DP&L

Regulatory Operations

September 4, 2015

Docketing Division
The Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793

Re: The Dayton Power and Light Case No. 14-1181-EL-ATA

Docketing Division:

The Dayton Power and Light Company herewith amends its proposed PUCO No. 17 Electric Distribution Service Sheet No. D35 in accordance with the Staff Recommendations filed on May 15, 2015 in Case No. 14-1181-EL-ATA. This proposed Tariff ensures a consistent approach to transmission-level interconnections throughout the Tariff by removing the following sentence under the section entitled, "APPLICABLE", on page 1 of the Tariff sheet: "This Tariff Sheet is not applicable to customers who want to interconnect to the Company's transmission system."

Thank you for your assistance and your attention to this matter. If you have any questions please feel free to call me at (937) 259-7181.

Sincerely,

Eric Brown
Regulatory Operations

Enclosure

P.U.C.O. No. 17
ELECTRIC DISTRIBUTION SERVICE
INTERCONNECTION SERVICE

DESCRIPTION OF SERVICE:

This Tariff Sheet provides the terms, conditions and fees for the Interconnection of electric distributed generation facilities to the Company's Distribution System.

APPLICABLE:

Applicable in the entire territory where DP&L P.U.C.O. No. 17 applies, this Tariff Sheet applies to those situations where a Service Customer seeks to physically connect its electric distributed generation facility to, and may operate it in parallel with, the Company's Distribution System.

PURPOSE:

The purpose of this Tariff Sheet is to implement Ohio Revised Code Section 4928.11, which calls for uniform interconnection standards that are not unduly burdensome or expensive and also ensure safety and reliability of the Company's Distribution System. This Tariff Sheet contains the terms and conditions that govern the Interconnection and Parallel Operation of an Interconnection Service Customer's facility with the Company's Distribution System.

DEFINITIONS:

(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 (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 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.

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(D) "Automatic sectionalizing device" means any self-contained, circuit-opening device used in conjunction with a source-side protective device, which features automatic reclosing capability.

(E) "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.

(F) "Business Day" means any day which is not a Saturday, Sunday, or legal holiday.

(G) "Calendar Day" means any day, including Saturday, Sunday, and legal holidays.

(H) "Commission" means the public utilities commission of Ohio.

(I) "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.

(J) "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.

(L) "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.

(M) "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.

(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.

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

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

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

(R) "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.

(S) "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 installation.

(T) "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.

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

(V) "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.

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

(Y) "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 network circuit and is generally used to supply power to a single customer or a small group of customers.

INDUSTRY STANDARDS:

The safety and performance standards established by the institute of electrical and electronics engineers (IEEE), the underwriters laboratory (UL), and the National Electric Code (NEC), 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 effective version at the time the applicant applies for interconnection.

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.

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(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 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 Subsection (1), 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 $300 for a preapplication report on a proposed project at a specific site. The EDU shall provide the pre-application data described in Subsection (3) to the applicant within ten business days of receipt of the written request and payment of the $300 processing fee.

(3) The pre-application report will include the following information:

(a) Total generation capacity (in megawatts) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed site.

(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 interconnection to the distribution substation.

(l) Based on the proposed point of interconnection, 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 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

(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 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 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.

(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) 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.

(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 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.

(F) 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 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.

(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 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 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 following the completion of such construction or system upgrades.

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APPLICATION REQUIREMENTS FOR THE 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.

(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.

(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

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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:

(1) Operating current (system maximum-power current).

(2) Operating voltage (system maximum-power voltage).

(3) Maximum system voltage.

(4) Short-circuit current.

(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.

LEVEL 1 SIMPLIFIED REVIEW PROCEDURE:

(A) Level 1 qualifying criteria

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

(1) The generation facility must use inverter-based 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.

(2) The generation facility must have a nameplate capacity of twenty-five kilowatts or less.

(B) Level 1 approval criteria

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(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) For interconnection of a proposed distributed generation facility to a radial distribution circuit, the aggregated generation, including the proposed distributed generation facility, on the circuit shall not exceed fifteen per cent of the line section annual peak load as most recently measured at the substation.

(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) For interconnection of a proposed distributed generation facility to the load side of spot network protectors, the proposed distributed generation facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of five per cent 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 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, 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, 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 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 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 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 procedures, in which case the queue position assigned to the level 1 application shall be retained.

(3) 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. The standard interconnection agreement shall be consistent with the uniform requirements for an interconnection agreement 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.

(D) Level 1 application fee

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

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 must meet the following requirements:

(1) The generating facility utilizes 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.

(2) The generating facility does not meet the level 1 interconnection review requirements.

(3) The generating facility 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. Distributed generation facilities located within 2.5 miles of a substation and on a main distribution line with minimum 600-ampere capacity are eligible for expedited review under the higher thresholds. These eligibility limits do not guarantee fast track approval.

Line Voltage	Expedited Review Regardless of Location	Expedited Review on a 600 amp line and within 2.5 feeder miles from substation
less than or equal to 5kV	less than or equal to 500 kW	less than 2 MW
5kV less than or equal to 15 kV	less than or equal to 2MW	less than 3 MW
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 meets the following criteria:

(a) The proposed distributed generation facility's point of interconnection is not on a transmission line.

(b) The proposed distributed generation facility complies with 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 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), or the proposed distributed generation facility 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 to a radial distribution circuit, the aggregated generation, including the proposed distributed generation facility, on the circuit shall not exceed fifteen per cent 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, 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.

(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 ninety per cent of the short circuit interrupting capability; nor shall an applicant requesting interconnection on a circuit that already exceeds ninety per cent of the short circuit interrupting capability be permitted.

(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.

(h) The proposed distributed generation facility 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, interconnection must be phase-to-phase
Three phase, four wire	If a three-phase (effectively grounded) or single phase generating facility, 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 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 sixty-five per cent of the transformer nameplate rating.

(k) For interconnection of a proposed distributed generation facility to the load side of spot or area network protectors, the proposed distributed generation facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the lesser of five per cent of a spot or area network's maximum load or fifty kilowatts.

(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) and shall notify the applicant of the results.

(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. 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.

(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 and the EDU determines that minor modifications or further study may be required to interconnect the proposed distributed generation facility 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 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.

(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 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 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 $2,500, 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 below and notify the applicant of the results. For interconnection of a proposed distributed generation facility 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.

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(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 capacity on the line section is less than one hundred per cent of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed distributed generation facility. If minimum load data is not available, or 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 rule 4901:1-22-07(E)(1) of the Administrative Code.

(i) The type of generation used by the proposed distributed generation facility 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 storage, use daytime minimum load, and use absolute minimum load for other generation.

(ii) When this screen is being applied to a distributed generation facility 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: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions, (2) the voltage fluctuation is within acceptable limits as defined by IEEE 1453 or utility practice similar to IEEE 1453, and (3) the harmonic levels meet IEEE 519 limits at the point of interconnection.

(c) The location of the proposed distributed generation facility 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 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.

(iv) If the proposed distributed generation facility 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, such that transfer of the line section(s) of the distributed generation facility 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 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 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 supplemental review cost, standard 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 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 $2,500 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

LEVEL 3 STANDARD REVIEW PROCEDURE:

(A) Level 3 standard review criteria

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

(1) The generation facility does not qualify or failed to meet the level 1 or level 2 interconnection review requirements.

(2) The generation does not 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.

(3) 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 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 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

(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 nameplate capacity.

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

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

(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.

(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.

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, 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 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.

(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 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 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) 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, the EDU shall provide the applicant with a standard distributed generation interconnection agreement.

(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

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(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 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.

(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.

(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.

(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.

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(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.

(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.

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UNIFORM REQUIREMENTS FOR INTERCONNECTION AGREEMENTS:

(A) The 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 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.

(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.

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(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 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.

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.

RULES AND REGULATIONS:

All electric service of the Company is rendered under and subject to the Rules and Regulations contained within this Schedule and any terms and conditions set forth in any Agreement between the Company and the customer.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

9/4/2015 11:00:54 AM

in

Case No(s). 14-1181-EL-ATA

Summary: Tariff Second Amended proposed to modify PUCO No. 17 Electric Distribution Service Sheet No. D35, Interconnection Service, electronically filed by Eric R Brown on behalf of The Dayton Power and Light Company