

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
INTERCONNECTION SERVICES.

CASE NO. 18-884-EL-ORD

FINDING AND ORDER

Entered in the Journal on December 15, 2021

I. SUMMARY

{¶ 1} The Commission adopts amendments to Ohio Adm.Code Chapter 4901:1-22 regarding the Commission's interconnection rules.

II. DISCUSSION

{¶ 2} R.C. 111.15(B) requires all state agencies to conduct a review, every five years, of their rules and to determine whether to continue their rules without change, amend their rules, or rescind their rules.

{¶ 3} On January 10, 2011, the Governor of Ohio issued Executive Order 2011-01K, entitled "Establishing the Common Sense Initiative," which sets forth several factors to be considered in the promulgation of rules and the review of existing rules. Among other things, the Commission must review its rules to determine the impact that a rule has on small businesses; attempt to balance properly the critical objectives of regulation and the cost of compliance by the regulated parties; and amend or rescind rules that are unnecessary, ineffective, contradictory, redundant, inefficient, or needlessly burdensome, or that have had negative unintended consequences, or unnecessarily impede business growth.

{¶ 4} In addition, in accordance with R.C. 121.82, in the course of developing draft rules, the Commission must conduct a business impact analysis (BIA) regarding the rules. If there will be an adverse impact on business, as defined in R.C. 107.52, the agency is to incorporate features into the draft rules to eliminate or adequately reduce any adverse

impact. Further, the Commission is required, pursuant to R.C. 121.82, to provide the Common Sense Initiative office the draft rules and the BIA.

{¶ 5} Furthermore, Amended Sub.H.B. 166 of the 133rd General Assembly, which became effective on October 17, 2019, adopted a new provision, codified at R.C. 121.95, which states that a state agency, including the Commission, cannot adopt a new regulatory restriction unless it simultaneously removes two or more existing regulatory restrictions. In accordance with R.C. 121.95, and prior to January 1, 2020, the Commission identified rules having one or more regulatory restrictions that require or prohibit an action, prepared a base inventory of these restrictions in the existing rules, and submitted this base inventory to the Joint Committee on Agency Rule Review. The Commission also posted this inventory on the Commission's website at <https://puco.ohio.gov/wps/portal/gov/puco/about-us/resources/inventory-of-regulatory-restrictions>. With regard to the amendments discussed in this Order for Ohio Adm.Code 4901:1-22, we have satisfied the "2-for-1" threshold required by R.C. 121.95.

{¶ 6} The Commission held a workshop in this proceeding on September 11, 2018, pursuant to Entry issued on August 1, 2018, in order to elicit feedback on Ohio Adm.Code Chapter 4901:1-22. Representatives of numerous interested stakeholders attended the workshop. Four stakeholders offered verbal statements, one of which also provided questions it urged the Commission to use to solicit feedback. As a result of the Commission's review of both the rules and the feedback received at the workshop, several substantive and non-substantive changes throughout the rules are proposed.

{¶ 7} By Entry issued on January 29, 2020, the Commission requested comments and reply comments on Staff's proposed revisions to Ohio Adm.Code Chapter 4901:1-22.

{¶ 8} Pursuant to the Entry issued on January 29, 2020, written comments were filed on March 12, 2020, by AEP Onsite Partners, LLC (AEP OSP), and Ohio Power Co. (AEP Ohio). On March 13, 2020, initial comments were filed by One Energy Enterprises, LLC (OEE), the Ohio Consumers' Counsel (OCC), Duke Energy Ohio, Inc. (Duke), The Dayton

Power and Light Co. (DP&L), Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, FirstEnergy), and the Ohio Manufacturers' Association Energy Group (OMAEG). Reply comments were then filed on April 3, 2020, by AEP Ohio, DP&L, Duke, OCC, OMAEG, and FirstEnergy.

{¶ 9} Before addressing the individual rules, we would like to thank all participants for their contributions toward the development of these rules and the insightful comments and reply comments submitted in this proceeding. In some instances, we will be making changes to the structure and content of the rules proposed by Staff, often at the suggestion of the comments that we have received. However, due to the volume of materials and time constraints, we will not attempt to address every issue or suggestion raised. In certain instances, we may have incorporated suggested changes into our rules or addressed concerns without expressly acknowledging the source of the suggestion in this Finding and Order. To the extent that a comment is not specifically addressed in this Finding and Order, it has been rejected.

{¶ 10} In the January 29, 2020 Entry, the Commission specifically sought feedback on the possibility of creating a working group including various stakeholders to aid in the continued development of these rules and discuss additional issues related to distributed energy resources (DER) on an ongoing basis. Based on the comments received, there was resounding support for the creation of such a collaborative group. Accordingly, the Commission hereby creates the DER Stakeholder Group. While the Commission has sought to address the comments submitted, we have elected to table certain issues to be discussed amongst the DER Stakeholder Group and will consider proposals and/or suggestions from the DER Stakeholder Group on a periodic basis. Ohio's electric distribution utilities (EDUs), which include AEP Ohio, FirstEnergy, DP&L, and Duke, in collaboration with Staff, will be responsible for announcing the times and manner in which the DER Stakeholder Group shall meet and, at the very least, all interested stakeholders participating in this proceeding should be included in the working group. The first meeting of the DER Stakeholder Group should occur within 60 days of the issuance of this Order.

{¶ 11} In addition to soliciting comments on the rules and interest in forming a dedicated working group, the January 29, 2020 Entry also posed several questions to stakeholders related to the proposed revisions to Chapter 4901:1-22. Many of the responses provided to these questions overlap with initial and reply comments, or were simply included as part of those comments, provided by stakeholders.¹ Notably, stakeholders responded in near unison that the Commission should not yet adopt Institute of Electrical and Electronics Engineers (IEEE) Standard 1547-2018 and should instead wait for the industry to evaluate the changes. Further, the stakeholders broadly rejected adoption of the IEEE Std. 1547-2018's ride through provisions. Stakeholders generally responded that there is no need to adjust the rules from an engineering or technical perspective for the sake of balancing the competing goals of statewide proliferation and safety and reliability of distribution at the local level. Stakeholders provided a mixed response to the Commission's question as to whether an evaluation should be made concerning if interconnection requests are subject to the jurisdiction of PJM or the State. As, noted above, there was broad support for the proposal that a working group be created for the purpose of further development of the rules in Chapter 4901:1-22.

III. COMMENTS ON OHIO ADM.CODE CHAPTER 4901:1-22

A. *Ohio Adm.Code 4901:1-22-01 - Definitions*

{¶ 12} AEP Ohio, Duke, and FirstEnergy, each filed comments specifically regarding Staff's proposed rules in Ohio Adm.Code 4901:1-22-01. The majority of the comments on this rule come from Duke, covering several subsections. AEP Ohio offered commentary on subsection (C), and FirstEnergy commented that a new subsection should be added to define "energy storage technology" as that term is used in subsection (K) of the rule.

{¶ 13} AEP Ohio suggests expanding the definition of "area electric power system (Area EPS)" in subsection (C) by adding language that indicates that an EDU's distribution

¹ Similarly, the Commission will address stakeholder feedback within the applicable rule sections.

system is always an Area EPS for purposes of the rule (AEP Ohio Comments at 1-2). Duke does not oppose the proposed addition of “area EPS” but believes “area network” should be retained. Duke reasons that the proposed changes will impose elevated connection standards that currently apply to spot and area networks on many interconnections unnecessarily. Duke argues that Ohio Adm.Code 4901:1-22-06(B)(1)(d) should retain “spot network” and Ohio Adm.Code 4901:1-22-07(B)(1)(k) should retain “area network” and “spot network.” Finally, Duke opposes the proposed deletion of “area network” and “spot network” in favor of “area electric power system.” (Duke Comments at 4-6.) By reply, AEP Ohio agrees with Duke in opposing the proposed deletions from subsection (C) and (BB). AEP Ohio states that the two terms should be retained as they currently appear and apply in Ohio Adm.Code 4901:1-22-06(B)(1)(d), Ohio Adm.Code 4901:1-22-07(B)(1)(k), and Ohio Adm.Code 4901:1-22-07(E)(1). AEP Ohio argues that retaining both “area network” and “spot network” is the most technically appropriate way to distinguish underground and non-underground network design considerations when taking into account the DER interconnection system impact. AEP Ohio further submits that in addition to retaining these terms as they currently appear and apply in Ohio Adm.Code 4901:1-22-06(B)(1)(d), 4901:1-22-07(B)(1)(k), and (E)(1). (AEP Ohio Reply Comments at 1-2, 4.)

{¶ 14} The Commission agrees with AEP Ohio’s recommendation to modify the definition of Area EPS to make it clear that an EDU’s distribution system itself is always an Area EPS and has modified the definition accordingly. Further, in response to the suggestions proposed by Duke and supported by AEP Ohio regarding the terms spot network and area network, the Commission emphasizes the importance of maintaining consistency with the terminology utilized in IEEE 1547. As such, while we agree that the definitions of spot network and area network should be retained, certain modifications are necessary to properly align them with IEEE 1547. Similarly, we find it necessary to add a definition for “distribution secondary grid network” in order to provide context for these two types of networks.

{¶ 15} FirstEnergy proposes that the definition of “energy storage technology” be added as a new subsection of Ohio Adm.Code 4901:1-22-01 to define batteries as “energy storage technology” (FirstEnergy Comments at 9).

{¶ 16} The Commission declines to adopt FirstEnergy’s proposal. We have not delineated any specific type of energy storage technology and choose not to do so at this time, especially given the expansive and ever-evolving nature of the types of technologies that may qualify. For instance, energy storage technologies may include a broad portfolio of technologies, such as pumped-storage hydroelectricity, compressed air energy storage, flywheels, electrochemical capacitors capable of retaining energy and subsequently releasing the energy for use as electricity, as well as various batteries, as suggested by FirstEnergy. However, we find that this would be an appropriate point of discussion for the DER Stakeholder Group and, thus, instruct participants to evaluate a possible definition for acceptable energy storage technologies for our consideration in the future.

{¶ 17} Duke has proposed several changes to subsections of Ohio Adm.Code 4901:1-22-01, including adding the definition of “legal holiday” using the definition from R.C. 1.14, noting that “Legal Holiday” is referenced in both subsections (F) and (G) of the rule. Additionally, Duke proposes adding language to the definition of “minor modification” in subsection (S) for clarity as to what constitutes a minor modification. Duke suggests replacing “increasing the size or cost of the intended DER installation” with “impacting the size or cost of the EDU’s interconnection facilities or upgrades or adversely impacting other interconnection requests by other queue members.” Further, Duke suggests modifying subsection (V) by deleting “point of interconnection” and replacing it with “point of common coupling” to maintain consistency with IEEE 1547-2018. Finally, on a similar note, Duke suggests deleting subsection (AA)(1) as Staff’s suggested addition of “points of interconnection” to subsection (AA)(4) creates a redundancy in subsection (AA)(1). (Duke Comments at 5-6.)

{¶ 18} Although we do not disagree with Duke that R.C. 1.14 lists out the legal holidays as referenced in the rule in question, we do not believe it is necessary to amend the rule to add a definition for “legal holiday” at this time. It is well known what days constitute legal holidays before the Commission. Moreover, in all other references to “legal holiday” throughout the Commission’s and Ohio Power Siting Board’s rules, we similarly have not found it necessary to specifically cite the statute listing the legal holidays for Ohio or specifically define it in those particular rule chapters. Furthermore, to the extent that Duke or other stakeholders believe the definition of “minor modification” needs revised, those concerns should be raised at the DER Stakeholder Group collaborative meetings. Duke’s suggested language in its comments is unclear and we believe it may lead to even more confusion for applicants and EDUs alike. However, we find that Duke’s recommendation regarding subsection (V) is well taken and have removed the proposed definition for point of interconnection as the point of common coupling is the more appropriate term and consistent with IEEE 1547. Finally, based on our decision to eliminate the definition for “point of interconnection, the Commission finds Duke’s suggestion regarding the deletion of subsection (AA)(1) to be unnecessary as we have stricken the addition of “point of interconnection” in (AA)(4).

B. Ohio Adm.Code 4901:1-22-03 – Industry Standards

{¶ 19} As mentioned above, the Commission posed eight broad-topic questions to stakeholders related to our review of Ohio Adm.Code Chapter 9401:1-22; several of the topics raised focused on industry standards regarding interconnection of rapidly evolving DER technology. Those stakeholders that provided feedback on this issue overwhelmingly agreed that it is premature to adopt IEEE 1547-2018 in its entirety (AEP Ohio Comments at 5; OEE Comments at 2; OCC Comments at 2-3; Duke Comments at 1-2; FirstEnergy Comments at 4-5). Responders explain that, until accompanying standards are in place, technologies fully evolve, and additional study has taken place in Ohio, adoption of IEEE 1547-2018 would present significant operational and compliance challenges. As an example, FirstEnergy states that inverter-based DERs currently could not comply with IEEE 1547-

2018 because compliant inverters do not yet exist. FirstEnergy, in fact, recommends that no changes are necessary and that the rules should not “lock in” any version of IEEE or Underwriters Laboratories (UL) standards. As to proposed Ohio Adm.Code 4901:1-22-03 specifically, Duke notes that the proposed rule reads “1541.a,” and should read “1547.1a” with the standard year evident (Duke Comments at 3).

{¶ 20} As indicated in the January 29, 2020 Entry, the Commission is cognizant of the compatibility lag between IEEE and UL standards, as well as the fact that IEEE 1547-2018 as it had been released was, as OEE stated, a single chapter of a multi-chapter book. Having reviewed the comments received in response to our query, the Commission agrees that it is premature to adopt IEEE 1547-2018 in its entirety at this time. The Commission further agrees that this is a topic perfectly suited for continuing analysis and discussion by the newly created DER Stakeholder Group, which can use its collective expertise to keep a pulse on the rapidly developing technology and regulation involving DERs throughout and between the Commission’s mandatory five-year review of these hyper-technical rules. Finally, the Commission has resolved the typographical error pointed out by Duke.

C. Ohio Adm.Code 4901:1-22-04 - General Provisions

{¶ 21} Beginning with the information to be included in the pre-application report, Duke proposes modifying Ohio Adm.Code 4901:1-22-04(B)(3)(a) to clarify that total generation capacity will be given as the ONAN rating (Duke Comments at 6). AEP Ohio proposes modifying subsections (B)(3)(k) and (l) to reflect the proposed definition of “point of common coupling.” AEP Ohio states that it is important to evaluate all interconnection requests at the point of common coupling where it is necessary to ensure that the impact of the entire Local EPS is fully considered. (AEP Ohio Comments at 2.) Duke similarly proposes modifying subsection (B)(3)(k) to refer to the point of common coupling rather than point of interconnection (Duke Comments at 6).

{¶ 22} The Commission finds it acceptable to note that the total generation capacity should be given as the ONAN rating. As noted in our findings for Ohio Adm.Code 4901:1-

22-01, we agree with the recommendations proposed by AEP Ohio and Duke regarding the elimination of “point of interconnection” as used in this rule. All interconnections should be evaluated at the point of common coupling, as suggested, and the rule has been modified accordingly.

{¶ 23} AEP OSP proposes modifying the rule at -04(C)(2) to avoid semantics over whether a proposed modification is “minor” while addressing the implications of significant changes being made to a pending interconnection application by removing “minor” from the first sentence and adding an additional sentence that reads “Modifications not qualified as minor modifications may require additional studies at the cost of the applicant.” (AEP OSP Comments at 2-3.) AEP Ohio suggests modifying subsection (C)(7) to allow EDUs to perform the initial review of an application prior to making a determination about when it will be able to connect the applicant’s facility (AEP Ohio Comments at 2). OCC responds stating that AEP Ohio’s proposed changes should be rejected and that, rather than changing the notice requirement to fall within ten business days of completing criteria screens or engineering studies, there should instead be a penalty for an EDU’s failure to provide notice within ten days of receipt of the application (OCC Reply Comments at 7).

{¶ 24} The Commission does not find AEP OSP’s recommendation for Ohio Adm.Code 4901:1-22-04(C)(2) to be necessary at this time. We note that this provision is providing guidance for minor modifications, as defined in Ohio Adm.Code 4901:1-22-01, and we will not be expanding the rule to incorporate scenarios which involve modifications falling outside of that definition. Finally, we reject the proposals submitted by AEP Ohio and OCC regarding subsection (C)(7), noting that this subsection, as it exists today, strikes an appropriate balance between receiving a timely response to an applicant’s interconnection request and performing due diligence to ensure the continued safety and reliability of the EDU’s electric system. However, we will clarify the rule to note that the ten business days will be calculated from the time the complete application has been received by the EDU.

{¶ 25} FirstEnergy suggests modifying Ohio Adm.Code 4901:1-22-04(D)(3) to add a DER's proposed mode of operation to the first sentence: "The appropriate criteria and interconnection parameters for the customer's technology *and mode of operation*," (FirstEnergy Comments at 10). AEP Ohio proposes modifying subsection (E) to correct a typographical error in that it references Ohio Adm.Code 4901:1-10-28(C) rather than 4901:1-10-28(B)(8)(c) (AEP Ohio Comments at 3).

{¶ 26} The Commission finds that the mode of operation, as proposed by FirstEnergy, is not necessary to include in the rule at this time. We believe this to be a more appropriate point of discussion for the DER Stakeholder Group to evaluate in the future. However, we find AEP Ohio's recommendation to be well founded and have, thus, amended the rule accordingly.

{¶ 27} FirstEnergy and Duke propose several modifications to subsection Ohio Adm.Code 4901:1-22-04(G). FirstEnergy specifically suggests a change to subsection (G)(1) to add a DER's proposed mode of operation in the scope of the study for impacts to the safety and reliability of the distribution systems that require construction or system upgrades. (FirstEnergy Comments at 10-11). Duke suggest modifying subsections (G)(2) and (4) to add clarity concerning the responsibilities of the interconnection applicant and the level of detail required for invoice itemization, respectively. Duke also proposes modifying subsection (G)(5) to lengthen the time limit for interconnection service. (Duke Comments at 7.) In its reply to Duke and FirstEnergy, OMAEG recommends the Commission consider how to allocate costs under scenarios when DERs provide system benefits before accepting rule changes that further detail and allocate costs unilaterally to the interconnector. (OMAEG Reply Comments at 3).

{¶ 28} Similar to our rejection of FirstEnergy's recommendation to include "mode of operation" in subsection (D)(3), we find that the DER's proposed mode of operation should not be included in the scope of study for impacts to the safety and reliability of the distribution systems that require construction or system upgrades. Again, this is more

appropriate for the DER Stakeholder Group to consider and propose any necessary modifications to the rules in the future. Further, in response to Duke's suggestions to subsections (G)(2) and (4), we similarly find that defining the necessary amount of detail required for invoice itemization may be better reserved for the DER Stakeholder Group and, thus, find that the suggestions should be rejected at this time. OMAEG is encouraged to raise its concerns as part of that collaborative effort. However, Duke raises a valid suggestion in providing flexibility in the timing of interconnection when encountering issues outside of the EDU's control. Therefore, we will amend the rule to note that interconnection service shall take place no later than ten business days following the completion of such construction or system upgrades, unless necessary inspections outside the control of the EDU cannot be completed within that time period.

D. Ohio Adm.Code 4901:1-22-05 - Application Requirements for Interconnection

{¶ 29} DP&L proposes modifying subsection (A)(2) to allow EDUs flexibility to seek and receive Commission approval to vary from the standard form. It may be necessary, DP&L states, to use application forms that vary from those proposed by the Commission, such as an electronic form on a website. DP&L later suggests that the Commission modify the approval criteria for Levels 1 through 3 in order to allow EDUs to reject applications that do not match customer account records. (DP&L Comments at 4-5.) In its reply, Duke agrees with DP&L that EDUs should be permitted to submit alternative application formats for Commission approval, as opposed to the standard form. Duke states this proposal preserves Commission oversight while giving EDUs additional flexibility to create an application form that best serves their needs. (Duke Reply Comments at 5.)

{¶ 30} The Commission agrees that EDUs should be afforded some flexibility as to the form of application necessary for interconnection requests, subject to the Commission's approval. However, any application form should, at the very least, contain the same type of content requested in the application form located on the Commission's website. In response to DP&L's suggestion to ensure accuracy with customer account records, we will

modify subsection (A)(2) to delineate information considered necessary for the application to be complete and subject to review by the EDU.

{¶ 31} OEE proposes modifying subsection (B)(1)(b)(ii) indicate that for larger generation systems, the equipment package is not a certified or listed system. Instead, OEE suggests modifying the language of subsection (iii) to read “Consistency with the testing and listing specified for the equipment package if testing and listing for the equipment package exists.” (OEE Comments at 7.) DP&L also suggests modifying Ohio Adm.Code 4901:1-22-05(B)(1)(c)(ii) where EDU preferences for disconnect switches may vary, to read “the disconnect switch must be external to the equipment package and, it must be accessible to and lockable by EDU personnel, within an acceptable distance of the meter as determined by the EDU, at either the primary voltage level, which may include load-break cutouts, switches, and elbows, or at the secondary voltage level, which may include a secondary breaker or switch.” (DP&L Comments at 5).

{¶ 32} AEP Ohio requests clarification on what is meant by “photovoltaic power source.” AEP Ohio states that, to the extent the Commission seeks to capture a solar facility’s AC electrical generation characteristics, this subsection should be modified, as the interconnecting inverter generates the AC electricity. (AEP Ohio Comments at 3-4). In its reply, DP&L disagrees with AEP Ohio’s initial comments suggesting that only the inverter need to be clearly labeled on the application. DP&L states that both the photovoltaic panels and the interconnecting inverter must both be clearly labeled to fully understand potential impact on the system. DP&L suggests modifying -05(B)(1)(d) to include all DER installations and not just solar equipment. (DP&L Comments at 3, 5). FirstEnergy proposes adding a new subsection (e) to subsection (B)(1) in order to acknowledge alternative modes of operation are available to DERs and to provide the utility with opportunity to re-study the impacts to the distribution system when operating modes are changed. FirstEnergy proposes the new subsection (e) read: “a description of the planned mode of operations, including but not limited to, stand-alone or aggregated operation, provision of ancillary services through wholesale markets, and any changes in equipment or operations from that

previously reviewed and approved by the electric distribution utility.” (FirstEnergy Comments at 10-11). OMAEG suggests that the Commission should reject FirstEnergy’s proposal, as implementing this request in the rule would be laborious and expensive to require all stakeholders to formalize small changes in operational mode (OMAEG Reply Comments at 5).

{¶ 33} The Commission finds that DP&L’s comments as to Ohio Adm.Code 4901:1-22-05(B)(1)(c)(ii) have some merit. While we do not agree at this time that all disconnect switches must be external to the equipment package, there is value in allowing the EDUs to determine an acceptable distance between the disconnect switch and the meter. We have amended the rule accordingly. We also agree with DP&L’s recommendation to clearly label both the photovoltaic panels and the interconnecting inverter, as both need to be labeled for the EDU to fully understand the potential impact a DER could have on its system. Similarly, we find AEP Ohio’s recommendations for subsection (B)(1)(d)(i) through (iii) to be valid suggestions and have made the necessary modifications in the attached rules. However, we do not find DP&L’s recommendation to require labeling the power source for all DER installations, rather than just solar equipment. In the currently effective version of the rules, these requirements are specific to solar equipment and DP&L has failed to demonstrate why this modification is necessary. As such, it will be rejected. Finally, we agree with OMAEG and, consistent with our prior findings regarding FirstEnergy’s recommendations for the inclusion of the mode of operation and evaluating impacts upon changes thereto, reject modifying subsection (B)(1) for the same reasons.

E. Ohio Adm.Code 4901:1-22-06 – Level 1 Review Procedure

{¶ 34} AEP Ohio suggests adding area EPS to Ohio Adm.Code 4901:1-22-06(B)(1)(d) where “spot network” included both area and local EPS (AEP Ohio Comments at 4). Duke adds that this rule should retain “spot network.” (Duke Comments at 4-5). AEP OSP suggests deleting “inverter-based equipment package,” opining that it unnecessarily limits the DER technologies able to qualify for Level 1 review and that in the future, other DER technologies could and should qualify (AEP OSP Comments at 3). Duke, in its reply

to AEP OSP, states that this suggestion, which includes deletion of “inverter-based equipment” should be rejected because interconnections that are not inverter-based require more extensive study than Level 1 or Level 2 procedures can provide. Duke further opines that it is unlikely that non-inverter-based equipment will be possible before the next review of these rules. (Duke Reply Comments at 4).

{¶ 35} In its initial comments, Duke proposes modifying Ohio Adm.Code 4901:1-22-06(C)(2) to permit applicants to modify a failing application to comply with the screening criteria and to add a ten-business day limit for holding a failing application’s queue position. (Duke Comments at 7-8). In reply, OCC supports Duke’s proposal to modify subsection (C)(2) to give customers the opportunity to work with the utility to modify the application such that it complies and to maintain their place in the queue if the amended application is submitted within ten days. (OCC Reply Comments at 3-4).

{¶ 36} Focusing on the comments submitted as to the rule at -06(B)(1)(d), we again acknowledge the retention of the definition of spot network in Ohio Adm.Code 4901:1-22-01(BB) and, as such, accept the comments of AEP Ohio and Duke by reverting to the language used in the current rule. We similarly find that Duke’s suggestion to modify subsection Ohio Adm.Code 4901:1-22-06(C)(2) to allow an EDU to work with an applicant and afford an additional ten-business day period for an applicant to retain a queue position while remedying deficiencies in its application. We note that this change reflects actual practice and encourages collaboration between applicants and EDUs. Thus, the rule has been amended accordingly. Finally, in response to AEP OSP’s recommendation to delete the limitation that Level 1 review only be utilized for inverter-based technologies, we agree with Duke that this recommendation should be rejected. As Duke suggests, non-inverter-based technologies in the future may qualify for Level 1 or Level 2 review, however, and so we instruct the DER Stakeholder Group to discuss this issue and notify the Commission in a future rulemaking whether this finding needs reevaluated.

F. Ohio Adm.Code 4901:1-22-07 – Level 2 Review Procedure

{¶ 37} Duke proposes modifying the rule at -07(A)(3) to read “* * * 2.5 feeder line miles” rather than “2.5 miles.” Duke also proposes modifying subsection (A)(3) to lower the eligibility requirements in the included table. Duke states that the current eligibility limits would permit too many projects to apply for Level 2 review that would not ultimately receive fast-track approval. (Duke Comments at 8-9).

{¶ 38} The Commission finds Duke’s initial recommendation to modify subsection (A)(3) to be well founded and has made the requisite change in the attached rules. As to its second recommendation, we believe this question would be more appropriate for the DER Stakeholder Group to consider and propose an ultimate solution for the Commission’s consideration.

{¶ 39} AEP Ohio suggests that, consistent with changes to 4901:1-22-04(B)(3)(k) and (l), “point of interconnection” should be replaced with “point of common coupling” in Ohio Adm.Code 4901:1-22-07(B)(1)(a) (AEP Ohio Comments at 4). Duke agrees with this change (Duke Comments at 4, 8). AEP OSP proposes striking the last sentence of Ohio Adm.Code 4901:1-22-07(B)(1)(d) because the provision does not contemplate any “back feed” or “islanding” conditions. AEP OSP further suggests striking from subsection (B)(1)(k) “inverter-based equipment package.” (AEP OSP Comments at 3.) Duke adds that the rule at -07(B)(1)(d) should retain “area network” and “spot network” (Duke Comments at 4-5). DP&L proposes modifying subsection (C)(4) to provide a degree of local discretion in requiring additional analysis before approving an application that otherwise meets the criteria stated in the rule (DP&L Comments at 8-9).

{¶ 40} For the same reasons we rejected AEP OSP’s recommendations for deleting the limitation that Level 1 review only be used for inverter-based technologies, we find that its recommendation for Level 2 review also be rejected. However, we again note that the DER Stakeholder Group should discuss this issue in the future and notify the Commission when it may be possible to allow non-inverter-based technologies to qualify for Level 1 or

Level 2 review. We likewise find AEP OSP's other proposal to strike language from subsection (B)(1)(d) to be misguided and will reject that suggestion, as well. Further, consistent with our prior findings in this Finding and Order, we agree with Duke that the references to spot network and area network should be maintained. Similarly, AEP Ohio's recommendation to replace point of interconnection with point of common coupling should also be adopted; indeed, all references to point of interconnection have been changed to point of common coupling where appropriate throughout the rule chapter. Finally, DP&L's recommendation for subsection (C)(4) should be denied. The EDUs are encouraged to submit proposed amendments to the screening criteria that they believe are necessary for further discussion in the DER Stakeholder Group.

{¶ 41} AEP Ohio suggests modifying Ohio Adm.Code 4901:1-22-07(E)(1) to capture the use of local and area EPS protectors (AEP Ohio Comments at 4). Finally, FirstEnergy suggests modifying subsection (E)(1)(a)(i) to change the word "battery" to "energy storage resource" where FirstEnergy feels this would better match the overall use of terminology in the subsection (FirstEnergy Comments at 11).

{¶ 42} Given the Commission's election to retain the definition of area network for purposes of this rule, we find that AEP Ohio's recommendation for subsection (E)(1) is no longer necessary. While we agree with FirstEnergy that the language does need revision, we will modify subsection (E)(1)(a)(i) to include reference to "energy storage technology," rather than "battery," in order to maintain consistency with Ohio Adm.Code 4901:1-22-10.

G. Ohio Adm.Code 4901:1-22-08 – Level 3 Review Procedure.

{¶ 43} Duke, FirstEnergy, OEE, AEP, and DP&L all offer suggestions with respect to Ohio Adm.Code 4901:1-22-08(C)(1), generally proposing changes to the Level 3 review process. These proposals range from changing the application fee to an up-front, non-refundable fee, billing for engineering costs after they are incurred, and allowing for rejection of an application if application information is not in-sync. (OEE Comments at 4, DP&L Comments at 6, Duke Comments at 9.) In reply, FirstEnergy generally agrees with

the specific propositions of the other EDUs, but also adds that applicants should be billed for all of the actual costs incurred after a true-up reconciliation after the fact (FirstEnergy Reply Comments at 8-9).

{¶ 44} The Commission recognizes the extensive nature of the comments submitted regarding the Level 3 review procedure. We agree with DP&L that adopting a one-size-fits-all approach on the limited information presented in the comments would be problematic, and we will refrain from doing so at this time. In order to fully consider and address these comments, we find it appropriate to direct the DER Stakeholder Group to evaluate these issues and propose necessary modifications for the Commission's consideration in the future. Specifically, the DER Stakeholder Group should evaluate the costs associated with processing Level 3 applications, in addition to how many applications EDUs are processing on an annual basis. As a separate point, to the extent DP&L is again requesting that the Commission amend approval criteria to allow EDUs to reject applications that do not match customer account records, we note that Ohio Adm.Code 4901:1-22-05 has been amended to alleviate this concern.

H. Ohio Adm.Code 4901:1-22-09 - Scoping Meeting and Interconnection Studies

{¶ 45} AEP Ohio recommends against Staff's proposed changes to Ohio Adm.Code 4901:1-22-09(D)(1) and (D)(2) in the form of removing (D)(2) and inserting it into (D)(1) as (D)(1)(c). AEP Ohio states that the current (D)(1) is specific to the feasibility study agreement, while (D)(2) is specific to the actual feasibility study. AEP Ohio's proposal is to modify the language of (D)(1) to read "[t]he feasibility study agreement shall include both of the following * * *" (AEP Ohio Comments at 4-5). Duke proposes modifying Ohio Adm.Code 4901:1-22-09(F)(3)(b) to clarify that initial construction costs, commissioning costs, and follow-up inspection costs should also be estimated. Duke elaborates, stating that the subsection would read "[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) * * *." Duke additionally proposes modifying

subsection (F)(5)(c) to clarify that an interconnection applicant must use equipment specified by the EDU, if necessary. (Duke Comments at 9-10.) DP&L comments generally that EDUs need to be able to reject an interconnection application if account information is not aligned (DP&L Comments at 6).

{¶ 46} AEP Ohio's comments regarding the references to the feasibility study and agreement are well founded and we have amended the rules accordingly. We also agree with Duke's suggestion to modify Ohio Adm.Code 4901:1-22-09(F)(5)(c) to clarify that an applicant will be required to use the make and/or model of equipment specified by the EDU, if necessary. Duke's proposal requesting clarification as to the costs to be covered by the applicant does not appear to be necessary at this time. However, similar to other cost-related concerns raised by the EDUs throughout these comments, we direct the EDUs and other members of the DER Stakeholder Group to consider whether clarification is needed and make any necessary proposals for the Commission's consideration. To the extent DP&L is again requesting that the Commission amend approval criteria to allow EDUs to reject applications that do not match customer account records, we note that Ohio Adm.Code 4901:1-22-05 has been amended to alleviate this concern.

{¶ 47} Additionally, the Commission notes that reference to "the applicant's proposed point of interconnection on the EDU's distribution system" in Ohio Adm.Code 4901-22-09(A)(2) should be revised to reflect that "the applicant's proposed point of generator connection" is appropriately addressed at the scoping meeting. This change is not only consistent with our discontinued use of the phrase "point of interconnection" throughout the rules, but it also clarifies that the rule applies to non-FERC jurisdictional generators connected to an EDU's distribution system while participating in the wholesale market.

I. Ohio Adm.Code 4901:1-22-10 – Uniform Requirements for Interconnection Agreements

{¶ 48} Duke proposes adding a 60-day time limit for payment required under Ohio Adm.Code 4901:1-22-10(A), measured from receipt of the standard interconnection agreement from the EDU. Duke additionally proposes modifying the rule at -10(C) to enable an EDU to deny a request for extension when the EDU determines that the extension will adversely impact one or more queued projects to ensure fairness to other applicants. (Duke Comments at 10-11.) In its reply, OCC states that Duke’s second suggestion should be rejected because it is vague and unnecessary and that it “gives an EDU carte blanche to reject a request” (OCC Reply Comments at 8).

{¶ 49} In the event Duke would like to propose a time limit for payment upon the receipt of the standard interconnection agreement from an EDU, we believe this topic would be best addressed with the DER Stakeholder Group. As such, we will refrain from imposing a time limit in the rules at this time. However, we find Duke’s suggestion to provide discretion for an EDU to deny an extension request if granting the extension would adversely impact one or more queued projects to be valid. Therefore, we have incorporated the change to Ohio Adm.Code 4901:1-22-10(C). We note this discretion will only be afforded to the EDU in the event the applicant has not signed the interconnection agreement within the 30 business days set forth in the rule, or a mutually agreed upon timeframe, pursuant to Ohio Adm.Code 4901:1-22-10(B).

{¶ 50} FirstEnergy proposes the addition of a new subsection, -10(D), with an appropriate renumbering of subsequent subsections, to require a description of the expected mode of operation for new agreements and to require updates or amendments to existing agreements to reflect changes from previously executed interconnection agreements. FirstEnergy further argues that this is necessary to prevent aggregation and new operating characteristics from disrupting the safety and reliability of the distribution system. (FirstEnergy Comments at 11.)

{¶ 51} Consistent with our earlier findings, we do not find it necessary to accept FirstEnergy's recommendation as it relates to requiring information regarding the mode of operation. We note, however, that the DER Stakeholder Group could discuss this issue and raise any concerns for the Commission's consideration at a later date.

{¶ 52} Finally, Duke proposes two changes to Ohio Adm.Code 4901:1-22-10. First, Duke proposes a modification to subsection -10(I)(2) to clarify the time limit for curing noncompliance conditions within ten business days. Second, Duke proposes modifying subsection (K) to change the notice requirement from seven days to five business days. (Duke Comments at 11.)

{¶ 53} The Commission disagrees with Duke's initial recommendation for subsection (I)(2), noting that EDUs should be afforded some flexibility in determining what is reasonable under the rule given the circumstances at hand. However, we do agree with Duke's second suggestion as to Ohio Adm.Code 4901:1-22-10(K) and have amended the rule accordingly.

J. Ohio Adm.Code 4901:1-22-12 - Complaints

{¶ 54} OCC suggests modifying this rule to require utilities to disclose to Staff and OCC all instances in which a consumer contacts the utility regarding a complaint or other dispute related to interconnection, even if such complaint does not rise to formal complaint under R.C. 4905.26 (OCC Comments at 5). OEE suggests, from its general comments, that there should be a process to request Commission oversight or mediation in an interconnection dispute, further noting that a mediation option should be explained on the website (OEE Comments at 7). Replying, OCC states that it supports a streamlined process in which utilities would not be permitted to frustrate customers into abandoning their attempts to install DERs simply because they lack the funds and legal expertise to fight the utility for connection. OCC supports OEE's suggestion concerning mediation. (OCC Reply Comments at 3-4.) AEP Ohio replies that OCC and OEE's suggestions are unnecessary because the current process outlined in Ohio Adm.Code 4901-9-01(G) is adequate. AEP

Ohio opines that adding an additional step would only increase the burden on the applicant. Further, AEP Ohio states that OCC's proposal is vague and does not provide benefits to complainants while increasing burdens on EDUs and Staff. (AEP Ohio Reply Comments at 5.) DP&L responds by stating that OCC's suggestions are ambiguous, the existing process is sufficient, and that OCC's proposal is administratively burdensome (DP&L Reply Comments at 4). Duke replies that OCC and OEE's proposals should be rejected where the existing procedures are adequate. Duke further opines that tracking customer complaints that occur through different company functions would be nearly impossible and that customers may not want the Commission to be contacted every time they disagree with an EDU. (Duke Reply Comments at 3-4.) FirstEnergy states in its reply that proposals by OCC and OEE do not add value and that existing remedies render OCC's and OEE's suggestions moot (FirstEnergy Reply Comments at 9). OMAEG replies stating that it supports OCC's recommendation to require utilities to regularly disclose to Staff and OCC all instances in which a consumer contacts them, as it highlights the general need for greater data accessibility. OMAEG further states that OCC's suggestion reinforces the value of an interconnection working group that would discuss details on the process, platform, and what information in a dispute is appropriate to make public. (OMAEG Reply Comments at 4.)

{¶ 55} The Commission notes that our Service Monitoring and Enforcement Division is charged with receiving informal complaints on behalf of customers, which may, among other things, include customer disputes regarding interconnection agreements. OCC has failed to demonstrate how this current process, or the ability for a customer to file a complaint pursuant to R.C. 4905.26, is deficient. We find it unnecessary to require a mandatory reporting element to the rule at this time. Instead, we agree with OMAEG in that the DER Stakeholder Group may be the best suited to address whether additional complaint procedures or options should be made available pursuant to the rules.

IV. CONCLUSION

{¶ 56} In making its rules, an agency is required to consider the continued need for the rules, the nature of any complaints or comments received concerning the rules, and any factors that have changed in the subject matter area affected by the rules. The Commission has evaluated Ohio Adm.Code Chapter 4901:1-22 and recommends amending the rules as demonstrated in the attachment to this Finding and Order.

{¶ 57} An agency must also demonstrate that it has included stakeholders in the development of the rule, that it has evaluated the impact of the rule on businesses, and that the purpose of the rule is important enough to justify the impact. The agency must seek to eliminate excessive or duplicative rules that stand in the way of job creation. Moreover, the agency must remove two or more existing regulatory restrictions for every new regulatory restriction added. The Commission has included stakeholders in the development of these rules, has sought to eliminate excessive or duplicative rules that stand in the way of job creation, and has adhered to the requirement regarding the removal of regulatory restrictions.

{¶ 58} Accordingly, at this time, the Commission finds that Ohio Adm.Code 4901:1-22-11 and -13 and the amendments to Ohio Adm.Code 4901:1-22-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, and -12, should be filed with the Joint Committee on Agency Rule Review (JCARR), the Secretary of State, and the Legislative Service Commission (LSC). We also recognize that, when the Commission files this rule chapter, the existing Ohio Adm.Code 4901:1-22-05 will be rescinded and the rule as proposed in the attachment will be filed as a new rule in order to comply with JCARR and LSC requirements. In order to avoid needless production of paper copies, the Commission will serve a paper copy of this Order only and will make the rule, as well as the business impact analysis, available online at the Commission's website: www.puco.ohio.gov/puco/rules. All interested persons may download the rule and the business impact analysis from the above website, or contact the Commission's Docketing Division to be sent a paper copy.

V. ORDER

{¶ 59} It is therefore,

{¶ 60} ORDERED, That amended Ohio Adm.Code 4901:1-22-01, -02, -03, -04, -05, -06, -07, -08, -09, -10, and -12, be adopted. It is, further,

{¶ 61} ORDERED, That the existing Ohio Adm.Code 4901:1-22-05 be rescinded consistent with JCARR and LSC requirements. It is, further,

{¶ 62} ORDERED, That the new version of Ohio Adm.Code 4901:1-22-05 be adopted. It is, further,

{¶ 63} ORDERED, That Ohio Adm.Code 4901:1-22-11 and -13 be adopted with no changes. It is, further,

{¶ 64} ORDERED, That the new, amended, and no-change rules be filed with JCARR, the Secretary of State, and LSC, in accordance with Divisions (D) and (E) of R.C. 111.15. It is, further,

{¶ 65} ORDERED, That the final rules be effective on the earliest date permitted. Unless otherwise ordered by the Board, the five-year review date for Ohio Adm. Code Chapter 4901:1-22 shall be in compliance with R.C. 119.032. It is, further,

{¶ 66} ORDERED, That a copy of this Finding and Order, with the rules and BIA, be served upon the Common Sense Initiative at CSIPublicComments@governor.ohio.gov. It is, further,

{¶ 67} ORDERED, That a copy of this Finding and Order, without the attached rules, be served upon all electric utilities in the state of Ohio, all certified retail electric service providers in the state of Ohio, the Electric-Energy industry list-serve, the Ohio Consumers' Counsel, AEP Onsite Partners, One Energy Enterprises, LLC, Ohio

Manufacturers' Association Energy Group, and all interested persons of record in this matter.

COMMISSIONERS:

Approving:

Jenifer French, Chair
M. Beth Trombold
Lawrence K. Friedeman
Daniel R. Conway
Dennis P. Deters

PAS/JMD/hac

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AMENDED

4901:1-22-01 Definitions.

As used in this chapter:

- (A) "Applicant" means the person requesting interconnection service and may be any of the following:
- (1) A ~~customer generator~~ customer-generator as defined by division (A)(29) of section 4928.01 of the Revised Code.
 - (2) A self-generator as defined by division (A)(32) of section 4928.01 of the Revised Code.
 - (3) The owner or operator of a distributed ~~energy resource generation~~ as defined in paragraph (K) of this rule.
- (B) "Application" means a request to an electric distribution utility (EDU) using the format set forth on the web site of the public utilities commission of Ohio for interconnection of a distributed ~~energy resource generation~~ to the electric distribution system owned by the EDU.
- (C) "Area network" means a type of electric distribution system served by multiple transformers interconnected in ~~a~~ electrical distribution secondary network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide highly reliable service. Area networks ~~has the same meaning as the term "distribution secondary grid network" found in institute of electrical and electronics engineers (IEEE) standard 1547 sub-clause 4.1.4~~ may also be described as "grid networks" or "street networks."
- ~~(DE)~~ (DC) "Area electric power system" (Area EPS) means an EPS that serves Local EPSs, as defined in institute of electrical and electronics engineers (IEEE) standard 1547 (2018). For purposes of this chapter, an EDU's distribution system itself will always be considered an Area EPS.
- ~~(ED)~~ "Automatic sectionalizing device" means any self-contained, circuit-opening device used in conjunction with a source-side protective device, which features automatic reclosing capability.
- ~~(FE)~~ "Backup electricity supply" means replacement electric power supplied to an applicant by the EDU at a tariff rate or alternatively, as a market-based option or by a competitive retail electric service provider of the applicant's choice at a rate to be determined between the provider and the applicant.
- ~~(GF)~~ "Business ~~Day~~ day" means any day ~~which that~~ is not a Saturday, Sunday, or legal holiday.

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- (HG) "Calendar ~~Day~~day" means any day, including Saturday, Sunday, and legal holidays.
- (IH) "Commission" means the public utilities commission of Ohio.
- (JI) "Competitive retail electric service" means a component of retail electric service that is competitive as provided under division (B) of section 4928.01 of the Revised Code.
- (KJ) "Cost recovery" means collection, upon approval by the commission pursuant to its authority under section 4909.15 of the Revised Code, of such documented EDU interconnection costs that are incurred at reasonable levels for prudent purposes and that are over and above the review processing fees set forth in rules 4901:1-22-06 to 4901:1-22-08 of the Administrative Code.
- ~~(K) "Distributed generation" is a general term for all or part of a system of a distributed electrical generator or a static inverter either by itself or in the aggregate of twenty megawatts or less in size together with all protective, safety, and associated equipment installed at a point of common coupling on the EDU's distribution system in close proximity to the customer load.~~
- (LK) "Distributed energy resource" (DER) is a source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an electrical power system (EPS) either by itself or together with an equipment package that is necessary for compliance with IEEE standard 1547.
- (ML) "Distribution secondary network" means an AC distribution system where the secondaries of the distribution transformers are connected to a common network for supplying electricity directly to consumers. There are two types of secondary networks: area networks (also referred to as grid networks or street networks) and spot networks.
- (N) "Electric distribution utility" or (EDU) means an electric distribution utility, which is an investor-owned electric utility that owns and operates a distribution wires system and supplies at least retail electric distribution service.
- (OM) "Equipment package" means ~~individual or multiple distributed generation facility assembled to include not only a generator or electric source but related peripheral devices assembled to~~ that facilitate operation of the ~~distributed generation~~DER including switchgear, inverters, or other interface devices.
- ~~(N) "Expedited procedure" means a review process for certified distributed generation that passes a certain prespecified review procedure, has a capacity rating of two megawatts or less, and does not qualify for simplified procedures.~~

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~~(PN)~~ "Electric power system" (EPS) means facilities that deliver electric power to a load. An EPS may include generation and may contain only load, only generation, or a mix of load and generation.

~~(QΘ)~~ "Interconnection" means the physical connection of the applicant's ~~facilities~~ DER to the EDU's system for the purpose of electrical power transfers.

~~(P)~~ ~~"Interconnection point" means the point at which the applicant's distributed generation facility physically connects to the EDU's system.~~

~~(Q)~~ ~~(RP)~~ "Interconnection service" means the services provided by an EDU or transmission provider for the applicant's distributed generation facility.

~~(R)~~ ~~(SQ)~~ "Line section" means either that portion of an EDU's electric system connected to a customer bounded by automatic sectionalizing devices, the end of the distribution line, or a line segment identified as appropriate for study by a utility engineer.

~~(TR)~~ "Local electric power system" (Local EPS) is an EPS contained entirely within the single premises or group of premises, as defined in IEEE standard 1547 (2018).

~~(US)~~ "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 ~~distributed generation facility~~ DER installation.

~~(VT)~~ "Parallel operation with the EDU's system" means all electrical connections between the applicant's ~~distributed generation facility~~ DER and the EDU's system that are capable of operating in conjunction with each other.

~~(WU)~~ "Point of common coupling" means the point of connection between the Area EPS and the Local EPS, as defined in IEEE standard 1547 (2018) ~~which the distributed generation facility is connected to the EDU's system.~~

~~(V)~~ ~~(X)~~ "Reliability" means the degree of performance of the elements of the electric system that results in electricity being delivered to and from an applicant in the amount desired while avoiding adverse effects on the adequacy and security of the electric supply, defined respectively as:

- (1) The ability of the electric system to supply the aggregate electrical demand and energy requirements at all times, taking into account scheduled and unscheduled outages of system elements.

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- (2) The ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements.

~~(W)~~(Y) "Retail electric service provider" means any entity in this state that provides retail electric service as defined by division (A)(27) of section 4928.01 of the Revised Code.

~~(X)~~(Z) "Sale for resale" means a sale of energy to an energy supplier, electric utility or a public authority for resale purposes.

~~(Y)~~(AA) "Scoping meeting" means a meeting between representatives of the applicant and the EDU conducted for but not limited to the following purposes:

- (1) To discuss alternative interconnection options.
- (2) To exchange information including any electric distribution system data and earlier study evaluations that would be expected to impact such interconnection options.
- (3) To analyze such information.
- (4) To determine the potential points of common coupling.

~~(Z) "Simplified procedures" means a review process for interconnection of inverter based distributed generation twenty five kilowatts or less in size on a radial or spot network system under certain conditions.~~

~~(AA) "Standard procedure" means a review process for interconnection of any generating facility(s) that has a power rating of twenty megawatts or less, not qualifying for either simplified or expedited interconnection review processes.~~

(BB) "Spot network," ~~as defined by IEEE standard 1547 sub clause 4.1.4,~~ means a type of electric distribution system that uses two or more inter-tied transformers to supply an electrical distribution secondary network circuit and is generally used to supply power to a single customer or a small group of customers.

AMENDED

4901:1-22-02 Scope and application.

- (A) The rules in this chapter are intended to do all of the following:

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- (1) Make compliance within this chapter not unduly burdensome or expensive for any applicant in accordance with division (A) of section 4928.11 of the Revised Code.
 - (2) Establish uniform nondiscriminatory, technology-neutral procedures for interconnecting ~~distributed generators to distribution facilities~~ DERs to an EDU's system in a manner that protects public and worker safety and system reliability.
 - (3) Apply in the entire territory where commission-approved tariffs apply to those situations where an applicant seeks to physically connect ~~distributed generation~~ a DER to, and operate it in parallel with, the EDU's ~~distribution~~ system.
 - (4) Provide three review options for an applicant's request for interconnection with the EDU including ~~simplified procedures, expedited procedures, and standard~~ level 1, level 2, and level 3 procedures.
- (B) Each EDU in the state of Ohio shall file uniform interconnection service tariffs for commission review and approval pursuant to division (A) of section 4928.11 of the Revised Code, that includes the procedures and technical requirements set forth in this chapter for interconnection service on a first-come, first-served basis.
- (C) The rules in this chapter shall not relieve any applicant from complying with all applicable federal, state, and local laws and ordinances.

AMENDED

4901:1-22-03 Industry standards.

The following safety and performance standards established by the institute of electrical and electronics engineers (IEEE), the underwriters ~~laboratory~~ laboratories (UL), and the national fire and protection association (NFPA) including the national electric code ~~National Electric Code~~ (NEC), or the subsequent controlling version at the time the interconnection application is submitted, apply as included in throughout this chapter ~~by reference~~, and as required consistent with division (B)(4) of section 4928.67 of the Revised Code; ~~shall be the effective version at the time the applicant applies for interconnection~~ IEEE Std 1547TM-2003; IEEE Std 1547TM-2014a; IEEE Std 1547.1TM-2005; IEEE Std 1547.1aTM-2015; UL 1741, Edition 2; NFPA 70® NEC® 2017.

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4901:1-22-04 General provisions.

(A) Prohibitions

- (1) In accordance with the EDU's code of conduct adopted pursuant to section 4928.17 of the Revised Code, an EDU or its affiliates shall not use, without the customer's consent, such knowledge of proposed interconnection service to prepare competing proposals to the interconnection service that offer either discounted rates in return for not providing the interconnection service or competing generation.
- (2) No EDU shall reject, penalize, or discourage the use or development of new technology for interconnection service in accordance with division (A) of section 4928.11 of the Revised Code.

(B) Pre-application

- (1) The EDU will designate an employee or office from which information on the requirements for EDU's application review process can be obtained through an informal request by the applicant that includes discussion of the following:
 - (a) The applicant's proposed interconnection of a ~~distributed-generation~~ DER facility at a specific location on the EDU's ~~distribution~~ system.
 - (b) Qualifications under EDU's level 1, level 2 or level 3 review procedures.
- (2) In addition to the information described in paragraph (B)(1) of this rule, which may be provided in response to an informal request, an applicant may submit a formal request along with a non-refundable processing fee of three hundred dollars for a ~~preapplication~~ pre-application report on a proposed project at a specific site. The EDU shall provide the pre-application data described in paragraph (B)(3) of this rule to the applicant within ten business days of receipt of the written request and payment of the three hundred dollar processing fee.
- (3) The pre-application report will include the following information:
 - (a) 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.

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- (b) Existing aggregate generation capacity (in megawatts) interconnected to a substation/area bus, bank or circuit, which is the online amount of generation, likely to serve the proposed site.
 - (c) Aggregate queued generation capacity (in megawatts) for a substation/area bus, bank or circuit, which is the amount of generation in the queue likely to serve the proposed site.
 - (d) Available generation capacity (in megawatts) of substation/area bus or bank and circuit most likely to serve the proposed site, which is the total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity.
 - (e) Substation nominal distribution voltage and/or transmission nominal voltage, if applicable.
 - (f) Nominal distribution circuit voltage at the proposed site.
 - (g) Approximate circuit distance between the proposed site and the substation.
 - (h) Relevant line section(s) peak load estimate, and minimum load data, when available.
 - (i) Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed site and the substation/area. Identify whether substation has a load tap changer.
 - (j) Number of phases available at the site.
 - (k) Limiting conductor ratings from the proposed point of common coupling interconnection to the distribution substation.
 - (l) Based on the proposed point of interconnection common coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- (4) The pre-application report need only include pre-existing data. A pre-application report request does not obligate the EDU to conduct a study or other analysis of the proposed generator in the event that data is not readily available. If the EDU cannot complete some of a preapplication-pre-application report due to lack of available data, the EDU shall provide the applicant with a pre-application report that includes the data that is available.

(C) Application processing

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- (1) EDUs shall process all applications for interconnection service and parallel operation with the EDU's system in a nondiscriminatory manner and in the order in which they are received.
- (2) Where minor modifications to a pending application are required during the EDU's review of the application, such minor modifications shall not require a new or separate application to be filed by the applicant.
- (3) When an application is submitted, the EDU shall determine whether the application is complete and provide the applicant with a written or email notice of receipt within ten business days after the application has been received.
- (4) If the EDU determines that the application is complete, the EDU shall issue a notice of receipt with the following:
 - (a) A copy of the applicable review process.
 - (b) A target date for processing the application.
- (5) If the EDU determines that the application is incomplete, the EDU shall issue a notice of receipt with the following:
 - (a) A copy of the ~~application~~applicable review process.
 - (b) A checklist or description of the information needed to complete the application.
 - (c) A statement that processing the application cannot begin until the needed information is received.
- (6) Upon receiving any necessary application materials missing from the original application, the EDU shall provide the applicant with a second, written or email notice establishing a target date for processing the application.
- (7) If an EDU determines that it cannot connect the applicant's facility within the time frames stated in this chapter, it will notify the applicant in writing of that fact within ten business days after the complete application has been received. The notification must include the following:
 - (a) The reason or reasons interconnection service could not be performed within the time frames stated in this rule.
 - (b) An alternative date for interconnection service.

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(D) Compliance with national industry standards

An EDU shall file tariffs for uniform interconnection service with the commission that are consistent with the following:

- (1) Applicable IEEE standards~~The institute of electric and electronics engineers 1547 standard~~, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- (2) Applicable UL standards~~Underwriters laboratory 1741 standard~~ for inverters, converters, and controllers for use in independent power systems, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- (3) The appropriate criteria and interconnection parameters for the customer's technology, so as not to impose technical and economic barriers to new technology or the development, installation, and interconnection of an applicant's facilities, pursuant to division (A) of section 4928.11 of the Revised Code.

(E) Metering

Any metering installation, testing, or recalibration performed by the EDU at the request of the applicant for installation of the applicant's ~~distributed generation~~ DER facility shall be provided consistent with the electric service and safety standards pursuant to Chapter 4928. of the Revised Code, and rule 4901:1-10-05 and, as applicable, paragraph (B) of rule 4901:1-10-28 of the Administrative Code. Interconnection requested by the applicant for the purposes of net metering must follow the commission's net metering rules promulgated pursuant to division (A)(31) of section 4928.01 of the Revised Code. Any exception to the net metering rules shall be implemented in accordance with any special metering or communication infrastructure ordered by the commission.

(F) Disposal of excess energy produced by the applicant's ~~distributed generation~~ DER

- (1) An applicant proposing to install a self-generator as defined in division (A)(32) of section 4928.01 of the Revised Code for the purposes of selling excess electricity to retail electric service providers as a competitive service to the extent not preempted by federal law must first seek certification of managerial, technical and financial capability consistent with section 4928.08 of the Revised Code.
- (2) An applicant requesting interconnection for the purpose of selling energy to any party as a sale for resale or as a wholesale transaction may be subject to applicable rules for regional interstate sales at wholesale prices in markets operated by independent transmission system

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operators or regional transmission operators under the jurisdiction of the federal energy regulatory commission.

(G) Construction or system upgrades of the EDU's system

- (1) Where construction or system upgrades of the EDU's system are required by the applicant's installation of a ~~distributed generation~~DER facility, the EDU shall provide the applicant with an estimate of the timetable and the applicant's cost for the construction or system upgrades, consistent with the provisions of this chapter.
- (2) All construction or distribution system upgrade costs shall be the responsibility of the interconnection applicant.
- (3) If the applicant desires to proceed with the construction or system upgrades, the applicant and the EDU shall enter into a contract for the completion of the construction or system upgrades.
- (4) All construction and system upgrade cost estimates and invoices shall be itemized and clearly explained.
- (5) Interconnection service shall take place no later than ~~two weeks~~ten business days following the completion of such construction or system upgrades, unless necessary inspections outside the control of the EDU cannot be completed within the allocated ten-day period.

RESCINDED

~~4901:1-22-05—Application requirements for interconnection.~~

~~(A) Application forms~~

- ~~(1) Each applicant for interconnection to an EDU's system shall complete either of the following:~~
 - ~~(a) A "short form" application for interconnection of distributed generators that are twenty-five kilowatts or less and utilize equipment that is certified in compliance with IEEE 1547 standard and UL 1741 standard, as set forth in rule 4901:1-22-03 of the Administrative Code.~~
 - ~~(b) A standard application for interconnection of generation equipment that does not qualify for a "short form" application.~~

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~~(2) The application form shall follow the format and content set forth on the commission's website, and must be submitted to the EDU from which the applicant receives retail electric distribution service. Application forms will be available from the applicant's local EDU. The applicant's completed application form should not be sent to the commission for the purposes of review and approval.~~

~~(3) The applicant also is advised to refer to the "applicant's checklist" found on the commission website to determine whether to complete the "short form" or the standard form to request interconnection service.~~

~~(B) Certified equipment~~

~~(1) Each applicant shall provide the EDU a description of the applicant's distributed generation equipment package that is consistent with the following:~~

~~(a) An applicant's equipment package shall be considered certified for interconnected operation if it has been:~~

~~(i) Submitted by a manufacturer to a nationally recognized testing laboratory for certification.~~

~~(ii) Type tested consistent with the institute of electrical and electronics engineers 1547.1 standard, effective as set forth in rule 4901:1-22-03 of the Administrative Code.~~

~~(iii) Listed by a nationally recognized testing and certification laboratory for continuous interactive operation with a utility grid in compliance with the applicable codes and standards listed in rule 4901:1-22-03 of the Administrative Code.~~

~~(b) Certified equipment does not include equipment provided by the EDU.~~

~~(C) Equipment packages~~

~~(1) An applicant's equipment package shall include the following:~~

~~(a) All interface components including switchgear, inverters, or other interface devices.~~

~~(b) An integrated generator or electric source.~~

~~(c) Access for the EDU for commissioning purposes.~~

~~(d) A schedule for periodic compliance testing.~~

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~~(2) If the applicant's equipment package includes only the interface components (switchgear, inverters, or other interface devices), then the applicant must show in writing that the generator or electric source to be used with the equipment package meets the following criteria:~~

~~(a) Compatibility with the equipment package.~~

~~(b) Consistency with the testing and listing specified for the package.~~

~~(D) Disconnect switch~~

~~A disconnect switch provided, installed by, and paid for by the applicant, whether or not it is an integrated feature of the equipment package or a compatible external device, must meet the following criteria:~~

~~(1) The applicant's disconnect switch must be capable of isolating the distributed generation facility for the purposes of safety during EDU system maintenance and during emergency conditions.~~

~~(2) If the applicant's disconnect switch is external to the equipment package, it must be accessible to and lockable by the EDU personnel at either the primary voltage level, which may include load break cutouts, switches and elbows, or the secondary voltage level, which may include a secondary breaker or switch.~~

~~(3) The applicant's disconnect switch must be clearly labeled as a distributed generation facility disconnect switch.~~

~~(E) Solar equipment~~

~~(1) In the case of solar equipment, the photovoltaic power source shall be clearly labeled in accordance with the requirements of the National Electric Code article 690, effective as set forth in rule 4901:1-22-03 of the Administrative Code, to identify the following:~~

~~(a) Operating current (system maximum power current).~~

~~(b) Operating voltage (system maximum power voltage).~~

~~(c) Maximum system voltage.~~

~~(d) Short circuit current.~~

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~~(F) The EDU's review processing fees~~

- ~~(1) Each applicant shall pay the EDU's interconnection fees in accordance with the EDU's tariff for the EDU review and processing of an application, established at levels consistent with the distributed generation size and technology as well as the location on the electric distribution system of the interconnection.~~
- ~~(2) The EDU's review processing fee levels will apply in accordance with the EDU's tariff to all interconnections, including those for the purposes of net metering, combined heat and power or waste heat from industrial processes, as well as any customer generator used for energy efficiency or the promotion and utilization of renewable or clean secondary fuels.~~
- ~~(3) Exception to the EDU's fee schedule may be determined by the EDU if the EDU invokes a fee free feature on a nondiscriminatory basis.~~

NEW

4901:1-22-05 Application requirements for interconnection.

(A) Application forms

- (1) Each applicant for interconnection to an EDU's system shall complete either of the following:
 - (a) A "short form" application for interconnection of a DER that is twenty-five kilowatts or less and utilizes equipment that is certified in compliance with IEEE and UL standards, as set forth in rule 4901:1-22-03 of the Administrative Code.
 - (b) A standard application for interconnection of a DER that does not qualify for a "short form" application.
- (2) The application form shall follow the format and content set forth on the commission's website, or in a format otherwise approved by the commission, and must be submitted to the EDU from which the applicant receives retail electric distribution service. Such application should properly identify the applicable customer name, service address, and account number to be considered complete and subject to review by the EDU. Application forms will be available from the applicant's local EDU. The applicant's completed application form should not be sent to the commission for the purposes of review and approval.

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(3) The applicant also is advised to refer to the "applicant's checklist" found on the commission website to determine whether to complete the "short form" or the standard form to request interconnection service.

(B) DER equipment

(1) Each applicant shall provide to the EDU in writing a description of the applicant's DER that identifies the following:

(a) The applicant's equipment package, which shall be considered certified for interconnected operation if it is listed by a nationally recognized testing and certification laboratory for continuous interactive operation with a utility grid and type-tested consistent with the applicable codes and standards set forth in rule 4901:1-22-03 of the Administrative Code. An applicant's equipment package shall include the following:

(i) All interface components including switchgear, inverters, or other interface devices.

(ii) Access for the EDU for commissioning purposes.

(iii) A schedule for periodic compliance testing.

(b) The integrated generator or electric source to be used with the equipment package that meets the following criteria:

(i) Compatibility with the equipment package.

(ii) Consistency with the testing and listing specified for the equipment package.

(c) A disconnect switch that meets the following criteria:

(i) The disconnect switch must be capable of isolating the DER for the purposes of safety during EDU system maintenance and during emergency conditions.

(ii) If the disconnect switch is external to the equipment package, it must be within an acceptable distance of the meter as determined by the EDU and accessible to and lockable by EDU personnel at either the primary voltage level, which may include load-break cutouts, switches, and elbows, or at the secondary voltage level, which may include a secondary breaker or switch.

(iii) The disconnect switch must be clearly labeled as a DER disconnect switch.

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(iv) The disconnect switch will be provided, installed, and paid for by the applicant, whether it is an integrated feature of the equipment package or a compatible external device.

(d) For solar equipment, the photovoltaic power source and interconnecting inverter shall be clearly labeled in accordance with the standards listed in rule 4901:1-22-03 of the Administrative Code to identify the following:

(i) Nominal current.

(ii) Nominal voltage.

(iii) Maximum short-circuit current.

(2) Certified equipment does not include equipment provided by the EDU.

(C) Review processing fees

(1) Each applicant shall pay the interconnection fees in accordance with the EDU's tariff for the review and processing of an application, established at levels consistent with the DER size and technology as well as the location of the interconnection on the electric distribution system.

(2) The EDU's review processing fee levels will apply in accordance with the EDU's tariff to all interconnections, including those for the purposes of net metering, combined heat and power or waste heat from industrial processes, as well as any interconnections used for energy efficiency or the promotion and utilization of renewable or clean secondary fuels.

(3) Exception to the fee schedule may be determined by the EDU if the EDU invokes a fee-free feature on a nondiscriminatory basis.

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4901:1-22-06 Level 1 ~~simplified~~-review procedure.

(A) Level 1 qualifying criteria

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In order for the application to be approved by the EDU under the level 1 ~~simplified~~ review procedure, the applicant's ~~generating facility~~DER must meet the following requirements:

- (1) The ~~generation facility must use~~DER uses inverter-based equipment that is certified in compliance with ~~the IEEE 1547 standard~~ and UL ~~1741 standards~~s, as set forth in rule 4901:1-22-03 of the Administrative Code.
- (2) The ~~generation facility must have~~DER has a nominal nameplate capacity of twenty-five kilowatts or less.

(B) Level 1 approval criteria

- (1) The EDU shall approve an application for interconnection under level 1 ~~simplified~~ review procedures if the ~~generation facility~~DER meets the following ~~approval~~ criteria:
 - (a) The applicant's proposed ~~distributed generation facility's~~DER's point of common coupling is not on a transmission line.
 - (b) For interconnection of a proposed ~~distributed generation facility~~DER to a radial distribution circuit, the aggregated generation, including the proposed ~~distributed generation facility~~DER, on the circuit shall not exceed fifteen ~~per cent~~percent of the line section annual peak load as most recently measured at the substation.
 - (c) The proposed ~~distributed generation facility~~DER, in aggregation with other generation on the distribution circuit, shall not contribute more than ten ~~per cent~~percent to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.
 - (d) For interconnection of a proposed ~~distributed generation facility~~DER to the load side of spot network protectors, the proposed ~~distributed generation facility~~DER must utilize an inverter-based equipment package and, aggregated together with ~~the aggregated~~ other inverter-based generation, shall not exceed the smaller of five ~~per cent~~percent of a spot network's maximum load or fifty kilowatts.
 - (e) Direct current injection shall be maintained at or below five-tenths of a ~~per cent~~percent of full rated inverter output current into the point of common coupling.
 - (f) When a proposed ~~distributed generation facility~~DER is single phase and is to be interconnected on a center tap neutral of a two hundred forty volt service, its addition

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shall not create an imbalance between the two sides of the two hundred forty volt service of more than twenty ~~percent~~percent of the nameplate rating of the service transformer.

- (g) The proposed ~~distributed generation facility~~DER installation is certified to pass an applicable non-islanding test, or uses reverse power relays or other means to meet the unintentional islanding requirements of ~~the institute of electrical and electronics engineers (IEEE) standard 1547 standard~~, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- (h) The proposed ~~distributed generation facility~~DER installation complies with ~~the IEEE 1547 standard and underwriters laboratory 1741 standard~~applicable codes and standards, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- (2) Having complied with the parameters set forth in paragraph (B)(1) of this rule, the applicant's proposed ~~distributed generation facility~~DER installation requires no further study by the EDU for the purpose of interconnection to the EDU's distribution system.

(C) Level 1 review timeframe

- (1) Within fifteen business days after the EDU notifies the applicant that it has received a complete short form interconnection service application, the EDU shall perform a review using the criteria set forth in paragraph (B)(1) of this rule, ~~and~~ shall notify the applicant of the results, and shall include with the notification copies of the analysis and data underlying the EDU's determinations under the criteria.
- (2) 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 ten business days, ~~in which case~~ the queue position assigned to the level 1 application shall be retained.
- (3) If the proposed interconnection meets the screening criteria, the application shall be approved and the EDU will provide the applicant a standard interconnection agreement within five business days after the determination. The standard interconnection agreement shall be consistent with the uniform requirements for an interconnection agreement in rule 4901:1-

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22-10 of the Administrative Code, and include a timetable for the physical interconnection of the applicant's proposed ~~distributed generation facility~~ DER to the EDU's system.

(D) Level 1 application fee

The EDU's tariff for a level 1 fee shall not exceed fifty dollars and may be waived.

AMENDED

4901:1-22-07 Level 2 ~~expedited~~ review procedure.

(A) Level 2 qualifying criteria

In order for the application to be reviewed by the EDU under the level 2 ~~expedited~~ review procedure, the applicant's ~~generating facility~~ DER must meet the following requirements:

- (1) The ~~generating facility~~ DER utilizes inverter-based equipment that is certified in compliance with the IEEE 1547 standard and UL 1741 standard ~~standards~~ as set forth in rule 4901:1-22-03 of the Administrative Code.
- (2) The ~~generating facility~~ DER does not meet the level 1 interconnection review requirements.
- (3) The ~~generating facility~~ DER nominal nameplate capacity does not exceed the limits identified in the table below, which vary according to the voltage of the line at the proposed point of interconnection common coupling. ~~Distributed generation facilities~~ DERs located within 2.5 feeder line miles of a substation and on a main distribution line with minimum 600-ampere capacity are eligible for for level 2 expedited review under ~~the~~ higher thresholds. These eligibility limits do not guarantee fast track approval.

Line Voltage	Expedited Review Regardless of Location <u>Nominal Nameplate Capacity</u>	Expedited — Review <u>Nominal Nameplate Capacity if located on a 600 amp line and within 2.5 feeder miles from of substation</u>
less than or equal to 5kV	less than or equal to 500 kW	less than 2 MW
5kV less than or equal to 15 Kv <u>kV</u>	less than or equal to 2MW	less than 3 MW

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15 kV less than or equal to 30 kV	less than or equal to 3MW	less than 4 MW
30 kV less than or equal to 69 kV	less than or equal to 4MW	less than 5 MW

(B) Level 2 approval criteria

- (1) The EDU shall approve an application for interconnection under level 2 review procedures if the ~~generation facility~~ DER meets the following criteria:
 - (a) The proposed ~~distributed generation facility's~~ DER's point of ~~interconnection~~ common coupling is not on a transmission line.
 - (b) The proposed ~~distributed generation facility~~ DER complies with applicable codes and standards IEEE 1547 standard and UL 1741 standard, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
 - (c) The proposed ~~distributed generation facility~~ DER is not located in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (for example, three or four distribution busses from the point of ~~interconnection~~ common coupling), or the proposed ~~distributed generation facility~~ DER shall not have interdependencies, known to the EDU, with earlier queued transmission system interconnection requests. The EDU shall not disclose confidential information in the application of this screen.
 - (d) For interconnection of a proposed ~~distributed generation facility~~ DER to a radial distribution circuit, the aggregated generation, including the proposed ~~distributed generation facility~~ DER, on the circuit shall not exceed fifteen ~~per cent~~ percent of the line section annual peak load as most recently measured at the substation. The application of this screen addresses back feed and islanding conditions.
 - (e) The proposed ~~distributed generation facility~~ DER, in aggregation with other DER generation on the distribution circuit, shall not contribute more than ten ~~per cent~~ percent to the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of common coupling.
 - (f) The proposed ~~distributed generation facility~~ DER, in aggregation with other DER generation on the distribution circuit, may not cause any distribution protective devices

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and equipment including substation breakers, fuse cutouts, and line reclosers, or other customer equipment on the electric distribution system, to be exposed to fault currents exceeding ninety ~~per cent~~percent of the short circuit interrupting capability; nor shall an ~~applicant~~application requesting interconnection on a circuit that already exceeds ninety ~~per cent~~percent of the short circuit interrupting capability be ~~permitted~~approved.

- (g) When a proposed ~~distributed generation facility~~DER is single phase and is to be interconnected on a center tap neutral of a two hundred forty volt service, its addition shall not create an imbalance between the two sides of the two hundred forty volt service of more than twenty ~~per cent~~percent of the nameplate rating of the service transformer.
- (h) The proposed ~~distributed generation facility~~DER shall be interconnected to the EDU's primary distribution system as shown below:

Primary Distribution Line Configuration	Interconnection to Primary Distribution Line
Three phase, three wire	If a three-phase or single-phase generating facility <u>DER</u> , interconnection must be phase-to-phase
Three phase, four wire	If a three-phase (effectively grounded) or single phase generating facility <u>DER</u> , interconnection must be line-to-neutral

- (i) A review of the type of electrical service provided to the applicant, including line configuration and the transformer connection, will be conducted to limit the potential for creating over voltages on the EDU's electric distribution system due to a loss of ground during the operating time of any anti-islanding function.
- (j) When the proposed ~~distributed generation facility~~DER is to be interconnected on single-phase shared secondary line, the aggregate DER generation capacity on the shared secondary line, including the proposed ~~distributed generation facility~~DER, will not exceed sixty-five ~~per cent~~percent of the transformer nameplate rating.
- (k) For interconnection of a proposed ~~distributed generation facility~~DER to the load side of spot or area network protectors, the proposed ~~distributed generation facility~~DER must utilize an inverter-based equipment package and, ~~together aggregated with the aggregated~~ other inverter-based generation, shall not exceed the lesser of five ~~per cent~~percent of a spot or area network's maximum load or fifty kilowatts.

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- (l) Construction of facilities by the EDU on its own system is not required to accommodate the ~~distributed generation facility~~DER.

(C) Level 2 review timeframe

- (1) Within twenty business days after the EDU notifies the applicant it has received a complete application, the EDU shall perform an initial review using the criteria set forth in paragraph (B) of this rule and shall notify the applicant of the results.
- (2) If the proposed interconnection meets the screening criteria, the application shall be approved and the EDU will provide the applicant a standard interconnection agreement within five business days after the determination. The standard interconnection agreement shall be consistent with the uniform requirements for an interconnection agreement enumerated in rule 4901:1-22-10 of the Administrative Code, and include a timetable for the physical interconnection of the applicant's proposed ~~distributed generation facility~~DER to the EDU's system.
- (3) If the proposed interconnection fails to meet the screening criteria, but the EDU determines that the proposed ~~distributed generation facility~~DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the EDU shall provide the applicant a standard interconnection agreement within five business days after the determination and include a timetable for the physical interconnection of the applicant's proposed ~~distributed generation facility~~DER to the EDU's system.
- (4) If the proposed interconnection fails to meet the screening criteria and the EDU determines that minor modifications or further study ~~may be~~are required to interconnect the proposed ~~distributed generation facility~~DER to the EDU's ~~distribution~~ system consistent with safety, reliability, and power quality standards, the EDU shall:
 - (a) Offer to perform facility modifications or minor modifications to the EDU's electric system (e.g., change meters, fuses, relay settings), or,
 - (b) Offer to perform a supplemental review if the EDU concludes that the supplemental review might determine that the proposed ~~distributed generation facility~~DER could continue to qualify for interconnection pursuant to the ~~expedited~~level 2 review process, or,
 - (c) Obtain the applicant's agreement to continue evaluating the application under level 3 ~~standard~~ review.

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- (5) At the applicant's request, the EDU shall provide copies of the analysis and the data underlying the EDU's determinations that minor modifications or further study is required.

(D) Facility or minor system modifications

- (1) If facility modifications or minor system modifications are required to allow the proposed ~~distributed generation facility~~DER to be interconnected consistent with safety, reliability, and power quality standards under these procedures, the EDU shall provide the applicant with a non-binding good faith estimate of the cost to make such modifications.
- (2) If the interconnection customer agrees to pay for the modifications to the EDU's ~~distribution~~ system, the EDU shall provide the applicant with a standard ~~distributed generation~~ interconnection agreement within five business days. The standard interconnection agreement shall be consistent with the uniform requirements for an interconnection agreement enumerated in rule 4901:1-22-10 of the Administrative Code, and include a timetable for the physical interconnection of the applicant's proposed ~~distributed generation facility~~DER to the EDU's system.

(E) Level 2 supplemental review

- (1) If the customer requests that the EDU perform a supplemental review, the customer shall agree in writing within fifteen business days of the offer, and submit a supplemental review deposit of twenty-five hundred dollars, or the application shall be deemed withdrawn. Within twenty-five business days following receipt of the supplemental review deposit, the EDU shall perform a supplemental review using the screens set forth in this rule and notify the applicant of the results. For interconnection of a proposed ~~distributed generation facility~~DER to an area network, the EDU may utilize different analytical procedures for conducting supplemental review than those set forth in this rule. Following study completion, the EDU shall bill or credit the applicant any difference between the supplemental review deposit and the actual cost to perform the review. If the proposed interconnection fails one or more of the supplemental review screens, the EDU shall include with the notification copies of the analysis and data underlying the EDU's determinations under the screens.
- (a) A supplemental review may be performed where twelve months of line section minimum load data is available or can be calculated, estimated from existing data, or determined from a power flow model, and where the aggregate ~~distributed generation facility~~DER capacity on the line section is less than one hundred ~~per cent~~percent of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed ~~distributed generation facility~~DER. If minimum load data is not available, or

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cannot be calculated, estimated or determined, the EDU shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification as set forth in paragraph (E)(1) of rule 4901:1-22-07 of the Administrative Code.

- (i) The type of generation used by the proposed ~~distributed generation facility~~ DER will be taken into account when calculating, estimating, or determining the circuit or line section minimum load. For the application of a solar photovoltaic generation system with no ~~battery energy~~ storage technology, use daytime minimum load, and use absolute minimum load for other generation.
 - (ii) When this screen is being applied to a ~~distributed generation facility~~ DER that serves some onsite electrical load, the total load must be considered as part of the aggregate generation.
 - (iii) The EDU will consider generating facility capacity known to be reflected in the minimum load data as part of the aggregate generation for purposes of this screen.
- (b) In aggregate with existing generation on the line section: (i) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions, (ii) the voltage fluctuation is within acceptable limits as defined by IEEE Std 1453 or utility practice similar to IEEE Std 1453, and (iii) the harmonic levels meet IEEE Std 519 limits at the point of interconnection common coupling.
- (c) The location of the proposed ~~distributed generation facility~~ DER and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the level 3 ~~standard~~ review. The EDU may consider the following and other factors in determining potential impacts to safety and reliability in applying the screen:
- (i) Whether the line section has significant minimum loading levels dominated by a small number of customers.
 - (ii) If there is an even or uneven distribution of loading along the feeder.
 - (iii) If the proposed ~~distributed generation facility~~ DER is located within 2.5 electrical line miles to the substation and if the distribution line from the substation to the customer is composed of a 600A class cable or conductor.

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- (iv) If the proposed ~~distributed generation facility~~ DER incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
 - (v) If operational flexibility is reduced by the proposed ~~distributed generation facility~~ DER, such that transfer of the line section(s) of ~~the distributed generation facility~~ DER to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
- (2) If the proposed interconnection meets the supplemental review criteria, the application shall be approved and the EDU will provide the applicant a standard interconnection agreement within five business days after the determination. The standard interconnection agreement shall be consistent with the uniform requirements for an interconnection agreement enumerated in rule 4901:1-22-10 of the Administrative Code and include a timetable for the physical interconnection of the applicant's proposed ~~distributed generation facility~~ DER to the EDU's system.
- (3) If the proposed interconnection fails the supplemental review criteria, the EDU shall obtain the applicant's agreement to continue evaluating the application under level 3 ~~standard~~ review. If the applicant agrees to have the project evaluated under the level 3 ~~standard~~ review process, the cost of level 2 supplemental review shall be deducted from the otherwise applicable level 3 ~~standard~~ review fee. If the level 3 standard review fee is less than the level 2 supplemental review cost, ~~standard~~ the level 3 review fee shall be waived.

(F) Level 2 fees

The EDU's tariff for level 2 ~~expedited~~ review processing fees will include the following:

- (1) An application fee of up to fifty dollars, plus one dollar per kilowatt of the ~~applicant's system~~ DER's nominal nameplate capacity rating.
- (2) In the event that an application is evaluated under supplemental review, any or all of the following fees may be assessed by the EDU:
 - (a) The twenty-five hundred dollar supplemental review deposit, adjusted following study completion to reflect the cost of engineering work billed at actual costs.
 - (b) The actual cost of any minor modification of the electric distribution utility's system that would otherwise not be done but for the applicant's interconnection request.

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4901:1-22-08 Level 3 ~~standard~~ review procedure.

(A) Level 3 ~~standard~~ review qualifying criteria

In order for the application to be approved by the EDU under the level 3 review procedure, one of the following conditions must apply:

- (1) The ~~generation facility~~DER does not qualify or failed to meet the level 1 or level 2 interconnection review requirements.
- (2) The ~~generation~~DER does not utilize equipment that is certified in compliance with the IEEE 1547 standard and UL 1741 standard as and UL standards as set forth in rule 4901:1-22-03 of the Administrative Code.
- (3) The ~~generation facility~~DER has a nominal nameplate capacity of twenty megawatts or less.

(B) Level 3 approval criteria

- (1) Level 3 ~~standard~~ review procedure shall use the determinations made in the scoping meeting and any feasibility, system impact, or facilities study defined in rule 4901:1-22-09 of the Administrative Code for technical analysis of the applicant's proposed ~~distributed generation facility~~DER installation.
- (2) The EDU shall approve an application for interconnection under level 3 review procedures if the EDU determines that the safety and reliability of the public utility's transmission or distribution system will not be compromised by interconnecting with the ~~generation facility~~DER installation.

(C) Level 3 fees

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

- (a) An application fee of up to one hundred dollars, plus two dollars per kilowatt of the system's nominal nameplate capacity.

(b)(4) The cost of engineering work done as part of any feasibility, system impact or facilities study, billed at actual cost.

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- (c) The actual cost of any modifications of the EDU's system that would otherwise not be done but for the applicant's interconnection request.
- (2) Within five business days after completion of the level 3 ~~standard procedure review~~ including any applicable feasibility, system impact or facilities studies leading to the EDU's approval for interconnection of the applicant's proposed ~~distributed generation facility~~ DER installation and collection by the EDU of all the actual costs for the studies as billed to the applicant, the EDU shall provide the applicant with a standard interconnection agreement.

AMENDED

4901:1-22-09 Scoping meeting and interconnection studies.

(A) Scoping meeting

- (1) A scoping meeting will be held within ten business days after the interconnection application is deemed complete, or as otherwise mutually agreed to by the parties. The EDU and the applicant may bring to the meeting personnel, including system engineers and other resources as may be reasonably required to accomplish the purpose of the meeting.
- (2) The purpose of the scoping meeting is to discuss alternative interconnection options, to determine potential points of common coupling, to examine the applicant's proposed point of ~~interconnection on the EDU's distribution system~~ generator connection, or to review an applicant's pre-application report or existing studies relevant to the interconnection application. The parties shall further discuss the appropriate ~~level 3~~ interconnection studies required to evaluate the interconnection of the proposed ~~distributed generation facility~~ DER to the EDU's ~~distribution~~ system.
- (3) The scoping meeting may be waived by mutual agreement if the parties decide to proceed directly to the ~~level 3~~ interconnection studies.

(B) Queuing

- (1) When an interconnection request is complete, the EDU shall assign the application a queue position to establish the order in which the interconnection request will be reviewed in relation to other interconnection requests on the same or nearby sections of the EDU's ~~distribution~~ system.

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- (2) The queue position of an interconnection request shall be used to determine the cost responsibility necessary for the construction of any facilities to accommodate the interconnection in relation to other interconnection requests on the same or nearby sections of the EDU's ~~distribution~~ system.
- (3) The EDU shall notify the applicant at the scoping meeting about other higher-queued applicants.

(C) Interconnection study requirements

- (1) One or more interconnection studies may be required by the EDU prior to interconnection of a level 3 DER including a feasibility study, a system impact study, and a facilities study.
- (2) Each type of study required will include an EDU interconnection tariff fee schedule approved by the commission as set forth in rule 4901:1-22-08 of the Administrative Code.
- (3) Each type of study will be the subject of a written study agreement between the applicant and the EDU that includes the following:
 - (a) A target date for completion of ~~any required feasibility study, system impact study, and facilities~~the study.
 - (b) A provision to share the results of the study by the EDU with the applicant.
 - (c) A clear explanation of all estimated charges.
 - (d) A good faith estimate of the total number of hours needed to complete the study.
 - (e) An estimate of the total interconnection study fee.
- (4) A written study agreement may include an alternative provision that allows the required studies related to the interconnection of the ~~generating facility(s)~~DER to be conducted by a qualified third party with the consent of the EDU.
- (5) By mutual agreement of the parties, a feasibility study, a system impact study, or a facilities study under level 3 procedures may be waived by the EDU.
- (6) When the EDU determines, as a result of the studies conducted under a level 3 review, that it is appropriate to interconnect the ~~distributed generation facility~~DER, the EDU shall provide the applicant with a standard ~~distributed generation~~ interconnection agreement.

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- (7) If the interconnection request is denied, the EDU shall provide a written explanation within five business days from the denial. The EDU must allow the applicant thirty business days to cure the reasons for denial while the applicant's position in the queue is maintained.

(D) The feasibility study

- (1) No later than five business days after the scoping meeting, the EDU shall provide the applicant with a feasibility study agreement in accordance with the EDU's tariff to determine the feasibility of interconnecting the applicant's proposed ~~distributed generation facility~~DER at a particular point on the EDU's system. The feasibility study agreement shall include ~~both~~ of the following:
- (a) An outline of the scope of the study.
 - (b) A non-binding good faith estimate of the cost to perform the study.
- (2) A feasibility study shall include the following analyses for the purpose of identifying a potential adverse system impact to the EDU's system that would result from the interconnection:
- (a) Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection.
 - (b) Initial identification of any thermal overload or voltage limit violations resulting from the interconnection.
 - (c) Initial review of grounding requirements and system protection.
 - (d) A description and nonbinding estimated cost of facilities required to interconnect the distributed generation facility to the EDU's system in a safe and reliable manner.
- (3) When an applicant requests that the feasibility study evaluate multiple potential points of interconnection, additional evaluations may be required.
- ~~(4)~~(3) The actual cost of the EDU's additional evaluations shall be paid by the applicant.

(E) The system impact study

- (1) No later than five business days after the completion of or a waiver of the feasibility study, the EDU shall provide a distribution system impact study agreement to the applicant, using a form of system impact study agreement in accordance with the EDU's tariff that includes an

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outline of the scope of the study and a nonbinding good faith estimate of the cost to perform the study.

- (2) If the feasibility study concludes there is no adverse system impact, or the study identifies an adverse system impact but the EDU is able to identify a remedy, no system impact study is required.
- (3) A system impact study shall evaluate the impact of the proposed interconnection on the safety and reliability of the EDU's system. The study shall:
 - (a) Identify and detail the system impacts that result when a ~~distributed generation facility~~DER is interconnected without project or system modifications.
 - (b) Consider the adverse system impacts identified in the feasibility study, or potential impacts including those identified in the scoping meeting.
 - (c) Consider all DERs generating facilities that, on the date the system impact study is commenced, are directly interconnected with the EDU's system.
 - (d) Consider the impact of pending higher-queuehigher-queued position of facilities requesting interconnection applications to the system as well as the position of, ~~or consider pending higher queue position of facilities requesting interconnection~~ having a signed interconnection agreement that are not yet online.
- (4) A system impact study performed by the EDU shall consider the following criteria:
 - (a) A load flow study.
 - (b) A short circuit analysis.
 - (c) A stability analysis.
 - (d) Voltage drop and flicker studies.
 - (e) Protection and set point coordination studies.
 - (f) Grounding reviews.
- (5) The EDU shall state the underlying assumptions of the study and show the results of the analyses to the applicant, including the following:

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- (a) Any potential impediments to providing the requested interconnection service.
- (b) Any required distribution system upgrades and ~~provide~~ a nonbinding good faith estimate of cost and time to construct the system upgrades.

(F) The facilities study

- (1) Within five business days of completion of the system impact study, a report will be transmitted by the EDU to the applicant with a facilities study agreement in accordance with the EDU's interconnection tariff.
- (2) ~~When-If~~ the parties agree at the scoping meeting that no system impact study is required, the EDU shall provide to the applicant, no later than five business days after the scoping meeting, a facilities study agreement in accordance with the EDU's interconnection tariff that enables the EDU to determine the interconnection facilities needed to interconnect the applicant's proposed ~~distributed generation facility~~ DER at a particular point on the EDU's system.
- (3) The facilities study agreement shall include both of the following:
 - (a) An outline of the scope of the study.
 - (b) 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 overheads, needed to implement the conclusions of the feasibility study and/or the system impact study to interconnect the ~~distributed generation facility~~ DER.
- (4) The facilities study shall identify all of the following:
 - (a) The electrical switching configuration of the equipment, including transformer, switchgear, meters, and other station equipment.
 - (b) The nature and estimated cost of the EDU's interconnection facilities and distribution upgrades necessary to accomplish the interconnection.
 - (c) An estimate of the time required to complete the construction and installation of such facilities.
- (5) The parties may agree to permit an applicant to separately arrange for a third party to design and construct the required interconnection facilities under the following conditions:

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- (a) The EDU may review the facilities to be designed and constructed by a third party under provisions included in the facilities study agreement for that purpose.
- (b) The applicant and the third party separately arranging for design and construction agree to comply with security and confidentiality requirements.
- (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.

AMENDED

4901:1-22-10 Uniform requirements for interconnection agreements.

- (A) The EDU shall provide the applicant with a standard interconnection agreement for ~~distributed generation~~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.
- (B) The applicant shall have thirty business days or another mutually agreeable time frame after the standard interconnection agreement is received to sign and return the interconnection agreement to the EDU.
- (C) ~~When-If~~ the applicant does not sign the agreement within thirty business days, the interconnection request will be deemed withdrawn unless the applicant requests an extension of the deadline in writing. 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 queued projects.
- (D) Milestones for construction
 - (1) When construction is required, the interconnection of ~~the distributed generation~~DER will proceed according to any milestones agreed to by the parties in the standard interconnection agreement.
 - (2) The interconnection agreement may not become effective until the milestones agreed to in the standard interconnection agreement are satisfied, including the following:

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- (a) The ~~distributed generation~~DER is approved by electric code officials with jurisdiction over the interconnection.
- (b) The applicant provides a certificate of completion to the EDU; or there is a successful completion of an on-site operational test within ten business days or at a mutually convenient time, unless waived. The operational test shall be observed by EDU personnel or a qualified third party with sufficient expertise to verify that the criteria for testing have been met.

(E) Insurance

- (1) Any EDU interconnection agreement with the applicant shall not require additional liability insurance beyond proof of insurance or any other suitable financial instrument sufficient to meet its construction, operating and liability responsibilities in accordance with the EDU's tariff with respect to this rule.
- (2) At no time shall the EDU require the applicant to negotiate any policy or renewal of any policy covering any liability through a particular insurance agent, solicitor, or broker.

(F) Alternative dispute resolution

The EDU or the applicant who is a nonmercantile, nonresidential customer may seek resolution of any disputes which may arise out the EDU tariffs filed under these rules, in accordance with Chapter 4901:1-26 of the Administrative Code, for alternative dispute resolution procedures.

(G) Site testing

The applicant must provide the EDU a reasonable opportunity to witness the testing of installed switchgear, protection system, and generator as included in the applicant's installation test plan and maintenance schedule that has been reviewed and approved by the EDU.

(H) Periodic testing

- (1) Any periodic tests of the interconnection equipment (including any relays, interrupting devices, control schemes, and batteries-energy storage technology that involve protection of the EDU's system) as recommended by the applicant's equipment manufacturer or required by ~~the institute of electrical and electronics engineers (IEEE)~~ Std 1547 ~~standards~~, effective as set forth in rule 4901:1-22-03 of the Administrative Code, shall be the responsibility of the applicant.

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- (2) Such periodic tests shall be included in the applicant's installation test plan and maintenance schedule that has been reviewed and approved by the EDU.
- (3) The applicant shall make copies of the periodic test reports or inspection logs available to the EDU for review.
- (4) Upon a written request, the EDU is to be informed of the next scheduled maintenance and be able to witness the maintenance program and any associated testing.

(I) Disconnection of the applicant's facility

Except as provided for in paragraph (J)(2) of this rule, when the EDU discovers the applicant's equipment is not in compliance with IEEE Std 1547 ~~standards~~, effective as set forth in rule 4901:1-22-03 of the Administrative Code, and such noncompliance has the potential to adversely affect the safety and reliability of the electric system, the EDU may disconnect the applicant's facility according to the following procedures:

- (1) The EDU shall provide a notice to the applicant with a description of the specific noncompliance condition.
- (2) The disconnection can only occur after a reasonable time to cure the noncompliance condition has elapsed.

(J) Other disconnection of the unit

- (1) The applicant retains the option to temporarily disconnect from the EDU's system at any time. Such temporary disconnection shall not be a termination of the interconnection agreement unless the applicant exercises its termination rights under the interconnection agreement.
- (2) The EDU shall have the right to disconnect the applicant's unit(s) without notice in the event of an emergency or to eliminate conditions that constitute a potential hazard to the EDU personnel or the general public. The EDU shall notify the applicant of the emergency as soon as circumstances permit.

(K) Service interruption

During routine maintenance and repairs on the EDU's system consistent with Chapter 4901:1-23 of the Administrative Code, or other commission order, the EDU shall provide the applicant with a ~~seven-day~~ five-business-day notice of service interruption.

(L) Effective term and termination rights of an interconnection agreement

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- (1) An interconnection agreement becomes effective when executed by both parties and shall continue in force until terminated under any of the following conditions:
 - (a) The applicant terminates the interconnection agreement at any time by giving the EDU sixty calendar days prior notice.
 - (b) The EDU terminates the interconnection agreement upon failure of the applicant to generate or discharge energy from the applicant's ~~facility~~-DER in parallel with the EDU's system by the later of two years from the date of the executed interconnection agreement or twelve months after completion of the interconnection.
 - (c) Either party terminates by giving the other party at least sixty calendar days prior written notice that the other party is in default of any of the material terms and conditions of the interconnection agreement, so long as the notice specifies the basis for the termination and there is reasonable opportunity to cure the default.
- (2) All applicants' installations existing on or before the effective date of this rule are exempted from the changes instituted by this rule.
- (3) Upon termination of an interconnection agreement, the applicant's facilities will be disconnected from the EDU's system.
- (4) The termination of the interconnection agreement shall not relieve either party of its liabilities and obligations, owed or continuing at the time of the termination.

NO CHANGE

4901:1-22-11 Backup electricity supply.

Replacement electric power for the applicant shall be supplied in accordance with division (C) of section 4928.15 of the Revised Code, by either of the following:

- (A) The EDU either at a tariff rate or at the market price as provided for in its tariff.
- (B) By the applicant's competitive retail electric service provider at a rate to be determined by contract.

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4901:1-22-12 Complaints.

All formal complaints brought by applicants or interconnection service customers pursuant to section 4905.26 of the Revised Code, will be handled according to the procedural standards set forth in Chapters 4901-1 and 4901-9 of the Administrative Code. Each EDU must provide to the commission ~~utilities department~~ the name and telephone number of a contact person to assist the commission staff with the resolution of informal complaints regarding provisions in Chapter 4901:1-22 of the Administrative Code.

NO CHANGE

4901:1-22-13 Exceptions.

Except where rule requirements are mandated by federal or state law, the commission may waive any provision contained in this chapter for good cause upon its own motion or upon application by a company.

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Case No(s). 18-0884-EL-ORD

Summary: Finding & Order adopting amendments to Ohio Adm.Code Chapter
4901:1-22 regarding the Commission's interconnection rules electronically filed by
Ms. Mary E. Fischer on behalf of Public Utilities Commission of Ohio