

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Commission's)	
Review of Chapter 4901:1-22 of the)	
Ohio Administrative Code Regarding)	Case No. 18-884-EL-ORD
Interconnection Services.)	

INITIAL COMMENTS OF DUKE ENERGY OHIO, INC.

On May 21, 2018, the Public Utilities Commission of Ohio (Commission) issued an entry commencing its five-year review of the rules in O.A.C. Chapter 4901:1-22 (1-22), relating to electric interconnection services and standards. Pursuant to that order, a workshop was held on September 11, 2018. The Commission's entry of January 29, 2020 called for comments on staff's proposed changes to that chapter, with due dates of March 13, 2020, for initial comments, and April 3, for reply comments. In accordance with the Commission's schedule, Duke Energy Ohio, Inc., (Duke Energy Ohio) respectfully submits its comments.

I. DUKE ENERGY OHIO'S RESPONSES TO QUESTIONS POSED BY STAFF.

A. What is the best method for adopting IEEE 1547-2018 in Ohio?

Duke Energy Ohio believes that Ohio should proceed with caution in adopting aspects of IEEE 1547-2018. IEEE 1547-2018 differs substantially from IEEE 1547-2003, and is currently being analyzed thoroughly across the industry to understand the impacts of the changes. For example, IEEE 1547.1-2020, which will describe the tests that have to be completed for interconnection under the new standard, will not be published until later this year. The Company believes that it is crucial to understand all of the costs and benefits of the new changes before adopting IEEE 1547-2018 wholesale. Duke Energy Ohio believes that a working group made up of appropriate technical subject matter experts would be a suitable forum to explore this further.

B. Do stakeholders believe that the IEEE 1547-2018 ride-through provisions must be incorporate into O.A.C. Chapter 4901:1-22 at this time?

Duke Energy Ohio believes that more study of the IEEE 1547-2018 ride-through provisions and the potential effects of their adoption is needed before they can be safely adopted in Ohio. In some cases, it may be dangerous for certain generators to ride through an event. It is also crucial to balance distribution and transmission needs, and to consider the input of Regional Transmission Organizations (RTOs) on how to proceed towards adoption. Duke Energy Ohio believes that a working group made up of appropriate technical subject matter experts would be a suitable forum to explore this further.

C. Is Commission clarification regarding whether a request for interconnection is subject to Ohio or PJM jurisdiction necessary at this time?

Duke Energy Ohio believes it would be helpful for the Commission to clarify that jurisdiction over interconnection service and agreements is *not* static, but can shift with the Qualifying Facility (QF)¹ status of the customer and the customer's intent and/or ability to sell power to third parties (i.e. not the EDU).

FERC rulings have made clear that existing QFs can change their plans with respect to power sales, which can result in a change in jurisdiction over interconnection services to such QF. For example, in *Niagara Mohawk Power Corp.*, 121 FERC ¶ 61,183, FERC asserted jurisdiction over a GIA that had properly been treated as state-jurisdictional until it was amended to reflect an entirely separate document that would allow third-party sales. Later in *Florida Power & Light Company*, FERC explained that its jurisdiction applied "when an existing QF, which historically sold its total output to a directly interconnected utility (or an on-site customer) and which is already

¹ Public Utility Regulatory Policies Act of 1978, 16 U.S.C. 796(17)-(18), 824a-3.

interconnected to a transmission system pursuant to a state-approved agreement, now plans to sell output to a third party.”²

Given FERC precedent on this question, it would be helpful for the Commission to clarify that (1) the applicant’s QF status and intent with respect to power sales at the time of the initial interconnection will determine whether Ohio or PJM has jurisdiction at the time; *but* (2) that jurisdiction can shift if the customer obtains or terminates QF status and/or elects to sell/stop selling power to third parties.

D. Are there any additional standards and codes that have become relevant to the interconnection and interoperability of DERs?

Duke Energy Ohio does not know of any additional standards that should be added to O.A.C. 4901:1-22-03. However, Duke Energy Ohio believes that there is a typo: where the proposed rules read “1541.1a,” they should read “1547.1a,” and the standard year should be added.

E. Do these interconnection rules make technical sense and strike an adequate balance between encouraging the state-wide proliferation of DER while maintaining safety and reliability of the distribution system on a local level? If not, how should the rules be changed and why?

Please see Duke Energy Ohio’s suggested changes to specific provisions below.

F. Are the generation and capacity limits included in the level 1 and level 2 approval criteria still appropriate? Are EDUs denying applications for level 1 or level 2 interconnection based on applicants exceeding these limits.

Duke Energy Ohio believes that the current generation and capacity limits for level 2 approval should be amended. The Company’s proposed revisions and its rationale are provided below in Section II.D.2.

The Company is not currently denying applications based on exceeding these limits. But the Company believes that, as projects in Ohio become larger, the current eligibility criteria will

² 133 FERC ¶ 61,121 at P 20 (2010).

mislead too many applicants for level 2 review into believing they are eligible to receive fast track approval, when there is a high likelihood that projects of this size will fail a number of Level 2 screens.

G. Please provide feedback with regard to the efficacy of the administrative procedures and processes set forth in the rules with regard to creating a uniform experience for consumers throughout the state.

Generally speaking, Duke Energy Ohio believes that the rules are reasonable and in line with practices in other states. For specific improvements that could be made, please see Duke Energy Ohio's suggested changes to specific provisions below.

H. Given that the rules are technically nuanced, should the Commission form a working group including various stakeholders to aid in the continued development of these rules, both now and through future review?

Duke Energy Ohio would support the formation of a working group, comprised of experienced technical subject matter experts, to aid in the continued development of these rules as industry standards and technology evolve.

II. DUKE ENERGY OHIO'S COMMENTS ON SELECTED PROVISIONS.

A. Rule 22-01³ Definitions.

1. The Company opposes the proposed deletions of "Area network" and "Spot Network" in the current 22-01(C) and current 22-01(BB).

The Commission proposes to completely delete the current 22-01(C), which defines an "[a]rea network," and to replace it with a new definition of an "Area electric power system."⁴ However, these two are not interchangeable concepts. An area network is a downtown underground network that has unique design considerations that must be taken into account when

³ For purposes of readability, rule and chapter numbers will be designated without reference to the agency or division number. In addition, where Staff's proposed revisions result in numbering changes, the proposed numbering is used for reference purposes, unless specifically otherwise noted.

⁴ Proposed Rules, p. 1.

connecting DERs. The Company does not oppose the addition of a definition of an “Area electric power system,” but requests that the existing definition of “Area network” be retained.

Similarly, the Company opposes the deletion of the definition of “Spot network,” as a spot network is a part of a downtown underground network that also has unique design considerations that must be taken into account when connecting DERs.

Replacing “spot network” and “area network” with “area electric power system” in the rules will impose the elevated interconnection standards that currently only apply to spot and area networks on many interconnections unnecessarily.

Relatedly, in 22-06(B)(1)(d), the term “spot network” should remain to ensure that network protectors do not trip on reverse power. Likewise, the terms “area network” and “spot network” should remain in 22-07(B)(1)(k).

2. The Company proposes to clarify meaning of “legal holiday” in 22-01(F).

The Company proposes to add the following language to Rule 22-01(F): “‘Legal holiday’ has the same meaning as in section 1.14 of the Revised Code.”

3. The Company suggests revising the definition of “Minor modification” in 22-01(S).

The Company suggests revising the proposed definition as follows:⁵

“Minor modification” to an interconnection application means a change in the technical characteristics that improves the reliability, safety and compatibility of the interconnection with the electric distribution system while not materially ~~increasing the size or cost of the intended DER installation~~ impacting size or cost of the EDU’s interconnection facilities or upgrades or adversely impacting other interconnection requests by earlier queue members.

⁵ Duke Energy Ohio’s revisions to the rules proposed by the Commission throughout this document will use the proposed rules as a starting point, depict the Company’s deletions in strikethrough font, and depict the Company’s additions in underlined font.

The Company believes these revisions would more fully capture the impact of a modification and provide more clarity regarding how to assess modifications.

4. *The Company suggests deleting the term “Point of interconnection” in 22-01(V), and instead using “point of common coupling” to maintain consistency with IEEE 1547-2018.*

The proposed rule revisions add a new definition in 22-01(V) for “Point of interconnection.” This definition matches the definition of the term “Point of DER Connection” in IEEE 1547-2018. However, the term “Point of interconnection” is used in the proposed rules in a manner that indicates that throughout the proposed rules, such as 22-04(B)(3)(k), 22-07(B)(1)(a) and (c), 22-07(E)(1)(b), 22-09(A)(2), indicates that the location being referred to is *not* the Point of DER Connection, but rather the point of common coupling. Thus, to avoid confusion and to maintain consistency with IEEE 1547-2018, Duke Energy Ohio recommends deleting “Point of interconnection” from 22-01(V) and replacing it with “point of common coupling” in the previously listed provisions.

5. *The Company suggests striking 22-01(AA)(1), as it becomes redundant in light of the proposed addition to (AA)(4).*

With the proposed addition of “points of interconnection” to 22-01(AA)(4), the Company believes the 22-01(AA)(1) is redundant and should be deleted.

B. Rule 22-04 General Provisions

1. *The Company suggests that 22-04(B)(3), which lists the items to be included in the pre-application report be modified to clarify that total generation capacity will be given as the ONAN rating.*

There are a number of ways to calculate a DER’s total general capacity. Duke Energy Ohio proposes to amend 22-04(B)(3)(a) to clarify that the “total generation capacity” will be given as the ONAN rating: “Total generation capacity (in megawatts, ONAN) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed site.).”

2. *The Company proposes revisions to 22-04(G) to clarify the responsibilities of the interconnection applicant.*

The Company proposes to revise 22-04(G)(2), which states that “[a]ll construction or distribution system upgrade costs shall be the responsibility of the interconnection applicant,” to clarify that such costs also include the costs of initial inspection, commissioning, overhead, and reinspection: “All construction or distribution system upgrade costs shall be the responsibility of the interconnection applicant, including but not limited to the costs of initial inspection, commissioning, overhead, and reinspection.”

The Company also proposes to clarify the level of detail required for invoice itemization in 22-04(G)(4): “All construction and system upgrade cost estimates and invoices shall be itemized and clearly explained. Invoice itemization will meet this requirement if it includes the costs of engineering, equipment, procurement, construction, and overhead costs for each.”

3. *The Company proposes to lengthen the time limit for interconnection service in 22-04(G)(5).*

Duke Energy Ohio proposes to amend 22-04(G)(5) to recognize factors that can impact the timing of interconnection service:

Interconnection service shall take place no later than ~~two weeks~~ ten business days following the completion of such construction or system upgrades, completion of inspection by the local government authority to ensure public safety, and completion of inspection by the EDU to ensure that the completed inspection package meets the safety and reliability requirements of the EDU.

C. 22-06 Level 1 review procedure

1. *The Company proposes to revise 22-06(C)(2) to permit applicants to modify a failing application to comply with the screening criteria and to add a 10-business-day time limit for holding a failing application’s queue position.*

Currently, 22-06(C)(2) appears to require the EDU to automatically deny an application that fails one or more screening criteria. This is unduly hard; often an application can be modified

to comply. If, however, an application is found to fail, the Company believes that it should not be able to hold its queue position indefinitely pending a new application.

Duke Energy Ohio proposes amending this provision as follows:

If the proposed interconnection fails one or more of the screening criteria, the EDU may, at its discretion, work with the applicant to modify the application to comply; otherwise, the application shall be denied. At the applicant's request, the EDU shall provide copies of the analysis and data underlying the EDU's determinations under the criteria. Upon denial of the level 1 interconnection request, the applicant may elect to submit a new application for consideration under level 2 or level 3 review procedures. If the new application is submitted within 10 business days, in which case the queue position assigned to the level 1 application shall be retained.

D. 22-07 Level 2 review procedure

1. *The Company proposes that “2.5 lines” in 22-07(A)(3) be revised to read “2.5 feeder line miles.”*

Duke Energy Ohio proposes that “2.5 lines” in 22-07(A)(3) be revised to read “2.5 feeder line miles” to be more precise.

2. *The Company proposes revisions to lower the eligibility limits in the table provided in 22-07(A)(3).*

Duke Energy Ohio believes that the current eligibility limits would permit too many projects to apply for level 2 review that would not ultimately receive fast track approval. Although the Company does not currently receive many applications that exceed these eligibility criteria, the Company anticipates that the number of larger projects will increase, and the Company believes that it is best to have eligibility limits that properly set a developer's expectations regarding a project's prospects of receiving fast track approval. Furthermore, the advent of energy storage will present additional complexities that make lower limits more prudent. Accordingly, the Company proposes that eligibility limits for Level 2 review be set as follows:

Line Voltage	Expedited Review Regardless of Location	Expedited Review on a 600 amp line and within 2.5 feeder miles from substation
less than or equal to 5 kV	less than or equal to 100 kW	less than 500 kW
5 kV less than or equal to 15 kV	less than or equal to 500 kW	less than 1 MW
15 kV less than or equal to 30 kV	less than or equal to 750 kW	less than 2 MW
30 kV less than or equal to 69 kV	less than or equal to 2.5 MW	less than 3 MW

E. 22-08 Level 3 review procedure

1. *The Company proposes to revise the proposed 22-08(C)(1) to clarify aspects of the fees for level 3 review.*

(C) Level 3 fees

- (1) The EDU's tariff for level 3 standard review fees will include the following:

- (a) A non-refundable, up-front application fee of up to one hundred dollars, plus two dollars per kilowatt of the system's nominal nameplate capacity.
- (b) ~~(i)~~—The cost of engineering work done as part of any feasibility, system impact or facilities study, billed at actual cost, after costs are incurred.
- (c) ~~(ii)~~—The actual cost of any modifications of the EDU's system that would otherwise not be done but for the applicant's interconnection request.

F. 22-09 Scoping meeting and interconnection studies

1. *The Company proposes to revise 22-09(F)(3)(b) to clarify that initial construction inspection costs, commissioning costs, and follow-up inspection costs should be estimated also.*

Duke Energy Ohio proposes to revise 22-09(F)(3)(b) to clarify the included costs:

A nonbinding good faith estimate of the cost to perform the facilities study to cover the cost of the equipment, engineering, procurement and construction work (including, among other things, initial construction inspection, commissioning, and follow-up inspection), including overheads, needed to implement the conclusions of the feasibility study and/or the system impact study to interconnect the DER.

2. *The Company proposes to modify 22-09(F)(5)(c), specifying that the applicant must use equipment specified by the EDU.*

In order to be able to properly serve the interconnection, the EDU must be able to not only specify the technical specifications for equipment, but also the make and/or model of the equipment if necessary. Accordingly, Duke Energy Ohio proposes the following revision to 22-09(F)(5)(c):

The EDU shall provide the applicant with all relevant information and required specifications, including make and/or model of equipment where necessary, available to permit the applicant to obtain an independent design and cost estimate for the facilities, which must be built in accordance with the specifications.

G. 22-10 Uniform requirements for interconnection agreements

1. *The Company proposes setting time limits on the payments required of the applicant in 22-10(A).*

To avoid confusion, the Company proposes to revise 22-10(A) to add a time limit for the required payment:

The EDU shall provide the applicant with a standard interconnection agreement for the DER within five business days following completion of project review. If applicable, the applicant must pay for the interconnection facilities and distribution upgrades identified in the facilities study within 60 days of receiving the standard interconnection agreement from the EDU.

2. *The Company proposes revising 22-10(C) to enable the EDU to deny a request for extension when the EDU determines that the extension will adversely impact on one or more queued projects.*

Currently, 22-10(C) prohibits the EDU from denying a request for extension “unless conditions on the EDU system have changed.” In order to be fair to other applicants, the Company proposes to revise this to read “The request for extension shall not be denied by the EDU, unless conditions on the EDU system have changed or the EDU determines that the extension will adversely impact one or more other queued projects.”

3. *The Company proposes to clarify the time limit for curing a noncompliance condition in 22-10(I)(2).*

The phrase “reasonable time to cure” in 22-10(I)(2) is vague. To minimize confusion, the Company proposes the following revision: “The disconnection can only occur if the noncompliance condition is not cured within ten business days of notice being provided or if the conditions for disconnection under (J)(2) are met.~~after a reasonable time to cure the noncompliance condition has elapsed.~~”

4. *The Company proposes to change the period for notice of service interruption in 22-10(K) to five business days, instead of seven days.*

The Company proposes to revise the notice period in 22-10(K) from “seven-day” to “five-business-day.”

Duke Energy Ohio appreciates the opportunity to provide its initial comments to the Commission and respectfully requests that the Commission revise the proposed rules in accordance with the suggestions herein.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing was delivered by U.S. mail (postage prepaid), personal delivery, or electronic mail, on this 13th day of March 2020, to the following parties.

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