, PNM has requested certain variations from the Commission's requirements in Order Nos. 845 and 845-A. The Commission explained in Order No. 845 that such variations would be reviewed under the same standard in Order No. 2003.¹³ In Order No. 2003, when adopting the *pro forma* LGIA and LGIP, the Commission permitted transmission providers to seek variations from the *pro forma* LGIP and/or *pro forma* LGIA if they were "consistent with or superior to" the terms of

¹³ Order No. 845, 163 FERC ¶ 61,043 at P 43.

the *pro forma* LGIP and *pro forma* LGIA.¹⁴ A transmission provider seeking a “consistent with or superior to” variation must demonstrate why its proposal is consistent with or superior to the *pro forma* LGIP and/or *pro forma* LGIA.¹⁵ The Commission also permitted transmission providers to justify a variation to the *pro forma* LGIA or LGIP based on regional reliability requirements and required transmission providers submitting such regional reliability variations to the Commission for approval to identify the proposed variations and explain why such variations are necessary.¹⁶ We will evaluate PNM’s proposed variations from the requirements of Order Nos. 845 and 845-A accordingly.

2. Interconnection Customer’s Option to Build

12. In Order No. 845, the Commission revised articles 5.1, 5.1.3, and 5.1.4 of the *pro forma* LGIA to allow interconnection customers to unilaterally exercise the option to build for stand alone network upgrades and the transmission provider’s interconnection facilities, regardless of whether the transmission provider can complete construction of such facilities by the interconnection customer’s proposed in-service date, initial synchronization date, or commercial operation date.¹⁷ Prior to Order No. 845, this option to build was available to an interconnection customer only if the transmission provider did not agree to the interconnection customer’s preferred construction timeline.¹⁸ The Commission stated in Order No. 845 that this reform of the option to build will “benefit the interconnection process by providing interconnection customers more control and certainty during the design and construction phases of the interconnection process.”¹⁹

¹⁴ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103, at P 825 (2003), *order on reh’g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh’g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh’g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

¹⁵ *See, e.g., Nev. Power Co.*, 167 FERC ¶ 61,086, at P 3 (2019).

¹⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 826; Order No. 2003-A, 106 FERC ¶ 61,220 at P 45.

¹⁷ Order No. 845, 163 FERC ¶ 61,043 at PP 85-87.

¹⁸ Order No. 2003, 104 FERC ¶ 61,103 at P 353; *see also pro forma* LGIP § 5.1.3.

¹⁹ Order No. 845, 163 FERC ¶ 61,043 at P 85.

13. In Order No. 845-A, the Commission granted rehearing and clarification of certain aspects of the revised option to build. Specifically, the Commission revised the definition of stand alone network upgrade in the *pro forma* LGIP and *pro forma* LGIA to: (1) state that, when there is a disagreement, the transmission provider must provide the interconnection customer a written technical explanation outlining why the transmission provider does not consider a specific network upgrade to be a stand alone network upgrade;²⁰ and (2) clarify that the option to build does not apply to stand alone network upgrades on affected systems.²¹ The Commission also made revisions to article 5.2 of the *pro forma* LGIA to allow transmission providers to recover oversight costs related to the interconnection customer's option to build.²² In addition, the Commission clarified that the revised option to build provisions apply to all public utility transmission providers, including those that reimburse the interconnection customer for network upgrades.²³

a. PNM's Compliance Filing

14. PNM's proposed Tariff revisions adopt the Commission's *pro forma* LGIA revisions for the option to build and LGIP definition for stand alone network upgrades as required by Order Nos. 845 and 845-A without modification.²⁴

b. Commission Determination

15. We find that PNM's proposed LGIP and *pro forma* LGIA provisions regarding the option to build comply with the requirements of Order Nos. 845 and 845-A because PNM adopts the Commission's *pro forma* LGIP and *pro forma* LGIA revisions without modification.

3. Dispute Resolution

16. In Order No. 845, the Commission revised the *pro forma* LGIP by adding new section 13.5.5, which establishes generator interconnection dispute resolution procedures that allow a disputing party to unilaterally seek non-binding dispute resolution.²⁵ The

²⁰ Order No. 845-A, 166 FERC ¶ 61,137 at P 68.

²¹ *Id.* P 61.

²² *Id.* P 75.

²³ *Id.* P 33.

²⁴ PNM Compliance Filing, Transmittal at 2.

²⁵ Order No. 845, 163 FERC ¶ 61,043 at P 133; *see also pro forma* LGIP § 13.5.5.

Commission established these new procedures because dispute resolution was previously unavailable when the parties did not mutually agree to pursue a binding arbitration under section 13.5 of the pre-Order No. 845 *pro forma* LGIP. The Commission further explained that participation in the new non-binding dispute resolution process in *pro forma* LGIP section 13.5.5 does not preclude disputing parties from pursuing binding arbitration after the conclusion of the non-binding dispute resolution process if they seek a binding result.²⁶

a. PNM's Compliance Filing

17. PNM's proposed Tariff revisions adopt the Commission's *pro forma* LGIP revisions for dispute resolution as required by Order Nos. 845 and 845-A without modification.²⁷

b. Commission Determination

18. We find that PNM's proposed LGIP revisions regarding dispute resolution procedures comply with the requirements of Order Nos. 845 and 845-A because PNM adopts the Commission's *pro forma* revisions without modification.

4. Identification and Definition of Contingent Facilities

19. In Order No. 845, the Commission added a new definition to section 1 of the *pro forma* LGIP, providing that contingent facilities shall mean those unbuilt interconnection facilities and network upgrades upon which the interconnection request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for restudies of the interconnection request or a reassessment of the interconnection facilities and/or network upgrades and/or costs and timing.²⁸ The Commission also added new section 3.8 to the *pro forma* LGIP, which requires transmission providers to include, within section 3.8, a method for identifying the contingent facilities that they will provide to the interconnection customer at the conclusion of the system impact study and include in the interconnection customer's generator interconnection agreement.²⁹ The Commission specified that the method must be sufficiently transparent to determine why a specific contingent facility was identified and how it relates to the interconnection

²⁶ Order No. 845, 163 FERC ¶ 61,043 at P 139.

²⁷ PNM Compliance Filing, Transmittal at 2.

²⁸ Order No. 845, 163 FERC ¶ 61,043 at P 218; *see also pro forma* LGIP § 1 (Definitions).

²⁹ Order No. 845, 163 FERC ¶ 61,043 at P 199.

request.³⁰ The Commission stated that this transparency will ensure that the method is applied on a non-discriminatory basis.³¹ The Commission further required that transmission providers provide, upon the interconnection customer's request, the estimated network upgrade costs and estimated in-service completion date associated with each identified contingent facility when this information is readily available and not commercially sensitive.³²

a. PNM's Compliance Filing

20. PNM proposes Tariff revisions to its LGIP in a new section 3.8 for identifying contingent facilities.³³ Specifically, the new section 3.8 sets forth a procedure that includes the following: a review of previously identified interconnection facilities and network upgrades; an assessment that may include distribution factor analysis, contingency analysis, and engineering judgment with regard to the identified interconnection facilities and network upgrades; coordination with affected systems; inclusion of the contingent facilities list in the study report; and inclusion of the contingent facilities list in the interconnection customer's LGIA.

21. PNM's proposed Tariff revisions adopt the Commission's definition of contingent facilities in Order No. 845 without modification.

b. Commission Determination

22. We find that the revised provisions that identify and describe PNM's method for determining contingent facilities, as PNM proposes in its LGIP, partially comply with the requirements of Order Nos. 845 and 845-A. We find that PNM complies with the requirements of Order Nos. 845 and 845-A because PNM has adopted the definition of contingent facilities without modification. Further, PNM's proposed Tariff revisions comply with the requirements related to providing estimated network upgrade costs and estimated in-service completion dates associated with contingent facilities to the interconnection customer.

³⁰ *Id.*; see also *pro forma* LGIP § 3.8.

³¹ Order No. 845, 163 FERC ¶ 61,043 at P 200.

³² *Id.* P 199; see also *pro forma* LGIP § 3.8.

³³ PNM Compliance Filing, Transmittal at 3; PNM Tariff, att. N, § 3.8.

23. However, as specified in Order No. 845, transmission providers must include, in section 3.8 of their LGIPs, a method for determining contingent facilities.³⁴ The Commission required that this method must provide sufficient transparency to determine why a specific contingent facility was identified and how it relates to the interconnection request.³⁵ The Commission also required that a transmission provider's method to identify contingent facilities be transparent enough to ensure that it will be applied on a non-discriminatory basis.³⁶ PNM's proposed section 3.8 of its LGIP lacks the requisite transparency required by Orders No. 845 and 845-A because the proposed revisions do not detail the specific technical screens or analyses and the specific thresholds or criteria that PNM will use as a part of its method to identify contingent facilities.³⁷ Without this information, an interconnection customer will not understand how PNM will evaluate potential contingent facilities to determine their relationship to an individual interconnection request.³⁸ Further, including provisions regarding specific thresholds or criteria in PNM's LGIP will ensure PNM's technical screens or analyses will be applied to interconnection requests on a consistent, not unduly discriminatory or preferential basis. Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing that includes in section 3.8 of its LGIP the method it will use to determine contingent facilities, including technical screens or analyses it proposes to use to identify these facilities. We also require that PNM include in LGIP section 3.8, the specific thresholds or criteria it will use in its technical screens or analysis to achieve the level of transparency required by Order No. 845.

5. Transparency Regarding Study Models and Assumptions

24. In Order No. 845, the Commission revised section 2.3 of the *pro forma* LGIP to require transmission providers to maintain network models and underlying assumptions on either an OASIS site or a password-protected website. If the transmission provider posts this information on a password-protected website, a link to the information must be provided on its OASIS site. Revised *pro forma* LGIP section 2.3 also requires that "network models and underlying assumptions reasonably represent those used during the

³⁴ Order No. 845, 163 FERC ¶ 61,043 at P 199.

³⁵ *Id.* P 200.

³⁶ *Id.*

³⁷ Order No. 845 declined to implement a standard threshold or criteria, such as a specific distribution factor threshold, because different thresholds may be more appropriate for different queue types and geographical footprints. *Id.* P 220.

³⁸ *See pro forma* LGIP § 3.8 ("The method shall be sufficiently transparent to determine why a specific Contingent Facility was identified").

most recent interconnection study and be representative of current system conditions.”³⁹ In addition, the Commission revised *pro forma* LGIP section 2.3 to allow transmission providers to require interconnection customers, OASIS site users, and password-protected website users to sign a confidentiality agreement before the release of commercially sensitive information or critical energy infrastructure information (CEII).⁴⁰

25. In Order No. 845-A, the Commission reiterated that neither the Commission’s CEII regulations nor Order No. 845 precludes a transmission provider from taking necessary steps to protect information within its custody or control to ensure the safety and security of the electric grid.⁴¹ The Commission also clarified that, to the extent any party would like to use the Commission’s CEII regulations as a model for evaluating entities that request network model information and assumptions (prior to signing a non-disclosure agreement), it may do so.⁴² The Commission further clarified that the phrase “current system conditions” does not require transmission providers to maintain network models that reflect current real-time operating conditions of the transmission provider’s system. Instead, the network model information should reflect the system conditions currently used in interconnection studies.⁴³

a. PNM’s Compliance Filing

26. PNM’s proposed Tariff revisions adopt the Commission’s *pro forma* LGIP revisions for revised study models and include additional language that reflect PNM’s current modeling practices.⁴⁴ In relevant part, PNM proposes the following language for section 2.3 of its LGIP:

Such network models and underlying assumptions should reasonably represent those used during the most recent interconnection study for which the Interconnection Customer has a valid Interconnection Request and be representative of

³⁹ Order No. 845, 163 FERC ¶ 61,043 at P 236.

⁴⁰ *Id.*; see also *pro forma* LGIP § 2.3.

⁴¹ Order No. 845-A, 166 FERC ¶ 61,137 at P 84 (citing Order No. 845, 163 FERC ¶ 61,043 at P 241).

⁴² *Id.* P 85 (citing 18 C.F.R. § 388.113(g)(5)(i) (2019)).

⁴³ *Id.* P 88.

⁴⁴ PNM Compliance Filing, Transmittal at 2-3.

current system conditions with assumed higher queued generation and transmission additions.

27. In addition, PNM proposes revisions to section 12.1 of its LGIP to remove contradictory language referencing the sharing of Western Electric Coordinating Council (WECC) data with non-WECC-member interconnection customers.⁴⁵ The language that PNM proposes to remove provides that PNM not share data with non-WECC members, and PNM suggests that the language is contradictory with the intent of Order No. 845. PNM proposes the following changes to section 12.1 of its LGIP:

~~Transmission Provider may perform study work using Western Electric Coordinating Council (“WECC”) data (power flow, stability, and disturbance monitoring data) containing higher queued generation and transmission additions for nonmembers provided that the WECC data are not provided to the nonmember. Under such arrangements the nonmembers are permitted to look at the data in the Transmission Provider’s office to gain an understanding of the study results, but are not permitted to have the data or a copy of the data. Interconnection Customer must also sign the WECC Nonmember Confidentiality Agreement in accordance with regional Reliability Council policies.~~

b. Commission Determination

28. We find that PNM’s proposed LGIP revisions regarding study models and assumptions, in addition to the removal of language that stated that PNM would not share data with non-WECC members, comply with the requirements of Order Nos. 845 and 845-A. We find that PNM’s revisions to the Commission’s *pro forma* LGIP clarify PNM’s process and are consistent with or superior to the language set forth in Order Nos. 845 and 845-A.

6. Definition of Generating Facility

29. In Order No. 845, the Commission revised the definition of “Generating Facility” to include electric storage resources and to allow electric storage resources to interconnect pursuant to the Commission-jurisdictional large generator interconnection processes. Specifically, the Commission revised the definition of “Generating Facility” in the *pro forma* LGIP and *pro forma* LGIA as follows:

Generating Facility shall mean Interconnection Customer’s device for the production *and/or storage for later injection of*

⁴⁵ *Id.* at 7; PNM Tariff, att. N, § 12.1.

electricity identified in the Interconnection Request, but shall not include the interconnection customer's Interconnection Facilities.⁴⁶

The Commission found that this definitional change will reduce a potential barrier to large electric storage resources with a generating facility capacity above 20 MW that wish to interconnect pursuant to the terms in the *pro forma* LGIP and *pro forma* LGIA.⁴⁷

a. PNM's Compliance Filing

30. PNM's proposed Tariff revisions adopt the Commission's *pro forma* LGIP and *pro forma* LGIA definition of "Generating Facility" as required by Order Nos. 845 and 845-A without modification.⁴⁸

b. Commission Determination

31. We find that PNM's revisions regarding the definition of a "Generating Facility" comply with the requirements of Order Nos. 845 and 845-A because PNM adopts the Commission's *pro forma* LGIP and *pro forma* LGIA provisions without modification.

7. Interconnection Study Deadlines

32. In Order No. 845, the Commission modified the *pro forma* LGIP to add sections 3.5.2 and 3.5.3, which require transmission providers to calculate and maintain on their OASIS sites or public websites summary statistics related to the timing of the transmission provider's processing of interconnection studies and to update those statistics on a quarterly basis.⁴⁹ In these sections, the Commission included bracketed Tariff language to be completed by the transmission provider in accordance with the timelines established for the various studies in their LGIPs.⁵⁰ The Commission also revised the *pro forma* LGIP to add section 3.5.4 to require transmission providers to file informational reports with the Commission if a transmission provider exceeds its

⁴⁶ Order No. 845, 163 FERC ¶ 61,043 at P 275 (additions italicized); *see also pro forma* LGIP § 1.

⁴⁷ Order No. 845, 163 FERC ¶ 61,043 at P 275.

⁴⁸ PNM Compliance Filing, Transmittal at 2.

⁴⁹ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

⁵⁰ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

interconnection study deadlines for more than 25 percent of any study type for two consecutive calendar quarters.⁵¹ In adopting these reporting requirements, the Commission found that the reporting requirements strike a reasonable balance between providing increased transparency and information to interconnection customers and not unduly burdening transmission providers.⁵² In Order No. 845-A, the Commission revised *pro forma* LGIP section 3.5.3 to clarify that the data reporting and retention requirements begin in the first calendar quarter of 2020.⁵³

a. PNM's Compliance Filing

33. PNM proposes to adopt the relevant *pro forma* LGIP revisions set forth in Order Nos. 845 and 845-A without modification.⁵⁴ PNM also proposes to replace the bracketed language from *pro forma* LGIP sections 3.5.2.1, 3.5.2.2, and 3.5.2.3 with the 150 calendar day deadlines that are currently in PNM's Tariff for its various interconnection studies.

b. Commission Determination

34. We find that PNM's proposed LGIP revisions regarding PNM's study deadlines and informational reporting requirements comply with the requirements of Order Nos. 845 and 845-A because PNM adopts the Commission's *pro forma* LGIP revisions without modification and replaces the bracketed placeholders in *pro forma* LGIP sections 3.5.2.1, 3.5.2.2, and 3.5.2.3 with timelines that align with the timelines already in its Tariff.

8. Requesting Interconnection Service below Generating Facility Capacity

35. In Order No. 845, the Commission modified sections 3.1, 6.3, 7.3, 8.2, and Appendix 1 of the *pro forma* LGIP to allow interconnection customers to request interconnection service that is lower than the proposed generating facility's capacity,⁵⁵

⁵¹ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP § 3.5.4.

⁵² Order No. 845, 163 FERC ¶ 61,043 at P 307.

⁵³ Order No. 845-A, 166 FERC ¶ 61,137 at P 107.

⁵⁴ PNM Tariff, att. N, § 3.5.2.

⁵⁵ The term generating facility capacity is defined as “the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices.” *Pro forma* LGIA art. 1.

recognizing the need for proper control technologies and flexibility for transmission providers to propose penalties to ensure that the generating facility does not inject energy above the requested level of service.⁵⁶

36. The Commission required, in *pro forma* LGIP revised section 3.1, that transmission providers have a process in place to consider requests for interconnection service below the generating facility capacity. The Commission stipulated that such requests should be studied at the level of interconnection service requested for purposes of determining interconnection facilities, network upgrades, and associated costs, but that such requests may be subject to other studies at the full generating facility capacity to ensure safety and reliability of the system.⁵⁷ In addition, *pro forma* LGIP revised section 3.1 states that the interconnection customer is responsible for all study costs and interconnection facility and/or network upgrade costs required for safety and reliability. The Commission also required in *pro forma* LGIP revised section 3.1 that any necessary control technologies and/or protection systems, be memorialized in the LGIA.

37. The Commission required, in *pro forma* LGIP revised sections 6.3, 7.3, and 8.2, that the feasibility, system impact, and facilities studies be performed at the level of interconnection service that the interconnection customer requests, unless the transmission provider is otherwise required to study the full generating facility capacity due to safety and reliability concerns. The Commission stated that, if the transmission provider determines that additional network upgrades are necessary based on these studies, it must specify which additional network upgrade costs are based on which studies and provide a detailed explanation of why the additional network upgrades are necessary.⁵⁸

38. Finally, the Commission revised sections 4.4.1 and 4.4.2 of the *pro forma* LGIP to allow an interconnection customer to reduce the size of its interconnection request either

⁵⁶ Order No. 845, 163 FERC ¶ 61,043 at P 367; *see also pro forma* LGIP §§ 3.1, 6.3, 7.3, 8.2; *pro forma* LGIP app. 1.

⁵⁷ Order No. 845, 163 FERC ¶ 61,043 at PP 383-84.

⁵⁸ *Id.* P 384. The Commission clarified that, if the transmission provider determines, based on good utility practice and related engineering considerations and after accounting for the proposed control technology, that studies at the full generating facility capacity are necessary to ensure safety and reliability of the transmission system when an interconnection customer requests interconnection service that is lower than full generating facility capacity, then it must provide a detailed explanation for such a determination in writing to the interconnection customer. *Id.*

prior to returning to the transmission provider an executed system impact study agreement or an executed facilities study agreement.⁵⁹

a. PNM's Compliance Filing

39. PNM's proposed Tariff revisions adopt the Commission's *pro forma* LGIP revisions regarding a request for interconnection service below full generating capacity as required by Order Nos. 845 and 845-A without modification.⁶⁰ However, PNM's proposed Tariff revisions do not fully incorporate the *pro forma* LGIP language adopted by Order No. 845.⁶¹ Order No. 845 adopted the following language as the second sentence of the final paragraph in *pro forma* LGIP section 3.1:

These requests for Interconnection Service shall be studied at the level of Interconnection Service requested for purposes of Interconnection Facilities, Network Upgrades, *and associated costs*, but may be subject to other studies at the full Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer.⁶²

b. Commission Determination

40. We find that PNM's proposed LGIP revisions that allow an interconnection customer to request interconnection service below its full generating facility capacity partially comply with the requirements of Order Nos. 845 and 845-A because they incorporate most of the language required by those Orders without modification. However, as discussed above, PNM's revisions to section 3.1 of its LGIP omit some of the *pro forma* LGIP language required by Order No. 845.⁶³ Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing that

⁵⁹ *Id.* P 406; *see also pro forma* LGIP §§ 4.4.1, 4.4.2.

⁶⁰ PNM Tariff, att. N, § 3.1.

⁶¹ *See* Order No. 845-A, 166 FERC ¶ 61,137 at P 117.

⁶² Order No. 845, 163 FERC ¶ 61,043 at P 347; *see also id.* P 367. The italics indicate language adopted by Order No. 845 that PNM's Tariff revisions failed to include. We recognize, however, that the *pro forma* LGIP that was available on the Commission's website failed to include that language.

⁶³ *Id.* PP 347, 367, app. B.

incorporates the *pro forma* revisions to section 3.1 of its LGIP, as required by Order No. 845.

9. Provisional Interconnection Service

41. In Order No. 845, the Commission required transmission providers to allow all interconnection customers to request provisional interconnection service.⁶⁴ The Commission explained that interconnection customers may seek provisional interconnection service when available studies or additional studies, as necessary, indicate that there is a level of interconnection service that can occur to accommodate an interconnection request without the construction of any additional interconnection facilities and/or network upgrades, and the interconnection customer wishes to make use of that level of interconnection service while the facilities required for its full interconnection request are completed.⁶⁵ To implement this service, the Commission revised the *pro forma* LGIP and *pro forma* LGIA to add a definition for “Provisional Interconnection Service”⁶⁶ and for a “Provisional Large Generator Interconnection Agreement.”⁶⁷

42. In addition, the Commission added *pro forma* LGIA article 5.9.2, which details the terms for provisional interconnection service.⁶⁸ The Commission also explained that transmission providers have the discretion to determine the frequency for updating provisional interconnection studies to account for changes to the transmission system to reassess system capacity available for provisional interconnection service and included bracketed tariff language to be completed by the transmission provider, to specify the frequency at which they perform such studies in their *pro forma* LGIA.⁶⁹ The

⁶⁴ *Id.* P 438.

⁶⁵ *Id.* P 441.

⁶⁶ *Pro forma* LGIP § 1 (Definitions); *pro forma* LGIA art. 1 (Definitions).

⁶⁷ *Id.* The Commission declined, however, to adopt a separate *pro forma* provisional large generator interconnection agreement. Order No. 845, 163 FERC ¶ 61,043 at P 444.

⁶⁸ *Id.* P 438; *see also pro forma* LGIP § 5.9.2.

⁶⁹ Order No. 845, 163 FERC ¶ 61,043 at P 448.

Commission stated that interconnection customers are responsible for the costs for performing these provisional interconnection studies.⁷⁰

a. PNM's Compliance Filing

43. PNM's proposed Tariff revisions adopt the Commission's *pro forma* definition of provisional interconnection service and *pro forma* language in article 5.9.2 of its LGIA.⁷¹ PNM proposes to revise article 5.9.2 to state that it will update provisional interconnection studies "if necessary on a quarterly basis."⁷²

b. Commission Determination

44. We find that PNM's proposed revisions to its LGIP and *pro forma* LGIA regarding provisional interconnection service partially comply with the requirements of Order Nos. 845 and 845-A. PNM's proposed Tariff revisions comply because PNM adopts the Commission's *pro forma* definition of provisional interconnection service and, with one exception, the *pro forma* language in article 5.9.2 of its LGIA. However, we find that PNM's proposed revision to *pro forma* LGIA article 5.9.2 does not comply with the requirements of Order Nos. 845 and 845-A because those revisions do not identify when it will or will not be necessary to update provisional interconnection studies. PNM proposes to conduct updated provisional interconnection studies "if necessary, on a quarterly basis."⁷³ While the Commission gave transmission providers discretion to determine the frequency for updating provisional interconnection studies in Order No. 845, PNM's proposed inclusion of the phrase "if necessary" provides PNM unfettered discretion to determine the frequency at which it will update provisional interconnection studies. Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing with revisions that either specify, in *pro forma* LGIA article 5.9.2, when the quarterly update to provisional interconnection service studies will not be necessary⁷⁴ or remove the "if necessary" language from its revisions to *pro forma* LGIA article 5.9.2.

⁷⁰ *Id.*

⁷¹ PNM Compliance Filing, Transmittal at 5.

⁷² *Id.*; PNM Tariff, att. N, app. 6, art. 5.9.2.

⁷³ PNM Compliance Filing, Transmittal at 5; PNM Tariff, att. N, app. 6, art. 5.9.2.

⁷⁴ *See, e.g., Black Hills Colo. Elec., LLC*, 169 FERC ¶ 61,144, at P 40 (2019) (directing Black Hills Colorado Electric, LLC to submit revisions stating that its periodic

10. Surplus Interconnection Service

45. In Order No. 845, the Commission adopted *pro forma* LGIP sections 1, 3.3, and 3.3.1 and *pro forma* LGIA article 1 to establish surplus interconnection service, which the Commission defined as any unneeded portion of interconnection service established in an LGIA such that if the surplus interconnection service is utilized the total amount of interconnection service at the point of interconnection would remain the same.⁷⁵ Surplus interconnection service enables a new interconnection customer to utilize the unused portion of an existing interconnection customer's interconnection service within specific parameters.⁷⁶ The Commission required transmission providers to revise their tariffs to include the new definition of surplus interconnection service in their *pro forma* LGIP and *pro forma* LGIA, and provide in the *pro forma* LGIP an expedited interconnection process outside of the interconnection queue for surplus interconnection service.⁷⁷ That expedited process must allow affiliates of the existing interconnection customer to use surplus interconnection service for another interconnecting generating facility and allow for the transfer of surplus interconnection service that the existing interconnection customer or one of its affiliates does not intend to use.⁷⁸ The transmission provider must perform reactive power, short circuit/fault duty, and stability analyses studies as well as steady-state (thermal/voltage) analyses as necessary to ensure evaluation of all required reliability conditions to provide surplus interconnection service and ensure the reliable use of surplus interconnection service.⁷⁹ The original interconnection customer must be able to stipulate the amount of surplus interconnection service that is available, designate when that service is available, and describe any other conditions under which surplus interconnection service at the point of interconnection may be used.⁸⁰ When the interconnection customer, the surplus interconnection service customer, and the

updates to provisional interconnection studies will not be necessary if no changes to the system occurred during the period).

⁷⁵ Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP § 1 (Definitions); *pro forma* LGIP art. 1 (Definitions).

⁷⁶ Order No. 845, 163 FERC ¶ 61,043 at P 467; Order No. 845-A, 166 FERC ¶ 61,137 at P 119.

⁷⁷ Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP §§ 3.3, 3.3.1.

⁷⁸ Order No. 845, 163 FERC ¶ 61,043 at P 483; *see also pro forma* LGIP § 3.3.

⁷⁹ Order No. 845, 163 FERC ¶ 61,043 at PP 455, 467.

⁸⁰ *Id.* P 481.

transmission provider enter into agreements for surplus interconnection service, they must be filed by the transmission provider with the Commission, because any surplus interconnection service agreement will be an agreement under the transmission provider's Tariff.⁸¹

a. PNM's Compliance Filing

46. PNM proposes to adopt the Commission's definition for Surplus Interconnection Service without modification in section 1 of its LGIP and article 1 of its *pro forma* LGIA. PNM explains that it has established an expedited interconnection process for surplus interconnection service outside of the interconnection queue in proposed new sections 3.3.1 and 3.3.2 of its LGIP, which will be available to affiliates of the original interconnection customer or third parties.⁸² In its LGIP new section 3.3.1, PNM proposes to allow interconnection customers to request surplus interconnection service and outlines the studies that PNM may perform to ensure reliability will not be harmed and identify any network upgrades that may be required. In LGIP new section 3.3.2, PNM outlines its process for evaluating interconnection requests for surplus interconnection service.⁸³ Under this process, PNM proposes that it may accept third-party studies demonstrating no adverse impact to the transmission system, or PNM may require its own or additional studies at its discretion. PNM will also use available studies to the extent applicable. The interconnection customer requesting surplus interconnection service must execute a surplus interconnection service study agreement, under which the interconnection customer is responsible for the cost of the study.⁸⁴ PNM proposes to use reasonable efforts to complete the study outside the interconnection queue within 90 days following the execution of the surplus interconnection service study agreement and receipt of related deposits and technical data required to perform the study.⁸⁵

47. PNM also proposes language in LGIP new section 3.3.2 stating that, after the surplus interconnection study is completed, PNM, the original interconnection customer, and the interconnection customer requesting surplus interconnection service (if different from the original interconnection customer) shall develop a surplus interconnection service agreement, and other related agreements as necessary and file such agreements with the Commission as necessary. The proposed language also states that PNM is not

⁸¹ *Id.* P 499.

⁸² Deficiency Response at 2-3.

⁸³ *Id.* at 3.

⁸⁴ PNM Tariff, att. N, § 3.3.2.

⁸⁵ *Id.*

required to execute a surplus interconnection service agreement, and other related agreements, if such agreements do not comply with the PNM Tariff or if the interconnection customer does not agree to the terms of such service, including any requirements that PNM may identify in the study for surplus interconnection service. If the interconnection customer disputes an issue in the surplus interconnection service agreement, or other related agreements, the proposed language states that PNM must file the unexecuted surplus interconnection service agreement with the Commission if requested by the interconnection customer.

b. Commission Determination

48. We find that the provisions regarding surplus interconnection service that PNM proposes in its LGIP and *pro forma* LGIA partially comply with the requirements of Order Nos. 845 and 845-A. We find that PNM has proposed a process for evaluating and transferring surplus interconnection service that complies with the requirements of Order Nos. 845 and 845-A. We also find that PNM's proposed surplus interconnection service process meets the requirements of Order Nos. 845 and 845-A because PNM will evaluate surplus interconnection service requests outside of its non-surplus interconnection queue. However, we find that PNM's proposal to file surplus interconnection service agreements with the Commission "as necessary" provides PNM with unfettered discretion to refrain from filing agreements.⁸⁶ Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing with revisions to its LGIP section 3.3.2 to remove the "as necessary" qualifier that describes when PNM shall file any agreements for surplus interconnection service.

11. Material Modifications and Incorporation of Advanced Technologies

49. In Order No. 845, the Commission modified section 4.4.2(c) of the *pro forma* LGIP to allow an interconnection customer to incorporate certain technological advancements to its interconnection request, prior to the execution of the interconnection facilities study agreement,⁸⁷ without risking the loss of its queue position. The

⁸⁶ See 16 U.S.C. § 824(d) (2018) ("Unless the Commission otherwise orders, no change shall be made by any public utility in any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto, except after sixty days' notice to the Commission and to the public.").

⁸⁷ While the Commission clarified that interconnection customers may submit a technological advancement request up until execution of the facilities study agreement, the Commission stated that it will permit transmission providers to propose rules limiting the submission of technological advancement requests to a single point in the study

Commission required transmission providers to develop and include in their LGIPs a definition of permissible technological advancements that will create a category of technological changes that, by definition, do not constitute a material modification and, therefore, will not result in the loss of queue position.⁸⁸ In addition, the Commission modified section 4.4.6 of the *pro forma* LGIP to require transmission providers to insert a technological change procedure that includes the requisite information and process that the transmission provider will follow to assess whether an interconnection customer's proposed technological advancement is a material modification.⁸⁹

50. The Commission required that the technological change procedure specify what technological advancements can be incorporated at various stages of the interconnection process and clearly identify which requirements apply to the interconnection customer and which apply to the transmission provider.⁹⁰ Additionally, the technological change procedure must state that, if the interconnection customer seeks to incorporate technological advancements into its proposed generating facility, it should submit a technological advancement request, and the procedure must specify the information that the interconnection customer must submit as part of that request.⁹¹

51. The Commission also required that the technological change procedure specify the conditions under which a study will or will not be necessary to determine whether a proposed technological advancement is a material modification.⁹² The Commission explained that the technological change procedure must also state that, if a study is necessary to evaluate whether a particular technological advancement is a material modification, the transmission provider shall clearly indicate to the interconnection customer the types of information and/or study inputs that the interconnection customer must provide to the transmission provider, including, for example, study scenarios, modeling data, and any other assumptions.⁹³ In addition, the Commission required that

process (prior to the execution of a facilities study agreement), to the extent the transmission provider believes it appropriate. Order No. 845, 163 FERC ¶ 61,043 at P 536.

⁸⁸ *Id.* P 518.

⁸⁹ *Id.*; *see also pro forma* LGIP § 4.4.6.

⁹⁰ Order No. 845, 163 FERC ¶ 61,043 at P 519.

⁹¹ *Id.*

⁹² *Id.*; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

⁹³ Order No. 845, 163 FERC ¶ 61,043 at 521.

the technological change procedure explain how the transmission provider will evaluate the technological advancement request to determine whether it is a material modification.⁹⁴

52. Further, the Commission required that the technological change procedure outline a time frame of no more than 30 days after the interconnection customer submits a formal technological advancement request for the transmission provider to perform and complete any necessary additional studies.⁹⁵ The Commission also found that, if the transmission provider determines that additional studies are necessary to evaluate whether a technological advancement is a material modification, the interconnection customer must tender a deposit, and the transmission provider must specify the amount of the deposit in the transmission provider's technological change procedure.⁹⁶ In addition, the Commission explained that, if the transmission provider cannot accommodate a proposed technological advancement without triggering the material modification provision of the *pro forma* LGIP, the transmission provider must provide an explanation to the interconnection customer regarding why the technological advancement is a material modification.⁹⁷

53. In Order No. 845-A, the Commission clarified that: (1) when studies are necessary, the interconnection customer's technological change request must demonstrate that the proposed incorporation of the technological change will result in electrical performance that is equal to or better than the electrical performance expected prior to the technological change and will not cause any reliability concerns; (2) if the interconnection customer cannot demonstrate in its technological change request that the proposed technological change would result in equal or better electrical performance, the change will be assessed pursuant to the existing material modification provisions in the *pro forma* LGIP; (3) information regarding electrical performance submitted by the interconnection customer is an input into the technological change study, and this factor alone is not determinative of whether a proposed technological change is a material modification; and (4) the determination of whether a proposed technological change (that the transmission provider does not otherwise include in its definition of permissible technological advancements) is a material modification should include an analysis of

⁹⁴ *Id.*

⁹⁵ *Id.* P 535.

⁹⁶ *Id.* P 534. The Commission set the default deposit amount at \$10,000 but stated that a transmission provider may propose a reasonable alternative deposit amount in its compliance filing and include justification supporting this alternative amount. *Id.*

⁹⁷ *Id.* P 522.

whether the proposed technological change materially impacts the timing and costs of lower-queued interconnection customers.⁹⁸

a. PNM's Compliance Filing

54. PNM proposes the following definition of permissible technological advancement in order to address the Commission's directives:

Permissible Technological Advancement shall mean modification to turbines, inverters, plant supervisory controls or other technological advancements that do not have a material impact on the cost or timing of any Interconnection Request with a later queue priority date. A Permissible Technological Advancement results in electrical performance that is equal to or better than the electrical performance expected prior to the technology change and [sic] not cause any reliability concerns or degrade the electrical characteristics of the generating equipment (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady-state and dynamic conditions), and does not include changes in generation technology type or fuel type.

PNM explains that this proposed definition accomplishes the Commission's requirement that transmission providers define modifications associated with technological improvements that are not material.⁹⁹

55. In addition, PNM proposes to establish a technological change procedure in new section 4.4.6 to its LGIP which will include the requisite information and process that PNM will follow to assess whether an interconnection customer's proposed technological change is a permissible technological advancement.¹⁰⁰ Under PNM's proposed process, an interconnection customer may submit a permissible technological advancement request including a description of the proposed technological advancement and supporting data and models prior to the return of an executed facilities study agreement. Section 4.4.6 states that, within ten business days, PNM will notify the interconnection customer as to whether the technological advancement meets the criteria for a permissible technological advancement or whether further study is needed. Section 4.4.6 also

⁹⁸ Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

⁹⁹ PNM Compliance Filing, Transmittal at 4.

¹⁰⁰ *Id.* at 4-5.

provides that if PNM determines that the technological advancement is a material modification, the interconnection customer may proceed with a material modification request.

b. Commission Determination

56. We find that the proposed provisions to incorporate a definition of a permissible technological advancement and associated procedures, as proposed by PNM in its *pro forma* LGIP, partially comply with the requirements of Order Nos. 845 and 845-A. Specifically, we find that PNM's proposed definition of a permissible technological advancement meets the Commission's requirement to provide a category of technological change that does not constitute a material modification. However, it appears that PNM has unintentionally omitted the word "does" in the second sentence of its proposed definition if its intention was to state "*does* not cause any reliability concerns." Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing to revise the definition to include the missing word "does."

57. Further, Order No. 845 required an interconnection customer to tender a deposit if the transmission provider determines that additional studies are needed to evaluate whether a technological change is a material modification. Order No. 845 states that the transmission provider should specify the amount of the deposit in its technological change procedure.¹⁰¹ While Order No. 845 sets the default deposit amount at \$10,000, it allows the transmission provider to propose, with justification, a reasonable alternative amount. However, PNM fails to propose a deposit for a technological change request. Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing that revises its LGIP to specify the deposit amount the interconnection customer must tender if PNM determines that additional studies are needed to evaluate whether a technological change is a material modification.

58. Order No. 845 also requires that the technological change procedure explain how the transmission provider will evaluate the technological advancement request to determine whether it is a material modification.¹⁰² PNM's proposed LGIP revisions do not explain how it will evaluate the technological advancement request to determine whether it is a material modification. Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing revising its LGIP to provide a more detailed explanation of the studies that PNM will conduct to determine whether the technological advancement request will result in a material modification.

¹⁰¹ Order No. 845, 163 FERC ¶ 61, 043 at P 534.

¹⁰² *Id.* P 521.

59. With regard to a deadline for the completion of a technological advancement request, Order No. 845 provides that the determination of whether a change is a material modification must be made within 30 days of the initial request.¹⁰³ In its compliance filing, PNM fails to specify a deadline by which it will determine whether the proposed technological change is a material modification. Accordingly, we direct PNM to file, within 60 days of the date of this order, a further compliance filing that revises its proposed technological change procedure to provide that PNM will determine whether or not a technological advancement is a material modification within 30 days of receipt of the initial request.

60. Finally, because PNM's filing is silent on whether it will provide an explanation to the interconnection customer regarding why the technological advancement is a material modification, we reiterate that the transmission provider is required to do so if it cannot accommodate a proposed technological advancement without triggering the material modification provision of the *pro forma* LGIP.¹⁰⁴

The Commission orders:

(A) PNM's compliance filing is hereby accepted, effective May 22, 2019, subject to a further compliance filing, as discussed in the body of this order.

(B) PNM is hereby directed to submit a compliance filing within 60 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

¹⁰³ Order No. 845, 163 FERC ¶ 61,043 at P 535; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

¹⁰⁴ Order No. 845, 163 FERC ¶ 61,043 at P 522.