

170 FERC ¶ 61,211
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

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

Puget Sound Energy, Inc.

Docket Nos. ER19-1947-000
ER19-1947-001

ORDER ON COMPLIANCE

(Issued March 19, 2020)

1. On May 22, 2019, as amended on July 15, 2019, Puget Sound Energy, Inc. (Puget Sound) 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 Puget Sound's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept Puget Sound's compliance filing, effective May 22, 2019, and direct Puget Sound 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 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, *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. Puget Sound’s Compliance Filing

6. Puget Sound states that it has incorporated all of the Commission’s *pro forma* LGIP and *pro forma* LGIA reforms as required by Order Nos. 845 and 845-A. Puget Sound 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,

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.

definition of a generating facility, requesting interconnection service below generating facility capacity, and provisional interconnection service.

7. Puget Sound 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, Puget Sound proposes Tariff revisions for the following reforms: identification of contingent facilities, interconnection study deadlines, surplus interconnection service, and material modifications and incorporation of advanced technologies.

8. Puget Sound requests that the proposed Tariff revisions become effective on May 22, 2019.¹²

III. Notice and Responsive Pleadings

9. Notice of Puget Sound's May 22, 2019 compliance filing was published in the *Federal Register*, 84 Fed. Reg. 24,772 (May 29, 2019), with interventions and protests due on or before June 12, 2019. None was filed.

10. On June 13, 2019, Commission staff issued a deficiency letter that requested additional clarification regarding Puget Sound's procedure for allowing surplus interconnection service (Deficiency Letter). On July 15, 2019, Puget Sound filed its response to the Deficiency Letter (Deficiency Response). Notice of Puget Sound's Deficiency Response was published in the *Federal Register*, 84 Fed. Reg. 35,383 (July 23, 2019), with interventions and protests due on or before August 5, 2019. None was filed.

IV. Discussion

A. Substantive Matters

11. As discussed below, we find that Puget Sound's filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept Puget Sound's compliance filing, effective May 22, 2019, and direct Puget Sound to submit a further compliance filing within 120 days of the date of this order.

1. Proposed Variations

12. As discussed further below, Puget Sound has proposed 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 allowed

¹² Transmittal at 1.

by 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 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 Puget Sound’s proposed variations from the requirements of Order Nos. 845 and 845-A accordingly.

2. Interconnection Customer’s Option to Build

13. 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

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

¹⁴ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103, at P 26 (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.

the interconnection process by providing interconnection customers more control and certainty during the design and construction phases of the interconnection process.”¹⁹

14. 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. Puget Sound’s Compliance Filing

15. Puget Sound proposes to revise the definition of stand alone network upgrade in its LGIP and *pro forma* LGIA to incorporate the revisions to the definition adopted by Order Nos. 845 and 845-A without modification.²⁴ Puget Sound also proposes revisions to its *pro forma* LGIA to amend articles 5.1, 5.1.3, 5.1.4, and 5.2 to incorporate the *pro forma* LGIA revisions adopted by Order Nos. 845 and 845-A without modification.²⁵

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

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 Transmittal at 2; *see also* Puget Sound OATT, annex A, LGIP §1 (Definitions).

²⁵ Transmittal at 2; *see also* Puget Sound OATT, app. 6, LGIA arts. 5.1 (Options), 5.1.3 (Option to Build), 5.1.4 (Negotiated Option), 5.2 (General Conditions Applicable to Option to Build).

b. Commission Determination

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

3. Dispute Resolution

17. 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.²⁶ 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.²⁷

a. Puget Sound's Compliance Filing

18. Puget Sound proposes revisions to its LGIP that adopt the language required by Order Nos. 845 and 845-A without modification.²⁸

b. Commission Determination

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

4. Identification and Definition of Contingent Facilities

20. 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

²⁶ Order No. 845, 163 FERC ¶ 61,043 at P 133; *see also pro forma* LGIP § 13.5.5.

²⁷ Order No. 845, 163 FERC ¶ 61,043 at P 139.

²⁸ Transmittal at 2; *see also* Puget Sound OATT, annex A, LGIP § 13.5.5 (Non-Binding Dispute Resolution Procedures).

facilities and/or network upgrades and/or costs and timing.²⁹ 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.³⁰ 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.³¹ The Commission stated that this transparency will ensure that the method is applied on a non-discriminatory basis.³² 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.³³

a. Puget Sound's Compliance Filing

21. Puget Sound adopts the Commission's *pro forma* LGIP definition of contingent facilities.³⁴ Puget Sound also proposes revisions to its LGIP to add a new section 3.8,³⁵ which includes a method for identifying contingent facilities. In addition, Puget Sound proposes revisions to LGIP section 3.8 to provide, upon request of the interconnection customer, the estimated interconnection facility and/or network upgrade costs and estimated in-service completion time of each identified contingent facility when this information is readily available and not commercially sensitive.

22. Puget Sound proposes in LGIP section 3.8 that it will identify contingent facilities by taking into account the following factors: (1) the interconnection customer's queue position; (2) the point of interconnection of prior-queued projects as compared to the

²⁹ Order No. 845, 163 FERC ¶ 61,043 at P 218; *see also pro forma* LGIP § 1 (Definitions).

³⁰ Order No. 845, 163 FERC ¶ 61,043 at P 199.

³¹ *Id.*; *see also pro forma* LGIP § 3.8.

³² Order No. 845, 163 FERC ¶ 61,043 at P 200.

³³ *Id.* P 199; *see also pro forma* LGIP § 3.8.

³⁴ Transmittal at 2; *see also* Puget Sound OATT, annex A, LGIP §1 (Definitions).

³⁵ Transmittal at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.8 (Identification of Contingent Facilities).

facility; (3) any prior-queued projects or any related required upgrades that are electrically significant to the new project or surrounding area; and (4) what effect not building any prior-queued project or related upgrades will have on the interconnection request. In addition, Puget Sound proposes that the effect of electric significance is not affected by the distance to the project. Puget Sound also proposes that the factors that are considered in determining if a prior-queued project is electrically significant to an interconnection request include power flow (both capacity and voltage), short circuit, transient analysis, and impacts to, or development of necessary, protection schemes for new or modified projects. Puget Sound also proposes language in LGIP section 3.8 stating that communication, protection and related control equipment associated with network upgrades required in connection with earlier-queued projects will not be separately identified as contingent facilities. Puget Sound also proposes that facilities only identified by an affected system in an affected systems study as a contingent facility will be included as contingent facilities.

b. Commission Determination

23. We find that the revised provisions that identify and describe Puget Sound's method for determining contingent facilities, as Puget Sound proposes in its LGIP, partially comply with the requirements of Order Nos. 845 and 845-A. We find that Puget Sound complies with the requirements of Order Nos. 845 and 845-A because Puget Sound has adopted the 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 without modification. Further, Puget Sound'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.

24. However, as specified in Order No. 845, transmission providers must include, in section 3.8 of their LGIPs, a method for determining contingent facilities.³⁶ 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.³⁷ 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.³⁸ Puget Sound'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

³⁶ Order No. 845, 163 FERC ¶ 61,043 at P 199.

³⁷ *Id.* P 200.

³⁸ *Id.*

thresholds or criteria that Puget Sound will use as part of its method to identify contingent facilities. Without this information, an interconnection customer will not understand how Puget Sound will evaluate potential contingent facilities to determine their relationship to an individual interconnection request.³⁹ Further, including provisions regarding specific thresholds or criteria in Puget Sound's LGIP will ensure Puget Sound's technical screens or analyses will be applied to interconnection requests on a consistent, not unduly discriminatory or preferential basis.

25. We therefore direct Puget Sound 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 Puget Sound 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.⁴⁰ However, if, for instance, a transmission provider chooses to use a distribution factor analysis as a technical screen for determining how a new 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 facility⁴¹ 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.

26. Because Puget Sound 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 Puget Sound to submit a further compliance filing, within 120 days of the date of this order, which adds in section 3.8 of Puget Sound's LGIP (1) the method Puget Sound will use to determine contingent facilities, including technical screens or

³⁹ See *pro forma* LGIP § 3.8 ("The method shall be sufficiently transparent to determine why a specific Contingent Facility was identified.").

⁴⁰ Order No. 845, 163 FERC ¶ 61,043 at P 220.

⁴¹ 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.

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.

5. Transparency Regarding Study Models and Assumptions

27. 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.”⁴² 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).⁴³

28. 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.⁴⁴ 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.⁴⁵ 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.⁴⁶

⁴² Order No. 845, 163 FERC ¶ 61,043 at P 236.

⁴³ *Id.*; see also *pro forma* LGIP § 2.3.

⁴⁴ Order No. 845-A, 166 FERC ¶ 61,137 at P 84 (citing Order No. 845, 163 FERC ¶ 61,043 at P 241).

⁴⁵ *Id.* P 85 (citing 18 C.F.R. § 388.113(g)(5)(i) (2019)).

⁴⁶ *Id.* P 88.

a. **Puget Sound’s Compliance Filing**

29. Puget Sound 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.⁴⁷

b. **Commission Determination**

30. We find that Puget Sound’s proposed LGIP revisions regarding study models and assumptions comply with the requirements of Order Nos. 845 and 845-A because Puget Sound adopts the *pro forma* LGIP provisions without modification.

6. **Definition of Generating Facility**

31. 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 electricity identified in the Interconnection Request, but shall not include the Interconnection Customer’s Interconnection Facilities.⁴⁸

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.⁴⁹

⁴⁷ Transmittal at 2; *see also* Puget Sound OATT, annex A, LGIP § 2.3 (Base Case Data).

⁴⁸ Order No. 845, 163 FERC ¶ 61,043 at P 275 (additions italicized); *see also pro forma* LGIP § 1 (Definitions).

⁴⁹ Order No. 845, 163 FERC ¶ 61,043 at P 275.

a. **Puget Sound’s Compliance Filing**

32. Puget Sound proposes revisions to section 1 of its LGIP and its *pro forma* LGIA to incorporate the revised definition of “Generating Facility” adopted by Order Nos. 845 and 845-A without modification.⁵⁰

b. **Commission Determination**

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

7. **Interconnection Study Deadlines**

34. 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.⁵¹ 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.⁵² 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 percent of any study type for two consecutive calendar quarters.⁵³ 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.⁵⁴ In Order No. 845-A, the Commission revised

⁵⁰ Transmittal at 3; *see also* Puget Sound OATT, annex A, LGIP § 1 (Definitions).

⁵¹ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

⁵² Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

⁵³ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP § 3.5.4.

⁵⁴ Order No. 845, 163 FERC ¶ 61,043 at P 307.

pro forma LGIP section 3.5.3 to clarify that the data reporting and retention requirements begin in the first calendar quarter of 2020.⁵⁵

a. Puget Sound’s Compliance Filing

35. Puget Sound proposes revisions to its LGIP to add a new sections 3.5.2 that incorporates the *pro forma* language of Order Nos. 845 and 845-A without modification.⁵⁶ Additionally, Puget Sound proposes Tariff revisions to LGIP section 3.5.2.1 with a feasibility study completion deadline of 45 calendar days, to LGIP section 3.5.2.2 with a system impact study completion deadline of 90 calendar days, and to LGIP section 3.5.2.3 with a facilities study completion deadline of 90 calendar days.

b. Commission Determination

36. We find that the revised provisions that address Puget Sound’s study deadline statistics and informational reporting requirements, as proposed in Puget Sound’s LGIP, comply with the requirements of Order Nos. 845 and 845-A because Puget Sound proposes to include *pro forma* LGIP sections 3.5.2, 3.5.3, and 3.5.4 without modification, except to replace the bracketed placeholders with timelines that align with the timelines already in its Tariff.

8. Requesting Interconnection Service below Generating Facility Capacity

37. 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,⁵⁷ 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.⁵⁸

⁵⁵ Order No. 845-A, 166 FERC ¶ 61,137 at P 107.

⁵⁶ Transmittal at 3; *see also* Puget Sound OATT, annex A, LGIP §§ 3.5.2 (Requirement to Post Interconnection Study Metrics), 3.5.3, 3.5.4.

⁵⁷ 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).

⁵⁸ 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.

38. 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.⁵⁹ 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.

39. 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.⁶⁰

40. 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.⁶¹

a. Puget Sound's Compliance Filing

41. Puget Sound proposes revisions to its LGIP that adopt the Commission's proposed 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

⁵⁹ Order No. 845, 163 FERC ¶ 61,043 at PP 383-84.

⁶⁰ *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.*

⁶¹ *Id.* P 406; *see also pro forma* LGIP §§ 4.4.1, 4.4.2.

incorporate the language set forth in Order Nos. 845 and 845-A without modification.⁶² However, Puget Sound's proposed Tariff revisions do not fully incorporate the *pro forma* LGIP language adopted by Order No. 845.⁶³ 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.⁶⁴

b. Commission Determination

42. We find that Puget Sound'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 *pro forma* LGIP language without modification. However, as discussed above, Puget Sound's revisions to section 3.1 of its LGIP omit some of the *pro forma* LGIP language required by Order No. 845.⁶⁵ Accordingly, we direct Puget Sound 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.

⁶² Transmittal at 3; *see also* Puget Sound OATT, annex A, LGIP §§ 3.1 (General), 6.3 (Interconnection Feasibility Study Procedures), 7.3 (Scope of Interconnection System Impact Study), 8.2 (Scope of Interconnection System Impact Study), app. 1 (Interconnection Request for a Large Generating Facility).

⁶³ *See* Order No. 845-A, 166 FERC ¶ 61,137 at P 117.

⁶⁴ 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 Puget Sound'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.

⁶⁵ *Id.* PP 347, 367, app. B.

9. Provisional Interconnection Service

43. In Order No. 845, the Commission required transmission providers to allow all interconnection customers to request provisional interconnection service.⁶⁶ 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.⁶⁷ To implement this service, the Commission revised the *pro forma* LGIP and *pro forma* LGIA to add a definition for “Provisional Interconnection Service”⁶⁸ and for a “Provisional Large Generator Interconnection Agreement.”⁶⁹

44. In addition, the Commission added *pro forma* LGIA article 5.9.2, which details the terms for provisional interconnection service.⁷⁰ 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.⁷¹ The Commission stated that interconnection customers are responsible for the costs for performing these provisional interconnection studies.⁷²

⁶⁶ *Id.* P 438.

⁶⁷ *Id.* P 441.

⁶⁸ *Pro forma* LGIP § 1 (Definitions); *pro forma* LGIA art. 1 (Definitions).

⁶⁹ *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.

⁷⁰ *Id.* P 438; *see also pro forma* LGIP § 5.9.2.

⁷¹ Order No. 845, 163 FERC ¶ 61,043 at P 448.

⁷² *Id.*

a. Puget Sound's Compliance Filing

45. Puget Sound proposes revisions to adopt the Commission's *pro forma* definitions related to provisional interconnection service and the *pro forma* language in LGIA article 5.9.2 without modification.⁷³ Puget Sound proposes to fill in the bracketed placeholder in article 5.9.2 to state that it will study and update the maximum permissible output of the generating facility subject to a provisional LGIA on a semi-annual basis.⁷⁴

b. Commission Determination

46. We find that Puget Sound's proposed LGIP and *pro forma* LGIA revisions regarding provisional interconnection service comply with the requirements of Order Nos. 845 and 845-A because Puget Sound proposes to adopt the Commission's *pro forma* LGIP and *pro forma* LGIA provisions without modification except to fill in the bracketed placeholder in *pro forma* LGIA article 5.9.2 to state that it will study and update the maximum permissible output of the generating facility subject to a provisional LGIA on a semi-annual basis.

10. 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 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

⁷³ Transmittal at 3; *see also* Puget Sound OATT, app. 6, LGIA, art. 5.9.2 (Provisional Interconnection Service).

⁷⁴ Transmittal at 3; *see also* Puget Sound OATT, app. 6, LGIA, art. 5.9.2 (Provisional Interconnection Service).

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

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 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.⁸¹

a. Puget Sound's Compliance Filing

48. Puget Sound proposes revisions to add sections 1, 3.3, and 3.3.1 to its LGIP, and article 1 to its *pro forma* LGIA, to comply with the Commission's directives in Order Nos. 845 and 845-A. Puget Sound adopts the Commission's *pro forma* LGIP and *pro forma* LGIA revisions for surplus interconnection service as required by Order Nos. 845 and 845-A, without modification.⁸²

49. In its Deficiency Response, Puget Sound proposes revisions to add a new section 3.3.2 to its LGIP, containing a surplus interconnection service process for the provision

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.

⁸¹ *Id.* P 499.

⁸² Transmittal at 3; *see also* Puget Sound OATT, annex A, LGIP §§ 1 (Definitions), 3.3 (Utilization of Surplus Interconnection Service); Puget Sound OATT, app. 6, LGIA, art. 1 (Definitions).

of surplus interconnection service.⁸³ Proposed LGIP section 3.3.2 states that, to initiate a request for surplus interconnection service, a requester must submit a request in the form of the surplus interconnection service request template found in the surplus interconnection service business practice posted on Puget Sound's OASIS. The provision also provides that, if an existing interconnection customer seeks to transfer surplus interconnection service to an affiliate or third party, such arrangement shall be finalized prior to initiating a request, so that a complete request can be provided to Puget Sound. Puget Sound proposes revisions regarding its surplus interconnection service study agreement in section 3.3.2.1 of its LGIP.⁸⁴ Proposed section 3.3.2.1 provides that, within 10 business days following a completed request for surplus interconnection service, including a deposit payment in the amount of \$15,000, Puget Sound shall provide to the requester (1) a surplus interconnection service study agreement, in the form of the template included in the surplus interconnection service business practice posted on Puget Sound's OASIS, and (2) a non-binding good faith estimate of the cost and time frame for completing the surplus interconnection service study. In addition, proposed section 3.3.2.1 provides that, within five business days of receipt, the requester must execute and deliver the surplus interconnection service study agreement to Puget Sound. The proposed process also provides that any difference between the deposit and the actual cost of the study shall be paid by or refunded to the requester of the surplus interconnection service.

50. Puget Sound proposes revisions regarding its surplus interconnection service request queue in section 3.3.2.2 of its LGIP.⁸⁵ Proposed section 3.3.2.2 provides that requests for surplus interconnection service shall be maintained in a queue separate from the standard interconnection request queue. In addition, proposed section 3.3.2.2 provides that upon receipt of a request for surplus interconnection service, Puget Sound will assign a surplus interconnection service queue position based upon the date and time of receipt of the request, and the queue position will be used to determine the order that Puget Sound performs the surplus interconnection service impact studies.

⁸³ Puget Sound Deficiency Response at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.3.2.

⁸⁴ Puget Sound Deficiency Response at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.3.2.1.

⁸⁵ Puget Sound Deficiency Response at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.3.2.2.

51. Puget Sound proposes revisions regarding its surplus interconnection service impact study in section 3.3.2.3 of its LGIP.⁸⁶ Proposed section 3.3.2.3 provides for Puget Sound to use reasonable efforts to complete the surplus interconnection service impact study within 60 calendar days of receipt of a completed request for surplus interconnection service, including payment of the deposit. Puget Sound will notify the surplus interconnection service requester if it anticipates that the relevant impact studies will not be completed within such time and will provide an estimate of the expected date of completion. Proposed section 3.3.2.3 provides that Puget Sound may waive any or all of the additional studies if it determines that there is no reasonable expectation that the requested surplus interconnection service will negatively impact the reliability of the transmission system or that no additional interconnection facilities or network upgrades will be necessary.

52. In addition, under the proposed process, a request for surplus interconnection service will not be approved if network upgrades are required to accommodate such request. If other directly assignable interconnection facilities are needed to connect the surplus interconnection service customer to the original interconnection customer's interconnection facilities, the costs for, and construction of, those facilities are the sole responsibility of the requester. Any requested change made to the existing interconnection service will be treated as a new interconnection request. Puget Sound proposes that if a request for surplus interconnection service would result in a change to the operating conditions assumed in the original interconnection service facilities study that Puget Sound has not already studied, including impacts to affected systems that were not previously accounted for in the interconnection process for the facilities over which the surplus interconnection service is sought, then the request will be deemed a request for new interconnection service.

53. Additionally, Puget Sound proposes revisions regarding its surplus interconnection service agreement in section 3.3.2.4 of its LGIP.⁸⁷ Proposed section 3.3.2.4 provides that, if Puget Sound determines that no additional impact studies are required, determines that there are no impacts requiring additional interconnection facilities or network upgrades, or posts a final surplus interconnection service impact study report, it will tender a draft agreement for surplus interconnection service and proceed consistent with

⁸⁶ Puget Sound Deficiency Response at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.3.2.3.

⁸⁷ Puget Sound Deficiency Response at 2; *see also* Puget Sound OATT, annex A, LGIP § 3.3.2.4.

the procedures of section 11 of the LGIP.⁸⁸ Proposed section 3.3.2.4 also provides that the surplus interconnection service agreement will take a form similar to Appendix 6 of the LGIP, except it will additionally provide for the following: (1) the combined surplus interconnection service limit and the modified interconnection service limit for the existing generating facility will not at any time exceed the original interconnection service limit; (2) the surplus interconnection service customer's output shall be limited to zero when the agreement is not in effect; (3) the original interconnection customer and surplus interconnection service customer shall be responsible for maintaining the net injection at the point of interconnection such that the sum of the simultaneous energy output of the new generating facility and the existing generating facility shall not exceed the original interconnection service limit; (4) Puget Sound may request data on the service levels of both the original interconnection customer and the surplus interconnection service customer at any time and may monitor service levels at all times; and (5) the circumstances under which exceedances of the original interconnection service limit constitutes breach of the surplus interconnection service agreement. In addition, Puget Sound proposes that monitoring costs "including but not limited to construction cost, capital cost, and operating and maintenance costs" will be paid by the surplus interconnection customer.⁸⁹

b. Commission Determination

54. We find that Puget Sound's proposed Tariff revisions regarding surplus interconnection service partially comply with the requirements of Order Nos. 845 and 845-A. We find that Puget Sound's proposed Tariff revisions to its LGIP sections 1, 3.3, and 3.3.1 comply with the requirements of Order Nos. 845 and 845-A because Puget Sound adopts the *pro forma* definition of surplus interconnection service and *pro forma* provisions in LGIP sections 3.3 and 3.3.1 without modification.

55. We find that Puget Sound's proposed process for evaluating surplus interconnection service partially complies with the requirements of Order Nos. 845 and 845-A. The process provides that Puget Sound will evaluate surplus interconnection service requests outside of its non-surplus interconnection queue. Additionally, as required by Order Nos. 845 and 845-A, Puget Sound's proposed process requires that the transmission provider, original interconnection customer, and surplus interconnection service customer file a surplus interconnection service agreement with the Commission that includes the terms and conditions of surplus interconnection service.

⁸⁸ Section 11 of the LGIP includes procedures for executing and filing the LGIA. Puget Sound OATT, annex A, LGIP § 11.

⁸⁹ Puget Sound OATT, annex A, LGIP § 3.3.2.4(4).

56. However, Puget Sound proposes a revision to LGIP section 3.3.2.3 that provides that “[a]ny requested change made to the existing Interconnection Service will be treated as a new Interconnection Request.”⁹⁰ Puget Sound also proposes a revision that provides that, if a request for surplus interconnection service would result in unstudied changes from the operating conditions assumed in the original interconnection service facilities study, including impacts to affected systems that were not previously accounted for in the interconnection process for the facilities over which the surplus interconnection service is sought, then the request shall be deemed a request for new interconnection service, and thus not eligible for surplus interconnection service. We find these two revisions to be inconsistent with Order Nos. 845 and 845-A, which allow a transmission provider to deny surplus interconnection service if it requires network upgrades,⁹¹ but not for the reasons that Puget Sound proposes. Therefore, we direct Puget Sound to file, within 120 days of the date of this order, a further compliance filing that removes the two revisions in section 3.3.2.3 of its LGIP that require a surplus interconnection service request to be treated as a new request for interconnection service if it results in changes to interconnection service or unstudied changes. In addition, we find that Puget Sound has not sufficiently justified its proposal to require the surplus interconnection customer to pay for monitoring costs. Accordingly, we direct Puget Sound to remove section 3.3.2.4(4) of its LGIP requiring the surplus interconnection customer to pay for monitoring costs, or demonstrate that proposed section 3.3.2.4(4) is consistent with or superior to the requirements of Order Nos. 845 and 845-A.

11. Material Modifications and Incorporation of Advanced Technologies

57. 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,⁹² without risking the loss of its queue position. The

⁹⁰ *Id.* § 3.3.2.3.

⁹¹ Order No. 845, 163 FERC ¶ 61,043 at P 487; Order No. 845-A, 166 FERC ¶ 61,137 at P 138 n.283.

⁹² 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.

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.⁹³ 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.⁹⁴

58. 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.⁹⁵ 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.⁹⁶

59. 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.⁹⁷ 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.⁹⁸ In addition, the Commission required that the technological change procedure explain how the transmission provider will evaluate

⁹³ *Id.* P 518.

⁹⁴ *Id.*; *see also pro forma* LGIP § 4.4.6.

⁹⁵ Order No. 845, 163 FERC ¶ 61,043 at P 519.

⁹⁶ *Id.*

⁹⁷ *Id.*; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

⁹⁸ Order No. 845, 163 FERC ¶ 61,043 at P 521.

the technological advancement request to determine whether it is a material modification.⁹⁹

60. 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.¹⁰⁰ The Commission also found that, if the transmission 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.¹⁰¹ 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.

61. 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 to 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

⁹⁹ *Id.* P 521

¹⁰⁰ *Id.* P 535.

¹⁰¹ *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.*

whether the proposed technological change materially impacts the timing and costs of lower-queued interconnection customers.¹⁰²

a. Puget Sound's Compliance Filing

62. Puget Sound proposes revisions to section 1 of its LGIP to incorporate the following definition of permissible technological advancement:¹⁰³

Permissible Technological Advancement shall mean a Technological Advancement that (i) will not increase the interconnection customer's requested interconnection service or cause any reliability concerns (i.e., materially impact the transmission system with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response); (ii) does not involve a change in the electrical characteristics of an interconnection request; and (iii) does not 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). A Permissible Technological Advancement is not a Material Modification. A Technological Advancement that is not a Permissible Technological Advancement would be a Material Modification.

63. Puget Sound proposes revisions to section 4.4.2 of its LGIP that adopt the Commission's *pro forma* language without modification.¹⁰⁴

64. Puget Sound's proposed revisions to add a new section 4.4.6 of its LGIP provide that, prior to the return of an executed interconnection facilities study agreement, an interconnection customer may submit a technological change request in writing to Puget Sound to make a modification to its facility resulting from advancement in technology. Such a request must (1) state the nature of the proposed technological change, (2) demonstrate that it would be a technological advancement – i.e., that it would result in equal or better electrical performance, and (3) demonstrate that the proposed change

¹⁰² Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

¹⁰³ Transmittal at 3-4; *see also* Puget Sound OATT, annex A, LGIP § 1 (Definitions).

¹⁰⁴ Transmittal at 3-4; *see also* Puget Sound OATT, annex A, LGIP § 4.4.6 (Technological Change Procedure).

would be a Permissible Technological Advancement. If the technological change request does not meet these criteria, it will be studied as a material modification request.

65. The proposed section 4.4.6 provides that upon receipt of the request, Puget Sound will assess the technological change request to determine if any additional information or study is required. Puget Sound will consider potential impacts to the system or lower-queued customers, the newness of the technology and if it has been incorporated previously, and any changes required to the interconnection. Under the proposed process, if the interconnection customer can demonstrate in its request that the requested technological change will have no material impact, then Puget Sound may not need to conduct a study. If Puget Sound determines that the above conditions are not met and/or that additional information or an additional study is necessary, it will notify the interconnection customer of such determination and provide a list of information and/or study inputs that the interconnection customer must provide to complete the study. The proposed section 4.4.6 requires the interconnection customer to provide Puget Sound with the requested information to complete the necessary study no later than 10 days after Puget Sound's request, and failure to timely provide Puget Sound with the requested information may be deemed a withdrawal of the technological change request.

66. Additionally, proposed LGIP section 4.4.6 states that if Puget Sound determines that a study is necessary, the interconnection customer is required to tender a deposit of \$10,000 within five days of the notification that such study is necessary. Failure to timely tender any such study deposit will be deemed a withdrawal of the technological change request. Under the proposed process, upon completion of the study, Puget Sound will describe for interconnection customer the costs incurred to conduct the study, provide the costs to interconnection customer, and either refund any overage or charge for any shortage for costs that exceed the deposit amount.

67. Puget Sound also proposes, in LGIP section 4.4.6, to perform and complete any necessary additional studies no later than 30 days after the interconnection customer submits a complete technological change request, including submission of any additional materials needed for the study and its deposit. If Puget Sound determines that the proposed technological advancement is not a permissible technological advancement, and is a material modification, the proposed process indicates that Puget Sound will provide the interconnection customer with a written explanation of this determination.

b. Commission Determination

68. We find that Puget Sound's proposed LGIP revisions to incorporate a definition of a permissible technological advancement and technological change procedure partially comply with the requirements of Order Nos. 845 and 845-A. Specifically, we find that Puget Sound'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.¹⁰⁵

69. 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.¹⁰⁶ Puget Sound'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 Puget Sound to file, within 120 days of the date of this order, a further compliance filing revising its LGIP to provide a more detailed explanation of the studies that Puget Sound will conduct to determine whether the technological advancement request will result in a material modification.

70. With regard to the deadline for completion of any additional studies in response to 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.¹⁰⁷ However, Puget Sound's proposed revisions to its LGIP section 4.4.6 provide that Puget Sound will perform and complete any necessary additional studies no later than 30 days after interconnection customer submits any additional materials needed for the study and its deposit, rather than 30 days after the interconnection customer submits the request. Accordingly, we direct Puget Sound to file, within 120 days of the date of this order, a further compliance filing that revises its proposed technological change procedure to provide that Puget Sound will determine whether or not a technological advancement is a material modification within 30 calendar days of receipt of the initial request.

The Commission orders:

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

¹⁰⁵ Order No. 845, 163 FERC ¶ 61,043 at PP 530-31.

¹⁰⁶ *Id.* P 521.

¹⁰⁷ *Id.* P 535; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

(B) Puget Sound 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)

Kimberly D. Bose,
Secretary.