

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Commission's)
Review of Chapter 4901:1-22, Ohio) Case No. 12-2051-EL-ORD
Administrative Code, Regarding)
Interconnection Services.)

ENTRY

The Commission finds:

- (1) Section 119.032, Revised Code, 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. The rules in Chapter 4901:1-22, Ohio Administrative Code (O.A.C.), set forth electric interconnection services and standards.
- (2) Section 119.032(C), Revised Code, requires the Commission to determine whether:
 - (a) The rules should be continued without amendment, be amended, or be rescinded, taking into consideration the purpose, scope, and intent of the statute(s) under which the rules were adopted:
 - (b) The rules need amendment or rescission to give more flexibility at the local level;
 - (c) The rules need amendment or rescission to eliminate unnecessary paperwork, or whether the rule incorporates a text or other material by reference and, if so, whether the text or other material incorporated by reference is deposited or displayed as required by Section 121.74, Revised Code, and whether the incorporation by reference meets the standards stated in Sections 121.71, 121.75, and 121.76, Revised Code; and
 - (d) The rules duplicate, overlap with, or conflict with other rules.

- (3) In addition, on January 10, 2011, the Governor of the state 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) Additionally, in accordance with Section 121.82, Revised Code, in the course of developing draft rules, the Commission must evaluate the rules against business impact analysis. If there will be an adverse impact on businesses, as defined in Section 107.52, Revised Code, the agency is to incorporate features into the draft rules to eliminate or adequately reduce any adverse impact.
- (5) In making its review, 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 staff (Staff) has evaluated the rules contained in Chapter 4901:1-22, O.A.C., and recommends amendments to several rules as shown in the attachment to this entry.
- (6) In making its review, an agency must 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.
- (7) A few of the more significant recommended changes have been summarized. The Commission is seeking general comments on the recommended revisions and requests specific comments as detailed below.
- (8) Staff is recommending proposed revisions regarding the interconnection application process. The revised process would be

a three level process. Level one would be a single, simplified review procedure for inverter-based systems of ten kilowatts or less. Level two would be an expedited review procedure for systems that do not qualify or fail to meet level 1 simplified review and have a nameplate capacity of two megawatts or less. Level three would be a standard review procedure for all systems that do not qualify or fail to meet level 1 and level 2 interconnection review requirements and have a nameplate capacity of twenty megawatts or less. The Commission is seeking comments on whether this new procedure will simplify and expedite the interconnection process.

- (9) Additionally, the Commission is seeking comments on whether an interconnection rule recognizing standard procedures for field-tested equipment would quicken the interconnection review process. Interconnection equipment would be considered field-tested if the utility has previously approved interconnection equipment for use in its service territory that is identical to the interconnection equipment being proposed. The electric distribution utility (EDU) would then maintain a database of field-tested equipment certified for use in its service territory and make the database available to developers. This interconnection rule could then prevent certain interconnection equipment that has already been tested by the EDU from being repeatedly tested. While most interconnection equipment is certified under IEEE or UL standards, some interconnection equipment is not. Adding an interconnection rule to allow field-tested equipment would allow an EDU to permit the use in its service territory of interconnection equipment that has not been IEEE or UL certified.
- (10) The Commission is also seeking comments on whether the interconnection rules should create a framework for minimizing financial risk associated with the design, procurement, and installation of infrastructure modifications for interconnection. Specifically, should the rules be revised to specify certain types of financial security instruments that could be posted by an applicant to guarantee that the EDU's interconnection-related costs are covered as they accrue. The provisions could establish a sequential, three-phased process for posting securities, with each successive posting covering a greater percentage of the necessary distribution or transmission modification costs. The provisions could also describe the cost recovery procedure in the event that an application is terminated or withdrawn. The purpose of this rule

revision would be to ensure reimbursement of an EDU's interconnection-related costs as they accrue and to provide applicants with greater flexibility to post securities to cover costs as the costs accrue and become more certain.

- (11) The Commission is seeking comments on whether the interconnection rules should be expanded by removing the 20 megawatt capacity limit for generating facilities.
- (12) The Commission is also seeking comments on whether the interconnection rules should require that the interconnection queue be made publicly available, much like the PJM queue. A publicly available interconnection queue could provide developers and EDUs with greater predictability regarding the feasibility and costs of interconnecting at a certain location.
- (13) Staff's proposed changes to Chapter 4901:1-22, O.A.C., as well as the business impact analysis, are attached to this entry.
- (14) In order to avoid needless production of paper copies, the Commission will serve a paper copy of this entry only and will make Staff's proposed changes to Chapter 4901:1-22, O.A.C., as well as the business impact analysis available online at: www.puco.ohio.gov/puco/rules. All interested persons may download the proposed rules and the business impact analysis from the above website, or contact the Commission's Docketing Division to be sent a paper copy.
- (15) The Commission requests comments from interested persons to assist in the review required by Section 119.032(C), Revised Code, and Executive Order 2011-01K. Comments on the draft rules and/or on the business impact analysis should be filed, either via electronic filing or in hard copy, by November 19, 2012. Reply comments should be filed by December 4, 2012.

It is, therefore,

ORDERED, That all interested persons or entities wishing to file comments with the Commission on the proposed rule changes and business impact analysis do so no later than November 19, 2012, and file reply comments by December 4, 2012. It is, further,

ORDERED, That a copy of this entry with the attached rule and business impact analysis be submitted to CSI in accordance with Section 121.82, Revised Code. It is, further,

ORDERED, That an electronic notice or paper copy of this entry without the attached rules or business impact analysis be served upon all electric utilities in the state of Ohio, all certified competitive retail electric service providers in the state of Ohio, the Electric-Energy industry list-serve, and all other interested persons of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO



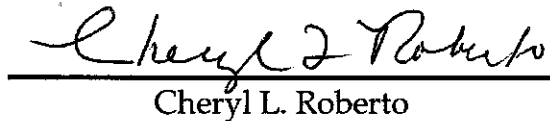
Todd A. Snitchler, Chairman



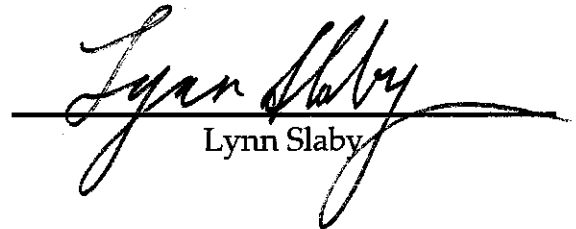
Steven D. Lesser



Andre T. Porter



Cheryl L. Roberto

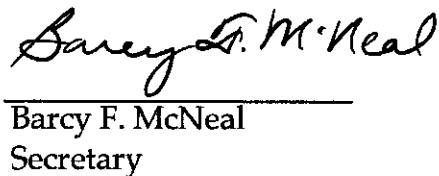


Lynn Slaby

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Entered in the Journal

OCT 17 2012



Barcy F. McNeal
Secretary

CSI - Ohio

The Common Sense Initiative

Business Impact Analysis

Agency Name: Public Utilities Commission of Ohio (PUCO)
Attention: Elizabeth Stevens, Legal Director
Phone: 614-466-0122 Fax: 614-728-8373
Elizabeth.stevens@puc.state.oh.us

Regulation/Package Title: Interconnection Standards
Case No. 12-2051-EL-ORD

Rule Number(s): Chapter 4901:1-22, O.A.C.

Date: 10/17/2012

Rule Type:

☐ New

☒ Amended

☒ 5-Year Review

☐ Rescinded

The Common Sense Initiative was established by Executive Order 2011-01K and placed within the Office of the Lieutenant Governor. Under the CSI Initiative, agencies should balance the critical objectives of all regulations with the costs of compliance by the regulated parties. Agencies should promote transparency, consistency, predictability, and flexibility in regulatory activities. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

Regulatory Intent

1. Please briefly describe the draft regulation in plain language. *Please include the key provisions of the regulation as well as any proposed amendments.*

The proposed revisions to the rules in Chapter 4901:1-22, Administrative Code, are in accordance with the State of Ohio's 5-year rule review procedures. Section 119.032, Revised Code, requires all state agencies to conduct a review, every five years, of their rules and to

77 SOUTH HIGH STREET | 30TH FLOOR | COLUMBUS, OHIO 43215-6117

CSIOhio@governor.ohio.gov

determine whether to continue their rules without change, amend their rules, or rescind their rules. The rules in Chapter 4901:1-22, Ohio Administrative Code (O.A.C.), set forth electric interconnection services and standards. The proposed revisions to Chapter 4901:1-22, O.A.C., would create a more stream-lined and clear process for interconnection with an electric distribution utility. The new process would provide three levels of interconnection review procedures based upon the size and type of the customer's distributed generation facility. Level 1 would be a simplified review procedure for customers with an inverter-based system of ten kilowatts or less. Level 2 would be an expedited review procedure for customers with systems that do not qualify or fail to meet Level 1 simplified review and have a nameplate capacity of two megawatts or less. Level 3 would be a standard review procedure for all customers with systems that do not qualify or fail to meet Level 1 and Level 2 interconnection review requirements and have a nameplate capacity of twenty megawatts or less.

2. Please list the Ohio statute authorizing the Agency to adopt this regulation.

The amendments to the rules in Chapter 4901:1-22, Administrative Code, are in response Section 119.032, Revised Code, which requires all state agencies to conduct a review, every five years, of their rules and to determine whether to continue the rules without change, with amendments, or with rescissions. The Public Utilities Commission of Ohio (PUCO) has determined that certain amendments to the rules are necessary for safe and expedient interconnection, which should have a positive impact on small business.

3. Does the regulation implement a federal requirement? *Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program? If yes, please briefly explain the source and substance of the federal requirement.*

This regulation implements state requirements. While the rules are not being implemented in response to a federal requirement, they do adopt the national standards established by the institute of electrical and electronics engineers, the underwriters laboratory, and the National Electric Code.

- 4. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**

The regulation does not contain provisions specifically required by the federal government. The rationale for the regulation is for the safe and reliable operation of the electric grid, particularly for customers installing/interconnecting distributed generation facilities.

- 5. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?**

The rules contained in this chapter are intended to make interconnection not unduly burdensome or expensive, to establish uniform requirements for nondiscriminatory technology-neutral interconnection to customers who generate electricity on the customer's side of the meter, to apply in all commission jurisdictional areas, and to provide a process for expedient interconnection with the electric distribution utility.

- 6. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?**

The rules contained in this chapter govern interconnection. The success of the regulation in terms of outputs and outcomes will be measured based upon customer and electric distribution utility feedback on the simplicity, expediency, and safety of interconnection.

Development of the Regulation

- 7. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation. *If applicable, please include the date and medium by which the stakeholders were initially contacted.***

The PUCO conducted a workshop on August 17, 2012, at the offices of the Commission to receive feedback from interested stakeholders and the general public. The case number for the commission's review of Chapter 4901:1-22, Administrative Code, is 12-2051-EL-ORD. The entry providing notice of the workshop was served upon all investor-owned utilities in the state of Ohio, all competitive retail electric service providers in the state of Ohio, and the Electric-Energy industry list-serve. Over 21 stakeholders signed the provided sign-in sheet for the workshop. The workshop was held in conjunction with other electric industry rules workshops, including for rules in chapters 4901:1-9, 4901:1-10, 4901:1-23, and 4901:1-25.

8. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

Recommendations were provided by stakeholders at the workshop in Case No. 12-2051-EL-ORD. Stakeholders recommended that the rules provide a simplified process for interconnection with an electric distribution utility. Staff believes that it has adequately considered and adopted the recommendations provided by stakeholders.

9. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?

No scientific data was provided or considered. In adopting any changes to Chapter 4901:1-22, O.A.C., the Commission takes into account feedback from stakeholders and the general public.

10. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

Some of the alternatives considered by staff include whether an additional rule should be provided regarding standard procedures for field-tested equipment, whether customers attempting to interconnect should be required to provide some financial security to cover the costs of interconnection as they accrue, whether the rules should be expanded by removing the 20 megawatt capacity limit for generating facilities, whether an interconnection queue should be made publicly available, and whether there would be any security concerns from making an interconnection queue publicly available. These alternative have been explained by the Commission in Case No. 12-2051-EL-ORD to allow stakeholders to provide comments on the alternatives.

11. Did the Agency specifically consider a performance-based regulation? *Please explain. Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.*

No performance-based regulations were considered. The proposed revisions dictate a particular process and not a required outcome.

12. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

The Agency has reviewed other Ohio regulations and found no duplicate. Furthermore, no duplicate has been identified by stakeholders.

13. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

Upon completion of the rulemaking process, the rule changes made in Chapter 4901:1-22, O.A.C., will be attached to the PUCO's finding and order and served upon all investor-owned utilities in the state of Ohio, all competitive retail electric service providers in the state of Ohio, and the Electric-Energy industry list-serve.

Adverse Impact to Business

14. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

a. Identify the scope of the impacted business community;

The scope of the business community impacted by the proposed revisions to Chapter 4901:1-22, Administrative Code, includes any business, or person, with a distributed generation facility needing to interconnect to an electric distribution utility. Any business impact resulting from the proposed revisions will be a positive impact due to the clarity and simplicity of the proposed new interconnection procedures.

b. Identify the nature of the adverse impact (e.g., license fees, fines, employer time for compliance); and

The proposed revisions were drafted in an effort to minimize any adverse impact on business, while providing a simplified and more expedient process for interconnection. The proposed revisions will improve the safety and expediency of interconnection. No adverse impact to business has been identified.

c. Quantify the expected adverse impact from the regulation.

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a “representative business.” Please include the source for your information/estimated impact.

15. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

The Agency has not identified an adverse impact on business as a result of the proposed revisions. Any business impact resulting from the proposed revisions will be a positive impact due to the clarity and simplicity of the proposed new interconnection procedures.

Regulatory Flexibility

16. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

No. A business in an area under the jurisdiction of the Public Utilities Commission of Ohio may not be exempted from the interconnection requirements provided in Chapter 4901:1-22 for the purpose of ensuring safe interconnection with an electric distribution utility.

17. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

Not Applicable.

18. What resources are available to assist small businesses with compliance of the regulation?

Commission Staff works with small businesses to ensure compliance with the rules. In Commission Case No. 12-2051-EL-ORD, stakeholders and the general public, including small businesses, were invited to participate in a workshop to explain to Commission Staff potential revisions to the rules to decrease or eliminate any negative effects on business. Small businesses may contact Commission Staff at any time and may comment on the proposed revisions during the open comment period once the proposed revisions have been released via Commission Entry. Furthermore, small businesses may contact their electric distribution utility before interconnecting to find assistance with compliance of the PUCO regulations.

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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 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 distributed generation as defined in paragraph ~~(H)~~(I) 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 distributed 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 an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide highly reliable service. Area network 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.
- (D) "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.
- (E) "Business Day" means any day which is not a Saturday, Sunday, or legal holiday.
- (F) "Calendar Day" means any day, including Saturday, Sunday, and legal holidays.
- ~~(E)~~(G) "Commission" means the public utilities commission of Ohio.
- ~~(F)~~(H) "Competitive retail electric service" means a component of retail electric

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service that is competitive as provided under division (B) of section 4928.01 of the Revised Code.

(G)(I) "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.

(H)(I) "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.

(I)(K) ~~"Electric distribution utility" (EDU) means~~ "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.

(J)(L) "Equipment package" means distributed generation facility assembled to include not only a generator or electric source but related peripheral devices that facilitate operation of the distributed generation.

(K)(M) "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.

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

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

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

(O)(Q) "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

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facility installation.

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

~~(Q)~~(S) "Point of common coupling" means the point which the distributed generation facility is connected to the EDU's system.

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

~~(S)~~(U) "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.

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

~~(U)~~(W) "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.

~~(V)~~(X) "Simplified procedures" means a review process for interconnection of

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distributed generation fifty kilowatts or less in size on a radial or spot network system under certain conditions.

- | ~~(W)~~(Y) "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.
- | ~~(X)~~(Z) "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 network circuit and is generally used to supply power to a single customer or a small group of customers.

4901:1-22-02 Scope and application.

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

- (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 requirements for offering nondiscriminatory technology-neutral interconnection to customers who generate electricity, on the customer's side of the meter, to any ~~electric distribution system~~ EDU that is owned and operated by a commission-regulated ~~electric distribution utility~~ (EDU) EDU in Ohio, in a manner that protects public and worker safety and system reliability to the extent the commission's governing authority is not preempted by federal law.
- (3) Apply in the entire territory where commission-approved tariffs apply to those situations where an applicant seeks to physically connect distributed generation 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 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

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basis.

- (C) The rules in this chapter shall not relieve any applicant from complying with all applicable federal, state, and local laws and ordinances.

4901:1-22-03 Industry standards.

The safety and performance standards established by the institute of electrical and electronics engineers, the underwriters laboratory, and the National Electric Code, as included in this chapter by reference, and as required consistent with division (B)(4) of section 4928.67 of the Revised Code, shall be the ~~versions adopted in final form and effective as of July 31, 2008.~~ effective version at the time the applicant applies for interconnection.

4901:1-22-04 General provisions.

(A) Prohibitions

- (1) In accordance with the ~~electric distribution utility's (EDU)~~ 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) Application processing

- (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.

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- (3) ~~The~~ When the applications are submitted, the EDU shall automatically ~~provide each applicant with a written notice of the EDU's receipt of an application~~ determine whether the application is complete and provide each applicant with a written or email notice of receipt within three ten business days after the application has been received. The notice of receipt shall include the following:
- (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.
- (4)(5) ~~If the EDU determines that the application is incomplete, the EDU personnel identified as being responsible for reviewing the application must provide~~ shall issue a notice of receipt with the following:
 - (a) ~~A written notice within ten business days after the application has been received indicating that the application is not complete. A copy of the~~ 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.
- (5)(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 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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(C) Compliance with national industry standards

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

- (1) The institute of electric and electronics engineers 1547 standard, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- (2) 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.

(D) 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 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 (C) 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.

(E) Disposal of excess energy produced by the applicant's distributed generation

- (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

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

(F) 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 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) If the applicant desires to proceed with the construction or system upgrades, the applicant and EDU shall enter into a contract for the completion of the construction or system upgrades.
- (3) Interconnection service shall take place no later than two weeks following the completion of such construction or system upgrades.

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

(A) Application forms

- (1) Each applicant for interconnection to an ~~electric distribution utility (EDU)~~ EDU's system shall complete either of the following:
 - (a) A "short form" application for interconnection of generating equipment ~~fifty ten~~ kilowatts or less that qualifies for level 1 simplified review.
 - (b) A standard application for interconnection of generation equipment 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, 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.

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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) 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.
- (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

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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

(1) 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)(a) 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)(b) 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)(c) 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 (a system maximum-power current).
- (b) Operating voltage (system maximum-power voltage).
- (c) Maximum system voltage.
- (d) Short-circuit current.

(2) In the case of solar units with internal switching devices, a customer lock box containing a key to the applicant's premises where the solar unit is installed should be accessible to EDU personnel.

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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.

4901:1-22-06 Simplified procedures and fees for application processing. Level 1 simplified review procedure.

(A) Level 1 simplified review procedure qualifying criteria

- ~~(1) The electric distribution utility (EDU) shall review an applicant's completed interconnection service application that meets the criteria set forth in paragraph (A)(2) of this rule within four weeks of receiving the completed application.~~
- ~~(2)~~(1) In order for the application to be approved by the ~~EDU~~ EDU under the level 1 simplified review procedure, the applicant's generating facility must meet the following requirements: ~~be an inverter-based system with a maximum nameplate capacity of ten kilowatts or less that uses renewable energy as fuel and the results of interconnecting the applicant's generating facility to the EDU's distribution system must comply with the following parameters:~~
 - (a) The generation facility must use inverter-based interconnection equipment that is certified in compliance with Rule 4901:1-22-03, Ohio Administrative Code.
 - (b) The generation facility must have a nameplate capacity of ten kilowatts

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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 meets the following approval criteria:

- (a) The applicant's proposed distributed generation facility's point of common coupling is not on a transmission line.
- (b) The aggregated generation on the circuit, including the proposed distributed generation facility, may not exceed fifteen per cent of the peak load on the smallest part of the primary distribution system that could remain connected after operation of sectionalizing devices.
- (c) The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, shall not contribute more than ten per cent 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) The proposed distributed generation facility in aggregation with other generation located on the load side of a spot network shall not exceed five per cent of the spot network's maximum load when aggregated with other inverter-based generation.
- (e) Direct current injection shall be maintained at or below five-tenths of a per cent of full rated inverter output current into the point of common coupling.
- (f) When a proposed distributed generation facility 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 of the nameplate rating of the service transformer.
- (g) The proposed distributed generation facility 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) 1547 standard,

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effective as set forth in rule 4901:1-22-03 of the Administrative Code.

- (h) ~~The proposed distributed generation facility installation complies with the IEEE 1547 standard and underwriters laboratory 1741 standard, effective as set forth in rule 4901:1 22 03 of the Administrative Code.~~ When the distributed generation facility is interconnected to an area network, the aggregate of all other facilities interconnected to that area network does not exceed five percent of the area network's maximum load.

- (3)(2) Having complied with the parameters set forth in paragraph (A)(2) (B)(1) of this rule, the applicant's proposed distributed generation facility 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 (B)(1) of this rule, shall notify the applicants 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 meets the criteria, the application shall be approved and the EDU will 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 to the EDU's system.

(3) When the distributed generation facility is interconnected to an area network, the EDU shall have an additional twenty business days to conduct an area network impact study to determine potential adverse impacts of interconnecting to that area network.

(D) Level 1 application fee

- (4)(1) The EDU's tariff for a level 1 fee will be based on actual costs per one-tenth of an hour of time spent on the simplified review, and not on a flat rate: fifty dollars.

- (2) Any area network impact study shall be conducted at the customer's

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expense.

- ~~(5) Construction of facilities by the EDU on its own system is not required to accommodate the distributed generation facility.~~
- ~~(6) Within five days after completion of the level 1 simplified procedure leading to the EDU's approval for interconnection of the applicant's distributed generation facility, the EDU shall provide the applicant with a standard interconnection agreement. 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 to the EDU's system.~~

~~(B) Level 1.1 simplified review procedure~~

- ~~(1) The EDU shall review an applicant's completed interconnection service application that meets the criteria set forth in paragraph (B)(2) of this rule within four weeks of receiving a completed application, except that the EDU shall have an additional twenty business days to conduct an area network impact study to determine potential adverse impacts of interconnecting to its area network.~~
- ~~(2) In order for the application to be approved by the EDU under the level 1.1 simplified review procedure, the generating unit must be an inverter based system with a maximum nameplate capacity of ten kilowatts or less and the results of interconnecting the applicant's generating facility to the EDU's distribution system must comply with the following parameters:~~
 - ~~(a) The proposed distributed generation facility's point of common coupling is not on a transmission line.~~
 - ~~(b) The interconnection is to be located on the load side of an area network.~~
 - ~~(c) The aggregated other generation on the area network does not exceed five per cent of an area network's maximum load.~~
 - ~~(d) The proposed distributed generation facility installation is certified to pass an applicable non-islanding test, or uses reverse power relays or other means to meet IEEE 1547 standard unintentional islanding requirements, effective as set forth in rule 4901:1-22-03 of the~~

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~~Administrative Code.~~

- ~~(3) The EDU's tariff for a level 1.1 fee will be based on actual costs per one-tenth of an hour of time spent on the simplified review, and not on a flat rate.~~
 - ~~(4) Any area network impact study shall be conducted at the EDU's own expense.~~
 - ~~(5) Construction of facilities by the EDU on its own system is not required to accommodate the distributed generation facility.~~
 - ~~(6) Within five days after completion of the level 1.1 simplified procedure leading to the EDU's approval for interconnection of the applicant's distributed generation facility, the EDU shall provide the applicant with a standard interconnection agreement. 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 to the EDU's system.~~
 - ~~(7) When an area network impact study identifies potential adverse system impacts, the EDU may determine that it is inappropriate for the distributed generation facility to interconnect to the area network and the application filed for level 1.1 review shall be denied.~~
 - ~~(a) When the EDU denies a level 1.1 application, it shall provide the applicant with a copy of the area network impact study and a written justification for denying the interconnection request.~~
 - ~~(b) Upon denial of the level 1.1 interconnection request, the applicant may elect to submit a new application for consideration under level 2 or level 3 procedures, in which case the queue position assigned to the level 1.1 application shall be retained.~~
- ~~(C) Level 1.2 simplified review procedure~~
- ~~(1) The EDU shall review a completed interconnection service application that meets the criteria set forth in paragraph (C)(2) of this rule within four weeks of receiving a completed application, except that the EDU shall have an additional twenty five days to conduct an area network impact study to~~

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~~determine any potential adverse impacts of interconnecting to its area network.~~

- ~~(2) In order for the application to be approved by the EDU under the level 1.2 simplified review procedure, the generating unit must be a certified inverter-based system with a maximum nameplate capacity of equal to fifty kilowatts or less and the results of interconnecting the applicant's generating facility to the EDU's distribution system must comply with the following parameters:~~
 - ~~(a) The interconnection is to be to an area network distribution system.~~
 - ~~(b) The proposed distributed generation facility installation is certified to pass an applicable non-islanding test, or uses reverse power relays or other means to meet IEEE 1547 standard unintentional islanding requirements, effective as set forth in rule 4901:1-22-03 of the Administrative Code.~~
 - ~~(c) The proposed level 1.2 distributed generation facility meeting level 1.1 parameters in paragraphs (B)(2)(a) to (B)(2)(d) of this rule shall be presumed to be appropriate for interconnecting to an area network~~
- ~~(3) The EDU's tariff for a level 1.2 fee will be based on actual costs per one-tenth of an hour of time spent on the simplified review, and not on a flat rate.~~
- ~~(4) Any area network impact study shall be conducted at the EDU's own expense.~~
- ~~(5) Within five days after completion of the level 1.2 simplified procedure leading to the EDU's approval for interconnection of the applicant's distributed generation facility, the EDU shall provide the applicant with a standard interconnection agreement. 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 to the EDU's system.~~

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

(A) Level 2 expedited review process qualifying criteria

~~(A) The electric distribution utility (EDU) shall review an applicant's completed interconnection service application that meets the criteria set forth in paragraph (B) of this rule on an expedited basis.~~

~~(B)(1) In order for the application to be approved by the EDU, the applicant's generating facility must meet the following requirements: proposed certified inverter based or synchronous distributed generation facility in aggregation with all other generators on the EDU's circuit must be two megawatts or less and the results of interconnecting the applicant's generating facility to the EDU's distribution system must comply with the following parameters:~~

~~(a) The generating facility does not qualify or failed to meet the level 1 interconnection review requirements.~~

~~(b) The generating facility must have a nameplate capacity of 2 megawatts or less.~~

(B) Level 2 approval criteria

(1) The EDU shall approve an application for interconnection under level 2 review procedures if the generation facility meets the following criteria:

~~(1)(a) The proposed distributed generation facility's point of interconnection shall not be on a transmission line.~~

~~(2)(b) The interconnection is to a radial distribution circuit.~~

~~(3) The proposed distributed generation facility complies with institute of electrical and electronics engineers (IEEE) 1547 standard and underwriters laboratory 1741 standard, effective as set forth in rule 4901:1-22-03 of the Administrative Code.~~

~~(4)(c) The proposed distributed generation facility, in aggregation with other generation interconnected to the distribution side of a substation transformer feeding the circuit where the distributed generation facility proposes to interconnect, shall not exceed two ten megawatts in an area~~

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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).

- (5)(d) The proposed distributed generation's capacity in aggregation with other generation on the circuit shall not exceed fifteen per cent of the total circuit peak load as most recently measured at the substation; nor will it exceed fifteen per cent of a distribution circuit line section annual peak load.
- (6)(e) The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, shall not contribute more than ten per cent to the distribution circuit's maximum fault current at the point on the primary voltage distribution line nearest the point of common coupling.
- (7)(f) The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, may not cause any distribution protective devices 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 eighty-five ninety per cent of the short circuit interrupting capability; nor shall the applicant request interconnection on a circuit that already exceeds ninety percent of the short circuit interrupting capability.
- ~~(8) The applicant shall not request interconnection on a circuit that already exceeds eighty-five per cent of the short circuit interrupting capability.~~
- (9)(g) When a proposed distributed generation facility 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 of the nameplate rating of the service transformer.
- (10)(h) The proposed distributed generation facility installation is certified to pass an applicable non-islanding test, or uses reverse power relays or other means to meet IEEE 1547 standard unintentional islanding requirements, effective as set forth in rule 4901:1-22-03 of the Administrative Code.
- ~~(11)(i) On a three-phase, three-wire primary electric distribution line, a three- or single-phase generator shall be connected phase-to-phase. The proposed distributed generation facility shall be interconnected to the EDU's primary~~

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distribution system as shown below:

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

~~(12) When the applicant's facility is to be connected to three-phase, four-wire primary EDU distribution lines, a three- or single-phase generator will be connected line-to-neutral and will be effectively grounded.~~

(13)(j) 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.

(14)(k) When the proposed distributed generation facility is to be interconnected on single-phase shared secondary line, the aggregate generation capacity on the shared secondary line, including the proposed distributed generation facility, will not exceed ~~ten~~ twenty kilowatts.

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

(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 (B), shall notify the applicant of the results, and include with the notification copies of the analysis and data underlying the EDU's determinations under the criteria.

(2) If the proposed interconnection meets the criteria, the application shall be approved and the EDU will 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

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generation facility to the EDU's system.

(3) If the proposed interconnection fails to meet the criteria, but the EDU determines that the proposed distributed generation facility 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 to the EDU's system.

(4) If the proposed interconnection fails to meet the criteria but the EDU does not or cannot determine from the initial review that the proposed distributed generation facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the applicant is willing to consider minor modifications to further study, 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 could continue to qualify for interconnection pursuant to the expedited review process,

(c) Obtain the applicant's agreement to continue evaluating the application under Level 3 standard review,

(D) Facility or minor system modifications

(1) If facility modifications or minor system modifications are required to allow the proposed distributed generation facility 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 limited cost to make such modifications.

(2) If the interconnection customer agrees to such modifications, the interconnection customer shall agree in writing within fifteen business days of the offer and submit payment for the estimated costs.

(3) Following the implementation of facility or system modifications, the EDU shall provide the applicant with a standard distributed generation interconnection

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agreement within five business days and include a timetable for the physical interconnection of the applicant's proposed distributed generation facility to the EDU's system.

(E) Level 2 supplemental review

(1) If the customer requests that the EDU perform a supplemental review, the EDU shall provide the applicant with a supplemental review agreement in accordance with the EDU's tariff to determine if the distributed generation facility could continue to qualify for interconnection pursuant to the expedited review process. The supplemental review agreement shall include 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) The EDU shall conduct supplemental review within twenty-five business days of receiving the signed supplemental review agreement.

(3) If the EDU determines that the proposed distributed generation facility can be interconnected safely and reliably the EDU shall provide the applicant with a standard distributed generation interconnection agreement within five business days and include a timetable for the physical interconnection of the applicant's proposed distributed generation facility to the EDU's system.

(4) If the EDU determines that the proposed distributed generation facility cannot be interconnected safely and reliably, the application will continue to be evaluated under the Level 3 standard review.

(F) Level 2 fees

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

(1)(a) An application fee of up to fifty dollars, plus one dollar per kilowatt of the applicants' system nameplate capacity rating.

(2)(b) The cost of engineering work done as part of any impact or facilities study, billed at actual costs incurred.

(3)(c) 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

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interconnection request

- ~~(D) When an EDU determines that the application passes the level 2 review process, or fails one or more of the level 2 criteria set forth in paragraph (B) of this rule but the EDU determines that the distributed generation facility can be interconnected safely and reliably, the EDU shall provide the applicant with a standard distributed generation interconnection agreement within five business days after such 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 to the EDU's system.~~
- ~~(E) When additional review by the EDU may be appropriate for an application failing to meet one or more of the level 2 criteria, the EDU shall offer to do the following for the applicant:~~
 - ~~(1) Perform additional review to determine whether minor modifications to the electric distribution system would enable the interconnection to be made consistent with safety, reliability and power quality criteria.~~
 - ~~(2) Provide the applicant with a nonbinding, good faith estimate of the EDU's costs of additional review and minor modifications.~~
 - ~~(3) Notify the applicant that the additional review or modifications will be undertaken only after the applicant consents in writing to pay for the review and modifications.~~
- ~~(F) Within five days after completion of the level 2 expedited procedure leading to the EDU's approval for interconnection of the applicant's proposed distributed generation facility installation and collection by the EDU of the applicant's payment pursuant to paragraph (E)(3) of this rule, the EDU shall provide the applicant with a standard interconnection agreement. 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 mutually agreed upon timetable for the physical interconnection of the applicant's proposed distributed generation facility to the EDU's system.~~

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

(A) Level 3 standard review procedure qualifying criteria

- ~~(A) Level 3 standard review procedure shall use the determinations made in the scoping meeting and the interconnection studies defined in rule 4901:1-22-09 of the Administrative Code for technical analysis of the applicant's proposed distributed generation facility installation.~~
- ~~(B) Level 3 is applicable for systems that do not qualify for either level 1 or level 2 review procedures. In order for the application to be approved under the level 3 standard review procedure, the applicant's inverter-based or synchronous distributed generation facility, either individually or in the aggregate, must have a nameplate capacity of twenty megawatts or less, and the results of interconnecting the applicant's generating facility to a radial distribution circuit on the electric distribution utility's (EDU) distribution system must comply with any of the following applicable parameters:~~
- ~~(1) The distributed generation facility is less than two megawatts and is not certified or the distributed generation facility is less than two megawatts and non-inverter based.~~
 - ~~(2) Known or posted transient stability limits to generating units located in the general electrical vicinity of the proposed point of common coupling require the proposed application to be subject to a level 3 standard review process.~~
 - ~~(3) The application's failure to meet any criteria under level 2 for the expedited process requires the EDU to use the level 3 interconnection procedures.~~
 - ~~(4) The application was considered but not approved under a level 2 review and the applicant is submitting a new interconnection request for consideration under a level 3 review procedure. The queue position assigned to the level 2 interconnection application in accordance with paragraph (C) of rule 4901:1-22-09 of the Administrative Code shall be retained.~~
- (1) In order for the application to be approved by the EDU under the level 3 review procedure, the following conditions must apply:**
- (a) The generation facility does not qualify or failed to meet the level 1 or level 2 interconnection review requirements.**

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(b) The generation facility is not certified

(c) The generation facility has a 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 the interconnection studies defined in rule 4901:1-22-09 of the Administrative Code for technical analysis of the applicant's proposed distributed generation facility 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.

(C) Level 3 fees

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

~~(1)~~(a) An application fee of up to one hundred dollars, plus two dollars per kilowatt of the system's nameplate capacity.

~~(2)~~(b) In addition to the level 3 standard review application fee, any or all of the following fees may be assessed by the EDU:

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

~~(b)~~(ii) The actual cost of any modifications of the EDU's system that would otherwise not be done but for the applicant's interconnection request.

~~(D)~~(2) Within five business days after completion of the level 3 standard procedure 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 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. ~~The standard interconnection agreement shall be consistent with the uniform requirements for~~

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~~an interconnection agreement enumerated in rule 4901:1-22-10 of the Administrative Code, and a mutually agreed upon timetable for the physical interconnection of the applicant's proposed distributed generation facility to the EDU's system.~~

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

(A) Scoping meeting

~~(A)(1)~~ The electric distribution utility (EDU) 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 during a scoping meeting that includes discussion of the following:

~~(1)(a)~~ The applicant's proposed interconnection of a distributed generation facility at a specific location on the EDU's distribution system.

~~(2)(b)~~ Qualifications under EDU's level 1, level 2 or level 3 review procedures.

~~(3)(c)~~ Existing EDU studies relevant to the interconnection request.

~~(4)(d)~~ Reasonable requests from the applicant for EDU information including relevant system studies as well as other material useful to an understanding of an interconnection at a particular point on the system to the extent such information does not violate confidentiality provisions of prior agreements or critical infrastructure requirements.

~~(B)(2)~~ Scheduling of a scoping meeting will be established within ten business days after the scoping meeting has been requested by the applicant or as agreed to by the parties.

~~(C)(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.

(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

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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.

~~(D)~~(C) Interconnection study requirements

- (1) A specific interconnection study may be required by the EDU prior to interconnection service that will include the following:
- (a) Each type of study required will include an EDU interconnection tariff fee schedule approved by the commission.
 - (b) Each type of study will be the subject of a written agreement between the applicant and the EDU that includes the following:
 - (i) A target date for completion of any required feasibility study, system impact study, and facilities study.
 - (ii) A provision to share the results of the study by the EDU with the applicant.
 - (c) The written agreement discussed in paragraph (D)(1)(b) of this rule may include an alternative provision that allows the required studies related to the interconnection of the generating facility(s) to be conducted by a qualified third party with the consent of the EDU.
 - (d) A written statement provided to the applicant by the EDU prior to the study that includes the following:
 - (i) A clear explanation of all charges.
 - (ii) A good faith estimate of the number of hours that will be needed to complete the study.
 - (iii) An estimate of the total interconnection study fee.
- (2) 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.
- (3) 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

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facility, the EDU shall provide the applicant with a standard distributed generation interconnection agreement. ~~The standard interconnection agreement shall incorporate the uniform requirements for an interconnection agreement enumerated in rule 4901:1-22-10 of the Administrative Code, and a mutually agreed upon timetable for the physical interconnection of the applicant's proposed distributed generation facility to the EDU's system.~~

- (4) 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.

~~(E)~~(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 at a particular point on the EDU's system. The study 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

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potential points of interconnection, additional evaluations may be required.

- (4) The actual cost of the EDU's additional evaluations shall be paid by the applicant.

(F)(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 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 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 generating facilities that, on the date the system impact study is commenced, are directly interconnected with the EDU's system.
 - (d) Consider pending higher queue position of facilities requesting interconnection to the system, or consider pending higher queue position of facilities requesting interconnection having a signed interconnection agreement.
- (4) A system impact study performed by the EDU shall consider the following criteria:
 - (a) A load flow study.

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- (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:
- (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.

~~(G)~~(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 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 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 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.

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- (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:
 - (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 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.

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

- (A) ~~The electric distribution utility (EDU)~~ EDU shall provide the applicant with a standard interconnection agreement for distributed generation 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 the applicant does not sign the agreement within thirty business days, the

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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.

(D) Milestones for construction

- (1) When construction is required, the interconnection of the distributed generation 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:
 - (a) The distributed generation 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.

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(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 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) 1547 standards, effective as set forth in rule 4901:1-22-03 of the Administrative Code, shall be the responsibility of the applicant.
- (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 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.

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(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 notice of service interruption.

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

- (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 energy from the applicant's facility 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.

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- (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.

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 ~~electric distribution utility~~ 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.

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 ~~electric distribution utility~~ 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.

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.