

170 FERC ¶ 61,207
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

GridLiance High Plains LLC

Docket Nos. ER19-1961-000
ER19-1961-002

ORDER ON COMPLIANCE

(Issued March 19, 2020)

1. On May 22, 2019, as amended on May 23, 2019 and July 15, 2019, GridLiance High Plains LLC (GridLiance HP) 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 As discussed below, we find that GridLiance HP's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept GridLiance HP's compliance filing, effective May 22, 2019, and direct GridLiance HP to submit a further compliance filing within 120 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

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, *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.

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 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

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.

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

6. GridLiance HP states that it has incorporated all of the Commission’s *pro forma* LGIP and *pro forma* LGIA reforms into its Tariff,¹² as required by Order Nos. 845 and

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 GridLiance HP’s LGIP and LGIA are contained in attachments M and N of its Tariff, respectively.

845-A. GridLiance HP states that it adopts without modification the following *pro forma* LGIP and *pro forma* LGIA reforms: interconnection customer's option to build, dispute resolution, definition of contingent facilities, transparency regarding study models and assumptions, definition of a generating facility, requesting interconnection service below generating facility capacity, and provisional interconnection service.

7. GridLiance HP proposes Tariff revisions in instances where the Commission requires modification to the *pro forma* LGIP and *pro forma* LGIA and afforded transmission providers the discretion to develop their own tariff language. Specifically, GridLiance HP proposes Tariff revisions for the following reforms: identification of contingent facilities, surplus interconnection service, and material modifications and incorporation of advanced technologies.

8. Finally, GridLiance HP requests that the proposed Tariff revisions become effective on May 22, 2019.¹³

III. Notice and Responsive Pleadings

9. Notice of GridLiance HP's compliance filing was published in the *Federal Register*, 84 Fed. Reg. 25,251 (2019), with interventions and protests due on or before June 12, 2019. None was filed.¹⁴

10. On June 13, 2019, Commission staff issued a deficiency letter that requested additional clarification regarding GridLiance HP's procedure for enabling new interconnection customers to utilize surplus interconnection service (Deficiency Letter). On July 15, 2019, GridLiance HP filed an amendment to the May 20, 2019 filing in its response to the Deficiency Letter (Deficiency Response). Notice of GridLiance HP's Deficiency Response was published in the *Federal Register*, 84 Fed. Reg. 35,383 (2019), with interventions and protests due on or before August 5, 2019. None was filed.

IV. Discussion

11. As discussed below, we find that GridLiance HP's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept GridLiance HP's compliance filing, effective May 22, 2019, and direct GridLiance HP to submit a further

¹³ GridLiance HP May 22, 2019 Filing at 1-2.

¹⁴ On May 23, 2019, GridLiance HP submitted an amended version of its May 22, 2019 filing, explaining that the original filing inadvertently omitted Attachment M due to metadata issues.

compliance filing within 120 days of the date of this order, as discussed in the body of this order.

A. 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.¹⁵ 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.¹⁶ 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."¹⁷

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;¹⁸ and (2) clarify that the option to build does not apply to stand alone network upgrades on affected systems.¹⁹ The Commission also made revisions to article 5.2 of the *pro forma* LGIA to allow transmission providers to recover oversight costs related to

¹⁵ Order No. 845, 163 FERC ¶ 61,043 at PP 85-87.

¹⁶ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103, at P 353 (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), *cert. denied*, 552 U.S. 1230 (2008); *see also pro forma* LGIP § 5.1.3.

¹⁷ Order No. 845, 163 FERC ¶ 61,043 at P 85.

¹⁸ Order No. 845-A, 166 FERC ¶ 61,137 at P 68.

¹⁹ *Id.* P 61.

the interconnection customer's option to build.²⁰ 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.²¹

1. GridLiance HP's Compliance Filing

14. GridLiance HP proposes to revise the definition of "Stand Alone Network Upgrades" in section 1 of its LGIP and article 1 of its *pro forma* LGIA to incorporate the revisions to the definition adopted by Order Nos. 845 and 845-A without modification. GridLiance HP proposes revisions to articles 5.1, 5.1.3, and 5.2 of its *pro forma* LGIA to adopt, without modification, the provisions of the Commission's *pro forma* LGIA, as required by Order Nos. 845 and 845-A.²² GridLiance HP also proposes to revise article 5.1.4 of its *pro forma* LGIA to implement the changes to the Commission's *pro forma* LGIA set forth in Order Nos. 845 and 845-A. However, GridLiance HP retains language that provides that the interconnection customer will notify the transmission provider within 30 calendar days if the dates designated by the interconnection customer are not acceptable to the transmission provider, which the Commission removed from article 5.1.4 of the Commission's *pro forma* LGIA in the revisions set forth in Order Nos. 845 and 845-A.

2. Commission Determination

15. We find that GridLiance HP's proposed revisions regarding the option to build 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, we find that GridLiance HP has not justified its proposal, as discussed above, to retain language in article 5.1.4 of its *pro forma* LGIA that the Commission removed from the Commission's *pro forma* LGIA in the revisions set forth in Order Nos. 845 and 845-A. Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing that removes the language from article 5.1.4 of its *pro forma* LGIA providing that the "Interconnection Customer shall so notify Transmission Provider within thirty 30 Calendar Days, and," as required by Order Nos. 845 and 845-A.

²⁰ *Id.* P 75.

²¹ *Id.* P 33.

²² GridLiance HP Tariff, Attach. N (LGIA) §§ 5.1 (Options), 5.1.3 (Option to Build), 5.2 (General Conditions Applicable to Option to Build).

B. 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.²³ The 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.²⁴

1. GridLiance HP's Compliance Filing

17. GridLiance HP proposes revisions to section 13.5.5 in its LGIP that adopt the language required by Order Nos. 845 and 845-A without modification.²⁵

2. Commission Determination

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

C. 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.²⁶ The Commission also added new section 3.8 to the *pro forma* LGIP, which requires transmission providers to include,

²³ Order No. 845, 163 FERC ¶ 61,043 at P 133; *see also pro forma* LGIP § 13.5.5.

²⁴ Order No. 845, 163 FERC ¶ 61,043 at P 139.

²⁵ GridLiance HP Tariff, Attach. M (LGIP) § 13.5.5 (Non-Binding Dispute Resolution Procedures).

²⁶ Order No. 845, 163 FERC ¶ 61,043 at P 218; *see also pro forma* LGIP § 1 (Definitions).

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.²⁷ 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 request.²⁸ The Commission stated that this transparency will ensure that the method is applied on a non-discriminatory basis.²⁹ 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.³⁰

1. GridLiance HP's Compliance Filing

20. GridLiance HP proposes to adopt the Commission's *pro forma* definition of "Contingent Facilities" without modification. GridLiance HP also proposes revisions to its LGIP to add a new section 3.8 to implement the changes to the Commission's *pro forma* LGIP set forth in Order Nos. 845 and 845-A. Specifically, GridLiance HP proposes language stating that the system impact study will identify any contingent facilities, explain how each contingent facility was identified, and explain how the contingent facility relates to the interconnection request. GridLiance HP proposes to identify contingent facilities by accounting for and reviewing planned network upgrades associated with interconnection customers with higher queue priority, as well as any other planned transmission projects unrelated to any interconnection requests, and by coordinating with applicable affected system parties. GridLiance HP also proposes to provide, upon the request of the interconnection customer, the estimated costs and timelines to construct any necessary interconnection facilities and/or network upgrades, when available and not commercially sensitive.

2. Commission Determination

21. We find that the revised Tariff provisions that identify and describe GridLiance HP's method for determining contingent facilities, as GridLiance HP proposes in its LGIP, partially comply with the requirements of Order Nos. 845 and 845-A. We find that GridLiance HP complies with the requirements to adopt, without modification, the

²⁷ Order No. 845, 163 FERC ¶ 61,043 at P 199.

²⁸ *Id.*; see also *pro forma* LGIP § 3.8.

²⁹ Order No. 845, 163 FERC ¶ 61,043 at P 200.

³⁰ *Id.* P 199; see also *pro forma* LGIP § 3.8.

pro forma definition of “Contingent Facilities” and the language regarding the need for the transmission provider to include in LGIP section 3.8 a method for identification of contingent facilities. GridLiance HP’s proposed Tariff revisions also comply with the requirement to provide estimated network upgrade costs and estimated in-service completion dates associated with contingent facilities to the interconnection customer.

22. However, as specified in Order No. 845, transmission providers must include, in section 3.8 of their LGIPs, a method for determining contingent facilities.³¹ The Commission required that this method provide sufficient transparency to determine why a specific contingent facility was identified and how it relates to the interconnection request.³² 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.³³ GridLiance HP’s proposed Tariff revisions lack the requisite transparency required by Order Nos. 845 and 845-A because the proposed Tariff revisions do not detail the specific technical screens or analyses and the specific thresholds or criteria that GridLiance HP will use as part of its method to identify contingent facilities. Without this information, an interconnection customer will not understand how GridLiance HP will evaluate potential contingent facilities to determine their relationship to an individual interconnection request.³⁴ Further, including provisions regarding specific thresholds or criteria in GridLiance HP’s LGIP will ensure GridLiance HP’s technical screens or analyses will be applied to interconnection requests on a consistent, not unduly discriminatory or preferential basis.

23. We therefore direct GridLiance HP to describe in section 3.8 of its LGIP the specific technical screens and/or analyses that it will employ to determine which facilities are contingent facilities. Further, we also direct GridLiance HP to describe the specific triggering thresholds or criteria, including the quantitative triggers, that are applied to identify a facility as a contingent facility. In Order No. 845, the Commission 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.³⁵ However, if, for instance, a transmission provider chooses to use a distribution factor analysis as a technical screen for determining how a new

³¹ Order No. 845, 163 FERC ¶ 61,043 at P 199.

³² *Id.* P 200.

³³ *Id.*

³⁴ *See pro forma* LGIP § 3.8 (“The method shall be sufficiently transparent to determine why a specific Contingent Facility was identified.”).

³⁵ Order No. 845, 163 FERC ¶ 61,043 at P 220.

generating facility impacts the surrounding electrically-relevant facilities, its tariff must specify the triggering percentage impact that causes a facility to be considered contingent. Similarly, if a transmission provider relies on the system impact study to identify which facilities the new generating facility will impact, it must specify in its tariff which power system performance attributes (voltages, power flows, etc.) violated a specific threshold of a facility³⁶ such that the transmission provider would conclude that the facility is contingent for the new generating facility. A transmission provider may use multiple screens or analyses as part of its method, but it must include a corresponding, specific triggering threshold or criterion to indicate how it will apply each screen or analysis.

24. Because GridLiance HP has not provided the specificity outlined above and thus does not fully comply with the contingent facility requirements of Order Nos. 845 and 845-A, we direct GridLiance HP to submit a further compliance filing, within 120 days of the date of this order, which adds in section 3.8 of GridLiance HP's LGIP (1) the method GridLiance HP will use to determine contingent facilities, including technical screens or analyses it proposes to use to identify these facilities, and (2) 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, as discussed above.

D. Transparency Regarding Study Models and Assumptions

25. 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 Open Access Same-Time Information System (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 most recent interconnection study and be representative of current system conditions.”³⁷ 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).³⁸

³⁶ For example, a range for facility per unit voltage may constitute a specific triggering threshold, beyond which the transmission provider will identify the facility as contingent.

³⁷ Order No. 845, 163 FERC ¶ 61,043 at P 236.

³⁸ *Id.*; see also *pro forma* LGIP § 2.3.

26. 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.³⁹ 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.⁴⁰ 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.⁴¹

1. GridLiance HP's Compliance Filing

27. GridLiance HP proposes revisions to its LGIP to add a new section 2.3 that incorporates the language adopted by Order Nos. 845 and 845-A without modification.⁴²

2. Commission Determination

28. We find that GridLiance HP's proposed LGIP revisions regarding study models and assumptions comply with the requirements of Order Nos. 845 and 845-A because GridLiance HP adopts the Commission's *pro forma* revisions without modification.

E. 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

³⁹ Order No. 845-A, 166 FERC ¶ 61,137 at P 84 (citing Order No. 845, 163 FERC ¶ 61,043 at P 241).

⁴⁰ *Id.* P 85 (citing 18 C.F.R. § 388.113(g)(5)(i) (2019)).

⁴¹ *Id.* P 88.

⁴² GridLiance HP Tariff, Attach. M (LGIP) § 2.3 (Base Case Data).

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 electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.⁴³

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.⁴⁴

1. GridLiance HP’s Compliance Filing

30. GridLiance HP proposes revisions to section 1 of its LGIP and its *pro forma* LGIA to incorporate the definition of “Generating Facility” adopted by Order Nos. 845 and 845-A without modification.⁴⁵

2. Commission Determination

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

F. 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.⁴⁶ In these sections, the Commission included bracketed

⁴³ Order No. 845, 163 FERC ¶ 61,043 at P 275 (additions italicized); *see also pro forma* LGIP § 1 (Definitions).

⁴⁴ Order No. 845, 163 FERC ¶ 61,043 at P 275.

⁴⁵ GridLiance HP Tariff, Attach. M (LGIP) § 1 (Definitions) and Attach. N § 1 (Definitions).

⁴⁶ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

Tariff language to be completed by the transmission provider in accordance with the timelines established for the various studies in their LGIPs.⁴⁷ 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 interconnection study deadlines for more than 25% of any study type for two consecutive calendar quarters.⁴⁸ 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.⁴⁹ 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 2020.⁵⁰

1. GridLiance HP's Compliance Filing

33. GridLiance HP proposes revisions to its LGIP to add sections 3.5.2, 3.5.3, and 3.5.4 that incorporate the *pro forma* language of Order Nos. 845 and 845-A without modification.⁵¹ With regard to bracketed Tariff language in Sections 3.5.2.1, 3.5.2.2, and 3.5.2.3, to be completed by the transmission provider in accordance with the study duration timeframes established for various interconnection studies in the transmission provider's LGIP, GridLiance HP proposes to incorporate the study duration timeframes for the feasibility, system impact, and facilities studies contained in its LGIP.⁵²

⁴⁷ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

⁴⁸ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP § 3.5.4.

⁴⁹ Order No. 845, 163 FERC ¶ 61,043 at P 307.

⁵⁰ Order No. 845-A, 166 FERC ¶ 61,137 at P 107.

⁵¹ GridLiance HP Tariff, Attach. M (LGIP) §§ 3.5.2 (Requirement to Post Study Metrics), 3.5.2.1 (Interconnection Feasibility Studies Processing Time), 3.5.2.2 (Interconnection Study Impact Studies Processing Time), 3.5.2.3 (Interconnection Studies Processing Time).

⁵² Specifically, 45 days for the feasibility study, 90 days for the system impact study, and 90 days (with a cost variance of 20%) or 180 days (with a cost variance of 10%) for the facilities study.

2. Commission Determination

34. We find that the revised provisions that address GridLiance HP's study deadline statistics and informational reporting requirements, as proposed in the GridLiance HP LGIP comply with the requirements of Order Nos. 845 and 845-A. GridLiance HP's proposed Tariff revisions adopt the language provided in Order No. 845 without modification and replace 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.

G. 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,⁵³ 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.⁵⁴

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.⁵⁵ 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

⁵³ 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 (Definitions).

⁵⁴ 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.

⁵⁵ Order No. 845, 163 FERC ¶ 61,043 at PP 383-84.

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.⁵⁶

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 prior to returning to the transmission provider an executed system impact study agreement or an executed facilities study agreement.⁵⁷

1. GridLiance HP's Compliance Filing

39. GridLiance HP proposes revisions to its LGIP that adopt, without modification, the Commission's reforms to *pro forma* LGIP sections 3.1, 4.4.1, 4.4.2, 6.3, 7.3, and 8.2 and Appendix 1 to incorporate the language set forth in Order Nos. 845 and 845-A without modification.⁵⁸ However, GridLiance HP's proposed Tariff revisions do not fully incorporate the *pro forma* LGIP language adopted by Order No. 845.⁵⁹ 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

⁵⁶ *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.*

⁵⁷ *Id.* P 406; *see also pro forma* LGIP §§ 4.4.1, 4.4.2.

⁵⁸ GridLiance HP Tariff, Attach. M (LGIP), §§ 3.1 (General), 4.4.1, 4.4.2, 6.3 (Interconnection Feasibility Study Procedures), 7.3 (Scope of Interconnection System Impact Study), 8.2 (Scope of Interconnection Facilities Study).

⁵⁹ *See* Order No. 845-A, 166 FERC ¶ 61,137 at P 117.

Generating Facility Capacity to ensure safety and reliability of the system, with the study costs borne by the Interconnection Customer.⁶⁰

2. Commission Determination

40. We find that GridLiance HP's proposed LGIP revisions 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, GridLiance HP's revisions to section 3.1 of its LGIP omit some of the *pro forma* LGIP language required by Order No. 845.⁶¹ Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing that incorporates the *pro forma* revisions to section 3.1 of its LGIP, as required by Order No. 845.

H. Provisional Interconnection Service

41. In Order No. 845, the Commission required transmission providers to allow all interconnection customers to request provisional interconnection service.⁶² 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.⁶³ To implement this service, the Commission revised the *pro forma* LGIP and *pro forma* LGIA to add a definition for "Provisional

⁶⁰ 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 GridLiance HP'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.

⁶¹ *Id.* PP 347, 367, and app. B.

⁶² *Id.* P 438.

⁶³ *Id.* P 441.

Interconnection Service”⁶⁴ and for a “Provisional Large Generator Interconnection Agreement.”⁶⁵

42. In addition, the Commission added *pro forma* LGIA article 5.9.2, which details the terms for provisional interconnection service.⁶⁶ 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.⁶⁷ The Commission stated that interconnection customers are responsible for the costs for performing these provisional interconnection studies.⁶⁸

1. GridLiance HP’s Compliance Filing

43. GridLiance HP proposes revisions to its LGIP and *pro forma* LGIA to implement the changes to the Commission’s *pro forma* LGIP and *pro forma* LGIA set forth in Order Nos. 845 and 845-A. GridLiance HP proposes to adopt the Commission’s *pro forma* definitions of “Provisional Interconnection Service” and “Provisional Large Generator Interconnection Agreement.” However, GridLiance HP proposes to use the term “Provisional Large Generation Interconnection Agreement” and “Provisional Large Interconnection Agreement” rather than “Provisional Large Generator Interconnection Agreement” in its LGIP and *pro forma* LGIA, respectively. GridLiance HP also proposes to fill in the bracketed placeholder in article 5.9.2 of the Commission’s *pro forma* LGIA to state that it will study and update the maximum permissible output of the generating facility subject to a provisional LGIA on a quarterly basis, if necessary.

2. Commission Determination

44. We find that GridLiance HP’s proposed LGIP and *pro forma* LGIA revisions regarding provisional interconnection service partially comply with the requirements of

⁶⁴ *Pro forma* LGIP § 1 (Definitions); *pro forma* LGIA art. 1 (Definitions).

⁶⁵ *Pro forma* LGIP § 1 (Definitions); *pro forma* LGIA art. 1 (Definitions). 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.

⁶⁶ *Id.* P 438; *see also pro forma* LGIP § 5.9.2.

⁶⁷ Order No. 845, 163 FERC ¶ 61,043 at P 448.

⁶⁸ *Id.*

Order Nos. 845 and 845-A. GridLiance HP's proposed Tariff revisions adopt the Commission's *pro forma* definition of "Provisional Interconnection Service" and comply with the requirement to establish the terms of provisional interconnection service specified in *pro forma* LGIA article 5.9.2.

45. However, we find that GridLiance HP's proposed revision to its *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. GridLiance HP proposes to conduct updated provisional interconnection studies "if necessary on a quarterly basis."⁶⁹ While the Commission gave transmission providers discretion to determine the frequency for updating provisional interconnection studies in Order No. 845, GridLiance HP's proposed inclusion of the phrase "if necessary" provides GridLiance HP unfettered discretion to determine the frequency at which it will update provisional interconnection studies. Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing with revisions that either clarify, in *pro forma* LGIA article 5.9.2, under what circumstances GridLiance HP will not update its provisional interconnection service studies on a quarterly basis, or remove the language in GridLiance HP's *pro forma* LGIA article 5.9.2 that gives GridLiance HP discretion to decide whether it will update provisional interconnection service studies on a quarterly basis.

46. Furthermore, GridLiance HP uses incorrect and inconsistent terminology for the term "Provisional Large Generator Interconnection Agreement" in its *pro forma* LGIA and LGIP. Specifically, GridLiance HP uses the term "Provisional Large Generation Interconnection Agreement" in article 1 of its LGIP. Additionally, GridLiance HP uses the term "Provisional Large Interconnection Agreement" in article 1 of its *pro forma* LGIA. Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing that revises its *pro forma* LGIP and LGIA to replace the terms "Provisional Large Generation Interconnection Agreement" and "Provisional Large Interconnection Agreement" with "Provisional Large Generator Interconnection Agreement."

I. Surplus Interconnection Service

47. 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

⁶⁹ GridLiance HP Tariff, Attach. N (LGIA) § 5.9.2 (Provisional Interconnection Service).

interconnection service at the point of interconnection would remain the same.⁷⁰ Surplus interconnection service enables a new interconnection customer to utilize the unused portion of an existing interconnection customer's interconnection service within specific parameters.⁷¹ 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.⁷² 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.⁷³ 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.⁷⁴ 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.⁷⁵ When the original interconnection customer, the surplus interconnection service customer, and the 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 open access transmission tariff.⁷⁶

⁷⁰ Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP § 1; *pro forma* LGIA art. 1 (Definitions).

⁷¹ Order No. 845, 163 FERC ¶ 61,043 at P 467; Order No. 845-A, 166 FERC ¶ 61,137 at P 119.

⁷² Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP §§ 3.3, 3.3.1.

⁷³ Order No. 845, 163 FERC ¶ 61,043 at P 483; *see also pro forma* LGIP § 3.3.

⁷⁴ Order No. 845, 163 FERC ¶ 61,043 at PP 455 and 467.

⁷⁵ *Id.* P 481.

⁷⁶ *Id.* P 499.

1. GridLiance HP's Compliance Filing

48. GridLiance HP proposes revisions to sections 1, 3.3, and 3.3.1 in its LGIP, and article 1 in its *pro forma* LGIA, to comply with the Commission's directives in Order Nos. 845 and 845-A. In its Deficiency Response, GridLiance HP proposes to add new sections 3.3.2 and 3.3.3 to its LGIP to provide a process for evaluating surplus interconnection service requests. GridLiance HP proposes that all requests for surplus interconnection service shall be processed outside of the interconnection queue.⁷⁷

49. Proposed section 3.3.1.1 of GridLiance HP's LGIP describes the process that either the original interconnection customer, its affiliate, or a third-party interconnection customer will use to initiate a surplus interconnection service request, along with the information that should be included in the request. GridLiance HP's proposed surplus interconnection service system impact study methodology incorporates and expands upon the description of studies for surplus interconnection service contained in section 3.3.1 of the Commission's *pro forma* LGIP. GridLiance HP proposes to require a \$25,000 study deposit with the request. Once the request is deemed valid and complete, GridLiance HP proposes that it will arrange an optional scoping meeting with the interconnection customer within 10 business days that will take place no later than 30 calendar days from receipt of the request.⁷⁸ Within five business days following the scoping meeting, GridLiance HP proposes that it will determine whether a surplus interconnection service system impact study is necessary and will tender a study agreement to the interconnection customer.⁷⁹ GridLiance HP proposes that the interconnection customer will deliver an executed study agreement to GridLiance HP no later than 30 calendar days after its receipt. GridLiance HP proposes additional studies that may be required,⁸⁰ but it notes that a new interconnection facilities study will not be required.⁸¹ GridLiance HP proposes to use reasonable efforts to complete the surplus interconnection service system impact study within 90 calendar days after receipt of the study agreement.⁸²

⁷⁷ GridLiance HP Tariff, Attach. M (LGIP) § 3.3.1 (Surplus Interconnection Service Request).

⁷⁸ *Id.* §§ 3.3.1.1, 3.3.1.2.

⁷⁹ *Id.* § 3.3.2.1. GridLiance HP terms this study "Interconnection System Impact Study."

⁸⁰ GridLiance HP Tariff, Attach. M (LGIP) §§ 3.3.2.1, 3.3.2.2.

⁸¹ Deficiency Response Transmittal at 2.

⁸² GridLiance HP Tariff, Attach. M (LGIP) § 3.3.2.3.

50. GridLiance HP proposes that surplus interconnection service will be available up to the amount that can be accommodated without network upgrades, and the generating facility receiving surplus interconnection service must interconnect to the original interconnection customer's interconnection facilities.⁸³ Within 30 calendar days after delivery of the surplus interconnection service system impact study report, GridLiance HP proposes to tender a draft surplus interconnection service agreement to the original interconnection customer and the surplus interconnection service customer. GridLiance HP proposes that the original interconnection customer or the surplus interconnection service customer, as appropriate, will execute and return the completed draft appendices within 30 calendar days. GridLiance HP proposes that, within 10 business days after execution of the surplus interconnection service agreement or the request to file an unexecuted agreement, GridLiance HP shall file the surplus interconnection service agreement with the Commission.⁸⁴

2. Commission Determination

51. We find that GridLiance HP's proposed Tariff revisions regarding surplus interconnection service partially comply with the requirements of Order Nos. 845 and 845-A. GridLiance HP adopts the *pro forma* definition of "Surplus Interconnection Service" without modification. In addition, we find that GridLiance HP's proposed process for evaluating surplus interconnection service complies with the requirements of Order Nos. 845 and 845-A. The process provides that GridLiance HP will evaluate surplus interconnection service requests outside of its non-surplus interconnection queue.

52. However, GridLiance HP proposes that the "the original interconnection customer *or* the surplus interconnection service customer, as appropriate, shall execute" the draft surplus interconnection service agreement.⁸⁵ Order No. 845 requires transmission providers to file with the Commission any agreements for surplus interconnection service entered into by the original interconnection customer, the surplus interconnection service customer, *and* the transmission provider, as such agreements will be service agreements under the transmission provider's open access transmission tariff.⁸⁶ Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing that revises proposed section 3.3.3.1 of its LGIP to provide that the

⁸³ GridLiance HP Tariff, Attach. M (LGIP) § 3.3.3 (Surplus Interconnection Service Agreement).

⁸⁴ *Id.* §§ 3.3.3.1, 3.3.3.3.

⁸⁵ *Id.* § 3.3.3.1 (emphasis added).

⁸⁶ Order No. 845, 163 FERC ¶ 61,043 at P 499 (emphasis added).

original interconnection customer, the surplus interconnection service customer, and the transmission provider will enter into an agreement for surplus interconnection service prior to the commencement of service and will file such agreement with the Commission.

53. Additionally, proposed section 3.3.2.2 in GridLiance HP's LGIP incorporates the language regarding studies for surplus interconnection service contained in section 3.3.1 of the Commission's *pro forma* LGIP, but proposed section 3.3.2.2 omits some of the Commission's *pro forma* language that describes the analyses to be performed if the surplus interconnection service was not studied under off-peak conditions. Accordingly, we direct GridLiance HP to file, within 120 days of the date of issuance of this order, a further compliance filing that implements the following revision to section 3.3.2.2 of its LGIP (new text in italics):

If the Surplus Interconnection Service was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level *necessary to demonstrate reliable operation of the Surplus Interconnection Service*.

J. Material Modifications and Incorporation of Advanced Technologies

54. 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 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

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 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.

the transmission provider will follow to assess whether an interconnection customer's proposed technological advancement is a material modification.⁸⁹

55. 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

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

57. 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

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 P 521.

⁹⁴ *Id.* P 521.

⁹⁵ *Id.* P 535.

provider determines that additional studies are needed 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.

58. 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 whether the proposed technological change materially impacts the timing and costs of lower-queued interconnection customers.⁹⁷

1. GridLiance HP's Compliance Filing

59. GridLiance HP proposes revisions to section 4.4.2(c) in its LGIP that adopt, without modification, the modifications to section 4.4.2(c) in the Commission's *pro forma* LGIP set forth in Order Nos. 845 and 845-A. GridLiance HP also proposes

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

revisions to section 1 of its LGIP to incorporate the following definition for the term “Permissible Technological Advancement:”

Permissible Technological Advancement shall mean any change to the technology of the Large Generating Facility that: (i) does not change the technical specifications submitted by the Interconnection Customer to the Transmission Provider or (ii) does change the submitted technical specifications but does not materially change the results of the System Impact Study after review in accordance with Section 4.4.4.

60. Further, GridLiance HP proposes to establish a technological change procedure in new section 4.4.4 of its LGIP. The proposed technological change procedure provides that at any time prior to the return of the executed interconnection facilities study agreement, the interconnection customer may submit a written request to GridLiance HP to make modifications to the large generating facility’s technology.

61. The proposed technological change procedure also provides that the interconnection customer shall submit an analysis of how its proposed technological advancement would result in electrical performance that is equivalent to or better than the electrical performance expected prior to the change. The proposed procedure specifies that if the proposed technological advancement does not change the technical specifications for the large generating facility, the modifications shall be deemed a permissible technological advancement, and no further action shall be required. However, if the modifications to the large generating facility’s technology do change the submitted technical specifications, the proposed procedure specifies that GridLiance HP may request a supplemental study deposit of \$10,000.⁹⁸

62. The proposed technological change procedure specifies that GridLiance HP will use reasonable efforts to update the studies within 30 calendar days after receipt of the required information and the supplemental study deposit from the interconnection customer.⁹⁹ The proposed procedure provides that if the study results are such that the previously identified interconnection facilities and network upgrades are adequate, the modification to the large generating facility’s technology will be deemed a permissible technological advancement, and no further action will be required. However, if the study results are impacted such that the previously identified interconnection facilities or network upgrades are inadequate remedies for identified system impacts, the proposed procedure specifies that the modification to the large generating facility’s technology

⁹⁸ GridLiance HP, Attach. M (LGIP) § 4.4.4 (Technological Change Procedure).

⁹⁹ *Id.*

will be deemed a material modification in accordance with section 4.4.3 of GridLiance HP's LGIP.¹⁰⁰

2. Commission Determination

63. We find that GridLiance HP's proposed LGIP revisions partially comply with the requirements of Order Nos. 845 and 845-A. Specifically, we find that GridLiance HP's proposed definition for the term "Permissible Technological Advancement" meets the Commission's requirement to provide a category of technological change that does not constitute a material modification. We also find that the proposed revisions to section 4.4.2(c) in GridLiance HP's LGIP are compliant because the revisions adopt, without modification, the revisions to section 4.4.2(c) in the Commission's *pro forma* LGIP set forth in Order Nos. 845 and 845-A. However, we find that GridLiance HP's proposal to incorporate a technological change procedure in its LGIP only partially complies with the requirements of Order Nos. 845 and 845-A.

64. GridLiance HP's technological change procedure states that an interconnection customer may submit "a written request to transmission provider to make modifications to the Large Generating Facility's technology."¹⁰¹ However, Order No. 845 required the technological change procedure to state that the interconnection customer should submit a technological advancement request if it seeks to incorporate technological advancements into its proposed generating facility.¹⁰² Requiring the interconnection customer to submit a technological change request provides clarity with regard to whether the transmission provider is evaluating the request under the new technological change procedure or the existing material modification assessment procedures. Therefore, we direct GridLiance HP to submit a further compliance filing, within 120 days of the date of this order, that revises its technological change procedure to state that an interconnection customer should submit a technological advancement request if it seeks to incorporate the technological advancements into its proposed generating facility.

65. We also find that the use of the undefined term "technical specifications" in GridLiance HP's proposed technological change procedure makes it unclear how GridLiance HP will determine whether a proposed technological change is a permissible technological advancement. Accordingly, we direct GridLiance HP to submit a further

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² Order No. 845-A, 166 FERC ¶ 61,137 at P 519.

compliance filing, within 120 days of the date of this order, that revises section 4.4.4 of its LGIP to clarify how it will assess changes to a generating facility's technical specifications.

66. 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.¹⁰³ GridLiance HP's proposed LGIP revisions propose to "update studies" to determine whether the request constitutes a material modification, but GridLiance HP does not explain which "studies" it will update in its evaluation. Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing revising its technological change procedure to provide a detailed explanation of the studies that GridLiance HP will conduct to determine whether the technological advancement request will result in a material modification.

67. 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.¹⁰⁴ However, GridLiance HP's proposed revisions to LGIP section 4.4.4 provide that GridLiance HP will use "reasonable efforts" to update the studies within 30 calendar days after receipt of the required information and supplemental study deposit from the interconnection customer.¹⁰⁵ Order No. 845 establishes a 30-day requirement to determine whether the proposed technological change is a material modification and does not allow for the use of "reasonable efforts" to achieve this timeline.¹⁰⁶ Accordingly, we direct GridLiance HP to file, within 120 days of the date of this order, a further compliance filing that revises its proposed technological change procedure to: (1) remove the "reasonable efforts" language; and (2) provide that GridLiance HP will determine whether or not a technological advancement is a material modification within 30 calendar days of receipt of the initial request.

68. In addition, because GridLiance HP'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

¹⁰³ *Id.* P 521.

¹⁰⁴ Order No. 845, 163 FERC ¶ 61,043 at P 535; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

¹⁰⁵ GridLiance HP Attach. M (LGIP) § 4.4.4.

¹⁰⁶ Order No. 845, 163 FERC ¶ 61,043 at P 535.

required to do so if it cannot accommodate a proposed technological advancement without triggering the material modification provisions of the *pro forma* LGIP.¹⁰⁷

K. Additional Compliance Requirements

69. The fourth recital of Appendix 2 to GridLiance HP's proposed LGIP references section 3.3.4 of the LGIP. This section does not exist in GridLiance HP's Tariff. We direct GridLiance HP to revise Appendix 2 of its LGIP to reference the appropriate section of its LGIP.

70. In the Commission's Errata Notice, issued on May 13, 2019, the Commission made various corrections to internal section references in the *pro forma* LGIP. We find that GridLiance HP has not implemented the required changes set forth in the Errata Notice. Accordingly, we direct GridLiance HP to revise its LGIP in accordance with paragraphs 1, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 of the Errata Notice.¹⁰⁸

The Commission orders:

(A) GridLiance HP'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) GridLiance HP is hereby directed to submit a compliance filing within 120 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹⁰⁷ *Id.* P 522.

¹⁰⁸ Errata Notice, 167 FERC ¶ 61,123.