

MEETING AGENDA

PUBLIC WORKS & UTILITIES COMMITTEE OF THE PLYMOUTH COMMON COUNCIL CITY OF PLYMOUTH, WISCONSIN

TUESDAY, APRIL 9, 2024 @ 6:45 PM

Plymouth City Hall
Council Chambers
Plymouth, WI 53073

Members Present:

____ Mayor Don Pohlman
____ David Herrmann
____ Diane Gilson
____ Bob Schilsky
____ Angie Matzdorf

Staff:

____ Anna Voigt
____ Cathy Austin
____ Tim Blakeslee

Other:

1. Call to Order & Roll Call.
2. Approval of September 26, 2023 Meeting Minutes
3. Discussion regarding PSC 119 Updates – Electrical Operations Manager, Ryan Roehrborn
4. Adjournment

It is likely a quorum of members of other governmental bodies of the municipality may be in attendance at the above stated meeting to gather information. No action will be taken by any governmental body at the above stated meeting other than the governmental body specifically referred to above in this notice.

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, please contact the City of Plymouth ADA Coordinator Leah Federwisch, located in the Plymouth Utilities office at 900 County Road PP, Plymouth, WI or call 920-893-3853.

MEETING MINUTES

PUBLIC WORKS & UTILITIES COMMITTEE OF THE PLYMOUTH COMMON COUNCIL CITY OF PLYMOUTH, WISCONSIN

TUESDAY SEPTEMBER 26, 2023

- 1. Call to Order & Roll Call:** Chairperson Gilson called the meeting to order at 6:00 PM. On call of the roll, the following members were present: Mayor Pohlman, David Herrmann, Diane Gilson, and Angie Matzdorf. City Administrator/ Utilities Manager Tim Blakeslee, Alder. Greg Hildebrand, Alder. Mike Penkwitz, Alder. Jeff Tauscheck, Electric Operations Manager Ryan Roehrborn, and Clerk/Deputy Treasurer Anna Voigt.
- 2. Approval of May 9, 2023 Meeting Minutes:** Motion was made by Herrman/Gilson to approve the minutes with the correction of the year 2022 to 2023. A unanimous aye vote was cast. Motion carried.
- 3. Electric Utility Inventory Quotes and Future Inventory Management**
Process: Electric Operations Manager Roehrborn gave an update that they would like to increase the electric inventory for 3-4 years out. There have been longer lead times and increase in prices. The committee agreed to
- 4. Entertain a motion to go into closed session for the following:** Motion was made by Pohlman/Herrmann to go into closed session. Upon the call of the roll, all voted aye. Motion carried.

Pursuant to Wis. Stat. 19.85 (1)(e) deliberating or negotiating the purchasing of public properties, the investing of public funds or conducting other specified public business, whenever competitive or bargaining reasons require a closed session regarding land acquisition for a new substation

AND

Pursuant to Wis. Stat. 19.85 (1)(g) conferring with legal counsel for the government body who is rendering oral or written advice concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved regarding land acquisition for a new substation Motion was made by Matzdorf/Herrman to go into open session. Upon the call of the roll, all voted aye. Motion carried.

- 5. Adjournment:** Motion was made by Pohlman/Matzdorf to adjourn the meeting. A unanimous aye vote was cast. Motion carried.

City of Plymouth
128 Smith St. - P.O. Box 107
Plymouth, WI 53073-0107



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Web Site: plymouthgov.com

DATE: April 4, 2024
TO: Common Council
FROM: Ryan T. Roehrborn, Electrical Operations Manager
RE: PSC 119 Updates

Background:

Chapter 119 provides the rules for Utilities and Utility customers regarding Interconnection of Distributed Generation to our system. The attached presentation highlights the updates to the PSC Chapter 119. One of the primary updates is that a Utility is permitted to charge application and commissioning fees. These fees are meant only to recoup Utility costs for reviewing applications, inspecting, and testing the systems before interconnection. Once the PSC 119 updates are finalized staff bring them back to the Common Council for approval.

Recommendation:

Provide direction to Staff regarding PSC 119 changes.

Attachment:

- PSC 119 Updates



The Public Service Commission

PSC 119: Interconnecting Distributed Generation

Jennifer Heaton-Amrhein, Policy Advisor

Bert Chee, Engineer

Division of Energy Regulation and Analysis

March 1, 2024

Public Service Commission of Wisconsin

The state agency responsible for regulating:

- Public utility and wholesale merchant plant construction projects
- Public utility rates (except telephone)
- Public utility service quality

The primary agency responsible for siting:

- Electric generation projects
- Electric transmission lines
- Natural gas distribution pipelines (not interstate)
- Water utility infrastructure

Contains the State Energy Office (SEO) for Wisconsin

Division of Energy Regulation and Analysis

The Division of Energy Regulation and Analysis (DERA) is responsible for supporting the mission of the Commission through its focus on Wisconsin's electric and natural gas industries to ensure safe, reliable, affordable, and environmentally responsible energy services.



[Highlighted Cases](#)

Access overview information and interactive maps for some of the current and recently decided cases before the Commission.



[Public Participation](#)

Find out how you can participate in the cases going before the Commission for a decision.

What is PSC 119?

- Administrative rule for interconnecting customer-owned generation of 15 MW or less to the utility grid
- Current rules promulgated in 2004 and still in effect
- Significant changes in distributed generation technology and operations since rule adopted
- Volume of interconnection requests also has increased



Distributed
Generation

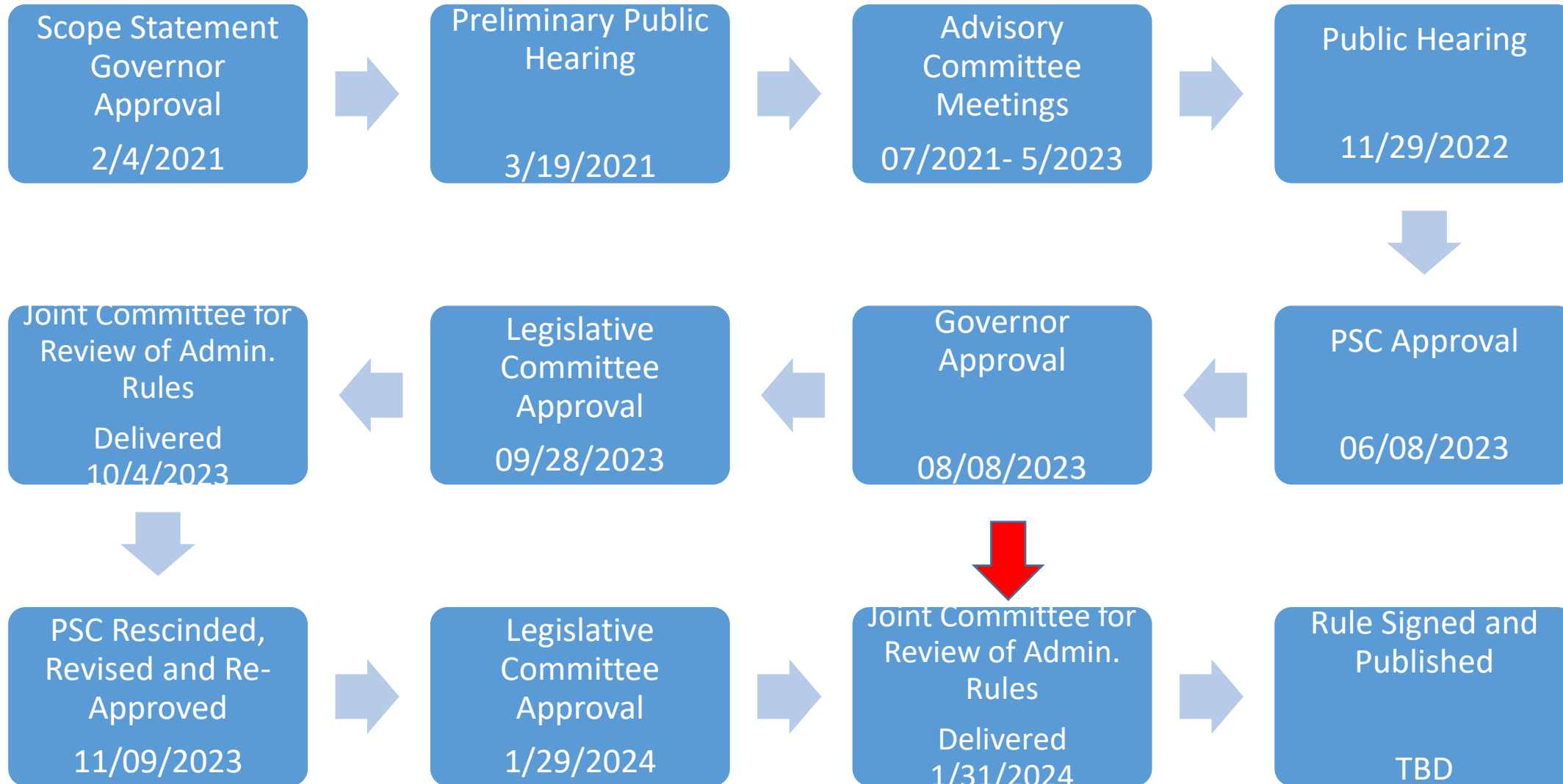
PSC 119 Revision

- Rule has been in revision process since February 2021
- Advisory Committee formed to reach consensus on new rules
- Proposed updates include:
 - Referencing new technical standards and codes;
 - Adding and refining rule definitions
 - Clarifying language related to testing and communication requirements
 - Refining rule provisions related to the application process
 - Clarifying and updating application process requirements

Advisory Committee Members

| Organization | Member |
|--|-------------------|
| Alliant Energy | Tyson Cook |
| Arch Electric | Dan Steinhardt |
| Citizens Utility Board of Wisconsin (CUB) | Corey Singletary |
| Eland Electric | Jesse Michalski |
| Faith Technologies | Steve Nieland |
| Generac | Brian Baughman |
| L&S Technical Associates | Larry Krom |
| Madison College | Ken Walz |
| Madison Gas and Electric Company (MGE) | Dave Toso |
| Midwest Renewable Energy Association (MREA) | Nick Matthes |
| Midwest Tribal Energy Resource Association | Mike Troge |
| Municipal Electric Utilities of Wisconsin (MEUW) | Nick Kumm |
| Northern States Power Company-Wisconsin (NSPW) | Ed Shannon |
| RENEW Wisconsin | Michael Vickerman |
| Slipstream | Frank Greb |
| Sunvest | Adam Gusse |
| Wisconsin Electric Cooperatives Association (WECA) | Craig Buros |
| Wisconsin Electric Power Company (WEPCO) | Ann Wendt |
| Wisconsin Public Service Corporation (WPSC) | Jason Kollwelter |
| WPPI Energy | Eric Kostecki |

PSC 119 Revision Timeline and Process





PSC 119 Proposed Updates

PSC 119 Proposed Updates – Revised Definitions

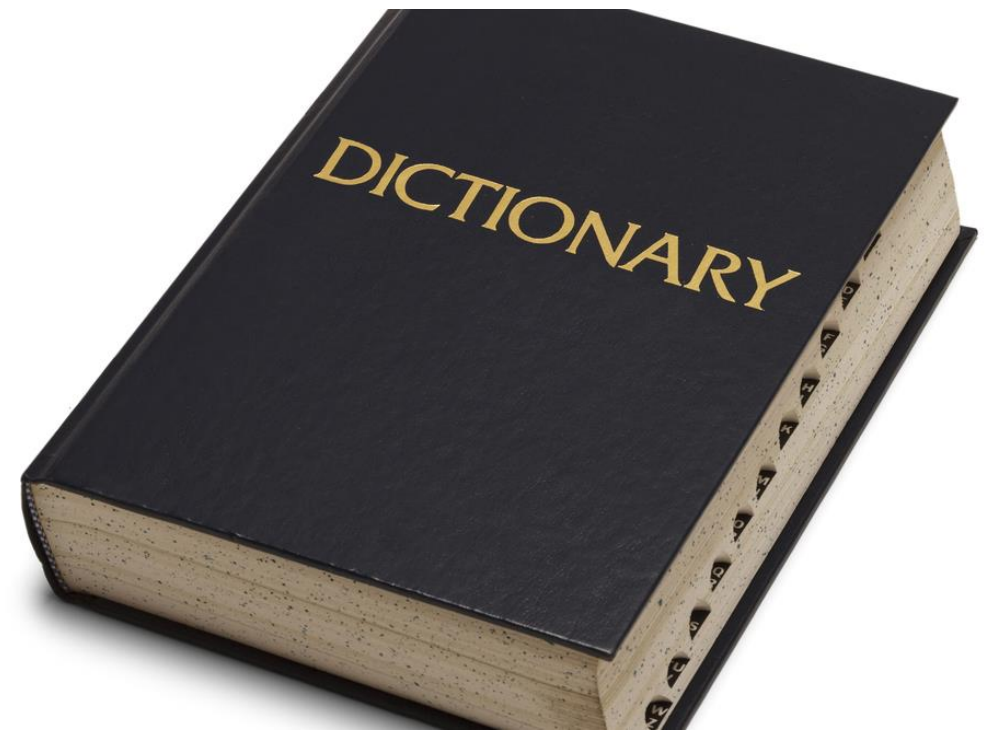
- **Category 1:** DG facility with an export capacity of 20kw or less. A DG facility comprised of a resource no larger than 20kw paired with a non-exporting energy storage system no larger than 20kw shall be considered a Category 1 system.
- **Category 2:** DG facility with an export capacity of > than 20 kw and ≤ 200kw. The nameplate rating shall be used instead of the export capacity for this definition if the non-exporting energy storage system is larger than 20 kw.
- **Category 3:** DG facility with an export capacity of >200 kw and ≤ 1 MW. The nameplate rating shall be used instead of the export capacity for this definition if the non-exporting energy storage system is larger than 200 kw.
- **Category 4:** DG facility with an export capacity of >1 MW and ≤15 MW. The nameplate rating shall be used instead of the export capacity for this definition if the non-exporting energy storage system is larger than 1 MW.

PSC 119 Proposed Updates – Revised Definitions

- **KW** means kilowatt. Unless otherwise specified, the definition references units in alternating current.
- **MW** means megawatt. Unless otherwise specified, the definition references units in alternating current
- **Point of Common Coupling** means the point where the electrical ~~conductors of the distribution system are connected to the customer's conductors and where any transfer of electric power between the customer and the distribution system takes place.~~ power system of the applicant seeking to interconnect DG facility is electrically connected to the distribution system. Equivalent, in most cases, to service point as specified by the public utility and described in the National Electric Code and National Electrical Safety Code.
- **Standard Application Form** means PSC Forms ~~6027~~ 6031 ~~for Category 1 DG facilities or PSC 6028 for Category 2 to 4 DG facilities.~~ The standard application form can include supplements designed to collect information specific to different installations and technologies.

PSC 119 Proposed Updates – Revised Definitions

- **Telemetry** means transmission of DG operating data and settings using telecommunications techniques. It may also include controls and two-way communication.



PSC 119 Proposed Updates – New Definitions

Energy Storage System means devices that capture energy produced at one time, store that energy for a period of time, and deliver that energy as electricity for use at a future time.

Energy Storage system max continuous output (kw in alternating current) means the maximum rated continuous power output of the energy storage system.

Energy Storage system max usable energy (kwh in alternating current) means the maximum rated amount of energy stored in the energy storage system.

Energy storage system peak output (kW in alternating current) means while grid interactive, the maximum short duration rated output power of the energy storage system to the distribution system.

PSC 119 Proposed Updates – New Definitions

Export capacity (kW in alternating current) means the amount of power that can be transferred from the DG facility to the distribution system. Export capacity is either the nameplate rating, or a lower amount if limited using any approved means.

Import capacity (kW in alternating current) means the amount of power that can be imported by a DG facility from the distribution system. Import capacity is either the nameplate rating, or a lower amount if limited using any approved

PSC 119 Proposed Updates – New Definitions

- **Nameplate rating (alternating current)** means the sum total of maximum continuous rated power (kW) output while grid connected of all of a DG facility's constituent generating units and/or energy storage systems as identified on the manufacturer nameplate, regardless of whether it is limited by any approved means.
- **Power factor** means the ratio of active power to apparent power.
- **Standard pre-application request form** means PSC Form 6032.
- **Standard pre-application report** means the information provided on PSC Form 6033 in response to completed requests submitted through PSC Form 6032.

PSC 119 Proposed Updates –Technical Standards

- **IEEE Std 1547-2018:** Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces
- **IEEE Std 1547.1-2020:** IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems and Associated Interfaces



PSC 119 Proposed Updates – Technical Standards

PSC 119.20 (6) (a) ~~Certified paralleling equipment shall conform to UL 1741 (January 17, 2001 Revision) or an equivalent standard determined by the commission.~~ All inverter-based DG facilities shall be UL 1741 certified, published September 28, 2021 listed.

PSC 119.20 (6) (b) ~~Non-certified paralleling equipment shall conform to the requirements of IEEE 1547. All DG facilities shall meet the requirements of IEEE Std 1547-2018 and be tested in accordance with IEEE Std 1547.1.~~

1. Synchronous machine generation shall use the normal performance category of Category A and the abnormal performance category of Category I. Ride-through and trip settings shall meet the recommendations of the regional transmission operator guidelines.
2. Inverter-based DG facilities shall use the normal performance category of Category B and the abnormal performance category of Category II. Ride-through and trip settings shall meet the recommendations of the regional transmission operator guidelines. The public utility shall constructively work with the regional transmission operator to provide a recommendation whether abnormal performance category of Category III is the proper category assignment for inverter-based DG facilities.
3. Exceptions to these performance categories may be reviewed by the public utility on a case-by-case basis.

PSC 119 Proposed Updates –Application

PSC 119.04 (1) The public utility shall respond to each request for DG interconnection by furnishing, within 5 working days, its guidelines and the public utility's electric service rules, representative or sample one-line schematic diagrams, and the appropriate standard application form. Public utilities shall also make these materials accessible on their website.

PSC 119.04 (2) The applicant shall complete and submit the standard application form to its public utility. An application shall not be considered submitted until the applicant submits a form and pays applicable application review fees under s. PSC 119.08 (1).

PSC 119.04 (2m) All submitted applications shall be reviewed for completeness in the order in which they fulfill the requirements of s. PSC 119.04 (2), regardless of whether the project is from an outside applicant or the public utility.

PSC 119.04 (3) Within 10 working days of receiving a new or revised application and application fee, the public utility shall notify the applicant whether the application is complete.

PSC 119 Proposed Updates –Application

PSC 119.04 (3g) All complete applications shall be processed in the order in which they are deemed complete, regardless of whether the project is from an outside applicant or the public utility. Reasonable exceptions may be made to account for the location of the proposed DG facility or other technical considerations, provided reasonable efforts are made not to adversely impact the time needed to process other complete applications. Exceptions may also be made if an applicant exceeds any timing requirements identified in s. PSC 119.06. If the public utility misses any timing requirements in s. PSC 119.06, the order in which the application is processed shall not be affected.

PSC 119.04 (3r) Where multiple DG facilities are electrically interrelated, processing complete applications jointly may be appropriate to increase cost and time efficiencies. If the public utility and the applicant mutually agree, the application may be studied in a group with other applications.

PSC 119 Proposed Updates –Application

PSC 119.04 (4) (intro.) Public utilities and applicants shall complete the following steps for processing interconnection applications, in the order listed:

PSC 119.04 (4) (a) Within 10 working days of determining that the application is complete, the public utility shall complete its application review and notify the applicant of its findings. If the public utility determines, on the basis of the application review, that an engineering review is needed, ~~it shall notify the applicant~~ the notification shall state the cost a nonbinding estimate of that review. ~~For Categories 2 and 3, the cost estimate shall be valid for one year. For Category 4, the time period shall be negotiated but may not exceed one year.~~ If the application review shows that an engineering review is not needed, the applicant may install the DG facility and need not complete the steps described in subs. ~~(5) (b)~~ (b) through ~~(9) (g)~~.

PSC 119.04 (4) (b) The applicant shall provide written notification to proceed and full payment of the estimated cost of the engineering review within 15 working days of receiving the public utility's notification under s. PSC 119(6)(a). At the request of the applicant, the utility may provide a 15 working day extension of the deadline to provide notification to proceed and full payment. If notification and payment have not been received by the utility within 30 working days after the deadline to accept, the interconnection application shall be deemed withdrawn.

PSC 119 Proposed Updates –Application

~~PSC 119.04 (4)(d) If the engineering review indicates that a distribution system study is necessary, the public utility shall include, in writing, a nonbinding cost estimate of the study in its engineering review. To proceed with a distribution system study, the applicant shall provide the utility with written notification of acceptance and full payment of the estimated study costs within 15 working days of receiving the engineering review. At the request of the applicant, the utility may provide a 15 working day extension of the deadline to provide notification to proceed and full payment. If notification and payment have not been received by the utility within 30 working days after the deadline to accept, the interconnection application shall be deemed withdrawn. The cost estimate shall be valid for one year and the applicant shall have one year from receipt of the cost estimate in which to notify the public utility to proceed, except for a Category 4 DG application, in which case the time period shall be negotiated, but may not extend beyond one year. Upon receiving written notification to proceed and payment of the applicable fee, the public utility shall conduct the distribution system study.~~

~~119.04 (4) (e) Upon receiving written notification to proceed and payment of the applicable fee, the public utility shall conduct the distribution system study. The public utility shall within the following time periods complete the distribution system study and provide study results to the applicant:~~

~~PSC 119.04 (4)(e) 4. Category 4 DG application, 60 working days, unless a different time period is mutually agreed upon.~~

~~PSC 119.04 (4)(f) The public utility shall perform a distribution system study of the local distribution system and notify the applicant of findings along with an estimate of any distribution system construction or modification costs to be borne by the applicant.~~

PSC 119 Proposed Updates -- Testing

PSC 119.04 (4) (h) The applicant shall give the public utility the opportunity to witness or verify the system testing, as required in s. PSC 119.30 or 119.31, the utility's service rules, and applicable codes and standards. Upon receiving notification that an installation is complete and is in compliance with all applicable codes and standards, including any necessary state and local government inspections, and all requirements set forth in this chapter, the public utility has 10 working days, for a Category 1 or 2 DG project, or 20 working days, for a Category 3 or 4 DG project, to complete the following:

1. Witness commissioning tests.
2. Perform an ~~anti-islanding~~ unintentional islanding test or verify the protective equipment settings at its expense.
3. Waive its right, in writing, to witness or verify the commissioning tests.

PSC 119.04 (4) (i) The applicant shall provide the public utility with the results of any required tests within 5 working days of the completion of the test, for a Category 1 DG project, or within 10 working days, for a Category 2 to 4 project.

PSC 119 Proposed Updates -- Queue

New section on Queue (PSC 119.04 (5))

- Utilities must maintain a single application queue that identifies the status of all applications
- Utilities serving more than 100,000 customers must make the queue public and update it at least monthly on the website
- Specific information must be maintained in the queue.



PSC 119 Proposed Updates -- Approval

- Created new section on Application Approval.
- After testing, utility must notify application of approval within 5 working days, for a Category 1 DG project, or within 10 working days, for a Category 2 to 4 DG project, of its approval or disapproval of the interconnection.
- Utility and Applicant reconcile fees.
- Utilities must provide application an approval memorandum containing specific information.
- If application is not approved, applicant can take corrective action within 15 days.



PSC 119 Proposed Updates -- Insurance

PSC 119.05 (1m) An applicant seeking to interconnect a Category 2 to 4 DG facility to the distribution system of a public utility shall maintain liability insurance equal to or greater than the amounts stipulated in Table 119.05-1, per occurrence, and **shall name the public utility as an additional insured party in the liability insurance policy, or prove financial responsibility by another means mutually agreeable to the applicant and the public utility**

PSC 119 Proposed Updates -- Fees

- Fees in table are due by applicant (utility can waive)
- Any unexpended funds shall be credited to subsequent interconnection steps and associated fee obligations.

Table 119.08-1

| Category | Generation Export Capacity | Application Review Fee | Engineering Review Fee | Distribution System Study Fee | Commissioning Fee |
|----------|-----------------------------|---|--|--|-------------------|
| 1 | 20 kW or less | None <u>\$150 (1-8kW) \$300 (9-20kW)</u> | None <u>Cost based</u> | None <u>Cost based</u> | <u>\$150</u> |
| 2 | Greater than 20kW to 200 kW | \$250 <u>\$300+\$10/kW</u> | Max \$500 <u>Cost based</u> | Max \$500 <u>Cost Based</u> | <u>\$250</u> |
| 3 | Greater than 200kW to 1 MW | \$500 <u>\$2000 + \$2kW</u> | Cost based | Cost based | <u>\$1000</u> |
| 4 | Greater than 1 MW to 15 MW | \$1000 <u>\$4000 + \$0.50/kw</u> | Cost based | Cost based | <u>\$2500</u> |

PSC 119 Proposed Updates -- Fees

PSC 119.08 (2) The public utility may recover from the applicant an amount up to the actual cost, for labor and parts, of any distribution system upgrades required. ~~No public utility may charge a commissioning test fee for initial start up of the DG facility.~~ The utility may charge for retesting an installation that does not conform to the requirements set forth in this chapter. The fee for retesting shall be equal to the applicable commissioning fee, unless at the public utility's discretion a lower fee amount is assessed.

PSC 119.08 (4) For any application that is withdrawn by the applicant or deemed withdrawn by the public utility, the public utility shall provide the applicant with a reconciliation of costs from any engineering review, distribution system study, or required distribution system upgrades or modifications performed. Public utilities shall refund to the applicant any fees paid in excess of costs incurred by the utility. Applicants shall pay any additional costs incurred by the utility in excess of previous payments.

PSC 119.08 (5) Public utilities shall assess a fee of \$300 for preparation of a pre-application report, unless the public utility chooses to waive the fee in whole or in part.

PSC 119 Proposed Updates – Pre Application Reports

- New Section Created -- PSC 119.13
- Potential applicants may request a pre-application report
- Potential applicants shall complete and submit to its public utility the standard pre-application request form and fees
- Public utilities shall evaluate the submitted pre-application form for completeness within 5 business days of receipt, and in the order they are received.
- Within 15 days of determining a pre-application report request is complete, the public utility shall provide the applicant a completed standard preapplication report.

PSC 119 Proposed Updates – Energy Storage Systems

Created new section – PSC 119.20(16) (intro.)

For interconnection purposes, energy storage systems shall be treated as distributed generation facilities and shall meet the following requirements and standards:

(a) Provide operational mode programming that controls the charging, discharging, and bypass (export or non-export) of an energy storage system. Operational mode programming shall be stated in an interconnection agreement.

(b) Be UL 9540, published February 27, 2020 listed



PSC 119 Proposed Updates – Unintentional Islanding

- Replaced “anti-island” with “unintentional islanding” throughout rule
- Updated how to conduct an unintentional islanding test
- The DG facility shall detect the island, cease to energize the local distribution system, and trip within two seconds of the formation of an island. The test shall be conducted as close to the point of common coupling as possible and should demonstrate that the DG facility does not energize the local distribution or transmission system. The test shall be conducted with all DG facility equipment operational and generating at an output that reflects site conditions acceptable to both parties. If a voltage is sustained after the simulation of an unintentional island, approval of the installation shall not be given until corrective measures are taken with a subsequent successful test.
- The public utility or applicant may re-test the DG facility installation after a failed test.
- The party responsible for the re-testing shall bear the cost of the re-tests.

PSC 119 Proposed Updates – Dispute Procedures

Applicant and public utility must attempt to resolve the issue

Applicant may request PSC for an informal review of the disputed issue if all available remedies were pursued first

Request for a formal determination must be made within 30 days of the informal written determination.
Applicant must request formal review within 7 days to avoid disconnection.

Formal determination includes a Commission memorandum with time for comments.

Either party can ask for a reconsideration of the formal decision.

Commission may hold a formal hearing.

No applicant can be disconnected from the distribution system while the dispute is being pursued.

Applicant must continue to meet its financial obligations and compliance with undisputed rules.

- **Current rules are still in effect!!**
- Proposed rules are at the Joint Committee for Review of Administrative Rules (JCRAR) until end of February/early March
 - Could extend their review
 - Could object and ask PSC to rescind and revise again
 - Could pass without objection
- If rules exit JCRAR without further objections, the updated rule will (most likely) be published in March and take effect on April 1
- Watch for PSC announcements



Where to Find PSC 119 information

- PSC Website: [PSC Customer-Owned Electrical Generation \(wi.gov\)](#) (or search “interconnection”
 - Procedures
 - Utility Points of Contact
 - Forms
 - Administrative Code
- Wisconsin Administrative Code: [Wisconsin Legislature: Chapter PSC 119](#)

PSC Contact Information

- **Phone:**
 - General Inquiries: 1-888-816-3831
 - Consumer Affairs: 1-800-225-7729
- **Web Site:** <https://psc.wi.gov/Pages/Home.aspx>
- **Facebook:** <http://www.facebook.com/PSCWisconsin>
- **Twitter:** <http://twitter.com/PSCWisconsin>
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Questions?