

171 FERC ¶ 61,125  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

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

Duke Energy Carolinas, LLC  
Duke Energy Florida, LLC  
Duke Energy Progress, LLC

Docket No. ER19-1507-005

ORDER ON COMPLIANCE

(Issued May 21, 2020)

1. In a filing submitted on February 14, 2020 (February Compliance Filing), Duke Energy Carolinas, LLC, Duke Energy Florida, LLC, and Duke Energy Progress, LLC (collectively, Duke Energy) proposed revisions to their Joint Open Access Transmission Tariff (Tariff) in compliance with the requirements of Order Nos. 845 and 845-A<sup>1</sup> and the order on compliance the Commission issued on December 19, 2019.<sup>2</sup> As discussed below, we find that the February Compliance Filing partially complies with the Commission's directives in the December 2019 Order. Accordingly, we accept in part the February Compliance Filing, effective May 22, 2019, and direct Duke Energy to submit a further compliance filing within 120 days of the date of this order.

**I. Background**

2. Order Nos. 845 and 845-A amended the Commission's *pro forma* Large Generator Interconnection Agreement (LGIA) and *pro forma* Large Generator Interconnection Procedures (LGIP) to improve certainty for interconnection customers, promote more informed interconnection decisions, and enhance the interconnection process. In Order Nos. 845 and 845-A, the Commission adopted 10 different reforms to improve the

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<sup>1</sup> *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).

<sup>2</sup> *Duke Energy Carolinas, LLC*, 169 FERC ¶ 61,218 (2019) (December 2019 Order).

interconnection process and required transmission providers to submit compliance filings to incorporate those reforms into their tariffs.

3. In the December 2019 Order, the Commission found that Duke Energy's April 2, 2019 compliance filing, as amended, partially complied with the directives of Order Nos. 845 and 845-A. The Commission directed further revisions to the following sections of Duke Energy's LGIP: Material Modifications and Incorporation of Advanced Technologies, Identification and Definition of Contingent Facilities, Interconnection Study Deadlines, Requesting Interconnection Service Below Generating Facility Capacity, and Surplus Interconnection Service.<sup>3</sup>

## **II. Duke Energy's February Compliance Filing**

4. Duke Energy states that it filed revisions to sections 1, 3.1, 3.3.2.C, 3.5.2.3.C, 3.8, 4.4.4, and 4.4.5 of its LGIP to comply with the directives in the December 2019 Order. Duke Energy asserts that these revisions meet the requirements of Order Nos. 845 and 845-A, and the December 2019 Order. Duke Energy requests that the proposed Tariff revisions in the February Compliance Filing be made effective May 22, 2019, consistent with the Commission's ruling in Order No. 845-A regarding the proper effective date.

## **III. Notice and Interventions**

5. Notice of Duke Energy's February Compliance Filing was published in the *Federal Register*, 85 Fed. Reg. 11,066 (Feb. 26, 2020), with interventions and protests due on or before March 6, 2020. None was filed.

## **IV. Discussion**

### **A. Material Modifications and Incorporation of Advanced Technologies**

6. In the December 2019 Order, the Commission found that Duke Energy's proposed Tariff revisions lack the requisite detail required by Orders Nos. 845 and 845-A because Duke Energy's proposed LGIP section 4.4.6 did not include an explanation of the studies that Duke Energy will conduct to determine whether a proposed technological change will be deemed to be a material modification.<sup>4</sup> The Commission also found that Order No. 845 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. The Commission explained that Duke Energy's proposed language relied on whether the proposed technological change will "materially change"

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<sup>3</sup> *Id.* PP 24-25, 35, 41, 55, and 64-69.

<sup>4</sup> *Id.* P 64.

any of the information previously provided as the sole standard by which Duke Energy will assess whether the proposed technological change may require further evaluation to determine if the change constitutes a material modification. The Commission found that Duke Energy did not define or otherwise explain the term “materially change” and did not include an explanation of the studies that Duke Energy will conduct to determine whether a proposed technological change will be deemed to be a material modification, among other deficiencies.<sup>5</sup>

7. Accordingly, the Commission required Duke Energy to submit a further compliance filing, to include several revisions to the LGIP provisions related to material modifications and incorporation of advanced technologies. First, the Commission directed Duke Energy to include in this further compliance filing an explanation for the term “materially change.”<sup>6</sup> Second, the Commission required Duke Energy to revise its LGIP to provide a more detailed explanation of the studies that Duke Energy will conduct to determine whether the technological advancement request will result in a material modification.<sup>7</sup> Third, the Commission directed Duke Energy to include in its subsequent compliance filing revisions to its proposed technological change procedure to provide that Duke Energy will determine whether or not a technological advancement is a material modification within 30 calendar days of receipt of the initial request.<sup>8</sup> Lastly, the Commission noted that Duke Energy’s compliance filing included two sections numbered 4.4.6 and directed Duke Energy to re-number the first instance of proposed LGIP section 4.4.6 as 4.4.4 instead.<sup>9</sup>

### **1. Duke Energy’s February Compliance Filing**

8. Duke Energy proposes to replace the existing definition of permissible technological advancement, as included in LGIP section 1.1, with the following definition:

**Permissible Technological Advancement** shall mean modification to equipment that (1) results in electrical performance that is equal to or better than the electrical performance expected prior to the technology change,

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<sup>5</sup> *Id.* P 65-66.

<sup>6</sup> *Id.* P 65.

<sup>7</sup> *Id.* P 66.

<sup>8</sup> *Id.* P 68.

<sup>9</sup> *Id.* P 69.

(2) does not cause any reliability concerns, (3) 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) and (4) does not have a material impact on the cost or timing of any Interconnection Request with a later queue priority date, and is therefore not a Material Modification. A Permissible Technological Advancement is a change in equipment that may achieve cost or grid performance efficiencies that may include turbines, inverters, plant supervisory controls or other devices but does not include changes in generation technology type or fuel type.

9. Duke Energy explains that this definition is substantially the same as the definition submitted by Public Service Company of Colorado (PSCo) in its compliance filing, which the Commission accepted without modification in its order on PSCo's compliance filing.<sup>10</sup> Duke Energy submits that this proposed definition complies with the directives in Order No. 845 by including modifications of equipment that result in equal or better electric performance while not causing reliability concerns.

10. Duke Energy explains that, to address the remainder of the deficiencies identified in the Commission's December 2019 Order, Duke Energy has deleted its LGIP sections 4.4.4 and 4.4.5 and replaced them with the corresponding sections of PSCo's LGIP, which the Commission accepted without modification in its order on PSCo's compliance filing.<sup>11</sup> Specifically, in LGIP section 4.4.4, Duke Energy proposes that it will notify an interconnection customer within 10 business days after the interconnection customer submits a technological change request if the request is accepted or if additional study is required.<sup>12</sup> LGIP section 4.4.5 of Duke Energy's proposed LGIP states that, should assessment of the initial technological change request result in the need for additional studies, the interconnection customer shall update its request with any additional information required to conduct the study and should submit the updated request along with a deposit of \$10,000.<sup>13</sup> LGIP section 4.4.5 further states that Duke Energy shall

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<sup>10</sup> Duke Energy Filing at 8 (citing *Pub. Serv. Co. of Colo.*, 169 FERC ¶ 61,224 (2019)).

<sup>11</sup> *Id.*; Duke Energy proposed LGIP §§ 4.4.4, 4.4.4.1, and 4.4.4.2.

<sup>12</sup> Duke Energy proposed LGIP § 4.4.4.2.

<sup>13</sup> Duke Energy proposed LGIP § 4.4.5.

complete the studies as soon as practical, but no later than 30 calendar days after the receipt of the completed technological change request.

## 2. Commission Determination

11. We find that Duke Energy's proposed modifications to LGIP sections 4.4.4, 4.4.4.1, and 4.4.4.2 partially comply with the directives in the Commission's December 2019 Order. Specifically, we find that Duke Energy's revised LGIP now includes an explanation of the studies that Duke Energy will conduct to determine whether a proposed technological change will be deemed to be a material modification. However, we find that Duke Energy's proposal to allow itself 10 business days to review a technological change request and another 30 calendar days to complete all studies associated with the technological change request does not fully comply with the requirements of Order Nos. 845 and 845-A. Order Nos. 845 and 845-A require each transmission provider to study each technological change request and make a determination of whether the proposed technological change would be a material modification within 30 days of the submission of the initial technological change request.<sup>14</sup> Accordingly, we direct Duke Energy to submit, within 120 days of the date of this order, a further compliance filing revising its procedure for evaluating technological change requests to explain that Duke Energy will determine whether or not a technological advancement is a material modification within 30 calendar days of receipt of an interconnection customer's initial request.<sup>15</sup>

12. We also note that Duke Energy's proposed LGIP revisions appear to delete, perhaps inadvertently, section 4.4.4 of the Commission's *pro forma* LGIP, which provides a timeline for the assessment of material modification requests.<sup>16</sup> We direct

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<sup>14</sup> Order No. 845, 163 FERC ¶ 61,043 at P 535, Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

<sup>15</sup> Order No. 845, 163 FERC ¶ 61,043 at P 521.

<sup>16</sup> The *pro forma* LGIP language in LGIP section 4.4.4 that appears to have been deleted states:

Upon receipt of Interconnection Customer's request for modification permitted under this Section 4.4, Transmission Provider shall commence and perform any necessary additional studies as soon as practicable, but in no event shall Transmission Provider commence such studies later than thirty (30) Calendar Days after receiving notice of Interconnection Customer's request. Any additional studies

Duke Energy to submit, within 120 days of the date of this order, a further compliance filing that restores this language in its revised LGIP as LGIP section 4.4.4. We also direct Duke Energy to move the tariff language currently in LGIP section 4.4.6 to LGIP section 4.4.5 as this language is currently located in *pro forma* LGIP section 4.4.5.<sup>17</sup> Lastly, because of the restoration of deleted LGIP section 4.4.4 and the renumbering of LGIP section 4.4.6 as 4.4.5, we direct Duke Energy to re-number its proposed LGIP sections 4.4.4, 4.4.4.1 and 4.4.4.2 as new LGIP sections 4.4.6, 4.4.6.1, and 4.4.6.2.

**B. Other Compliance Directives**

**1. December 2019 Order and February Compliance Filing**

**a. Identification and Definition of Contingent Facilities**

13. In the December 2019 Order, the Commission found that Duke Energy's proposed Tariff revisions lack the requisite transparency required by Orders No. 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 Duke Energy will use as part of its method to identify contingent facilities.<sup>18</sup> Therefore, the Commission required Duke Energy to submit a further compliance filing that included in section 3.8 of its LGIP the method it will use to determine contingent facilities, including technical screens or analyses it proposes to use to identify these facilities. The Commission further required Duke Energy to include in section 3.8 of its LGIP 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.<sup>19</sup>

14. In the February Compliance Filing, Duke Energy's proposed LGIP section 3.8 includes a revised method for identifying contingent facilities that is composed of five discrete steps. Duke Energy states that Step 1 outlines the methods that Duke Energy will use to identify potential contingent facilities in preparation for performing an interconnection customer's system impact study. Duke Energy states that Step 2 explains

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resulting from such modification shall be done at Interconnection Customer's cost.

<sup>17</sup> The tariff language to be included in Duke Energy's LGIP section 4.4.5 states: "Extensions of less than three (3) cumulative years in the Commercial Operation Date of the Large Generating Facility to which the Interconnection Request relates are not material and should be handled through construction sequencing."

<sup>18</sup> December 2019 Order, 169 FERC ¶ 61,218 at P 24.

<sup>19</sup> *Id.* P 25.

how Duke Energy will use the method outlined in Step 1 to make a list of potential contingent facilities that consist of: (a) any unbuilt interconnection facilities and/or network upgrades associated with higher queued interconnection requests that are identified as potentially necessary to accommodate the interconnection customer's requested interconnection; (b) any of Duke Energy's planned upgrades to its system that are identified as potentially necessary to accommodate the interconnection customer's requested interconnection; and (c) any contingent facilities that have been identified in affected system studies as potentially necessary to accommodate interconnection customer's requested interconnection. Duke Energy states that Step 3 outlines how Duke Energy will use the potential contingent facilities identified in Steps 2(a) and 2(b) to conduct a flow impact analysis on such facilities based on the performance requirements set forth in NERC Reliability Standard TPL-001-4, Table 1, or any successor applicable version of such reliability standard. Duke Energy states that Step 4 outlines the criteria that will apply to the flow impact analysis performed in Step 3. Lastly, Duke Energy states that Step 5 explains how Duke Energy will inform each interconnection customer of its potential risk exposure, should any such contingent facility be delayed or not built.<sup>20</sup>

15. Duke Energy also proposes to modify LGIP sections 3.8.2 and 3.8.3. Duke Energy states that its proposed LGIP section 3.8.2 explains how Duke Energy will provide to each interconnection customer the estimated costs of interconnection facilities and/or network upgrades and estimated in-service completion times of each contingent facility identified in the system impact study.<sup>21</sup> Duke Energy states that its proposed LGIP section 3.8.3 explains that any contingent facilities will be included in each interconnection customer's LGIA.<sup>22</sup>

**b. Interconnection Study Deadlines**

16. In the December 2019 Order, the Commission found that Duke Energy's proposed LGIP revisions regarding Duke Energy's study deadline statistics and informational reporting requirements partially complied with the requirements of Order Nos. 845 and 845-A.<sup>23</sup> The Commission found that in proposed LGIP section 3.5.2.3(C), Duke Energy's proposed study deadlines did not match those in its Tariff. The Commission

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<sup>20</sup> Duke Energy proposed LGIP § 3.8 (Identification of Contingent Facilities).

<sup>21</sup> Duke Energy proposed LGIP § 3.8.2 (Estimates Available for Contingent Facilities).

<sup>22</sup> Duke Energy proposed LGIP § 3.8.3 (Inclusion of Contingent Facilities in LGIA).

<sup>23</sup> December 2019 Order, 169 FERC ¶ 61,218 at P 35.

directed Duke Energy to revise section 3.5.2.3(C) of its LGIP to clarify that the 180 day deadline applies to interconnection facilities studies where the interconnection customer requested a +/- 10% cost estimate. In the February Compliance Filing, Duke Energy proposed revisions to LGIP section 3.5.2.3(C) to clarify that the 180 day deadline applies to interconnection facilities studies where the interconnection customer requested a +/- 10% cost estimate.<sup>24</sup>

c. **Requesting Interconnection Service Below Generating Facility Capacity**

17. In the December 2019 Order, the Commission found that Duke Energy's proposed Tariff revisions to section 3.1 of its LGIP omitted some of the *pro forma* language required by Order No. 845.<sup>25</sup> In the February Compliance Filing, Duke Energy proposed revisions to section 3.1 of its LGIP to include the omitted *pro forma* language.<sup>26</sup>

d. **Surplus Interconnection Service**

18. In the December 2019 Order, the Commission found that Duke Energy's proposed Tariff revisions regarding surplus interconnection service partially complied with the requirements of Order Nos. 845 and 845-A.<sup>27</sup> The Commission found that Duke Energy did not explicitly state that surplus interconnection service requests will be processed outside the non-surplus interconnection queue, as required by Order No. 845. In the February Compliance Filing, Duke Energy proposes revisions to LGIP section 3.3.2.C to explicitly state that surplus interconnection requests will be processed outside of the non-surplus interconnection queue.<sup>28</sup>

2. **Commission Determination**

19. We find that Duke Energy's proposed revisions regarding the Identification and Definition of Contingent Facilities, Interconnection Study Deadlines, Requesting Interconnection Service Below Generating Facility Capacity, and Surplus Interconnection Service comply with the directives in the December 2019 Order.

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<sup>24</sup> Duke Energy proposed LGIP § 3.5.2.3.C.

<sup>25</sup> December 2019 Order, 169 FERC ¶ 61,218 at P 41.

<sup>26</sup> Duke Energy proposed LGIP § 3.1.

<sup>27</sup> December 2019 Order, 169 FERC ¶ 61,218 at P 55.

<sup>28</sup> Duke Energy proposed LGIP § 3.3.2.C.



The Commission orders:

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

(B) Duke Energy is hereby directed to submit a further 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.