

Clearinghouse Rule 98-027

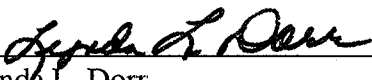
CERTIFICATE

STATE OF WISCONSIN)
) ss.:
PUBLIC SERVICE COMMISSION)

I, Lynda L. Dorr, Secretary to the Commission and custodian of the official records, certify that the annexed rules, relating to the repeal and recreation of service rules for electric utilities (docket 1-AC-164), were duly approved and adopted by this Commission on May 16, 2000.

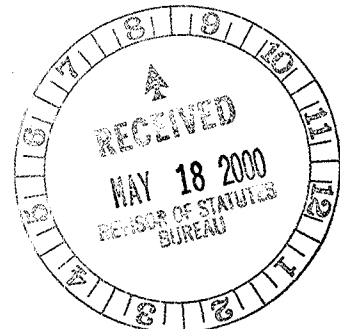
I further certify that this copy has been compared by me with the original on file in this Commission and that it is a true copy of the original, and of the whole of the original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Wisconsin Public Service Commission at Madison, Wisconsin, this 16th of May, 2000.



Lynda L. Dorr
Secretary to the Commission
Wisconsin Public Service Commission

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Public Service Commission of Wisconsin

Ave M. Bie, Chairperson
Joseph P. Mettner, Commissioner
John H. Farrow, Commissioner

610 North Whitney Way
P.O. Box 7854
Madison, WI 53707-7854

The Honorable Douglas LaFollette
Secretary of State
Office of the Secretary of State
30 West Mifflin Street, 10th Floor
Madison, WI 53703

Mr. Gary L. Poulson, Deputy Revisor
Revisor of Statutes Bureau
1 West Wilson Street, Room 800
Madison, WI 53703

Re: In the Matter of Proposed Revision of Chapter PSC 113, Wis. Adm. Code - Service Rules for Electric Utilities 1-AC-164

Dear Secretary LaFollette and Mr. Poulson:

At its open meeting on May 16, 2000, the Commission approved an order adopting rules to repeal and recreate ch. PSC 113, Wis. Adm. Code. Pursuant to s.227.20, Stats., an agency is required to file a certified copy of each rule it promulgates with the offices of the Secretary of State and the Revisor of Statutes.

Enclosed for filing are certified copies of the Order of the State of Wisconsin Public Service Commission Adopting Rules, to repeal and recreate ch. PSC 113, Wis. Adm. Code.

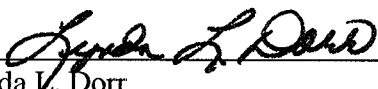
Mr. Poulson's filing also includes a 3.5" diskette containing an electronic copy of the proposed rules.

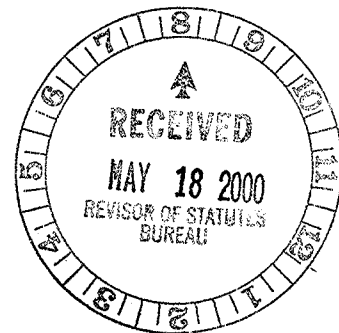
Secretary of State LaFollette's filing includes a copy of the Institute of Electrical and Electronic Engineers standard 1100-1992 in definitions and 1992 standard 519, and the American National Standard Institute C.84.1-1989 Appendix D. Consent to incorporate by reference these documents into the rules was granted on April 28, 2000, by the Attorney General and by the Deputy Revisor of Statutes Gary Poulson. A copy of this letters is included in this filing.

If you have any questions or concerns, please contact Mr. Leon Swerin, Assistant General Counsel, at (608) 267-3589.

Dated at Madison, Wisconsin, May 16, 2000

By the Commission:


Lynda J. Dorr
Secretary to the Commission



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Enclosures

cc: Records Management, PSCW
Service list



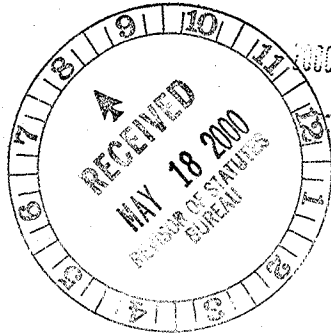
STATE OF WISCONSIN
DEPARTMENT OF JUSTICE

JAMES E. DOYLE
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PUBLIC SERVICE COMMISSION

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RECEIVED

April 28, 2000

Ms. Ave M. Bie
Chairperson
Public Service Commission
610 North Whitney Way
Madison, WI 53707

RECEIVED
MAY 01 2000
OGC

Re: *Request to incorporate national standards in proposed revision of Wis. Admin. Code ch. PSC 113*

Dear Ms. Bie:

The Public Service Commission ("Commission") asks that the Attorney General and the Revisor of Statutes consent to its incorporating by reference into Wis. Admin. Code ch. PSC 113 Institute of Electrical and Electronic Engineers (IEEE) standard 1100-1992; American National Standards Institute (ANSI) Standard for Electric Power Systems and Equipment - Voltage Ratings (60 Hertz), C.84.1-1989 Appendix D; and 1992 IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems 519-1992.

Proposed rule Wis. Admin. Code § PSC 113.0704 states that "[w]hen corrective action is necessary, the guideline to be used is the most recent revision of IEEE Standard 519." The Commission's letter seeks to incorporate a specific standard, 1992 IEEE Standard 519. Material incorporated by reference cannot include future amendments. 59 Op. Att'y Gen. 31 (1970). Our consent to the incorporations by reference, therefore, is given with the understanding that proposed rule Wis. Admin. Code § PSC 113.0704 will be corrected to include the 1992 Standard 519.

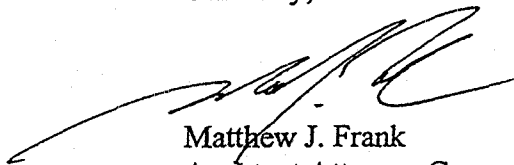
Wisconsin Stat. 227.21(2)(b) requires that each rule containing an incorporation by reference state how the material incorporated may be obtained and that the standards are on file at the offices of the agency, the Secretary of State and the Revisor of Statutes.

The Attorney General consents to the proposed incorporations by reference on the understanding that proposed Wis. Admin. Code § PSC 113.0704 will be changed to reflect the reference to 1992 IEEE Standard 519 and that the published rule will comply with Wis. Stat. § 227.21(2)(b). Publishing the proposed incorporations by reference would be an unwarranted

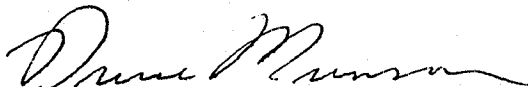
Ms. Ave M. Bie
Page 2

expense. Both the IEEE and the ANSI are organizations of recognized national standing, the incorporated standards are readily available in published form and the rule is of limited public interest.

Sincerely,



Matthew J. Frank
Assistant Attorney General
Administrator
Division of Legal Services



Bruce Munson
Revisor of Statutes

MJF:BM:AL:cla

c: Leon Swerin

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**ORDER OF THE STATE OF WISCONSIN
PUBLIC SERVICE COMMISSION ADOPTING RULES**



- 1 The Public Service Commission of Wisconsin proposes an order to repeal and recreate PSC 113,
- 2 relating to the service rules for electric utilities, with the exception of Part XII, Standard for
- 3 Electric Service Extension. The service extension rules of Part XII are excluded from this
- 4 rulemaking because they are being addressed in docket 1-AC-140.

Analysis by the Public Service Commission of Wisconsin

Statutory authority: ss. 196.02(3), 196.49(3)(b), and 227.11, Wis. Stats.
Statutes interpreted: s. 196.15, 196.16, 196.17, 196.171, 196.175, 196.18, 196.36,
196.49, 196.52, 196.595, 196.643, 196.855, and 196.857, Wis.
Stats.

Chapter PSC 113 contains the Public Service Commission's (Commission) rules and requirements for electric utilities in the general area related to the technical and administrative aspects of electric service adequacy and consumer protection.

The last major revision of metering and other technical service provisions of Chapter 113 was enacted in January 1988, while the last major revision of the rates and billing provisions of the Chapter was enacted in November 1989.

The purpose of the proposed amendments is to revise and update the existing administrative rules based upon experience or problems identified since they were last revised, implement reliability reporting requirements outlined in 1997 Wisconsin Act 204, and to supplement the existing administrative rules raised by the electric industry as well as the Commission's goal of assuring reliable service.

Since the last major revision, significant changes have been made to testing procedures to address advancement in meter technology and to the rules of deposits, collections, and disconnections, including the winter moratorium. Power quality has become a more significant issue in the provision of adequate electric service. Beyond the reliability concerns with the frequency and duration of outages, customers are becoming more sensitive to other temporal problems common to the electrical system, such as momentary outages, voltage sags and swells, voltage flicker, voltage or current surges (transients), and harmonic distortion. Service quality standards to ensure maintenance and enhancement of electric service adequacy and reliability are also an identified long-term regulatory concern and are addressed. Additional enforcement tools and customer information provisions equivalent to those used for other regulated industries are also included.

1 SECTION 1. PSC 113 is repealed and recreated to read:

2 CHAPTER PSC 113

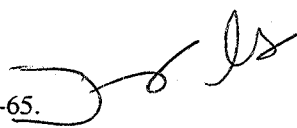
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4 SERVICE RULES FOR ELECTRIC UTILITIES

5
6 SUBCHAPTER I—GENERAL

7
8 PSC 113.01 Application of rules. (1) All public utilities, whether privately or

9 municipally owned or operated, in respect to the supply of electric energy and provision of
10 electric service in this state, shall comply with and conform to rules set forth in this order except
11 insofar as exception may be made by order of the commission as hereinafter mentioned.

12 (2) Nothing in this chapter of the Wisconsin Administrative Code shall preclude special
13 and individual consideration being given to exceptional or unusual situations and upon due
14 investigation of the facts and circumstances therein involved, the adoption of requirements as to
15 individual utilities or services which shall be lesser, greater, other, or different than those
16 provided in said rules.

17
18 History: 1-2-56; am. (2), Register, October, 1965, No. 118, eff. 11-1-65. 

19
20 (3) Nothing in this chapter shall prevent imposition of sanctions, fines, forfeitures,
21 penalties or damages under more than one section of this chapter or s. 196, Stats., or other
22 statutes, for the same incident or occurrence.

23 (4) The manner of enforcing the rules in ch. PSC 113 is prescribed in s. 196.66, Stats.,
24 and such other means as provided in statutory sections administered by the public service
25 commission.

26 PSC 113.012 Definitions. In this chapter:

27 (1) "Ability to pay" means a customer's financial capacity to meet his or her utility
28 service obligation, considering all of the following factors:

- 1 (a) Size of the delinquent account.
- 2 (b) Customer's payment history.
- 3 (c) Period of time the debt has been outstanding.
- 4 (d) Reasons why the debt has been outstanding.
- 5 (e) Any other relevant factors concerning the customer's circumstances, as household
6 size, income and expenses.
- 7 (2) "Complaint" means a statement or question by any person whether a utility customer
8 or not, concerning a wrong, grievance, injury, dissatisfaction, illegal action or procedure,
9 dangerous condition or action, or failure of a utility to meet a utility obligation.
- 10 (3) "Customer" means the party billed for payment of bills issued for use of utility
11 service at a given premises.
- 12 (4) "Customer-requested termination" means that the customer or occupant has asked the
13 utility to cease providing utility service to a premises.
- 14 (5) "Denied or refused service" means that a utility has refused to provide present or
15 future service to a customer, occupant or premises.
- 16 (6) "Disconnection" means preventing a specific customer from receiving electrical
17 power through a specific action taken by the utility or its agents. This does not include temporary
18 outages for maintenance purposes, storms, or other unplanned outages, or a customer-requested
19 termination of service. "Disconnection" includes but is not limited to: the removal or sealing of
20 an electric meter, severance of the connection between the distribution system and the service
21 facilities or the customer's internal wiring, or the transmission of an electronic signal to the
22 metering equipment which would deactivate the meter and prevent the flow of electrical current.

1 (6m) "Potential Power Line Natural Hazards" means trees or tree parts located in or
2 reasonably proximate to a utility distribution or transmission line easement that are likely to
3 interfere with the utility's operations, including distribution or transmission lines, within the
4 utility's next maintenance cycle.

5 (7) "Installment payment agreement" means an arrangement between a utility and a
6 commercial or farm customer for payment of a deposit in installments.

7 (7m) "Jointly-metered property" means a premises where electric service is measured
8 jointly for two or more rental dwelling units, pursuant to s. 196.643(2), Stats.

9 (7n) "Low-income customer" means a customer whose household income is at or below
10 the federal poverty income guidelines for eligibility for federal energy assistance.

11 (8) "New residential customer" means a customer who has not received utility service in
12 his or her name during the previous 6 months from the utility from which service is requested.

13 (9) "Occupant" means the resident or residents of a premises to which utility service is
14 provided.

15 (10) "Prompt payment" means payment prior to the time when a utility could issue a
16 notice of disconnection for nonpayment of an amount not in dispute.

17 (11) "Protective service emergency" means a threat to the health or safety of a resident
18 because of the infirmities of aging, mental retardation, other developmental or mental
19 disabilities, or like infirmities incurred at any age, or the frailties associated with being very
20 young.

21 (12) "Voucher agreement" means a payment agreement guaranteed by a third party who
22 has access to or control over the benefits and/or finances of a public assistance recipient.

23 Included without limitation are:

1 (a) Wisconsin Works (W-2) or Temporary Assistance to Needy Families (TANF)
2 restrictive payment arrangements.

3 (b) Social Security Representative Payee.

4 (c) General Relief voucher payment systems.

5 (d) Legal guardian.

6
7 **History:** Cr. Register, October, 1989, No. 406, eff. 11-1-89.
8
9

10 **SUBCHAPTER II—MISCELLANEOUS SERVICE REQUIREMENTS**

11 **PSC 113.0201 General requirement.** Every utility shall furnish reasonably adequate
12 service and facilities at the rates filed with the commission and subject to these rules and the
13 rules of the utility applicable thereto and not otherwise. The energy shall be generated,
14 transmitted, converted, and distributed by the utility, and utilized, whether by the utility or the
15 customer, in such manner as to obviate so far as reasonably practicable undesirable effects upon
16 the operation of standard services or equipment of the utility, its customers, or other utilities or
17 agencies.
18

19 **Note:** As used in these rules the terms “rules of the utility” or “utility’s rules” means the rules of the utility
20 on file with the Commission.
21

22 **PSC 113.0202 Relocation of poles.** (1) When a utility is required by governmental
23 authority or requested by customers to move poles, as, for example, from streets to alleys, the
24 utility is not required to furnish new service entrance conductors, cable, conduit, or service
25 equipment unless it makes a practice of supplying this equipment. It shall, however, run a service
26 drop to the nearest point on each building served from the new location and remove the old
27 service drop without expense to the customer.
28

1 (2) If the utility moves its poles of its own volition the utility shall supply new service
2 entrance conductors, cable, conduit, interior wiring connection, and service equipment, and
3 remove the old; or shall attach its system to the existing service entrance conductors without
4 expense to the customer.

5 **PSC 113.0203 Protection of utility facilities.** A public utility upon receiving notice as
6 provided in s. 66.047 or 182.0175(2) (e), Stats., of work which may affect its facilities used for
7 serving the public shall:

8 (1) If the notice is of work covered by s. 66.047, Stats., investigate and decide what
9 action, if any, must reasonably be taken to protect or alter utility facilities in order to protect
10 service to the public and to avoid unnecessary damage. The utility shall take such action as is
11 reasonably necessary to protect, remove, alter, or reconstruct its facilities, and shall perform such
12 work with reasonable dispatch taking into account the conditions to be met. Nothing in this rule
13 shall be deemed to affect any right which the utility may have to require advance payment or
14 adequate assurance of payment of the reasonable cost thereof to the utility by the property owner
15 or contractor.

16 (2) If the notice is of work covered by s. 182.0175(2) (e), Stats., and is not covered by s.
17 66.047, Stats., the utility shall respond as required by s. 182.0175(2) (e), Stats.

18 (3) The utility may, in order to protect its interests, require that the owner or contractor
19 perform certain work upon that part of the service piping or wiring on or being removed from the
20 property upon which the excavating, building, or wrecking operations are being performed.

21 (4) This rule is not intended to affect the responsibility of the contractor or owner, or the
22 liability or legal rights of any party.

23
24 **History:** Cr. Register, June, 1962, No. 78, eff. 7-1-62; am. intro. par., Register, October, 1965, No. 118,
25 eff. 11-1-65; r. and recr. (intro.), (1) and (2), Register, February, 1978, No. 266, eff. 3-1-78.

1 **PSC 113.0204 Interference with public service structures.** (1) A utility having any
2 work upon, over, along, or under any public street, highway or private property near existing
3 utility facilities shall give reasonable notice to the other utility and shall exercise care when
4 working in close proximity to such existing facilities. Sections 66.047 and 182.0175, Stats., shall
5 be observed where applicable. In all other cases such notice shall provide the other utility with a
6 reasonable opportunity to protect or alter its facilities and such work shall not proceed without an
7 agreement concerning the location and nature of the proposed work.

8 (2) Nothing in the above shall prevent a utility from proceeding as quickly as possible
9 with any emergency construction work which might interfere with existing facilities. (Also see s.
10 182.0175(2) (d), Stats.)

11
12 **History:** Cr. Register, October, 1965, No. 118, eff. 11-1-65; r. and recr. Register, February, 1978, No. 266,
13 eff. 3-1-78.

14
15 **PSC 113.0205 Standard voltages and utilization equipment.** (1) All utilities shall have
16 available a tabulation showing the character and type of electric service supplied, including the
17 secondary and, where applicable, primary voltages.

18 (2) Lamps used or furnished by the utility for highway or area illumination shall initially
19 be such that the customer receives the proper illumination in lumens specified in the rate. If the
20 street lighting rate is based on wattage, or if the utility furnishes lamps to customers free or at
21 reduced cost, the lamp bulbs shall be of such efficiency in lumens per watt when used on the
22 utility's circuits that customers may obtain their lighting service under the most favorable
23 conditions practicable under the rate schedule.

24
25 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78.
26

1 **PSC 113.0207 Requirements for utility rules for interconnection of small customer-**
2 **owned generation facilities with the utility system.** Each utility shall file with the commission
3 services rules to ensure that interconnected customer-owned generation facilities are installed in
4 a manner consistent with public and employe safety, adequate service to other customers and to
5 ensure avoidance of communication interference problems. Requirements for the service rules
6 follow:

7 (1) Interconnection of a generating facility with the utility system shall not be permitted
8 until application has been made to and approval received from the electric utility. The utility may
9 withhold approval only for good reason such as failure to comply with applicable utility or
10 governmental rules or laws. The utility shall require a contract specifying reasonable technical
11 connection and operating aspects for the parallel generating facility.

12 (2) The utility may require that for each generating facility there be provided between the
13 generator or generators and the utility system a lockable load-break disconnect switch. For
14 installations interconnected at greater than 600 volts a fused cutout switch may be substituted,
15 where practicable. The switches shall be accessible to the utility for the purpose of isolating the
16 parallel generating facility from the utility system when necessary.

17 (3) The utility shall require a separate distribution transformer for a customer having a
18 generating facility where necessary, for reasons of public or employe safety or where the
19 potential exists for the generating facility causing problems with the service of other customers.
20 Ordinarily this requirement should not be necessary for an induction-type generator with a
21 capacity of 5 kW or less, or other generating units of 10 kW or less that utilize line-commutated
22 inverters.

1 (4) Where necessary, to avoid the potential for a facility causing problems with the
2 service of other customers, the utility should limit the capacity and operating characteristics of
3 single-phase generators in a manner consistent with its existing limitations for single-phase
4 motors. Ordinarily single-phase generators should be limited to a capacity of 10 kW or less.

5 (5) The utility shall require that each generating facility have a system for automatically
6 isolating the generator from the utility's system upon loss of the utility supply, unless the utility
7 desires that the local generation be continued to supply isolated load. For synchronous and
8 induction generators such protection against continued operation when isolated from the utility
9 system will ordinarily consist of overcurrent protection, fuse or circuit breaker, plus a voltage or
10 frequency controlled contactor which would automatically disconnect the unit whenever its
11 output voltage or frequency drifted outside predetermined limits, such as plus or minus 10% of
12 the rated values. Other suitable protective systems against abnormal voltages or frequencies may
13 be accepted by the utility.

14 (6) The utility may isolate the customer-owned generating installation from its system at
15 times:

16 (a) When considered necessary to facilitate maintenance or repair of utility facilities.

17 (b) When considered necessary during system emergencies.

18 (c) When considered necessary during such times as the generating facility is operating in
19 a hazardous manner, or is operating such that it adversely affects service to other customers or to
20 nearby communication systems or circuits.

21 (7) The owner of the generating facility shall be required to make the equipment available
22 and permit entry upon the property by electric and communication utility personnel at reasonable
23 times for the purposes of testing isolation and protective equipment, and evaluating the quality of

1 power delivered to the utility's system; and testing to determine whether the local generating
2 facility is the source of any electric service or communication systems problems.

3 (8) The power output of the generating facility shall be maintained such that frequency
4 and voltage are compatible with normal utility service and do not cause that utility service to fall
5 outside the prescribed limits of commission rules and other standard limitations.

6 (9) The generating facility shall be operated so that variations from acceptable voltage
7 levels and other service impairing disturbances do not result in adverse effects on the service or
8 equipment of other customers, and in a manner which does not produce undesirable levels of
9 harmonics in the utility power supply.

10 (10) The owner of the generating facility shall be responsible for providing protection for
11 the owner's installed equipment and for adhering to all applicable national, state and local codes.
12 The design and configuration of certain generating equipment such as that utilizing line-
13 commutated inverters sometimes requires an isolation transformer as part of the generating
14 installation for safety and for protection of the generating facilities.

15
16 **History:** Cr. Register, September, 1982, No. 321, eff. 10-1-82.

17
18 **PSC 113.0208 Right to appeal.** The owner of a generating facility interconnected or
19 proposed to be interconnected with a utility system may appeal to the commission should any
20 requirement of the utility service rules filed in accordance with the provisions of s. PSC
21 113.0207 be considered to be excessive or unreasonable. Such appeal will be reviewed and the
22 customer notified of the commission's determination.

23
24 **History:** Cr. Register, September, 1982, No. 321, eff. 10-1-82.

25
26 **PSC 113.0209 Notice to communication firms.** Each electric utility shall notify
27 telephone utility and cable television firms in the area when it knows that customer-owned

1 generating facility is to be interconnected with its system. This notification shall be as early as
2 practicable to permit coordinated analysis and testing in advance of interconnection, if
3 considered necessary by the electric or telephone utility or cable television firm.

4 **History:** Cr. Register, September, 1982, No. 321, eff. 10-1-82.

5
6 **PSC 113.0210 Whistleblower protection.** No public utility shall interfere with, restrain,
7 or coerce any employe or other person in the exercise of the right to disclose information to the
8 commission or other governmental bodies regarding the safety and reliability of the electrical
9 system, or a portion thereof, provided that the employe reasonably believe that such information
10 is true. No public utility may dismiss, discipline, demote, transfer, reprimand, harass, reduce the
11 pay of, discriminate against, or otherwise, retaliate against, any employe or other person because
12 the employe, or other person engaged in any of the described activities.

13
14
15 SUBCHAPTER III—DISCONNECTION AND RECONNECTION
16 OF ELECTRIC SERVICE
17

18 **PSC 113.0301 Disconnections, residential.** (1) Prior to disconnecting a jointly-metered
19 property containing more than one rental dwelling unit and where service is in the property
20 owner or manager's name, the utility shall first make an attempt to transfer the debt to the
21 property owner's or manager's residence or office service. If a transfer is permitted under sub.
22 (7) (a) the utility shall pursue available collection efforts at the owner's or manager's property
23 prior to disconnecting the jointly-metered property.

24 (1m) Residential utility service may be disconnected or refused for any of the following
25 reasons:

26 (a) Failure to pay a delinquent account or failure to comply with the terms of a deferred
27 payment, as provided in s. PSC 113.0404.

*whistleblower
LS*

1 (b) Violation of the utility's rules pertaining to the use of service in a manner which
2 interferes with the service of others or to the operation of non-standard equipment, if the
3 customer has first been notified and provided with reasonable opportunity to remedy the
4 situation.

5 (c) Failure to comply with deposit or guarantee arrangements, as specified in s. PSC
6 113.0402.

7 (d) Refusal or failure to permit authorized utility personnel to read the meter at least once
8 every 6 months in order to determine actual usage. The 6-month period begins with the date of
9 the last meter reading.

10 (e) Failure to comply with Wisconsin statute, commission rule or commission order
11 pertaining to conservation or availability of service.

12 (f) Failure to pay costs or fees incurred by and awarded to the utility by a court of law, for
13 pursuit of collection of bills, or failure to pay extraordinary collection charges as allowed and
14 specified in the utility's tariffs filed with the public service commission.

15 (g) Failure to comply with applicable requirements of this section, or of the utility's rules,
16 or with s. 101.865, Stats., or if the customer proposes to use a device that is not designed to
17 reasonably minimize interference with communication and signal services.

18 (h) Delinquency in payment for service received by a previous customer or occupant at
19 the premises to be served, if an account is transferred to a new account holder or customer and
20 the previous account holder or customer continues to be an occupant of the dwelling unit to be
21 served.

22 (i) Failure of an applicant for utility service to provide adequate verification of identity
23 and residency, as provided in sub. (3).

1 (j) Failure of an applicant for utility service to provide the credit information set out in s.
2 PSC 113.0406(7) (a).

3 (k) Refusal or failure to provide authorized utility personnel access to utility equipment.

4 (2) A utility is not required to furnish residential service under conditions requiring
5 operation in parallel with generating equipment connected to the customer's system if such
6 operation is hazardous or may interfere with its own operations or service to other customers or
7 with service furnished by others. The utility may specify requirements as to connection and
8 operation as a condition of rendering service under such circumstances.

9 (3) (a) A utility may request a signed application for residential service and verification
10 of the identity and residency of an applicant for residential service at a premises where a bill
11 remains unpaid for service provided within the previous 24 months.

12 (b) Any one of the items under subd. 1 or any 2 of the items under subd. 2 shall constitute
13 adequate verification of identity, although a utility may accept other forms of verification:

14 1. Photo identification card, driver's license, or U.S. military card.

15 2. Current utility bills, bank statements, rental agreements, or letter of identification from
16 a social service agency or employer.

17 (c) Any one of the items under subd. 1 or any 2 of the items under subd. 2 shall constitute
18 adequate verification of residency, although a utility may accept other forms of verification:

19 1. Photo identification card, driver's license, or U.S. military card.

20 2. Current utility bills, bank statements, rental agreements, or letter of identification from
21 a social service agency or employer.

1 (d) An applicant denied or refused service because of this subsection shall be informed in
2 writing of his or her ability to dispute the matter through the public service commission, and
3 shall be provided with the address and telephone number of the commission.

4 (4) A public utility may disconnect residential utility service, without notice, where a
5 dangerous condition exists for as long as the condition exists.

6 (5) A public utility may disconnect residential utility service, without notice, where it has
7 reasonable evidence that utility service is being obtained by potentially unsafe devices or
8 potentially unsafe methods that stop or interfere with the proper metering of the utility service.

9 (6) A public utility may disconnect residential utility service, without notice, where
10 service has been reconnected without the utility's authorization.

11 (7) (a) Account arrears incurred by an owner or property manager for rental residential
12 dwelling units or responsibility for non-compliance with energy conservation requirements as set
13 out in ch. PSC 136 may be transferred, without regard to class of service, to the home or office
14 account of the owner or property manager.

15 (b) The utility shall send written notice of the planned transfer of the account arrears or
16 responsibility for non-compliance with energy conservation requirements to the owner or
17 property manager prior to making the transfer.

18 (c) If the account arrears remain unpaid or the structure in question continues to be in
19 non-compliance with the energy conservation requirements, the utility may disconnect the
20 owner's or property manager's residence or office service, provided that the utility complies with
21 the disconnection provisions of s. PSC 113.0301 and s. PSC 113.0304.

22 (d) An owner or property manager whose account is subject to disconnection action may
23 avoid disconnection of service by making payment, by making an agreement with the utility for

1 an extension of time for a specific period, by entering into a deferred payment agreement under
2 s. PSC 113.0404 or by installing the required energy conservation measures in the property in
3 question. Any disconnection shall be in compliance with s. PSC 113.0301 and s. PSC 113.0304.

4 (8) Residential utility service may not be disconnected or refused for any of the following
5 reasons:

6 (a) Delinquency in payment for service by a previous occupant of the premises to be
7 served.

8 (b) Failure to pay for merchandise or charges for non-utility service billed by the utility,
9 except where authorized by law.

10 (c) Failure to pay for a different class of utility service, except as provided in sub. (7a).

11 (d) Failure to pay the account of another customer as guarantor thereof.

12 (e) Failure to pay charges arising from any underbilling occurring more than one year
13 prior to the current billing and due to any misapplication of rates or faulty metering.

14 (f) Failure to pay an estimated bill other than a bill rendered pursuant to an approved
15 meter reading plan.

16 (g) A utility to knowingly assist a landlord in the removal or eviction of a tenant from
17 rental property.

18 (9) The residential customer shall have, in all instances, at least 20 days from the date of
19 issuance of the bill to provide payment. An account may be deemed delinquent and notice of
20 intent to disconnect issued after such period has elapsed. In the event of a discrepancy between
21 the issue date and the postmark, the 20-day period shall be figured from whichever is later.

22 (10) (a) A utility shall not disconnect residential service for reasons enumerated in sub.

23 (1) unless written notice is sent to the customer by first class mail or personally served on a

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1 responsible adult member of the household at least 10 calendar days prior to the day of the
2 proposed disconnection. If disconnection is not accomplished on or before the 20th day after the
3 issuance of a notice, a subsequent notice shall be left on the premises not less than 24 hours nor
4 more than 48 hours prior to disconnection.

5 (b) If the billing address is different from the service address, or the account is being
6 billed in the name of "occupant," "resident" or other like term, notice shall be posted at each
7 individual dwelling unit of the service address not less than 5 days before disconnection for
8 reasons enumerated in sub. (1). If access is not possible, this notice shall be posted at a
9 minimum, to all entrances to the building and in the lobby. The notice shall state at a minimum:

- 10 1. The date of the notice;
- 11 2. The proposed date of disconnection;
- 12 3. That, if feasible, the occupants may apply to the utility to accept responsibility for
13 future bills and avoid disconnection of service. Refusal or acceptance of the application for
14 service is subject to those conditions set out in this chapter.
- 15 4. That if disconnection of service will aggravate an existing medical or protective
16 services emergency, the occupant should contact the utility immediately.

17 (c) Disconnection notice for reasons enumerated in sub. (1) shall be given upon a form
18 approved by the commission, and shall contain the following information:

- 19 1. The name and address of the customer and the address of the service, if different.
- 20 2. A statement of the reasons for the proposed disconnection of service and that
21 disconnection will occur if the account is not paid, or if arrangement is not made to pay the
22 account under deferred payment agreement, or if other suitable arrangements are not made, or if
23 equipment changes are not made. If disconnection of service is to be made for default on a

1 deferred payment agreement, the notice shall include an explanation of the acts of the customer
2 which are considered to constitute default.

3 3. A statement that the customer should communicate immediately upon receipt of the
4 notice with the utility's designated office, listing a telephone number, if he or she disputes the
5 notice of delinquent account, if he or she wishes to negotiate a deferred payment agreement as an
6 alternative to disconnection; or if there is a threat to health or safety of a resident because of the
7 infirmities of aging, developmental or mental disabilities, the use of life support systems, or like
8 infirmities incurred at any age, or the frailties associated with being very young.

9 4. A statement that residential utility service will be continued during serious illness or
10 protective services emergency if the occupant submits a statement or notice pursuant to sub. (12).

11 5. A statement that the customer may appeal to the public service commission staff in the
12 event that the grounds for the proposed disconnection or the amount of any bill remains in
13 dispute after the customer has pursued the available remedies with the utility.

14 (11) (a) The utility shall make a reasonable effort to have a personal or telephone contact
15 with the residential customer prior to disconnection. If a contact is made, the utility shall review
16 the reasons for the pending disconnection of service, and explain what actions must be taken to
17 avoid disconnection.

18 (b) If the account is being billed in the name of "occupant," "resident" or other like term,
19 the utility shall also contact other utilities serving the premises and attempt to obtain the name of
20 a responsible adult member at the service address.

21 (c) The utility shall keep a record of these contacts and contact attempts.

22 (12) (a) When a residential customer, either directly or through the public service
23 commission, disputes a disconnection notice under s. PSC 113.0407, the utility shall investigate

1 any disputed issue and shall attempt to resolve that issue by negotiation. During this
2 investigation and negotiation, utility service shall not be disconnected over this matter.

3 (b) If a disputed issue cannot be resolved pursuant to s. PSC 113.0407(1), the utility shall
4 inform the customer of the right to appeal to the public service commission.

5 (13) Notwithstanding any other provision of this section, other than for reasons of safety
6 or danger, a utility may not disconnect or refuse to reconnect service to a residential premises if
7 disconnection or refusal of reconnection of service will aggravate an existing medical or
8 protective services emergency for the occupant, if the occupant complies with the procedures of
9 par. (a):

10 (a) A utility shall postpone the disconnection of service, or reconnect the service if
11 disconnected, for up to 21 days to enable the occupant to arrange for payment, if the occupant
12 produces a licensed Wisconsin physician's statement or notice from a public health, social
13 services or law enforcement official which identifies the medical or protective services
14 emergency and specifies the period of time during which disconnection will aggravate the
15 circumstances. During this extension of service, the utility and occupant shall work together to
16 develop resources and make reasonable payment arrangements in order to continue the service
17 on a permanent basis. The postponement may be extended by renewal of the statement or notice
18 if there is evidence of reasonable communication between the utility and occupant in attempting
19 to make arrangements for payment.

20 (b) During the period service is continued under the provisions of this subsection, the
21 customer shall be responsible for the cost of residential utility service. But no action to
22 disconnect that service shall be taken until expiration of the period of continued service. Any

1 customers who are in this continued service category shall be admitted into appropriate and
2 special payment plan programs the utility may offer.

3 (c) If there is a dispute concerning an existing medical or protective services emergency,
4 either party may request informal review by the public service commission staff. Pending a
5 decision after informal review, residential utility service shall be continued provided that the
6 occupant has submitted the statement or notice described in par. (a).

7 (14) Residential service shall not be disconnected on a day, or on a day immediately
8 preceding a day, when the business offices of the utility are not available to the public for the
9 purpose of transacting all business matters unless the utility provides personnel who are readily
10 available to the customer 24 hours per day to evaluate, negotiate or otherwise consider the
11 customer's objections to the disconnection as provided under s. PSC 113.0407, and proper
12 service personnel are readily available to restore service 24 hours per day.

13 (15) Notwithstanding any other provision of this chapter, residential utility service may
14 not be refused because of a delinquent account if the customer or applicant provides as a
15 condition of future service a deposit or guarantee as governed by s. PSC 113.0402, or a voucher
16 agreement. If the guarantor has agreed to be responsible for payment of all future bills, the
17 customer shall be notified of the billing arrangement, and of the ability to reject the proposed
18 arrangement.

19 (16) The utility may not disconnect services in affected counties when a heat advisory,
20 heat warning, or heat emergency issued by the national weather service is in effect. A utility shall
21 make reasonable attempts to reconnect service to an occupied dwelling that has been
22 disconnected when an occupant states that there is a potential threat to health or life that results
23 from the combination of the heat and loss of service. The utility may require that an occupant

1 produce a licensed physician's statement or notice from a public health, social services, or law
2 enforcement official which identifies the medical emergency for the occupant. Upon expiration
3 of the heat advisory, heat warning, or heat emergency, the utility may disconnect service to a
4 property that was reconnected during this period without further notice if an appropriate payment
5 arrangement has not been established.

6 (17) If the utility becomes aware that there are extenuating circumstances, such as
7 infirmities of aging, developmental, mental or physical disabilities, the use of life support
8 systems, or like infirmities incurred at any age, or the frailties associated with being very young,
9 the utility shall take these circumstances into consideration prior to disconnecting service.

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11 **History:** Emerg. cr. eff. 1-21-75; cr. Register, January, 1975, No. 229, eff. 2-1-75; am. (1) (a) and (6) (a),
12 Register, December, 1975, No. 240, eff. 1-1-76.; emerg. am.(2) (a), eff. 1-19-76; emerg. am. (2), eff. 12-6-77; am.
13 (2) (intro.), Register, March, 1979, No. 279, eff. 4-1-79; emerg. cr. (11), eff. 12-17-81; cr. (2) (e), Register,
14 September, 1982, No. 321, eff. 10-1-82; cr. (11), Register, September, 1983, No. 333, eff. 10-1-83; cr. (2) (f),
15 Register, February, 1985, No. 350, eff. 3-1-85; am. (9) (a), Register, June, 1986, No. 366, eff. 7-1-86; r. (10) (b),
16 Register, May, 1987, No. 377, eff. 6-1-87; am. (4), Register, December, 1987, No. 384, eff. 1-1-88; r. and recr.
17 Register, October, 1989, No. 406, eff. 11-1-89.

18
19 **PSC 113.0302 Disconnections, commercial and farm accounts.** (1) Commercial or
20 farm accounts which involve occupied dwellings shall be subject to s. PSC 113.0304.

21 (2) Commercial or farm utility service may be disconnected or refused for any of the
22 following reasons:

23 (a) Failure to pay a delinquent account.

24 (b) Violation of the utility's rules pertaining to the use of service in a manner which
25 interferes with the service of others or to the operation of non-standard equipment, if the
26 customer has first been notified and provided with reasonable opportunity to remedy the
27 situation.

28 (c) Failure to comply with a deposit, guarantee arrangement, or installment payment
29 agreement, as specified in s. PSC 113.0403.

1 (d) Refusal or failure to permit authorized utility personnel to read the meter at least once
2 every 6 months in order to determine actual usage. The 6-month period begins with the date of
3 the last meter reading.

4 (e) Failure to comply with Wisconsin statute, commission rule or commission order
5 pertaining to conservation or availability of service.

6 (f) Failure to pay costs or fees incurred by and awarded to the utility by a court of law, for
7 pursuit of collection of bills, or failure to pay extraordinary collection charges as allowed and
8 specified in the utility's tariffs filed with the public service commission.

9 (g) Failure to comply with applicable requirements of this section, or of the utility's rules,
10 or with s. 196.16, Stats., or if the customer proposes to use a device that is not designed to
11 reasonably minimize interference with communication and signal services.

12 (h) Refusal or failure to provide authorized utility personnel access to utility equipment.

13 (3) A utility is not required to furnish commercial or farm service under conditions
14 requiring operation in parallel with generating equipment connected to the customer's system if
15 such operation is hazardous or may interfere with its own operations or service to other
16 customers or with service furnished by others. The utility may specify requirements as to
17 connection and operation as a condition of rendering service under such circumstances.

18 (4) A public utility may disconnect commercial or farm utility service, without notice,
19 where a dangerous condition exists for as long as the condition exists.

20 (5) A public utility may disconnect commercial or farm utility service, without notice,
21 where it has reasonable evidence that utility service is being obtained by potentially unsafe
22 devices or potentially unsafe methods that stop or interfere with the proper metering of the utility
23 service.

1 (6) A public utility may disconnect commercial or farm utility service, without notice,
2 where service has been reconnected without the utility's authorization.

3 (7) (a) Account arrears incurred by an owner or property manager for rental residential
4 dwelling units or responsibility for non-compliance with energy conservation requirements as set
5 out in ch. PSC 136 may be transferred, without regard to class of service, to the home or office
6 account of the owner or property manager.

7 (b) The utility shall send written notice of the planned transfer of the account arrears or
8 responsibility for non-compliance with energy conservation requirements to the owner or
9 property manager prior to making the transfer.

10 (c) If the account arrears remain unpaid or the structure in question continues to be in
11 non-compliance with the energy conservation requirements, the utility may disconnect the
12 owner's or property manager's residence or office service, provided that the utility complies with
13 the disconnection provisions of s. PSC 113.0301 and s. PSC 113.0304.

14 (d) An owner or property manager whose account is subject to disconnection action may
15 avoid disconnection of service by making payment, by making an agreement with the utility for
16 an extension of time for a specific period, or by installing the required energy conservation
17 measures in the property in question. Any disconnection shall be in compliance with s. PSC
18 113.0301 and s. PSC 113.0304.

19 (8) Commercial or farm utility service may not be disconnected or refused for any of the
20 following reasons:

21 (a) Delinquency in payment for service by a previous occupant of the premises to be
22 served.

23 (b) Failure to pay for merchandise or charges for non-utility service billed by the utility.

1 (c) Failure to pay for a different type or class of utility service, except as provided in s.
2 PSC 113.0302(7a) ~~(7a)~~ (7)(a) *AS*

3 (d) Failure to pay the account of another customer as guarantor thereof.

4 (e) Failure to pay charges arising from any underbilling occurring more than one year
5 prior to the current billing and due to any misapplication of rates or any faulty metering.

6 (f) Failure to pay an estimated bill other than a bill rendered pursuant to an approved
7 meter reading plan.

8 (9) The commercial or farm customer shall have, in all instances, at least 20 days from
9 the date of issuance of the bill to provide payment. An account may be deemed delinquent and
10 notice of intent to disconnect issued after the 20-day period has elapsed. In the event of a
11 discrepancy between the issue date and the postmark, the 20-day period shall be figured from
12 whichever is later.

13 (10) (a) A utility shall not disconnect commercial or farm service for reasons enumerated
14 in sub. (1) unless written notice is sent to the customer by first class mail or personally served at
15 least 10 calendar days prior to the day of the proposed disconnection. If disconnection is not
16 accomplished on or before the 20th day after the issuance of a notice, a subsequent notice shall
17 be left on the premises not less than 24 hours nor more than 48 hours prior to disconnection.

18 (b) If the billing address is different from the service address, notice shall be posted at
19 each individual dwelling unit of the service address not less than 5 days before disconnection for
20 reasons enumerated in sub. (2). If access is not possible, this notice shall be posted at a
21 minimum, to all entrances to the building and in the lobby. Such notice shall state, at a minimum:

22 1. The date of the notice.

23 2. The proposed date of disconnection.

1 3. That, if feasible, the occupants may apply to the utility to accept responsibility for
2 future bills and avoid disconnection of service. Refusal or acceptance of the application for
3 service is subject to those conditions set out in this chapter.

4 4. That if disconnection of service to an occupied dwelling will aggravate an existing
5 medical or protective services emergency, the occupant should contact the utility immediately.

6 (c) Disconnection notice for reasons enumerated in sub. (2) shall be given upon a form
7 approved by the commission, and shall contain the following information:

8 1. The name and address for the customer and the address of the service, if different.

9 2. A statement of the reasons for the proposed disconnection of service and that
10 disconnection will occur if the account is not paid, or if arrangement is not made to pay the
11 account, or if other suitable arrangements are not made, or if equipment changes are not made.

12 3. A statement that the customer should communicate immediately upon receipt of the
13 notice with the utility's designated office, listing a telephone number, if he or she disputes the
14 notice of delinquent account, or if he or she wishes to negotiate a payment agreement as an
15 alternative to disconnection, or when serving an occupied dwelling, if there is a threat to health
16 or safety of a resident because of the infirmities of aging, developmental, mental or physical
17 disabilities, the use of life support systems, or like infirmities incurred with age, or the frailties
18 associated with being very young.

19 4. A statement that the customer may appeal to the public service commission staff in the
20 event that the grounds for the proposed disconnection or the amount of any bill remains in
21 dispute after the customer has pursued the available remedies with the utility.

22 (11) The utility shall make a reasonable effort to have a personal or telephone contact
23 with the commercial or farm customer prior to disconnection. If a contact is made, the utility

1 shall review the reasons for the pending disconnection. The utility shall keep a record of these
2 contacts and contact attempts.

3 (12) (a) When a commercial or farm customer, either directly or through the public
4 service commission, disputes a disconnection notice, the utility shall investigate any disputed
5 issue and attempt to resolve that issue by negotiation. During this investigation and negotiation,
6 utility service shall not be disconnected over this matter.

7 (b) If a disputed issue cannot be resolved pursuant to s. PSC 113.0407(1), the utility shall
8 inform the customer of the right to appeal to the public service commission.

9 (13) Commercial or farm service shall not be disconnected on a day, or on a day
10 immediately preceding a day, when the business offices of the utility are not available to the
11 public for the purpose of transacting all business matters unless the utility provides personnel
12 who are readily available to the customer 24 hours per day to evaluate, negotiate or otherwise
13 consider the customer's objections to the disconnection, as provided under s. PSC 113.0407, and
14 proper service personnel are readily available to restore service 24 hours per day.

15 (14) The utility may not disconnect service that serves an occupied dwelling unit in
16 affected counties when a heat advisory, heat warning, or heat emergency issued by the national
17 weather service is in effect. A utility shall make reasonable attempts to reconnect service to an
18 occupied dwelling that has been disconnected for nonpayment when an occupant states that there
19 is a potential threat to health or life that results from the combination of the heat and loss of
20 service. The utility may require that an occupant produce a licensed physician's statement or
21 notice from a public health, social service, or law enforcement official which identifies the
22 medical emergency for the occupant. Upon expiration of the heat advisory, heat warning, or heat

1 emergency, the utility may disconnect service to a property that was reconnected during this
2 period without further notice if an appropriate payment arrangement has not been established.

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4 **History:** Cr. Register, October, 1989, No. 406, eff. 11-1-89.

5
6 **PSC 113.0303 Reconnection of service.** (1) (a) By June 1 of each year, or at a date
7 designated by order of the commission, each electric utility in Wisconsin serving more than
8 40,000 customers shall submit a fall reconnection plan for review and approval by commission
9 order. The plan shall provide reasonable means, including a timetable for personal contacts, that
10 will be used to assure that all premises to which service was disconnected within the past
11 12 months and remains disconnected for nonpayment shall be contacted prior to October 25, or
12 at a date set by commission order, to inform them of available payment options such as budget
13 billing or deferred payment agreements. The utility shall include in its plan, procedures for
14 negotiating for payment with households that contain persons who are elderly, infants, young
15 children, seriously ill, or mentally or physically disabled.

16 (b) Prior to October 15 of each year, or at a date designated by order of the commission, a
17 utility shall attempt by letter, telephone, or personal visit to contact all households at premises to
18 which service was disconnected within the past 12 months and remains disconnected for
19 nonpayment and inform them of available payment options such as budget billing or deferred
20 payment agreement. If a letter or telephone call does not result in a response from an adult
21 member of the household by October 15, or at a date designated by order of the commission, a
22 subsequent personal visit shall be made no later than October 25, or at a date designated by order
23 of the commission. For any household remaining disconnected after this date, the utility shall
24 continue its efforts to have a personal contact with the household and determine its situation. The
25 utility shall make a personal contact attempt after the date of disconnection and before November

1 1 for any household disconnected between October 15 and October 31. If, during any of the
2 contacts made to carry out this section, the utility or its representative observes a danger to
3 human health or life due to the disconnection, the utility shall immediately restore service. A
4 record shall be made of all contacts and attempted contacts made to comply with this section.

5 (2) By November 15th of each year, a utility shall file a report with the commission
6 stating the number of dwellings assumed to be occupied where service remains disconnected as
7 of November 1 or later and the reason that service has not been reconnected. Weekly, or on other
8 dates if designated by order of the commission, a utility shall file reports with the commission
9 listing the number of assumed to be occupied dwellings where service remains disconnected and
10 the reason that service has not been reconnected to each dwelling.

11 (3) A utility shall cooperate with law enforcement and social service agencies in
12 instances involving protective services emergencies. The utility shall refer to the appropriate
13 social service agency any situation it identifies in its reconnection efforts where it appears that
14 intervention by a social service agency is appropriate. Local law enforcement and social service
15 agencies may use the commission's dispute resolution process on behalf of a household without
16 service because of nonpayment.

17 (4) APPLICABILITY. (a) This section applies to dwellings where service has been
18 disconnected for nonpayment of a utility service during the last 12 months, and applies to utility
19 service which provides the primary heat source, or affects the primary heat source to dwelling
20 units. If a utility is unsure of whether utility service to a given premises affects its heat source,
21 the utility must comply with the requirements of this section unless and until it can document
22 that the discontinuation of utility service to that premises would not affect its heat source.

1 (b) Utilities with less than 40,000 customers may be required to submit a plan as
2 described in s. 113.0303(1) (a) for approval by commission order and to meet the requirements
3 of par. (1) (a).

4
5 **History:** Emerg. cr. eff. 11-7-84; cr. Register, December, 1984, No. 348, eff. 1-1-85; am. (1), (2) and (4),
6 Register, December, 1987, No. 384, eff. 1-1-88; Emerg. r. and recr. eff. 10-25-88; r. and recr. Register, October,
7 1984, No. 348, eff.
8

9 **PSC 113.0304 Cold weather disconnections.** (1) DECLARATION OF POLICY. The public
10 service commission of Wisconsin recognizes that there are many citizens of the state who,
11 because of incomes, infirmities of aging, developmental or mental disabilities or like infirmities
12 incurred at any age, or the frailties associated with being very young, need protection from cold
13 weather disconnections. This section is intended to provide that protection as enumerated below.
14 It is the further intent of the public service commission that these rules be used as guidelines to
15 identify those customers who are not covered by sub. (4). For households subject to
16 disconnection under this section, any disconnection permitted by this chapter during the cold
17 weather period defined below shall be made only as a last resort, after all other legal means of
18 recourse have been attempted and proven unsuccessful.

19 (2) APPLICABILITY. (a) This section applies to disconnections for nonpayment of utility
20 service which provides the primary heat source or energy source affecting the primary heat
21 source to residential dwelling units occurring during the period November 1 to April 15 in any
22 year for all occupied residences.

23 (b) This section shall not apply to disconnections of service as set forth in s. PSC
24 113.0301(1m) (b), (4), or (5), or disconnections for remodeling or repairs.

25 (3) CUSTOMER REQUESTED TERMINATION. With regard to customer-requested termination
26 of service at an unoccupied residence, the utility may rely on verification by the owner or the

1 owner's agent that the residence is unoccupied, provided that the utility visits the premises at the
2 time of disconnection and verifies that the premises are not occupied. The utility shall keep a
3 written record of the utility determination that the premises are unoccupied.

4 (4) CONDITIONS FOR DISCONNECTION. A utility may disconnect only those households
5 whose gross quarterly incomes are above 250% of the federal income poverty guidelines and
6 where health and safety would not be endangered because of the infirmities of age,
7 developmental or mental disabilities or like infirmities incurred at any age or the frailties
8 associated with being very young, if service were terminated or not restored.

9 (5) VERIFICATION. (a) The burden of proof that a household is eligible for disconnection
10 as defined in sub. (3) shall be the responsibility of the utility.

11 (b) The utility, as part of its filing with the public service commission pursuant to sub.
12 (12) (b), shall include how it will verify the household's income and situation.

13 (6) NOTICE. (a) Prior to, and again at the time of disconnection of service, a utility
14 representative shall meet personally with a responsible, adult member of the household to
15 discover any circumstances which deserve special attention, such as medical problems or
16 disabilities.

17 (b) The utility shall maintain a record of all contacts with the household from the time
18 that notice of pending disconnection is first given.

19 (7) TELEPHONE AVAILABILITY. A utility shall provide its emergency after-hours telephone
20 number to all households scheduled for utility service disconnection.

21 (8) CUSTOMER AND OCCUPANT SERVICE INFORMATION. Prior to disconnection, a utility
22 shall inform the household of the availability of deferred payment agreements, budget billing,
23 and in the case of a noncustomer occupant, the option of accepting responsibility for future bills.

1 (9) NO DISCONNECTION ON CERTAIN DAYS. A utility may not disconnect service to an
2 occupied dwelling on a Friday, Saturday, Sunday, holiday or on a day when utility personnel are
3 not readily available to the occupant 24 hours per day to negotiate restoration of service.

4 (10) THIRD PARTY CONTACTS. If the household has previously requested that a specific
5 third party be notified before disconnection, the utility shall contact that third party prior to
6 disconnection of service.

7 (11) MANAGEMENT-LEVEL EMPLOYEE. The utility shall designate by November 1 each year
8 one or more executive employees who will be responsible for final approval of the disconnection
9 of utility service, and notify the commission, in writing, of the name, title, and contact number of
10 the person or persons so designated. The designated employee shall certify on a form approved by
11 the commission that all appropriate code provisions have been met prior to authorizing
12 disconnection. For investor-owned utilities with 30,000 or more customers, the designated
13 person shall be an employee with at least the position of vice president. For investor-owned
14 utilities with fewer than 30,000 customers, the designated employee shall be the utility president.
15 For a municipal utility the designated employee shall be either the general manager or chairperson
16 of the governing board. A utility may designate an employee to act in the absence of the above-
17 listed personnel because of illness or vacation.

18 (12) REPORT. (a) The utility shall report each disconnection of service to an occupied
19 dwelling by facsimile transmission, if available, or telephone to the consumer services bureau of
20 the public service commission by 3:30 p.m. the same day the disconnection takes place.

21 (b) If a utility intends to make any disconnection of service to occupied dwellings under
22 the provisions of this section, it shall each year, prior to making any disconnections, file
23 procedures for review and receive approval by order of the public service commission describing

1 how it intends to identify the occupied dwellings subject to disconnection. If within 60 days of
2 submission the commission has not, by order, approved the procedures, the procedures shall be
3 considered disapproved.

4 (13) FOLLOW-UP VISIT. (a) By the end of the work day following the day of
5 disconnection, the utility shall make an in-person visit to the occupied dwelling to check on the
6 household's wellbeing and to ensure there is no danger to human health or life. The utility shall
7 again inform the household of the availability of deferred payment or budget billing agreements,
8 shelter assistance, and in the case of a noncustomer occupant, the option of accepting
9 responsibility for payment of future bills. If the utility or its representative observes a danger to
10 human health or life due to the disconnection, the utility shall immediately restore service.

11 (b) The utility may request that the visit required under par. (a) be made by a
12 representative of a city health department, local health and social service agency, local law
13 enforcement agency, or similar authority, but ultimate responsibility for the visit shall remain
14 with the utility.

15 (c) The utility shall make a written record of the visit required under par. (a).

16 (14) INTERNAL PROCEDURES. The utility shall submit for approval by commission order
17 copies of its written internal procedures for implementing this section and any materials used in
18 training its employees to carry out these rules. If within 60 days of submission the commission
19 has not, by order, approved the internal procedures, the procedures shall be considered
20 disapproved. The utility shall review these procedures annually and update the files procedures
21 when appropriate. A utility which does not disconnect occupied residences for nonpayment
22 during the winter period is not required to file such procedures.

23 **History:** Emerg. cr. eff. 11-7-84; cr. Register, December, 1984, No. 348, eff. 1-1-85; am. Register,
24 December, 1987, No. 384, eff. 1-1-88; emerg. r. and recr. eff. 10-25-88; r. and recr. Register, October, 1989, No.
25 406, eff. 11-1-89.

1 **PSC 113.0305 Customer-requested termination of service.** With regard to customer-
2 requested termination of service at an unoccupied residence, the utility may rely on verification
3 by the owner or the owner's agent that the residence is unoccupied, provided that the utility visits
4 the premises at the time of termination of service and has no reason to believe that the premises
5 are occupied. If the premises appear to be occupied, the utility shall follow the procedures set out
6 in s. PSC 113.0301(10) (b).

7
8 **History:** Cr. Register, October, 1989, No. 406, eff. 11-1-89.
9

10 **SUBCHAPTER IV—ELECTRIC BILLING AND PAYMENT PROCEDURES**

11 **PSC 113.0401 Schedules to be filed with Commission.** The schedules of rates and rules
12
13 to be filed with the commission by the utility shall be classified, designated, arranged, and
14 submitted so as to conform to the requirements of current tariff or rate schedule circulars and
15 special instructions which have been and may from time to time be issued by the commission.
16 Provisions of the schedules shall be definite and so stated as to minimize ambiguity or the
17 possibility of misinterpretation, and shall include, together with such other information as may
18 be deemed pertinent, the following:
19

- 20 (1) All rates for service with indication for each rate of the type and voltage of service
21 and the class of customers to which each rate applies. There shall also be shown any limitations
22 on loads and type of equipment which may be connected, the prices per unit of service, and the
23 number of units per billing period to which the prices apply, the period of billing, the minimum
24 bill, method of measuring demands including method of calculating or estimating loads or
25 minimums, and any special terms and conditions applicable. The discount for prompt payment or
26 penalty for late payment, if any, and the period during which the net amount may be paid shall be
27 specified.

1 (2) By municipalities, but without reference required to any particular part thereof, the
2 voltage at which service will be supplied and the type of service (direct current or single- /or
3 polyphase alternating current).

4 (3) Forms of standard contracts required of customers for the various types of service
5 available.

6 (4) If service to other utilities, to electric cooperatives, or municipalities is furnished at a
7 standard filed rate, either a copy of each contract or the standard contract form together with a
8 summary of the provisions of each signed contract. The summary shall show the principal
9 provisions of the contract and shall include the name and address of the customer, the points
10 where energy is delivered, rate, term, minimums, load conditions, voltage of delivery, and any
11 special provisions such as rentals. Standard contracts for such sales as that of energy for resale,
12 street lighting, municipal athletic-field lighting, and for water utilities may be filed in summary
13 form as above outlined.

14 (5) Copies of special contracts for the purchase, sale, or interchange of energy.

15 (6) List of villages, cities, and unincorporated communities where urban rates are
16 applicable, and towns in which service is furnished.

17 (7) The list of service areas and the rates shall be filed in such form as to facilitate ready
18 determination of the rates available in each municipality and in such unincorporated
19 communities as have service at urban rates. If the utility has various rural rates, the areas where
20 the same are available shall be indicated.

21 (8) Definitions of classes of customers.

1 (9) Extension rules for extending service to new customers indicating what portion of the
2 extension or cost thereof will be furnished by the utility; and if the rule is based on cost, the
3 items of cost included.

4 (10) Type of construction required if in excess of the standards required by the Wisconsin
5 state electrical code.

6 (11) Specification of such portion of service as the utility furnishes, owns, and maintains,
7 such as service drop, service entrance cable or conductors, conduits, service entrance equipment,
8 meter, and socket. Indication of the portions of interior wiring such as range or water-heater
9 connection, furnished in whole or in part by the utility, and statement indicating final ownership
10 and responsibility for maintaining equipment furnished by utility.

11 (12) Statement of the type of special construction commonly requested by customers
12 which the utility allows to be connected, and terms upon which such construction will be
13 permitted, with due provision for the avoidance of unjust discrimination as between customers
14 who request special construction and those who do not. This applies, for example, to a case
15 where a customer desires underground service in overhead territory.

16 (13) Rules with which prospective customers must comply as a condition of receiving
17 service, and the terms of contracts required.

18 (14) Rules governing the establishment of credit by customers for payment of service
19 bills.

20 (15) Rules governing the procedure followed in disconnecting and reconnecting service.

21 (16) Notice by customer required for having service discontinued.

22 (17) Rules covering temporary, emergency, auxiliary, and stand-by service.

1 (18) Rules covering the type of equipment which may or may not be connected, including
2 rules such as those requiring demand-limiting devices or power-factor corrective equipment.

3 **PSC 113.0402 Deposits Residential.** (1) NEW RESIDENTIAL SERVICE. (a) A utility may
4 not require a cash deposit or other guarantee as a condition of new residential service unless a
5 customer has an outstanding account balance with any Wisconsin electric utility or cooperative
6 which accrued within the last 6 years, and for which there is not agreement or arrangement for
7 payment being honored by the customer, and at which time the request for new service remains
8 outstanding and not in dispute, as defined in s. PSC 113.0407. To request a deposit under this
9 section, utilities must comply with requirements in sub. (2).

10 (b) A deposit under this section shall not be required if the customer provides the utility
11 with information showing that his or her gross quarterly income is at or below 200% of federal
12 income poverty guidelines.

13 (c) A utility shall inform the customer of his or her right to enter into a deferred payment
14 agreement for payment of the deposit amount and of his or her right to appeal any deposit
15 request or amount required under this section to the public service commission.

16 (2) DEFERRED PAYMENT. The utility shall inform the customer that in lieu of cash deposit
17 or guarantee, an applicant for new residential service who has an outstanding account balance
18 accrued within the last 6 years with the same utility shall have the right to receive service from
19 that utility under a deferred payment agreement, as defined in s. PSC 113.0404, for the
20 outstanding account. A customer who defaults on the deferred payment agreement may be
21 required by the utility to furnish a deposit.

22 (3) GUARANTEE TERMS AND CONDITIONS. (a) A utility may accept, in lieu of a cash
23 deposit for new or existing residential service, a contract signed by a guarantor satisfactory to the

1 utility whereby payment of a specified sum not exceeding the cash deposit requirement is
2 guaranteed, or whereby the guarantor accepts responsibility for payment of all future bills. If the
3 guarantor accepts responsibility for payment of future bills, the utility shall notify the customer
4 in writing of the agreement, and of the customer's right to refuse such an agreement. The term of
5 the contract shall be for no longer than one year, but it shall automatically terminate after the
6 residential customer has closed his or her account with the utility, or on the guarantor's request
7 upon 30 days' written notice to the utility.

8 (b) Upon termination of a guarantee contract, or whenever the utility deems the guarantee
9 insufficient as to amount of surety, a cash deposit or a new or additional guarantee may be
10 required upon 20-day written notice to the customer. The service of any customer who fails to
11 comply with these requirements may be disconnected upon ¹⁹8 days' written notice.

12 (c) The utility shall mail the guarantor copies of all disconnect notices sent to the
13 customer whose account has been guaranteed, unless the guarantor waives such notice in writing.

14 (4) EXISTING RESIDENTIAL SERVICE. ^(a) A utility may require a cash deposit or other _{ls}
15 guarantee as a condition of residential service if any of the following circumstances apply.

16 1. The utility has disconnected the customer's service within the last 12-month period for
17 violation of the utility's filed rules or for nonpayment of a delinquent service account not
18 currently in dispute.

19 2. Subsequent credit information indicates that the initial application for service was
20 falsified.

21 3. The customer has the ability to pay for the utility service but, during the cold weather
22 disconnections rules period, had an arrears amount incurred during that period that was 80 days

1 or more past due. The utility may request a deposit under this section even if the customer's
2 service has not been disconnected.

3 4. A new residential customer accrues charges for electric service that become 60 days or
4 more past due within the first 8 months of service.

5 (b) A deposit under this section shall not be required if the customer provides the utility
6 with information showing that his or her gross quarterly income is at or below 200% of the
7 federal income poverty guidelines.

8 (c) When the utility requests a deposit of an existing residential customer, the customer
9 shall be informed of his or her right to provide the deposit, guarantee, or to establish a deferred
10 payment agreement. The customer shall be given 30 days to provide the deposit, guarantee, or
11 enter into a deferred payment agreement for the deposit amount.

12 (5) WRITTEN EXPLANATION. A utility shall provide a written explanation of why a deposit
13 or guarantee is being required for a residential account. The explanation shall include notice of
14 the customer's right to appeal any deposit request or amount required under this section to the
15 public service commission.

16 (6) REASONABLENESS OF DEPOSIT. When requesting a deposit from a residential customer,
17 the utility shall consider the customer's ability to pay in determining the reasonableness of its
18 request, including the following factors:

19 (a) Size of the delinquent account.

20 (b) Customer's payment history.

21 (c) Time that the debt has been outstanding.

22 (d) Reasons why the debt has been outstanding.

1 (e) Any other relevant factors concerning the circumstances of the customer, as
2 household size, income and expenses.

3 (7) AMOUNT OF DEPOSIT. (a) The maximum deposit for a new residential account shall
4 not exceed the highest estimated gross bill for any 2 consecutive billing periods selected by the
5 utility.

6 (b) Except as provided in par.(c), the maximum deposit for an existing residential account
7 shall not exceed the highest actual gross bill for any 2 consecutive months within the preceding
8 12 month review period, as determined by the utility.

9 (c) If, during the cold weather disconnection rules period, a customer had an arrears
10 amount incurred during this period that was 80 days or more past due and had the ability to pay
11 for utility service, the deposit may not exceed the highest actual gross bills for any 4 consecutive
12 months within the preceding 12 months review period, as determined by the utility.

13 (8) REFUSAL OR DISCONNECTION OF SERVICE. Residential service may be refused or
14 disconnected for failure to pay a deposit request subject to the rules pertaining to disconnection
15 and refusal of service, as provided in s. PSC 113.0301.

16 (9) INTEREST. (a) Deposits for residential accounts shall bear interest payable from the
17 date a deposit is made to the date it is applied to an account balance or is refunded.

18 (b) The interest rate to be paid shall be subject to change annually on a calendar year
19 basis. The commission shall determine the rate of interest to be paid on deposits held during the
20 following calendar year and notify utilities of that rate by December 15 of each year. The rate
21 shall be equal to the weekly average yield of one-year United States treasury securities adjusted
22 for constant maturity for the week ending on or after December 1 made available by the federal
23 reserve board, rounded to the nearest tenth of one percent.

1 (c) The rate of interest set by the commission shall be payable on all deposits. Utilities
2 shall calculate the interest earned on each deposit at the time of refund and at the end of each
3 calendar year. The interest rate in a calendar year shall apply to the amount of the deposit and to
4 all interest accrued during the previous year(s), for the fraction of the calendar year that the
5 deposit was held by the utility.

6 (10) REFUND. The utility shall refund the deposit of a residential customer after
7 12 consecutive months of prompt payment.

8 (11) REVIEW. The utility shall not continue to require a cash deposit for a residential
9 account unless a deposit is permitted under the provisions of sub. (4) or (10).

10 (12) METHOD OF REFUND. Any deposit or portion thereof refunded to a residential
11 customer shall be refunded by check unless both the customer and the utility agree to a credit on
12 the regular billing, or unless sub. (14) applies.

13 (13) REFUND AT TERMINATION OF SERVICE. On termination of residential service, the
14 utility shall credit the deposit, with accrued interest, to the customer's final bill and return the
15 balance within 30 days of issuing the final bill.

16 (14) ARREARAGES. An arrearage owed by a residential customer may be deducted from
17 the customer's deposit under any of the following conditions:

18 (a) Except as provided in par.(c), a deposit may be used by the utility only to satisfy an
19 arrearage occurring after the deposit was made.

20 (b) If the utility deducts an arrearage from a customer deposit, it may require the
21 customer to bring the deposit up to its original amount. Failure of the customer to do so within
22 20 days of mailing a written request for payment is a ground for disconnection.

1 (c) When a deposit is refunded to the customer, the utility may first deduct any arrearage
2 owed by the customer, whether the arrearage arose prior to or after the date of the deposit.

3 (15) APPLICABILITY. The provisions in subs.(2) and (3) are not applicable to deposits or
4 guarantees made in connection with the financing of extensions or other equipment.

5
6 **History:** Emerg. cr. eff. 1-21-75; cr. Register, January, 1975, No. 229, eff. 2-1-75; am. (3) to (14), Register,
7 November, 1980, No. 299, eff. 12-1-80; renum. (7) to (14) to be (8) to (15), cr. (7), Register, April, 1985, No. 352,
8 eff. 5-1-85; r. and recr. Register, October, 1989, No. 406, eff. 11-1-89.

9
10 **PSC 113.0403 Deposits for commercial and farm service.** (1) DEPOSIT REQUEST. If the
11 credit of an applicant for commercial and farm service has not been established satisfactorily to
12 the utility, the utility may require the applicant to post deposit. The utility shall notify the
13 applicant within 30 days of the request for service as to whether a deposit will be required. The
14 30-day period shall begin from the date the applicant provides all requested relevant information
15 to the utility. If no request for a deposit is made within this period, no deposit shall be required,
16 except under the provisions of the sub. (5). If a request for a deposit is made, the applicant must
17 be given at least 30 days to provide payment, or guarantee, or to establish an installment payment
18 agreement.

19 (2) CONSIDERATIONS FOR DEPOSIT. In determining whether an applicant for commercial
20 or farm service has satisfactorily established its credit, the utility shall inform the customer that it
21 will consider any or all of the following factors, if provided by the customer, before requiring a
22 security deposit.

23 (a) Credit information from credit reporting services.

24 (b) Letter of credit from a financial institution or another utility.

1 (c) Applicant's business characteristics, such as type of business, length of time the
2 applicant has operated, the applicant's business experience and knowledge, and estimated size of
3 the applicant's bills;

4 (d) Assets of the business.

5 (e) The financial condition of the business, as indicated in a financial statement.

6 (3) INSTALLMENT PAYMENT AGREEMENT. A commercial or farm customer or applicant for
7 commercial or farm service of which a deposit is requested shall have the right to receive service
8 under an installment payment agreement.

9 (4) GUARANTEE TERMS AND CONDITIONS. (a) The utility may accept, in lieu of a cash
10 deposit for new or existing commercial or farm service, a contract signed by a guarantor
11 satisfactory to the utility whereby payment of a specified sum not exceeding the cash deposit
12 requirement is guaranteed. The term of such contract shall be for no longer than 2 years, but it
13 shall automatically terminate after the commercial or farm customer has closed its account with
14 the utility, or at the guarantor's request on 30 days' written notice to the utility.

15 (b) On termination of a guarantee contract, or whenever the utility deems the amount of
16 surety insufficient, a cash deposit or a new or additional guarantee may be required on 20-day
17 written notice to the customer. The service of a customer who fails to comply with these
18 requirements may be disconnected on ~~8~~¹⁰ days written notice, subject to the establishment of an
19 installment payment agreement.

20 (c) The utility shall mail the guarantor copies of all disconnect notices sent to the
21 customer whose account he or she has guaranteed, unless the guarantor waives such notice in
22 writing.

1 (5) EXISTING COMMERCIAL OR FARM SERVICE. (a) The utility may require an existing
2 commercial or farm customer to furnish a deposit if the customer has not made prompt payment
3 of all bills within the last 24 months, or if the customer has the ability to pay for the utility
4 service but, during the cold weather disconnection rules period, had an arrears amount incurred
5 during that period that was 80 days or more past due.

6 (b) When the utility requests a deposit of an existing commercial or farm customer, the
7 customer shall have 30 days to provide the deposit, guarantee, or to establish an installment
8 payment agreement.

9 (6) WRITTEN EXPLANATION. (a) A utility shall provide a written explanation of why a
10 deposit or guarantee is being required for commercial or farm service. The explanation shall
11 include notice of the customer's right to appeal any deposit request or amount required under this
12 section to the public service commission.

13 (b) The utility shall inform the customer at the time a deposit is provided that if, after 12
14 months of utility service, the deposit amount is greater than necessary based on actual
15 consumption, the customer may request refund of the difference between the 2 amounts.

16 (7) REFUSAL OR INTERRUPTION OF SERVICE. Commercial or farm service may be refused
17 or disconnected for failure to pay a deposit request, subject to the rules pertaining to
18 disconnection and refusal of service.

19
20 **Note:** See s. PSC 113.0302.

21
22 (8) AMOUNT OF DEPOSIT. (a) The maximum deposit for a new commercial or farm
23 account shall not exceed the highest estimated gross bill for any 2 consecutive billing periods
24 selected by the utility. If after a 12-month period the deposit amount is shown to be greater than

1 warranted based on actual consumption, the utility shall at the customer's request refund the
2 difference between the 2 amounts, plus interest.

3 (b) Except as provided in par. (c), the maximum deposit for an existing commercial or
4 farm account shall not exceed the highest actual gross bill for any 2 consecutive months within
5 the preceding 12 months review period, as determined by the utility.

6 (c) If, during the cold weather disconnection rules period, a customer had an arrears
7 amount incurred during this period that was 80 days or more past due and had the ability to pay
8 for utility service, the deposit may not exceed the highest actual gross bill for any 4 consecutive
9 months within the preceding 12-month review period, as determined by the utility.

10 (9) INTEREST. (a) Deposits for commercial or farm service shall bear interest from the
11 date a deposit is made to the date it is applied to an account balance or refunded.

12 (b) The interest rate to be paid shall be subject to change annually on a calendar basis.
13 The commission shall determine the rate of interest to be paid on deposits held during the
14 following calendar year and notify the utilities of the rate by December 15 of each year. The rate
15 shall be equal to the weekly average yield of one-year United-States treasury securities adjusted
16 for constant maturity for the week ending on or after December 1 made available by the federal
17 reserve board, rounded to the nearest tenth of one percent.

18 (c) The rate of interest set by the commission shall be payable on all deposits. Utilities
19 shall calculate the interest earned on each deposit at the time of the refund and at the end of each
20 calendar year. The interest rate in a calendar year shall apply to the amount of the deposit and to
21 all interest accrued during the previous year(s), for the fraction of the calendar year that the
22 deposit was held by the utility.

1 (10) TIME OF REFUND. The deposit of a commercial or farm customer shall be refunded
2 after 24 consecutive months of prompt payment.

3 (11) METHOD OF REFUND. Any deposit or portion thereof refunded to a commercial or
4 farm customer shall be refunded by check unless both the customer and the utility agree to a
5 credit on the regular billing, or unless sub. (13) applies.

6 (12) REFUND AT TERMINATION OF SERVICE. Upon termination of commercial or farm
7 service, the deposit, with accrued interest, shall be credited to the final bill, and the balance shall
8 be returned within 30 days of issuing the final bill.

9 (13) ARREARAGES. An arrearage owed by a commercial or farm customer may be
10 deducted from the customer's deposit under the following conditions.

11 (a) Except as provided in par. (c), a deposit may be used by the utility only to satisfy an
12 arrearage occurring after the deposit was made.

13 (b) If the utility deducts an arrearage from a customer deposit, it may require the
14 customer to bring the deposit up to its original amount. Failure of the customer to do so within
15 20 days of mailing a written request for payment is a ground for disconnection.

16 (c) When a deposit is refunded to the customer, the utility may first deduct any arrearage
17 owed by the customer, whether the arrearage arose prior to or after the date of the deposit.

18 (14) APPLICABILITY. The provisions of subs. (3) and (4) are not applicable to deposits or
19 guarantees made in connection with the financing of extensions or other equipment.

20
21 **History:** Cr. Register, October, 1989, No. 406, eff. 11-1-89.

22
23 **PSC 113.0404 Deferred payment agreement.** (1) The utility is required to offer
24 deferred payment agreements only to residential accounts and may offer such agreements to
25 other customers.

1 (2) Every deferred payment agreement entered into due to the customer's inability to pay
2 the outstanding bill in full shall provide that service will not be discontinued if the customer pays
3 a reasonable amount of the outstanding bill and agrees to pay a remaining outstanding balance in
4 installments.

5 (3) For purposes of determining reasonableness in sub. (2), the parties shall consider the
6 customer's ability to pay, including the following factors:

7 (a) Size of the delinquent account.

8 (b) Customer's payment history.

9 (c) Time that the debt has been outstanding.

10 (d) Reasons why debt has been outstanding.

11 (e) Any other relevant factors concerning the circumstances of the customer, such as
12 household size, income and expenses.

13 (4) A utility may require a written deferred payment agreement with the customer's
14 signature. A written agreement offered by a utility shall state immediately preceding the space
15 provided for the customer's signature in at least 12-point boldface print,

16
17 "RIGHT OF APPEAL

- 18
- 19 • If you are not satisfied with this agreement, DO NOT SIGN IT.
 - 20
 - 21 • You have the right to suggest a different payment agreement.
 - 22
 - 23 • If you and the utility can not agree on terms, you can ask the public service
24 commission to review the disputed issues.
 - 25
 - 26 • If you sign this agreement, you agree that you owe the amount due under the
27 agreement.
 - 28
 - 29 • Signing this agreement does not affect your responsibility to pay for your current
30 service."
31

1 A utility that does not require a written deferred payment agreement shall communicate to the
2 customer all points listed above except for the signature when making the arrangement with the
3 customer. A utility must send written confirmation of a deferred payment agreement upon
4 customer request. The commission may require a utility to use written deferred payment
5 agreements.

6 (5) A delinquent amount covered by a deferred payment agreement shall not be subject to
7 a late payment charge if the customer meets the payment schedule required by the agreement.

8 (6) A special payment agreement entered into by the customer and the utility through the
9 utility's early identification program shall be given the force and effect of a deferred payment
10 agreement for purposes of late payment charges.

11 (7) If a utility customer has not fulfilled the terms of a deferred payment agreement, and
12 there has not been a significant change in the customer's ability to pay since the agreement was
13 negotiated, the utility may disconnect utility service pursuant to disconnection of service rules,
14 ss. PSC 113.0301 and PSC 113.0304, and shall not be required to negotiate a subsequent
15 deferred payment agreement prior to disconnection.

16 (8) Payments made by a customer in compliance with a deferred payment agreement
17 shall first be considered made in payment of the previous account balance with any remainder
18 credited to the current bill.

19 (9) If a deferred payment agreement cannot be reached because the customer's offer is
20 unacceptable to the utility, the utility shall inform the customer in writing why the customer's
21 offer was not acceptable.

22
23 **History:** Emerg. cr. eff. 1-21-75; cr. Register, January, 1975, No. 229, eff. 2-1-75; am. (3) and (6), cr. (7),
24 Register, March, 1979, No. 279, eff. 4-1-79; r. and recr. Register, October, 1989, No. 406, eff. 11-1-89.
25

1 **PSC 113.0405 Meter readings and billing periods.** Readings of all meters used for
2 determining charges to customers shall be scheduled no less frequently than once every two
3 months. Utilities may offer quarterly or semiannual meter-reading plans to customers who elect
4 such an option. An effort shall be made to read meters on corresponding days of each meter-
5 reading period cycle. The meter-reading date may be advanced or postponed not more than
6 5 days without adjustment of the billing for the period. Bills for service shall be rendered within
7 40 days from the reading of the meter except as may be otherwise specifically authorized by the
8 commission. The utility may permit the customer to supply the meter readings on a form
9 supplied by the utility, or by telephone or electronic mail, provided a utility representative reads
10 the meter at least once each 6 months and when there is a change of customer. The utility shall
11 make reasonable efforts to read the meters of customers whose meters require access to a
12 residence and who cannot be available during normal business hours.

13 **PSC 113.0406 Billing.** (1) (a) Each bill, including the customer's receipt, provided by
14 Madison Gas and Electric Company, Northern States Power Company, Superior Water, Light
15 and Power Company, Wisconsin Electric Power Company, Wisconsin Power and Light
16 Company, Wisconsin Public Service Corporation, or their successors, shall show for each meter
17 the following information:

- 18 1. The customer name, billing address and service address, if different from the billing
19 address.
- 20 2. For residential customers in multi-unit buildings, current meter identification
21 information or number and account number.
- 22 3. The present and last preceding meter readings.
- 23 4. The present and last preceding meter reading dates.

- 1 5. The next scheduled meter reading date.
- 2 6. The number of days in the billing period.
- 3 7. The number of units consumed.
- 4 8. The class of service with clear explanation of codes and abbreviations.
- 5 9. The rate schedule under which the bill is calculated including the itemized calculations
- 6 of the rate schedule component including, but not limited to, such items as customer charge,
- 7 energy blocks, demand charges, minimum bills, and all other billing factors necessary for the
- 8 customer to check the calculation of the bill.
- 9 10. Clear itemized adjustment clause bill calculation.
- 10 11. Amount subject to tax, tax rate, and tax billed.
- 11 12. Clear itemization of the amount of the bill for the present billing period, any unpaid
- 12 balance from previous billing periods and any late payment charges.
- 13 13. Clear itemization of other utility charges and credits.
- 14 14. Degree day information.
- 15 15. A statement that the utility will, upon customer request, provide the information and
- 16 assistance necessary for the customer to evaluate fuel consumption and conservation.
- 17 (b) Upon receiving such request in par. (1) (a) 15., the utility shall provide consumption
- 18 and degree day information by billing periods for at least the last year and information and
- 19 instructions needed by the customer to make consumption comparisons and evaluate his or her
- 20 conservation efforts.
- 21 (c) Bills rendered without an actual meter reading shall be specifically marked as
- 22 estimated.

1 (d) Each bill, including the customer's receipt rendered by electric utilities not included
2 in par. (a), shall show the present and last preceding meter readings, the date of the present
3 reading, the number of units consumed, the class of service if other than residential, and the rate
4 schedule under which the bill is calculated. In lieu of including the rate schedule on the bill the
5 utility may, whenever a rate change becomes effective or at least once a year, supply each
6 customer with the schedule of rates at which the bills are calculated and any other rates that
7 might be applicable. Such a schedule shall be written in clear and direct language in no smaller
8 type than 10-point type. Bills rendered at rates requiring the measurement of a number of
9 different factors shall show all data necessary for the customer to check the calculation of a bill.
10 All monthly adjustment clause factors necessary for a customer to check the calculation of the
11 bill shall be included on the monthly bill. Minimum and estimated bills shall be distinctly
12 marked as such. Estimated bills are bills rendered without actual meter readings.

13 (e) The utility may include on the utility service bill charges to the customer resulting
14 from other services, materials, or work provided by the utility as a result of commission-
15 approved conservation and alternative energy programs, and, with the consent of both the
16 customer and the utility, merchandise and service repair work charges. The charges shall be
17 listed individually on the bill, and the customer shall be permitted to include such payment in his
18 or her payment for electric utility service. Any partial payments shall be applied first to the
19 amount due for utility service and the remainder to the other charges.

20 (f) Costs or fees incurred by and awarded to the utility by a court of law, for pursuing bill
21 collection through other agencies, such as small claims courts, or extraordinary collection
22 charges as allowed and specified in the utility's tariffs filed with the public service commission,

1 may be included on the utility's service bill. Such tariffs shall be established on the basis of rate
2 case proceedings or generic proceedings to establish the reasonableness of such charges.

3 (g) The commission may authorize the utility to make late payment charges to a
4 customer's utility service bill that is not paid in full within 20 days following issuance of the bill
5 and for utility service that has been obtained by diversion around or tampering with the metering
6 of the account. The late payment charge may be either a one-time charge as provided in par. (h)
7 or a monthly charge as provided in par. (i). The utility shall receive approval from the
8 commission of the method it desires to use and shall not change methods without commission
9 approval.

10 (h) If the utility is authorized to make a one-time late payment charge, such charge shall
11 comply with the following requirements:

12 1. The bill shall clearly indicate the amount of the late payment charge and the date after
13 which the late payment charge shall be applied.

14 2. Except as provided in subd. 8, late payment charges shall be applied no sooner than 20
15 days after the date of issuance of the bill.

16 3. The amount of the late payment charge shall be 3% of the bill, except a minimum
17 charge of \$.50 shall apply. The charge shall not exceed 1% per month (12% per annum) for
18 forbearances occurring primarily, for personal, family or household purposes where the only
19 charge is a late charge.

20 4. Late payment charges shall be applied to all customer classes and rate classifications.

21 **Note:** See s. PSC 113.0404(5) and (6).
22

23 5. A late payment charge shall be applied only once to any given amount outstanding.
24

1 6. If a customer disputes a bill for utility service or portion thereof and does not pay the
2 disputed bill in full within 20 days following issuance of the bill, the late payment charge shall
3 be applied only to that portion of the disputed bill later found to be correct and payable to the
4 utility.

5 7. Bills issued for utility service previously unbilled because of meter diversion or
6 tampering with the proper metering of the account may include a late payment charge when
7 issued.

8 (i) If the utility is authorized to make monthly late payment charges, such charges shall
9 comply with the following requirements.

10 1. The amount of the charge shall be no more than 1% per month and shall be filed with
11 and approved by the commission before it can be applied. The charge shall not exceed 1% per
12 month (12% per annum) for forbearances occurring primarily, for personal, family or household
13 purposes where the only charge is a late charge.

14 2. The late payment charge shall be applied to the total unpaid balance for utility service,
15 including unpaid late payment charges.

16 3. Except as provided in subd. 9, the late payment charge shall be applied no sooner than
17 20 days after the date of issuance of the bill.

18 4. The late payment charge shall be applied to all customer classes and rate
19 classifications.

20 5. If a customer disputes a bill for utility service or portion thereof and does not pay the
21 disputed bill in full within 20 days following issuance of the bill, the late payment charge shall
22 be applied only to that portion of the disputed bill later found to be correct and payable to the
23 utility.

1 6. The utility may not waive any properly applied late payment charge, except when the
2 utility fails to obtain scheduled meter readings, the utility shall waive the late payment charge
3 upon dispute of the estimate by the customer.

4
5 **Note:** See s. PSC 113.0404(5) and (6).
6

7 7. No additional late payment charge may be applied to a delinquent account for utility
8 service after the date on which the delinquent account was written off by the utility as
9 uncollectible.

10 8. If a utility changes the type of late payment charge or initiates a late payment charge,
11 the new charge shall apply only to utility service provided after the effective date of the change
12 or initiation.

13 9. Bills issued for utility service that was previously unbilled because of meter diversion
14 or tampering with the proper metering of the account may include a late payment charge when
15 issued. The late payment charge may be applied from the estimated date that the diversion or
16 tampering began.

17 (j) A customer who receives a lump sum payment from an outside source to be used to
18 pay his or her utility service bill may, at the utility's option, apply the payment to the customer's
19 account in equal monthly installments.

20 (2) (a) If the billing period is longer or shorter than allowed in s. PSC 113.0405, the bill
21 shall be prorated on a daily basis unless other provision is made in the utility's filed rules.

22 (b) If the utility is unable to gain access to read a standard residential meter at the end of
23 each billing period, the utility shall, upon customer request, provide meter reading forms which
24 allow the customer to send a card reading in time for billing. If actual readings cannot be
25 obtained, the utility shall also leave a meter reading form at the premises for the customer to

1 complete and return to the utility in time for bill preparation or leave a form at the premises
2 explaining the estimation or leave a form at the premises explaining the estimation and how to
3 avoid future estimations. This form shall be used when billing systems do not have sufficient
4 time to allow the customer to return the card reading prior to billing.

5 (c) If no form is left on the premises, or if the form is not returned in time to be processed
6 in the billing cycle, a minimum or estimated bill may be rendered. In cases of emergency the
7 utility may render minimum or estimated bills without reading meters or supplying meter reading
8 forms to customers. Only in unusual cases or when approval is obtained from the customer may
9 more than three consecutive estimated bills be rendered.

10 (d) If meter reading is not scheduled on a monthly basis, the utility shall supply
11 customers with meter reading forms for the periods when the meter is not scheduled to be read
12 by the utility. Customers may not be required to provide these meter readings. If the customer
13 informs the utility he or she does not desire to supply a reading, or if the form is not returned in
14 time for the billing operation, a minimum or estimated bill may be rendered.

15 (e) When an actual meter reading indicates that a previous estimated bill was abnormally
16 high or low, the utility shall calculate the bill for the entire period as if use of service was
17 uniformly distributed throughout the period. The previous estimated charge shall be deducted
18 from the recomputed total. If there is evidence to indicate that actual use was not uniform
19 throughout the period, the billing shall be adjusted according to available information.

20 (3) (a) Credits due a customer because of meter inaccuracies, errors in billing, or
21 misapplication of rates shall be shown separately and identified.

1 (b) The original billing rendered because of meter inaccuracy, or errors in billing, or
2 misapplication of rates, shall be separated from the regular bill and the charges explained in
3 detail.

4 (4) (a) Each bill for service shall be computed at the proper filed rate, which shall be the
5 rate selected by the utility unless the customer selects a rate under par. (e).

6 (b) When it is difficult to determine what rate should be applied until there has been
7 actual usage, the rate classification shall be reviewed when there has been adequate usage to
8 determine the lowest applicable rate but no later than the end of the first 12 months of usage. The
9 customer shall be notified as soon as the lowest firm service rate option has been determined and
10 be given the option to select a different applicable rate as set forth in par. (e). The rate
11 determined by the utility to be the lowest firm rate option shall be effective with the billing
12 following the date of notification by the utility unless the customer selects a rate. If the customer
13 selects a rate, the rate shall be effective with the current billing period if required billing
14 information is available but not later than the beginning of the second billing period following
15 the customer's request.

16 (c) A utility may enter into contracts with customers having terms longer than one year,
17 but the rates paid under such contracts shall be the utility's lowest applicable firm service rate
18 option, for which meter usage information is known, on file with the commission at the time of
19 the contract, unless the customer selects another applicable rate at the time of the contract.

20 (d) If the utility has information that the customer could qualify for a lower rate by
21 changing voltage delivery, or combining or separating services as allowed under the utility's
22 rules and regulations, he or she shall be notified; but no change in rates shall be made until the
23 customer makes the necessary modifications. If such modifications are made, the utility shall

1 change the customer's rate classification effective for the beginning of the current billing period
2 if required billing information is available, but the change shall be effective no later than the
3 beginning of the second billing period following the customer's request and notification has been
4 made.

5 (e) When a customer is eligible to take service under more than one rate schedule, the
6 utility shall inform the customer at the times specified in par. (f) of the option to select a rate, of
7 the options and service classifications for which the customer may be eligible and the conditions
8 necessary to qualify, and of the firm service rate option that would have resulted in the lowest
9 rate based on the previous 12 months' service and on the metered customer usage information
10 known to the utility. The information provided shall include a general explanation of electric
11 service usage characteristics to assist the customer in selecting the lowest rate consistent with the
12 customer's anticipated usage and needs. If the customer requests a change in rate classification, it
13 shall be effective at the beginning of the current billing period if required billing information is
14 available, but such change shall be effective no later than the beginning of the second billing
15 period following the customer's request.

16 (f) At least once in each calendar year customers with more than one rate option shall be
17 informed of the option to select a rate set forth in par. (e). The notification requirement may be
18 satisfied through the use of a bill insert. The customer shall also be informed of the option to
19 select a rate whenever there is a change in rates that would affect the customer, and at any other
20 time the customer so requests. If the utility notifies the customer of the option to select a rate as
21 the result of a rate change or a customer request, such notification shall satisfy the requirement to
22 notify the customer at least once in each calendar year.

1 (g) Nothing in this section shall be construed as permitting a customer to select a service
2 classification inconsistent with the utility's applicable tariff provisions or with contractual
3 agreements between the utility and the customer.

4 (5) Each utility shall offer a budget payment plan to all prospective and existing
5 residential customers and to all commercial accounts for which the primary purpose of the
6 service is to provide for residential living, subject to the following minimum requirements:

7 (a) A budget payment plan tariff shall be on file with the public service commission,
8 applicable only to charges for utility services under public service commission jurisdiction.

9 (b) A budget payment plan may be established at any time of the year. The budget
10 amount shall be calculated on the basis of the estimated consumption and estimated applicable
11 rates through the end of the budget year. If the budget year is a fixed year, then prospective and
12 existing customers requesting a budget payment plan after the start of the fixed year shall have
13 their initial monthly budget amount determined on the basis of the number of months remaining
14 in the current budget year.

15 (c) An applicant for a budget plan shall be informed at the time of application that budget
16 amounts shall be reviewed and changed every 6 months, if necessary, in order to reflect current
17 circumstances. Adjustments to the budget amount shall be made with the objective that the
18 customer's underbilled or overbilled balance at the end of the budget year shall be less than one
19 month's budget amount.

20 (d) Customers on the budget payment plan shall be notified of adjustments by means of a
21 bill insert, a message printed on the bill itself, or both. The customer shall be adequately
22 informed of the adjustment at the same time the bill containing the adjustment is rendered.

1 (e) Customers who have arrearages shall be allowed to establish a budget payment plan
2 by signing a deferred payment agreement for arrears, according to the provisions of s. PSC
3 113.0404.

4 (f) Budget payment plans shall be subject to the late payment charge provisions. In
5 addition, if a budget payment is not paid, the customer shall be notified with the next billing that
6 if proper payment is not received subsequent to this notification, the next regular billing may
7 effectuate the removal of the customer from the budget plan and reflect the appropriate amount
8 due.

9 (g) At the end of a budget year, if an underbilled or overbilled balance exists in the
10 account, the balance shall be handled as follows:

11 1. A customer's debit balance shall be paid in full or, at the customer's option, on a
12 deferred basis.

13 2. A customer's credit balance shall be applied, at the customer's option, against the
14 customer's account, credited in monthly installments to the customer's account over the course
15 of the next budget year, or refunded to the customer.

16 (6) An occupant shall apply for utility service. An occupant who uses utility service but
17 does not apply for it may be billed an estimated or actual amount at a later date for service used
18 prior to the time of application. The utility must have reasonable grounds to establish
19 responsibility for the backbilling. Failure to pay charges resulting from this backbilling may
20 result in disconnection of service. The utility shall inform the occupant of the right to dispute the
21 billing through the dispute procedures set forth in s. PSC 113.0407.

22 (7) (a) The utility may request all new customers to make an application for service. The
23 utility may require that a verbal or written application be made by telephone, letter or in person.

1 The utility shall establish a written policy for requesting the information. The utility may require
2 the customer to provide:

3 1. Name or names of party responsible for bill payment.

4 2. Address where service is to be provided.

5 3. Mailing address if different from service address.

6 4. Address of residence immediately prior to application.

7 (b) The utility may request additional credit information from applicants as part of its
8 application for service. Except as provided in s. PSC 113.0301(3), utility service shall not be
9 disconnected or refused for refusal to provide any information other than that specified in par.
10 (a).

11 (c) The utility may accept third party applications for service. The utility shall send
12 written confirmation of receipt of the service application to the party responsible for bill
13 payment.

14 (8) (a) A utility shall pay interest on customer overpayments not refunded to the customer
15 within 60 days of receipt by the utility if the net amount refunded exceeds \$20 per refund and the
16 overpayment was made to the utility due to:

17 1. Meters registering fast as defined in s. PSC 113.0924.

18 2. Use of an incorrect meter constant or multiplier.

19 3. Incorrect service or rate classification, provided the information furnished by the
20 customer to the utility was not deficient, or the customer did not choose the rate as provided in s.
21 PSC 113.0406(4).

22 4. Billing based on a switched meter condition, where the customer was on the incorrect
23 meter.

1 5. Misapplication of rates.

2 (b) A utility is not required to pay interest to customer for overpayments made for:

3 1. Financing of service extensions or other equipment.

4 2. Budget payment plans.

5 3. Estimated bills, if the utility made a reasonable effort to obtain access. Reasonable
6 efforts to gain access means that the utility has notified the customer after 3 consecutive
7 estimated readings that the utility will read the meter at other than standard business hours at the
8 customer's request.

9 4. Receipt of lump sum payments made from an outside source as the Low Income Home
10 Energy Assistance Program or other like programs.

11 (c) The rate of interest to be paid shall be calculated in the same manner as provided for
12 in s. PSC 113.0402 (9) (b). Interest shall be paid from the date when the customer overpayment
13 occurred until the date when the overpayment is refunded. Interest will be calculated on the net
14 amount overpaid in each calendar year.

15 (d) Nothing in these rules shall prevent the commission or its staff from requiring the
16 payment of interest on amounts returned to customers in those instances where the commission
17 or its staff finds that such payment is necessary for a fair and equitable resolution of an
18 individual complaint.

19
20 **History:** 1-2-56; r. and recr. (1), Register, August, 1976, No. 248, eff. 9-1-76; am. Register, March, 1979,
21 No. 279, eff. 4-1-79; am. (1), Register, October, 1980, No. 298, eff. 11-1-80; am. (5), Register, November, 1980,
22 No. 299, eff. 12-1-80; renum. (1) (d) to be (1) (f) and am. (intro.), cr. (10) (d), (e) and (g) and am. (5) (f), Register,
23 September, 1981, No. 309, eff. 10-1-81; r. recr. Register, October, 1989, No. 406, eff. 11-1-89.

24
25 **PSC 113.0407 Dispute procedures.** (1) Whenever the customer disputes the utility's
26 request for a deposit or other guarantee, or advises the utility's designated office that all or any

1 part of any billing as rendered is in dispute, or that any matter related to the disconnection or
2 refusal of service is in dispute, the utility shall:

3 (a) Investigate the dispute promptly and completely.

4 (b) Advise the customer of the results of the investigation.

5 (c) Attempt to resolve the dispute.

6 (d) Provide the opportunity for the residential customer to enter into a deferred payment
7 agreement under s. PSC 113.0404 when applicable in order to resolve the dispute.

8 (e) When a utility designates an agent to handle disputes and inquiries, and when the
9 agent refuses or fails to adequately address the disputes and inquiries, upon complaint or other
10 indicator of such refusal or failure, the dispute resolution responsibility required under this
11 section reverts to the utility.

12 (f) When utility payments are made electronically or through vendors, credit cards, or
13 other third party, and when these third parties have a contractual relationship with the utility, the
14 dispute/inquiry resolution responsibility remains with the utility.

15 (2) After the customer has pursued the available remedies with the utility, he or she may
16 request that the public service commission staff informally review the disputed issue and
17 recommend terms of settlement.

18 (3) (a) A customer's request for informal review may be made in any reasonable manner
19 such as by written request or telephoned request directed to the public service commission. By
20 telephone or written request the public service commission staff may request the utility to
21 investigate the dispute.

22 (b) The utility shall designate employees for responding to commission complaints who
23 are readily available and have an appropriate and sufficient authority level for investigating

1 concerns raised by the commission and its staff. Utilities shall promptly inform the commission
2 of any changes in these designations. A utility shall respond to public service commission staff's
3 request for an investigation by contacting the complainant within 48 hours for most
4 circumstances, or 4 hours in an emergency situation, and by providing a response to the
5 commission within 10 business days. Staff may extend this time period if the utility requests
6 more time to complete its investigation. Based on information provided by the utility and the
7 customer, public service commission staff shall make an informal determination for settlement of
8 the dispute and communicate that determination to both by telephone or mail. Either party to the
9 dispute may request and receive the public service commission staff determination, and the basis
10 for it, in writing. Commission staff shall inform any customer disputing an informal
11 determination of the right to pursue a formal review. Staff shall include any information or
12 arguments that the customer believes the commission should consider.

13 (c) There shall be at least 7 days between the date the public service commission staff
14 telephones or mails written notice of terms of settlement after informal review and any
15 subsequent disconnection.

16 (4) (a) After informal review, any party to the dispute may make a written request for a
17 formal review by the commission itself. To avoid disconnection pending a formal review, the
18 customer must request a formal review by the commission, in writing, within 7 days of the issue
19 of the informal determination. All other requests for formal review shall be made within 30 days
20 of the date the commission staff telephones or mails written confirmation if the staff telephone
21 notice is requested and mailed, the 30 day period begins from the date of that mailing.

22 (b) Within 7 days of receiving a request for formal review in a dispute involving a
23 pending disconnection of service, the commission shall make a determination whether to grant

1 the request for formal review. The commission shall base its determination on the request for
2 formal review and commission staff's informal complaint file. Within 35 days from the time that
3 all other requests for formal review are made, commission staff shall provide the commission
4 with a memorandum based on the information it has received from the utility and the customer.
5 A copy of the commission staff memorandum shall be provided to the parties 15 days prior to
6 consideration by the commission. Either party to the complaint may file a response to the
7 commission staff's memorandum. These comments shall be filed with the commission 2 working
8 days prior to the date scheduled for consideration by the commission. The commission shall
9 inform both parties of its decision.

10 (5) Either party to the complaint may request that the commission reconsider its formal
11 determination under this section. Such requests shall comply with s. 227.49, Stats., and must be
12 received by the commission within 20 days of mailing of the commission's determination. A
13 request for reconsideration shall include any additional information or arguments that the party
14 believes were not considered in the original complaint. The commission may review and reaffirm
15 its original decision, issue a new decision, or decide to hold hearing on the matter for the
16 gathering of additional information.

17 (6) (a) If the commission decides to conduct formal hearing under sub. (5) on the dispute,
18 the commission may condition the terms of its granting a formal hearing. Failure to met these
19 conditions before hearing shall constitute waiver of the dispute by the customer.

20 (b) The hearing shall conform to the procedures of ss. 196.26 to 196.34, Stats.

21 (c) Any such hearing shall be held not less than 10 days following a notice of hearing and
22 a decision thereon shall be rendered following the conclusion of the hearing.

1 (7) Utility service shall not be disconnected or refused because of any disputed matter
2 while the disputed matter is being pursued in accordance with the provisions of this section. The
3 utility shall inform the customer that pursuing a disputed matter does not relieve the customer or
4 the obligation of paying charges which are not in dispute, or prevent disconnection of service for
5 nonpayment of undisputed charges.

6
7 **History:** Emerg. cr. eff. 1-21-75; cr. Register, January, 1975, No. 229, eff. 2-1-75; am. (1), (3) (b) and (4),
8 Register, December, 1975, No. 240, eff. 1-1-76; am. (1), Register, March, 1979, No. 279, eff. 4-1-79; emerg. am. (2)
9 (a) and (b) and (3), eff. 12-17-81; am. (2) (a) and (b) and (3), Register, July, 1982, No. 319, eff. 8-1-82; r. and recr.
10 Register, October, 1989, No. 406, eff. 11-1-89.

11
12 **PSC 113.0410 Billing statement inserts.** No offer, advertisement, solicitation,
13 announcement, statement, representation or other material shall be placed on a customer's billing
14 statement unless it meets the criteria of s. 196.595(2), Stats., or Chapter PSC 113.

15 **PSC 113.0412 Limiting connected load.** If the utility maintains a rate based on
16 connected load, provision shall be made in its rules whereby the customer may arrange his or her
17 load or wiring in such manner as is reasonably acceptable to the utility, whether by the use of
18 double-throw switches or such other devices as may be approved by the utility, so that only a
19 portion of the load may be served at one time and whereby, in such cases, the connected load to
20 be used for the computation of charges shall be the largest load which can be served at any one
21 time.

22
23 **SUBCHAPTER V—CUSTOMER SERVICE AND PROTECTION**

24
25 **PSC 113.0501 Information available to customers.** (1) Each utility shall have available
26 in its offices where payments are received and at area libraries, copies of its rates and rules
27 applicable to the locality. The rates and rules shall be available for customer inspection by

1 electronic, written or telephonic means, and reasonable notice as to their availability shall be
2 provided to customers.

3 (2) Each electric utility, for every municipality in which it serves shall provide in the
4 respective telephone directories a telephone listing by which the utility can be notified during a
5 24-hour day of any utility service deficiency or emergency which may exist.

6 (3) Where a second language is common in a particular area served by the utility and so
7 identified by the commission, all rules pertaining to billing and credit shall be available upon
8 customer request, for distribution in English and that second language in every business office of
9 the utility in that area accessible to the public and where customer payments are received.

10 (4) Each utility shall provide written notice to its residential customers annually, and a
11 written notice to all new residential customers, at a minimum, of the rules on deposits, payment
12 options including deferred payment agreements and budget billing, disconnection and dispute
13 procedures; of the availability of information on energy conservation practices, of the availability
14 of a clear, concise record of the customer's actual electric consumption (or actual degree-day
15 adjusted electric consumption) for each billing period during the prior 12 months or the actual
16 number of months that the customer has lived at that location if less than 12 months, and of the
17 availability of agencies or programs which may provide financial aid assistance or counseling;
18 and contain a reply procedure to allow customers an opportunity to advise the utility of any
19 special circumstances, such as the presence of infants or elderly persons or the use of human life-
20 sustaining equipment, and to advise the utility to contact a specific third party agency or
21 individual prior to any disconnection action being taken.

22 (5) A utility shall provide on request to current or prospective customers, tenants or
23 property owners residential energy consumption information. This information shall include

1 either the average consumption for the prior 12-month period or figures reflecting the highest
2 and lowest consumption amounts for the previous 12 months. Provision of this information is
3 neither a breach of customer confidentiality nor a guarantee or contract by the utility as to future
4 consumption levels for the premises in question. The requestor shall be entitled to one such
5 statement at a charge not in excess of \$1 once every 12 months. Additional statements shall be
6 furnished if the customer pays the utility's reasonable costs of preparing and furnishing the
7 statement.

8
9 **History:** 1-2-56; emerg. cr. (3) and (4), eff. 1-21-75; cr. (3) and (4), Register, January, 1975, No. 229, eff.
10 2-1-75; r. and recr. (1), r. (2), renum. (3) and (4) to be (2) and (3), cr. (4), Register, March, 1979, No. 279, eff. 4-1-
11 79; am. (4), Register, October, 1980, No. 298, eff. 11-1-80; am.(4)cr. (5), Register, October, 1989, No. 406, eff. 11-
12 1-89.

13
14 **PSC 113.0502 Planned service interruptions.** (1) Unless conditions of an actual or
15 potential emergency nature require otherwise, each utility shall strive to give reasonable advance
16 notice to affected customers of each planned service interruption expected to last more than 30
17 minutes. No such notification is necessary when applying load control or on-peak control
18 systems.

19 (2) Whenever feasible, interruptions expected to last more than 1 hour and affect more
20 than 100 customers, or interruptions to critical loads, shall be scheduled for periods which will
21 cause a minimum of customer inconvenience.

22
23 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

24
25 **PSC 113.0503 Telephone answering time.** (1) In this section:

26 (a) "Computerized call center system" means a system where an automatic call
27 distributor is used to manage incoming calls and to place calls in a queue, and that has the
28 capability to generate significant statistical information.

1 (b) "Speed of answer" means the amount of time it takes for a call to be connected to
2 either a live agent or an automated system that is ready to assist the customer, and is measured
3 beginning from the point when the call is first queued to be connected.

4 (2) (a) A utility or its agent shall maintain sufficient employees and equipment to achieve
5 an average speed of answer of not more than 90 seconds. The average speed of answer shall be
6 determined by summing the total queuing time and dividing by the total number of customer
7 calls handled by automated systems. A utility or its agent shall calculate this average speed of
8 answer on a monthly basis, including customer service calls, outage calls, and emergency calls.

9 (b) A utility or its agent shall maintain sufficient employees to achieve an average speed of
10 live response of not more than 90 seconds. The average speed of live response shall be
11 determined by summing the total time from indication of request for live response and divided
12 by the total number of calls answered by a live agent. A utility or its agent shall calculate this
13 average speed of answer on a monthly basis, including customer service calls, outage calls, and
14 emergency calls.

15 (3) A utility or its agent shall give emergency calls the highest priority and shall be
16 generally available for all calls, and must provide customers with the option of selecting a live
17 agent contact among those selections presented by any computerized call center system.

18 (4) A utility or its agent shall maintain average speed of answer data in a manner set forth
19 by the commission, and must provide customers with the option of selecting a live agent contact
20 among those selections presented by any computerized call center system.

21 (5) The requirements of (2) to (4) do not apply in either of the following circumstances:

22 (a) To a utility or its agent that do not use a computerized call center system.

1 (b) During natural disasters, severe weather, or other events beyond the utility's control
2 that adversely impact the utility's telephone answering capabilities.

3 **PSC 113.0504 Change in type of service.** (1) If a change in type of service, such as from
4 25 to 60 Hertz, or a change in voltage to a customer's substation, is effected at the insistence of
5 the utility and not solely by reason of increase in the customer's load or change in the character
6 thereof, the utility shall share equitably in the cost of changing the equipment of the customers
7 affected as determined by the commission in the absence of agreement between utility and
8 customer.

9
10 **Note:** The change in customer's equipment should be made with the greatest possible economy to the
11 customer, and final settlement made at the time of the change. Substantially the following basis was prescribed by
12 the commission in Jackman v. Janesville Electric Co., 17 W.R.C.R. 356, and has been customarily adopted as the
13 basis for settlement:

- 14 Payment by the utility to the customer of:
- 15 1. The remaining value of the customer's electrical equipment which is made obsolete;
 - 16 2. The cost of making the resulting necessary change in interior wiring; and
 - 17 3. The cost of installing the new equipment and removing the old, less the salvage value of such equipment
18 as the customer retains.

19
20 (2) If a utility changes its standard voltage it shall notify customers in advance and if
21 customer equipment other than lamps must be changed, an adjustment as required in sub. (1)
22 hereof shall be made. If tests of a representative sample of customers' meters indicate that meters
23 have started to creep because of the voltage increase or if the tests of the representative sample
24 show that meters average more than 0.5% fast, meters affected by the change in voltage shall be
25 tested and adjusted.

26
27 **History:** 1-2-56; am. (1), Register, February, 1978, No. 266, eff. 3-1-78.

28
29 **PSC 113.0505 Low-income service requirements.** (1) A utility shall maintain and
30 deliver services that ensure safe, affordable, reliable service, and attempt to mitigate and prevent
31 energy hardships before they arise. The utility shall strive to meet the following five goals: to

1 serve the target population of customers with actual or potential energy hardships, to provide
2 customers with the assistance they need, to educate internal utility staff so that they understand
3 low-income households and are aware of services offered by the utility and outside resources, to
4 adapt and improve, and to establish and maintain inter-utility coordination. The utility shall
5 maintain sufficient data on its performance with regard to the goals and parameters of this
6 section in a manner satisfactory to the commission. Effectiveness in meeting the service
7 requirements shall be monitored and measured against the following parameters:

8 (a) A description of the utility's low-income/at-risk customer services including the
9 mission/vision/goals and organizational staffing structure. The report shall include the
10 organizational staffing structure, name, telephone number, location, position description, and
11 training of representatives who staff the services for low-income/at-risk customers.

12 (2) Any information received from individual customers which serves to identify them
13 individually, by usage or status, shall not be released by a utility to any source other than a utility
14 low-income assistance program or the customer, without the customer's consent. In preparing
15 summaries or reports, a utility shall not provide any information from which the identity, usage,
16 or account status of any individual customer can be ascertained.

17 **PSC 113.0506 Stray voltage service fees.** (1) All investor-owned electric utilities which
18 have annual gross operating revenues related to electricity of less than \$100,000,000 and all
19 electric cooperatives with retail customers organized under ch. 185, Wis. Stats., will be assessed
20 a service fee of \$500 per investigation under the scope of the stray voltage program.

21 (2) All investor-owned electric utilities which have annual gross operating revenues
22 related to electricity of more than \$100,000,000 shall be assessed according to s. 196.857 (1m),
23 Wis. Stats.

1 (3) Electric cooperatives with retail customers organized under ch. 185, Wis. Stats., will
2 be assessed a total of \$50,000 annually. Each electric cooperative shall provide an equal portion
3 for this assessment. The amounts received under this paragraph shall be credited to the
4 appropriation made in s. 20.155 (1) (l), Wis. Stats., and credited against the assessment collected
5 under s. 196.857 (1m) (a), Wis. Stats. The cooperatives shall pay the total amount that is
6 assessed within 30 days after it receives a bill for that amount from the commission. The bill
7 constitutes notice of assessment and demand of payment.

8 (4) Each applicant for stray voltage program services may be assessed a fee not to exceed
9 \$300.

10 (5) Reasonable fees, based on actual costs, may be assessed for services rendered other
11 than those for the on-farm site-related fees in sub. (1) and (4) above. The fees collected in this
12 paragraph shall be credited to the appropriation account under s. 20.155 (1) (l), Wis. Stats.

13 **PSC 113.0507 Unconscionability.** (1) If the commission finds that any conduct or aspect
14 of a transaction directed against a customer by a utility is unconscionable, it may refuse to
15 enforce any unconscionable aspect or conduct to avoid any unconscionable result.

16 (2) Without limiting the scope of (1), the commission may consider, among other things,
17 the following as pertinent to the issue of unconscionability:

18 (a) That the practice unfairly takes advantage of the lack of knowledge, ability,
19 experience or capacity of customers.

20 (b) That those engaging in the practice know of the inability of customers to receive
21 benefits properly anticipated from the goods or services involved.

1 (c) That there exists a gross disparity between the price of goods or services and their
2 value as measured by the price at which similar goods or services are readily obtainable by other
3 customers, or by other tests of true value.

4 (d) That the practice may enable merchants to take advantage of the inability of
5 customers to reasonably protect their interests by reason of physical or mental infirmities,
6 illiteracy or inability to understand the language of the agreement, ignorance or lack of education
7 or similar factors.

8 (e) That the terms of the transaction require customers to waive legal rights.

9 (f) That the terms of the transaction require customers to unreasonably jeopardize money
10 or property beyond the money or property immediately at issue in the transaction.

11 (g) That the natural effect of the practice would reasonably cause or aid in causing
12 customers to misunderstand the true nature of the transaction or their rights and duties
13 thereunder.

14 (h) That the writing purporting to evidence the obligation of the customer in the
15 transaction contains terms or provisions or authorizes practices prohibited by law.

16 **PSC 113.0508 Oppressive and deceptive practices prohibited.** A utility shall not
17 engage in any oppressive or deceptive practices. It shall not do any of the following:

18 (1) Use or threaten force or violence to cause physical harm to the person, dependents, or
19 property of the ratepayer.

20 (2) Threaten criminal prosecution without merit or authority.

21 (3) Initiate or threaten to initiate communications with the ratepayer's employer except as
22 permitted by statute.

1 (4) Engage in any conduct which can reasonably be expected to threaten or harass a
2 ratepayer.

3 (5) Claim or attempt to claim to enforce a right, with knowledge or reason to know that
4 the right does not exist.

5 (6) Use obscene, threatening, or abusive language in communicating with a ratepayer or a
6 person related to a ratepayer.

7 **PSC 113.0509 Landowner easements.** (1) When approaching a landowner in the course
8 of negotiating new easements or renegotiating existing easements, the utility shall provide the
9 landowner with materials approved or prepared by the commission describing the landowner's
10 rights and options in the easement negotiation process. The landowner shall have, unless
11 voluntarily waived by the landowner, a minimum period of five days to examine these materials
12 before signing any new or revised easement agreement.

13 (2) High-voltage transmission line easements shall describe the interest transferred by
14 specifying, in addition to the length and width of the right-of-way, the number, type, and
15 maximum height of all structures to be erected thereon, the minimum height of the transmission
16 lines above the landscape, and the number and maximum voltage of the lines to be constructed
17 and operated thereon, as required by s. 182.017(7).

18 **PSC 113.0510 Tree trimming contacts.** When trimming trees and other vegetation in
19 electric line right-of-way maintenance, the utility shall make a reasonable attempt to contact the
20 landowner a minimum of twenty-four hours prior to beginning of work on the landowner's
21 property. This contact may take the form of a written notice delivered to the landowner's
22 residence, a telephone call to the landowner, or an in-person contact. Reasonable effort shall be

1 made by the utility to accommodate a landowner's desire to be present when work is done on his
2 or her property. Emergency repairs are exempted from this notification requirement.

3 **PSC 113.0511 Oak tree cutting and pruning.** (1) In urban/residential areas: From April
4 15 through July 1 of each year, no pruning or cutting of oak trees is permitted except in
5 emergencies. Herbicide treatment of stumps to prevent sprouting may substitute for the painting
6 of stumps. If a tree is dead at the time of cutting, no treatment is necessary.

7 (2) An urban/residential site is any site within incorporated village or city boundaries or
8 any site in direct association with permanent or seasonal residences and dwellings. Residential
9 sites include developed lawn areas and other intensively landscaped areas such as business and
10 industrial properties, parks, and golf courses. Residential sites include areas where the vegetation
11 is intensively managed and typically involve yard and street trees of high landscape and
12 ornamental value.

13 (3) In rural areas: From April 15 through July 1 of each year, pruning paint must be
14 applied to all final cuts on oak trees immediately after cutting. Herbicide treatment of stumps to
15 prevent sprouting may substitute for the painting of stumps. If a tree is dead at the time of
16 cutting, no treatment is necessary.

17 (4) A rural site is any site not in direct association with a permanent or seasonal
18 residence. Rural sites include sites in areas of agricultural and forest land use. Rural sites are not
19 intensively developed and typically include areas occupied by native vegetation cover types and
20 are stocked with naturally-occurring plants.

21 (5) Emergency pruning or removal of oaks within the April 15 to July 1 time period is
22 permitted to maintain necessary levels of safety, service, and reliability. Some situations where
23 emergency tree pruning and removal may be necessary include:

1 (a) Storm-related damage to electrical facilities and/or adjacent trees has caused or could
2 cause a power outage.

3 (b) Bringing electrical service into a new residence or business.

4 (c) Moving electrical facilities to accommodate road, pipeline, or building construction.

5 (d) Rebuilding or upgrading distribution facilities.

6 (6) Counties where oak wilt has not been confirmed are exempted from these oak tree
7 cutting and pruning restrictions. The commission shall annually provide the utilities with a list of
8 exempted counties.

9 **PSC 113.0512 Identification of potential power line natural hazards. (1)**

10 IDENTIFICATION OF POTENTIAL POWER LINE NATURAL HAZARDS. Utilities shall conduct a program
11 of identification of potential power line natural hazards in accordance with training approved by
12 the commission.

13 (2) INSPECTION TO IDENTIFY POTENTIAL POWER LINE NATURAL HAZARDS. (a) *Inspection.*

14 The utilities shall conduct inspections of its operations, including its transmission and
15 distribution lines and facility rights-of-way, every 3 to 8 years, and within 60 days of an order for
16 inspection issued by the commission.

17 (b) *Request for Inspection.* Any person, organization or agency may request the utility to
18 make an inspection for potential power line natural hazards, and the commission on its own
19 motion, may order the utility to inspect its transmission and distribution lines and rights-of-way
20 for potential power line natural hazards. The utility shall make such inspection upon a showing
21 that potential power line natural hazards may exist.

22 (3) RESPONSE TO IDENTIFICATION OF POTENTIAL POWER LINE NATURAL HAZARDS. Upon
23 identifying a potential power line natural hazard, the utility shall take action to eliminate the

1 hazard to the power line. The utility shall make a reasonable effort to notify the owner or other
2 individual with authority, to trim or remove the tree of the potential danger and method by which
3 the danger may be minimized or removed. Nothing in this section shall preclude the utility's
4 obligation to immediately remove the hazard, as required by ch. PSC 114, Wis. Admin. Code.

5
6 **Note.** Section 26.14(9) (b), Stats., subjects a person to liability for the cost of suppressing a forest fire if the
7 forest fire is intentionally or negligently set and allowed to escape. A utility not inspecting its lines or operations to
8 identify, trim or remove hazardous trees consistent with these rules may be found negligent and, therefore,
9 responsible for payment of forest fire suppression costs resulting from a forest fire caused by a tree or branch
10 breaking or damaging a line or equipment. A utility complying with these rules, is not expected to be responsible for
11 costs associated with forest fire suppression under s. 26.14(9) (b), Stats. If a utility complying with this section is not
12 authorized to trim or remove a tree it identifies as hazardous, consistent with the training required by it; a landowner
13 notified of the potential danger or damage that may be caused to the transmission or distribution line or operation,
14 might be found later to have been negligent and responsible for the costs of setting and allowing a forest fire to
15 escape; however, the agency seeking reimbursement for the costs has the burden of proving that the landowner is
16 responsible. The goal of this effort is to reduce the likelihood of outages and forest fires, thereby reducing the
17 likelihood that anyone is responsible for forest fire suppression costs.

18
19 **PSC 113.0513 Wetlands work.** Insofar as is practical, any electric transmission and
20 distribution line construction work in wetlands shall be scheduled and completed at times when
21 the wetlands are frozen in order to minimize damage or disruption.

22
23 **SUBCHAPTER VI—SAFETY AND SERVICE STANDARDS**

24
25 **PSC 113.0601 Standards for electric service reliability.** (1) The purpose of ss. PSC
26 113.0601 to PSC 113.0605 is to establish standards and reporting requirements to provide
27 consumers, the commission and electric utilities with a uniform method to monitor the reliability
28 of electric service delivered in an electric utility's operating area. These rules adopt definitions
29 and requirements for maintenance of interruption data, retention of records, and report filing, in
30 addition to those in the other sections of Subchapter IV.

31 (2) In general, utilities are expected to provide sufficient resources to assure reasonably
32 adequate and reliable service to all of their customers under normal operating conditions. These
33 standards establish the reliability of service on an annual basis under all operating conditions,

1 including during major storms, major catastrophic events, and police actions. A utility may
2 supply supplemental reliability statistics excluding the aforementioned situations (in addition to
3 the statistics with those events included) with a written justification for exclusion.

4 (3) The commission will use this information to measure and monitor overall reliability
5 performance of individual utilities. The commission may review data by utility, trends of
6 measures over time, and comparison of measures between and among utilities of similar
7 characteristics. Where necessary, the information may be used by the commission to take
8 enforcement actions through other proceedings to maintain or improve reliability performance
9 and to assure customers are receiving reasonably adequate service.

10 **PSC 113.0602 Definitions.** In ss. PSC 113.0602 to PSC 113.0605, the following
11 definitions shall apply:

12 (1) "Average number of customers served" means the number of active metered customer
13 accounts as available in a utility's interruption reporting database on the day that an interruption
14 occurs.

15 (2) "Circuit" means a set of conductors serving customer loads that are capable of being
16 separated from the serving substation automatically by a recloser, fuse, sectionalizing equipment,
17 etc.

18 (3) "Component" means a piece of equipment, a line, a section of line, or a group of
19 items which is an entity for purposes of reporting, analyzing, and predicting interruptions.

20 (4) "Customer" means a separately-metered electrical service point for which a separate
21 bill is rendered, i.e., each meter represents a customer.

22 (5) "Customer interruption" means the loss of service due to a forced outage for more
23 than five minutes, for one or more customers, which is the result of one or more component

1 failures. For example, a downed house service is one interruption and a disconnected hot leg of a
2 triplex house service, known as a “half-light” condition, is one customer interruption. However,
3 failure of a transformer serving four customers is four customer interruptions.

4 (6) “Customer interruptions caused by power restoration process” means when customers
5 lose power as a result of the process of restoring power (such as from switching operations and
6 fault isolation). The duration of these outages is included in the customer-minutes of
7 interruption. However, only the customers affected by the power restoration outages that were
8 not affected by the original outage are added to the number of customer interruptions.

9 (7) “Customer-minutes of interruption” means the number of minutes of forced outage
10 duration multiplied by the number of customers affected. For instance, a 90 minute forced outage
11 on a circuit serving ten customers would total 900 customer-minutes of interruption.

12 (8) “Electric distribution line” means circuits operating at less than 40,000 volts.

13 (9) “Forced outage” means an outage which cannot be deferred.

14 (10) “Major catastrophic events” means train wrecks, plane crashes, or explosions that
15 are beyond the utility’s control, and result in widespread system damages causing customer
16 interruptions that affect at least ten percent of the customers in the system or in an operating area
17 and/or result in customers being without electric service for durations of at least 24 hours.

18 (11) “Major storm” means a period of severe adverse weather resulting in widespread
19 system damage causing customer interruptions that affect at least ten percent of the customers on
20 the system or in an operating area and/or result in customers being without electric service for
21 durations of at least 24 hours.

22 (12) “Momentary interruption” means an interruption of electric service with a duration
23 shorter than the time necessary to be classified as a customer interruption.

1 (13) "Operating area" means a geographical sub-division of each electric utility's service
2 territory that functions under the direction of a company office and may be used for interruption
3 reporting under this part. These areas may also be referred to as regions, divisions, or districts.

4 (14) "Outage" means the failure of a power system component that results in one or more
5 customer interruptions.

6 (15) "Outage duration" (reported in minutes) means the one minute or greater period
7 from the initiation of an interruption to a customer until service has been restored to that
8 customer.

9 (16) "Partial circuit outage customer count" means where only part of a circuit
10 experiences an outage, the number of customers affected is estimated, unless an actual count is
11 available. When power is partially restored, the number of customers restored is also estimated.
12 Most utilities use estimates based on the portion of the circuit restored.

13 (17) "Planned outages" means those outages which the utility schedules. When customer
14 service interruptions are necessary, the utility should notify affected customers in advance. These
15 interruptions are sometimes necessary to connect new customers or perform maintenance
16 activities safely. They shall not be included in the calculation of reliability indices.

17
18 **Note:** Also see s. PSC 113.0502, Planned service interruptions.

19
20 (18) "Police actions" means request or order of police or fire officials to interrupt service
21 due to an emergency.

22 (19) "Reliability" means the degree to which electric service is supplied without
23 interruption.

24 (20) "Reliability indexes" include the following performance indices for measuring
25 frequency and duration of service interruptions that have been developed by the Edison Electric

1 Institute (EEL), the Institute of Electrical and Electronics Engineers (IEEE), the Canadian
2 Electric Association (CEA), and the American Public Power Association (APPA). They are
3 recognized as standard definitions for the electric utility industry and may be applied to entire
4 distribution systems, operating areas, sub-operating areas or individual circuits. Customer
5 interruptions attributed to major storms, major catastrophic events, or police actions, as defined
6 herein, shall be included in the calculation of these indices throughout this standard.

7 (a) System Average Interruption Frequency Index (SAIFI). The SAIFI index is the
8 average number of interruptions per customer during a year. It is determined by dividing
9 the total annual number of customer interruptions by the average number of customers
10 served during the year.

11
12
$$\text{SAIFI} = \frac{\text{total number of customer interruptions}}{\text{average number of customers served}}$$

13
14

15 (b) System Average Interruption Duration Index (SAIDI). The SAIDI index is the
16 average customer-minutes of interruption per customer. It is determined by dividing the
17 annual sum of customer-minutes of interruption by the average number of customers
18 served during the year.

19
20
$$\text{SAIDI} = \frac{\text{sum of customer-minutes of interruption}}{\text{average number of customers served}}$$

21
22

23 (c) Customer Average Interruption Duration Index (CAIDI). The CAIDI index is the
24 average customer-minutes of interruption per customer interruption. It approximates the
25 average length of time required to complete service restoration. It is determined by
26 dividing the annual sum of all customer-minutes of interruption durations by the annual
27 number of customer interruptions.

1 CAIDI = $\frac{\text{sum of customer-minutes of interruption}}{\text{total number of customer interruptions}}$
2
3

4 **PSC 113.0603 Recording standards. (1) AGGREGATE SYSTEM RELIABILITY**

5 PERFORMANCE. Each electric utility with 100,000 customers or more shall keep a record of the
6 necessary interruption data and calculate the SAIFI, SAIDI and CAIDI indices of its system, and
7 of each operating area, if applicable, at the end of each calendar year for the previous 12-month
8 period.

9 (2) Individual circuit reliability performance. Each utility also shall, at the end of each
10 calendar year, calculate the SAIFI, SAIDI and CAIDI indices for each circuit in each operating
11 area. Each circuit in each operating area shall then be listed in order separately according to its
12 SAIFI index, its SAIDI index, and also its CAIDI index, beginning with the highest values for
13 each index.

14 (3) Utilities shall maintain as much information as feasible on momentary outages. Each
15 utility shall keep an annual count of recloser operations, or equivalent information through
16 application of monitoring technology.

17 **PSC 113.0604 Annual report. (1)** Beginning on May 1, 2001, and by May 1 of every
18 year thereafter, each electric utility with 100,000 customers or more, shall file with the
19 commission a report summarizing various measures of reliability. The form of the report shall be
20 subject to review and approval by the commission staff. Names and/or numbers used to identify
21 operating areas or individual circuits may conform to the utility's practice, but should allow
22 ready identification of the geographic location or the general area served. Electronic (computer)
23 recording and reporting of the required data and information is encouraged. The report shall
24 include at least the following information:

1 (2) (a) An overall assessment of the reliability performance including the aggregate
2 SAIFI, SAIDI and CAIDI indices by system and each operating area, as applicable.

3 (b) A list of the worst-performing circuits based on SAIFI, SAIDI, and CAIDI indexes,
4 for the calendar year. This section of the report shall describe the actions that the utility has taken
5 or will take to remedy the conditions responsible for each listed circuit's unacceptable
6 performance. The action(s) taken or planned should be briefly described. Target dates for
7 corrective action(s) shall be included in the report. When the utility determines that actions on its
8 part are unwarranted, its report shall provide adequate justification for such a conclusion.

9 (c) Utilities that use or prefer alternative criteria for measuring individual circuit
10 performance to those described in s. PSC 113.0603 above, and which are required by this section
11 to submit an annual report of reliability data, shall submit their alternative listing of circuits
12 along with the criteria used to rank circuit performance.

13 (d) A report on the accomplishment of the improvements proposed in prior reports for
14 which completion has not been previously reported.

15 (e) A description of any new reliability or power quality programs and changes that are
16 made to existing programs.

17 (f) A status report of any long range electric distribution plans.

18 (3) In addition to the information included in (1) above, each utility shall report the
19 following additional service quality information:

20 (a) Route miles of electric distribution line reconstructed during the year. Separate totals
21 for single- and three-phase circuits shall be provided.

22 (b) Total route miles of electric distribution line in service at year's end, segregated by
23 voltage level.

1 (c) Monthly average speed of answer, as defined in s. PSC 113.0503(1) (b), for telephone
2 calls received regarding emergencies, outages, and customer billing problems.

3 (d) The average number of calendar days a utility takes to install and energize service to a
4 customer site once it is ready to receive service. A separate average shall be calculated for each
5 month, including all extensions energized during the calendar month.

6 (e) The total number of written and telephone customer complaints received in the areas
7 of safety, customer billing, outages, power quality, customer property damage, and other areas,
8 by month filed.

9 (f) Total annual tree trimming budget and actual expenses.

10 (g) Total annual projected and actual miles of distribution line tree trimmed.

11 **PSC 113.0605 Initial historical reliability performance report.** (1) Each electric utility
12 with 100,000 customers or more that has historically used measures of system, operating area
13 and circuit reliability performance, shall initially submit annual SAIFI, SAIDI and CAIDI data
14 for the previous three years. Those utilities that have this data for some time period less than
15 three years shall submit data for those years it is available.

16 (2) Those utilities whose historical reliability performance data is similar or related to
17 those measures defined above, but differs due to how the parameters are defined or calculated,
18 should submit the data it has and explain any material differences from the prescribed indices.
19 After the effective date of this section, utilities shall modify their reliability performance
20 measures to conform to those specified herein for purposes of consistent reporting of comparable
21 data in the future.

22 **PSC 113.0606 Interruptions of service.** (1) Each utility shall keep a record of all
23 interruptions to service affecting the entire distribution system of any single community or an

1 important division of a community, and include in such record the location, date and time of
2 interruption, the duration, the approximate number of customers affected, the circuit or circuits
3 involved, and, when known, the cause of each interruption.

4 (2) When complete distribution systems or portions of communities have service
5 furnished from unattended stations, these records shall be kept to the extent practicable. The
6 record of unattended stations shall show interruptions which require attention to restore service,
7 with the estimated time of interruption. Breaker or fuse operations affecting service should also
8 be indicated even though duration of interruption may not be known.

9 (3) Each utility shall notify the commission of any event described in (a), (b), (c), (d) or
10 (e) involving bulk power supply facilities (any generating unit or electric facilities operating at a
11 nominal voltage of 69 kV or higher):

12 (a) Any interruption or loss of service to customers for 15 minutes or more to aggregate
13 firm loads in excess of 200,000 kW. Such notification shall be made by telephone as soon as
14 practicable without unduly interfering with service restoration and, in any event, within one hour
15 after beginning of the interruption. A confirming written report shall be submitted within 2
16 weeks.

17 (b) Any interruption or loss of service to customers for 15 minutes or more to aggregate
18 firm loads exceeding the lesser of 100,000 kW or half of the current annual system peak load and
19 not required to be reported under (a). Such notification shall be made by telephone no later than
20 the beginning of the commission's next regular work day after the interruption occurred. A
21 confirming written report shall be submitted within 2 weeks.

1 (c) Any decision to issue a public request for reduction in use of electricity. Notification
2 of such decision shall be made by telephone at the time of issuing such request. A confirming
3 written report shall be submitted within 2 weeks.

4 (d) Any action to reduce firm customer loads by reduction of voltage for reasons of
5 maintaining adequacy of bulk electric power supply. Notification of such action shall be made by
6 telephone at the time of taking such action. A confirming written report shall be submitted within
7 2 weeks.

8 (e) Any action to reduce firm customer loads by manual switching, operation of
9 automatic load shedding devices, or any other means for reasons of maintaining adequacy of
10 bulk electric power supply. Notification of such action shall be made by telephone at the time of
11 taking such action.

12 (4) Each utility shall notify the commission of service interruptions not involving bulk
13 power supply facilities as follows:

14 (a) Interruptions of 60 minutes or more to an entire distribution substation bus or entire
15 feeder serving either 500 or more customers or entire cities or villages having 200 or more
16 customers shall be reported within 2 weeks by a written report.

17 (5) The written reports of (3) and (4) above shall include the date, time, duration, general
18 location, approximate number of customers affected, identification of circuit or circuits involved,
19 and, when known, the cause of the interruption. When extensive interruptions occur, as from a
20 storm, a narrative report including the extent of the interruptions and system damage, estimated
21 number of customers affected, and a list of entire communities interrupted may be submitted in
22 lieu of reports of individual interruptions.

23 **History:** 1-2-56; am. (1) and cr. (3) to (5), Register, February, 1978, No. 266, eff. 3-1-78.
24
25

1 **PSC 113.0607 Appropriate inspection and maintenance: system reliability. (1)**

2 **PREVENTATIVE MAINTENANCE PLAN.** Each utility or other person subject to this chapter,
3 including persons who own electric generating facilities in this state who provide service to
4 utilities with contracts of five years or more, shall develop and have in place its own preventative
5 maintenance plan. This section is applicable to electric generating facilities as set forth at s.
6 196.491(5)(a)(1), Stats. Each plan shall include, among other things, appropriate inspection,
7 maintenance and replacement cycles where applicable for overhead and underground distribution
8 plant, transmission, generation, and substation facilities.

9 (2) **CONTENTS OF THE PLAN.** (a) *Performance standard.* The Preventative Maintenance
10 Plan shall be designed to ensure high quality, safe, and reliable service, considering: cost,
11 geography, weather, applicable codes, national electric industry practices, sound engineering
12 judgment and experience.

13 (b) *Elements of the plan.* 1. 'Inspection.'

14 a. Inspection schedule and methods. The Plan shall include a schedule for the periodic
15 inspection as approved by the commission) of all facilities owned and operated by the utility and
16 used to provide electric service to its customers. The Plan shall describe the method for
17 inspection of each type of equipment as designated by the reporting utility. Checklist/report
18 forms shall be included in the Plan.

19 b. Instructions to inspectors. The Plan shall include guidelines for inspectors to determine
20 the condition of a facility or piece of equipment.

21 2. 'Condition rating criteria.' A rating criteria shall be established to grade the condition
22 of a facility or piece of equipment. Rating criteria for generating facilities should conform to

1 Generator Availability Data System (GADS) requirements as reported to the National Electric
2 Reliability Council (NERC), or other accepted industry practices.

3 3. 'Corrective action schedule.' The results of inspections, assessments and condition
4 rating criteria shall be used to define the schedule for implementing maintenance on the facility
5 or piece of equipment. The Plan shall describe how facilities or equipment corrective action
6 schedules are added to the utility's budget.

7 4. 'Record keeping.' Each utility shall maintain records to allow auditing of its
8 preventative maintenance plan implementation. The records shall include inspection dates,
9 condition rating, schedule for repair (if applicable), and the date of completion of the repair.
10 Inspection and repair records shall be retained for a minimum of ten years.

11 5. 'Filing of plans.' Each utility, as well as the transmission company created by s.
12 196.485, Stats., shall file a plan in compliance with this rule within 180 days of acceptance of the
13 rules or, in the alternative, within 180 days after the utility transmission company or other person
14 subject to this chapter begins operation of a facility subject to this chapter.

15 6. 'Reporting requirements.' Each utility shall provide a periodic report to the
16 commission showing compliance with its Preventative Maintenance Plan. The report shall
17 include a list of inspected circuits and facilities, the condition of facilities according to
18 established rating criteria, schedules established, and success at meeting the established
19 schedules. For generation facilities, the report shall include a summary of each generating unit's
20 operating performance statistics based on the utility's GADS data, or other accepted industry
21 data convention. Reported generating unit performance data shall include net dependable
22 capacity, capacity factor, forced outage rate, scheduled outage rate, primary fuel, and production

1 technology type. The commission shall establish a periodic report schedule for each utility of at
2 least once every two years.

3 7. At least annually, utilities shall exchange planned outage information for the coming
4 year for expected maintenance and other outages of generators of 50 MW or more and
5 transmissions lines of 100 kV and higher voltage. Utilities shall also supply the same information
6 for nonutility generators of 50 MW or more in their control areas. Utilities shall exchange
7 updates of such information as soon as reasonably practicable when such updated information
8 becomes known.

9 **PSC 113.0608 Emergency response.** Each utility with 25,000 customers or more shall
10 establish procedures to record and monitor its response times for emergencies, such as calls for
11 assistance from police, fire, emergency medical services officials, and any calls or reports of
12 wire contacts, dig-ins, wires down, utility facilities on fire, unauthorized entry into utility
13 facilities, unsecured public access to energized equipment, or any similar activity on or near
14 utility facilities constituting a hazardous condition or an immediate threat or danger to persons,
15 customers' property, customers business operations or general property. In general, the records
16 of these calls should include the date and time received; the identity (if known) of the caller; the
17 identity of the person receiving the call; the location and nature of the problem, incident, or
18 accident; the time the utility responder arrived at the location; the total time to respond; and the
19 final disposition or resolution of the problem.

20
21 **Note:** It is recognized that strict compliance with this rule may be difficult during major system-wide or
22 large area emergencies, for example, major wind or ice storms where many outage reports may also involve reports
23 of "wires down." However, reasonable efforts should still be made to identify and give priority response to calls for
24 assistance from police and fire officials who may be "first responders." This will allow these locations to be secured
25 so the police or fire units can be released to pursue other duties.
26

1 **PSC 113.0609 Customer satisfaction surveys.** (1) Using methods approved by the
2 commission, the utility shall fund annual regular quantitative assessments, made by an
3 independent entity, of the satisfaction of all customer classes with the services they have
4 received from the utility. The results of these assessments shall be filed with the commission.
5 The utility shall provide to the commission a detailed report of the information from any research
6 it has conducted in the past year to help assess:

7 (a) The satisfaction of the utility's customers with the services they have received from
8 the utility.

9 (b) The specific new services or alterations to existing services desired by customers.

10 (2) This information shall at a minimum include the following:

11 (a) A detailed description of the methods used to conduct the research and analyze the
12 results.

13 (b) The results of the research, including mean scores for all variables studied, both for
14 the study sample as a whole and for meaningful sample subgroups.

15 **PSC 113.0610 Customers' complaints.** (1) Each utility shall investigate and keep a
16 record of complaints received by it from its customers in regard to safety, service, or rates, and
17 the operation of its system with appropriate response times designated for critical safety and
18 monetary loss situations. The record shall show the name and address of the complainant, the
19 date and nature of the complaint, the priority assigned to the assistance, and its disposition and
20 the time and date thereof.

21 (2) Each utility also shall document all contacts and action relative to deferred payment
22 agreements and disputes.

23 **History:** 1-2-56; am. Register, March, 1979, No. 279, eff. 4-1-79.14
24
25

1 **PSC 113.0611 Employees authorized to enter customers' premises.** The utility shall
2 keep a record of employes authorized pursuant to s. 196.171, Stats., to enter customers'
3 premises.

4 **PSC 113.0612 Employee safety.** Each public utility subject to the accident reporting
5 requirements of OSHA shall provide a safety performance report annually to the commission at
6 the same time it is submitted to OSHA. The report shall include the OSHA Incidence Rate and
7 Lost Time Rate. The report shall also include the last three years' average for each of these rates.

8
9 **Note:** Also see Chapter PSC 104, Recording and Reporting Utility Accidents.

10
11 **PSC 113.0613 Maps and diagrams.** Each utility shall have record systems (maps,
12 records, diagrams, drawings or computer display systems) showing the location of its property,
13 in sufficient detail so that the adequacy of service to existing customers may be checked and
14 facilities located.

15
16 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78.

17
18 **PSC 113.0614 Preservation of records.** The following records shall be preserved and
19 kept available for inspection by the commission for the periods indicated. The list is not to be
20 taken as comprehending all types of utility records.

<u>Description of Records</u>	<u>Period to be Retained</u>
21 Maps showing the location and physical characteristics of 22 existing facilities	Perpetually
23 Engineering records in connection with construction 24 projects if construction of project results wholly or in part	Until record is superseded 25 or 6 years after plant is 26 retired
27 Production Records:	
28 Station and system generation records	Permanently
29 All other records taken in the plant	6 years

1 Operating Records:

2 Load dispatcher data..... 6 years

3 Interruption records 6 years

4 Meter test..... See PSC 113.0919

5 Meter history records Life of meter

6 Annual meter accuracy summary 16 years

7 Voltmeter records..... See PSC 113.0706 (5)

8 All other records of operation 6 years

9

10 Equipment Records:

11 Must be placed in mortality study before destroying Life of equipment

12

13 Customers' Records:

14 Inspection of customers' premises 6 years

15 Customers' complaint record 6 years

16 Meter reading sheets.. * years

17 → Billing record * years

18 Customer deposits 6 years after refund

19

20 Filed rates and rules... Permanently

21

22 Note: See also "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities"

23 adopted by the commission in dockets 2-U-5005 and 2-U-5396, May 4, 1972, for more comprehensive listing of

24 retention periods of specific records.

25 *Where machine billing is used and meter readings recorded on tabulating cards the register sheets may be

26 considered the "meter reading sheets" and the "billing records." "Meter reading sheets" and "billing records" or the

27 "register sheets" shall be kept 6 years or until they are no longer needed to adjust bills. This means that the records

28 must be kept 6 years or from the date of one meter test to the next whichever is longer.

29

30 **PSC 113.0615 Inventory of conductors.** Each utility shall maintain an inventory of

31 Copperweld conductor, sizes 6A and smaller that is more than 50 years old (as of January 1,

32 1998). The inventory shall include the amount of such conductor by size and age and its location

33 as needed in the distribution system. Each utility shall submit its inventory to the public service

34 commission every four years until all of this conductor is retired and removed from service.

35

36

37 **SUBCHAPTER VII—VOLTAGE BANDWIDTH AND**

38 **VOLTAGE DISTORTION REQUIREMENTS**

39

40 **PSC 113.0701 Definitions.** In ss. PSC 113.0701 to PSC 113.0708, the following

41 definitions apply:

1 (1) "Flicker" or "voltage flicker," as defined by IEEE Standard 1100-1992, means a
2 variation of input voltage sufficient in duration to allow visual observation of a change in electric
3 light intensity.

4 (2) "Harmonic distortion," as defined by IEEE Standard 1100-1992, means the
5 mathematical representation of the distortion of the pure sine waveform. Distortion of the pure
6 sine waveform is typically caused by loads that draw current discontinuously or whose
7 impedance varies during the cycle of the input ac voltage waveform.

8 (3) "Point of service" means the connection point between the customer electrical system
9 and the utility electrical system.

10 (4) "Power quality," as defined by IEEE Standard 1100-1992, means the concept of
11 powering and grounding sensitive electronic equipment in a manner that is suitable to the
12 operation of that equipment.

13 (5) "Retail power service" means service furnished principally for electromotive or
14 industrial purposes and may include service for lighting incidental thereto, as defined in the
15 utility's rates and rules.

16 (6) "Sag" as defined by IEEE Std 1100-1992, means an rms reduction in the ac voltage,
17 at the power frequency, for durations from a half-cycle to a few seconds.

18 (7) "Swell" as defined by IEEE Std. 1100-1992, means an rms increase in the ac voltage,
19 at the power frequency, for durations from a half-cycle to a few seconds.

20 (8) "Transient" as defined by IEEE Std. 1100-1992, means a subcycle disturbance in the
21 ac waveform that is evidenced by a sharp but brief discontinuity of the wave form. May be of
22 either polarity and may be additive to or subtractive from the nominal waveform.

1 (9) "Steady state voltage" means the rms voltage after all sags, swells and transients have
2 decayed to a negligible value.

3 (10) "Service voltage" means the steady state voltage at the point of service.

4 **PSC 113.0702 Standard and maintenance of a service voltage.** Each utility shall adopt
5 standard nominal service voltages for each of the several areas into which the distribution system
6 or systems may be divided, and shall file with the commission a statement of the standard
7 voltages adopted. The service voltage shall be reasonably constant within the following limits:

8 (1) For all retail service, except retail power service, the service voltage shall not vary by
9 more than 5% above or below the standard voltage.

10 (2) For retail power service furnished to customers having demands of 500 kilowatts or
11 less, the service voltage shall be no more than 5% above or 10% below the standard nominal
12 voltage.

13 (3) For retail power service furnished to customers having demands of more than 500
14 kilowatts, the service voltage shall not vary by more than 10% above or 10% below the standard
15 nominal voltage.

16 (4) For polyphase voltage unbalance issues, ANSI C.84.1-1989 Appendix D is the
17 reference that will be followed. The utility and its customers may agree to not be constrained to
18 the reference if it is economically beneficial to the customer.

19 (5) For service rendered to public utilities and others for resale the standard nominal
20 voltage shall be as mutually agreed upon by the parties concerned. If no formal agreement exists,
21 the standard nominal voltage shall vary by no more than 10% above or below the secondary
22 nominal voltage.

1 (6) The variation in service voltage referred to in subs. (1) to (3) inclusive shall refer to a
2 steady state voltage.

3 (7) Upon customer request, the utility shall investigate line voltage variations and
4 disturbances, associated with voltage sags, swells, and transients, at the point of service.
5 Requests for tests may be limited in availability, number or frequency for the same customer at
6 the same location where previous tests have indicated that the variations and disturbances are
7 within acceptable industry limits. The utility may establish rules for certain customers to
8 decrease the incidents of these variations and disturbances as seen by other customers.

9
10 **History:** 1-2-56; r. and recr. Register, February, 1978, No. 266, eff. 3-1-78.

11
12 **PSC 113.0703 Variations of voltage.** (1) Service interruptions, or voltage sags, swells
13 and transients caused by the action of the elements, temporary separation of parts of the system
14 from the main system, infrequent or unavoidable fluctuations of short duration, equipment
15 failure, normal system operations necessary operations to safeguard employees or the general
16 public, or other causes beyond the control of the utility shall not be considered a violation of
17 these rules.

18
19 **Note:** Voltage fluctuations, transients, sags and swells may affect the performance of certain types of
20 equipment or operations, and should be considered by the customer. Customers having equipment or operations that
21 are sensitive to such voltage fluctuations, or that require service other than that specified by these rules may find it
22 necessary to install, at their own expense, power conditioning equipment or other modifications to protect, mitigate
23 or otherwise provide the type of service needed.

24
25 (2) In order to limit the impact of voltage variations, utilities may establish starting and
26 operating criteria for equipment on customer premises. Customer loads shall be sized and
27 operated in accordance with such criteria.

28 (3) If procedures for voltage reduction during emergency operating conditions have been
29 filed with and accepted or approved by the commission, variations of voltage in excess of those

1 specified in ss. PSC 113.0702 and PSC 113.0703, resulting from implementation in accordance
2 with the specified procedures, shall not be considered a violation of these rules.

3
4 **History:** 1-2-56; renum. from 113.28 and am. and cr. (4), Register, February, 1978, No. 266, eff. 3-1-78;
5 am. (1), Register, December, 1987, No. 384, eff. 1-1-88.

6
7 **PSC 113.0704 Harmonics of 60 Hz voltage waves.** Utilities shall make reasonable
8 efforts to investigate equipment operating problems suspected to be associated with harmonic
9 distortion of the 60 Hz voltage sinewave at the point of service. When the source of the harmonic
10 distortion is determined to be equipment operated by a specific customer, the utility shall notify
11 the customer and it shall be the customer's responsibility to correct the problem. When
12 corrective action is necessary, the guideline to be used is the 1992 IEEE Standard 519.

13
14 **Note:** See ss. PSC 113.0201 and PSC 113.0207.

15
16 **History:** 1-2-56; r. and recr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987,
17 No. 384, eff. 1-1-88.

18
19 **PSC 113.0705 Power quality diagnostic services.** (1) Each utility shall own or
20 otherwise arrange to have available when needed, suitable monitoring equipment for surveying
21 its system and the electrical system of its customers at the point of service for power quality
22 problems; such as harmonic distortion, voltage sags and swells, transients and flicker; that may
23 adversely affect or interfere with the overall adequacy of service to its customers. If the source of
24 the power quality problem is determined to be equipment operated by a specific customer, the
25 utility shall notify the customer and it shall be the customer's responsibility to correct the
26 problem. If the problem is caused by the utility delivery system operating outside the limits set
27 forth in ss. PSC 113.0702 the responsible utility shall correct the problem.

28 (2) The utility and the affected and/or offending customer shall cooperate as necessary to
29 promptly investigate, diagnose and resolve power quality complaints and problems. The utility

1 shall share the results of its investigation with the affected and/or offending customer. If a utility
2 offers power quality correction or mitigation services or equipment through a non-regulated
3 affiliate or otherwise as a non-utility service, it may advise the customer of this option, but shall
4 disclose the non-utility nature of this offering and that the customer is not obligated to take such
5 services from the utility or its affiliate.

6 **PSC 113.0706 Check of standards by commission.** (1) Each utility shall submit to a
7 public service commission-approved calibration facility once each year a portable digital
8 standard watt-hour meter and once each 2 years a portable digital indicating voltmeter or
9 multimeter, unless waived by the commission under the provisions of s. PSC 113.0902(1).
10 Smaller Class C and D utilities, may be allowed to continue to use the older electromechanical
11 portable watt-hour standard for a reasonable future time period, if so authorized by the
12 commission.

13
14 **Note:** The rapid movement to the newer fully-electronic digital watt-hour standards by the measurement
15 industry has limited a laboratory's ability to get replacement parts needed to maintain and calibrate the older
16 electromechanical standards. All utilities have been advised of the need to acquire electronic/digital standards when
17 it is reasonably feasible to replace the older obsolete electromechanical standards.

18
19 (2) Each utility shall be equipped with or otherwise arrange to have available when
20 needed, portable digital indicating and recording voltmeters having internal memory channels of
21 an accuracy and quantity sufficient to make a determination that the service voltage supplied to
22 their customers complies with the requirements set forth in Chapter PSC 113. This instrument
23 shall be maintained with an error no greater than 0.8% of full scale.

24
25 **Note:** (1) Caution should be exercised in using digital meters in areas of high electrical fields such as in
26 close proximity to substations, high voltage lines, transformers, regulators, etc., as unstable or erroneous readings
27 may result.

28 (2) Those utilities which operate standards laboratories will require primary or laboratory grade instruments
29 of a higher accuracy class than required above.
30

1 (3) Each recording voltmeter shall be checked with an indicating voltmeter when it is
2 placed in operation and when it is removed, or periodically if the instrument is in a permanent
3 location. Notations for each record shall indicate when the registration began (time and date) and
4 when the record was ended, as well as indicate the point where the voltage was taken. For non-
5 digital recorders, also include the results of the check with an indicating voltmeter.

6 (4) Utilities with more than 1,000 customers shall have or otherwise arrange to have
7 available when needed, one or more digital recording voltmeters with the appropriate programs
8 to measure both the quality and quantity of the voltage and currents at the point of service. The
9 meters shall be capable of storing the test results in such a manner as the records could be
10 reviewed via a personal computer-based system.

11 (5) Upon customer request each utility shall make a sufficient number of voltage
12 measurements at the point of service to verify its compliance with these rules. These voltage
13 records, unless replaced by more recent records, shall be available for inspection by the
14 commission for a period of 2 years.

15 **PSC 113.0707 Radio and television interference.** (1) Each utility shall own or
16 otherwise arrange to have available when needed, suitable monitoring equipment for surveying
17 its lines and equipment for possible radio and/or television interference.

18 (2) Each utility shall establish and routinely utilize in the course of regular operation,
19 means whereby the presence of radio and/or television interference may be detected.

20 (3) Each utility shall, upon notification or detection of the presence of radio and/or
21 television interference, survey its lines and equipment for possible sources of radio and television
22 interference. When significant interference is found, reasonable measures shall be taken to locate
23 the source and, if on the utility's system, to mitigate the interference. Where the magnitude and

1 nature of the interference is found to be so small, intermittent or insignificant that it affects only
2 a few customers or a particular, unique piece of customer equipment that may have limited
3 capabilities to receive weak signals, it may be necessary to limit the utility's responsibility for
4 mitigation to reasonable, cost-effective measures.

5
6 **Note:** In some cases, some interference from the utility's system may be detected, but found to be
7 insignificant and inconsequential for the majority of customers. Its elimination or mitigation may still not result in
8 adequate reception of some signals. In many areas, radio or television reception of some transmissions is normally
9 inadequate due to frequency, weak signal strength, high ambient noise, distance from the source, terrain or other
10 obstacles beyond the utility's control. The capabilities and limitations of the customer's receiver should also be
11 evaluated and considered in determining the nature, extent and cost of the utility's mitigation activities. Also, other
12 options may be available and more feasible, for example, applying the mitigation to the customer's equipment or
13 substitution of cable television (CATV) or digital satellite service for local antenna systems.

14
15 (4) Where the source of interference is determined to be equipment owned by a specific
16 customer, the customer shall be so advised and informed of his or her responsibility to correct
17 the problem (see s. PSC 113.0201).

18
19 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

20
21
22 **SUBCHAPTER VIII—GENERAL CUSTOMER METERING**
23 **AND METER ACCURACY**

24
25 **PSC 113.0801 Measuring energy on system.** Where practical to do so, all electrical
26 quantities required to be reported to the commission shall be metered. Quantities may be
27 calculated when permitted by s. PSC 113.0802.

28 **PSC 113.0802 Measuring customer service.** (1) Except as provided in sub. (2), all
29 energy sold to customers shall be measured by commercially acceptable measuring devices
30 owned and maintained by the utility. All other electrical quantities which the rates or utility's
31 rules indicate are to be metered shall be metered by commercially acceptable instruments owned
32 and maintained by the utility.

1 (2) For temporary or special installations where it is impractical to meter loads, such as
2 certain highway or area lighting which may be billed at a flat rate based on lamp rating and use,
3 the consumption may be calculated.

4 (3) The metering and wiring in nontransient, multi-dwelling-unit residential buildings,
5 mobile home parks, and commercial establishments where individual unit metering is provided,
6 or required under the provisions of s. PSC 113.0803, shall be so installed or arranged so that each
7 customer or tenant is metered for his or her own consumption only. Energy used by common
8 area loads, for example, hallway lighting and heating, shall be separately metered and billed as
9 appropriate under the utility's filed tariff.

10 (4) Utilities shall inspect existing properties for jointly metered service where a tenant
11 reasonably suspects that he or she is being billed for significant usage (e.g., furnace, water
12 heater, etc.) that is serving more than one rental dwelling unit. The utility may bill the property
13 owner for such an inspection. See s. 196.643, Stats.

14
15 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78; r. and recr. Register, December, 1987,
16 No. 384, eff. 1-1-88.

17
18 **PSC 113.0803 Individual electric meters required for non-transient multi-dwelling**
19 **unit residential buildings, mobile home parks, and for commercial establishments.** (1) Each
20 dwelling in a multi-dwelling unit residential building and mobile home park constructed after
21 March 1, 1980 shall have installed a separate electric meter for each such dwelling unit.
22 Dwelling unit means a structure or that part of a structure which is used to or intended to be used
23 as a home, residence or a sleeping place by one or more persons maintaining a common
24 household, and shall exclude transient multi-dwelling buildings and mobile home parks: for
25 example, hotels, motels, campgrounds, hospitals, community-based residential facility, nursing
26 homes, college dormitories, fraternities, and sororities.

1 (2) Each tenant space in a commercial building constructed after March 1, 1980 shall
2 have installed a separate electric meter.

3 (3) Any existing building which undergoes alterations involving a change in type of
4 occupancy or substantial remodeling shall have installed a separate electric meter for each
5 separate tenant space.

6 (4) For the purpose of carrying out the provisions of sub. (1), individual unit metering
7 will not be required:

8 (a) In commercial buildings where the commercial unit space requirements are subject to
9 alteration, as evidenced by temporary versus permanent type of wall construction separating the
10 commercial unit spaces. Examples of temporary wall construction are partition walls which do
11 not extend through the ceiling and walls which do not constitute a code-required fire separation.

12 (b) For electricity used in central heating, ventilating and air conditioning systems.

13 (c) For electric back-up service to storage heating and cooling systems or when
14 alternative renewable energy resources are utilized in connection with central heating ventilating
15 and air conditioning systems.

16 (5) For reasonable cause shown, the commission may grant waivers of this rule on a case-
17 by-case basis. Applications for a waiver must be submitted to the commission in writing and set
18 forth the facts or reasons applicant believes justify a waiver. In cases involving multi-dwelling
19 unit residential buildings, the applicant must show that the electric equipment under tenant
20 control is substantially more efficient than required by applicable codes and that the overall
21 electric usage under tenant control is minimal. Example cases which would not qualify for
22 waiver are buildings which are electrically heated or buildings which have individual unit
23 electric water heaters.

24

1 **History:** Cr. Register, April, 1980, No. 292, eff. 5-1-80.
2

3 **PSC 113.0804 One-point metering.** Every reasonable effort shall be made to measure at
4 one point all the electrical quantities necessary for billing a customer under a given rate.

5
6 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78.
7

8 **PSC 113.0805 Tamper-resistant equipment.** Where electrical energy has been diverted
9 or the utility's equipment for measuring the service or controlling a customer's load has been
10 interfered with, the utility may require the customer to install entrance and service equipment to
11 prevent current diversion or interference with the metering or control equipment.

12
13 **Note:** See s. PSC 113.0808.
14

15 **Note:** Care should be taken in determining the existence of diversion and amount of energy diverted. In
16 case check-meters are used, the possibility of grounds between meters, normal meter inaccuracies, and incorrect
17 connections of meters should not be over-looked. The requirements of the Wisconsin state electrical code for
18 entrances should effectively prevent such diversion. Attention is directed to ss. 939.32 and 943.20, Stats.
19

20 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78.
21

22 **PSC 113.0806 Multipliers and test constants.** (1) Meters which are not direct reading
23 shall have the multiplier plainly marked on the dial of the instrument or otherwise suitably
24 marked and all charts taken from recording meters shall be marked with the date of the record,
25 the meter number, customer, and chart multiplier.

26 (2) The register ratio shall be marked on all meter registers.

27 (3) The watt-hour constant for the meter itself shall be placed on each watt-hour meter.

28
29 **History:** 1-2-56; am. Register, February, 1978, No. 266, eff. 3-1-78.
30

31 **PSC 113.0807 Meter compensation.** (1) Metering equipment shall not be set "fast" or
32 "slow" to compensate for supply transformer or line losses.

1 (2) Loss compensators designed to be used with meters and which accurately add iron
2 losses, copper losses, or both may be used. The compensator shall carry a tag identifying the
3 compensation and shall be tested when the associated meter is tested and when the associated
4 supply equipment on lines are changed.

5
6 **Note:** See s. PSC 113.0917 which covers test requirements for transformer loss compensators.

7
8 **History:** 1-2-56; renum. to be (1) and cr. (2), Register, October, 1965, No. 118, eff. 11-1-65; am. (2),
9 Register, December, 1987, No. 384, eff. 1-1-88.

10
11 **PSC 113.0808 Sealing meters and service entrance equipment.** (1) Meters and
12 metering equipment enclosures, which if open, would permit access to live parts from which
13 energy could be used without proper measurement, and utility-owned devices and equipment
14 located on a customer's property for the control of his or her, load shall be sealed.

15 (2) Where the entrance switch is combined with meter-test facilities, or is installed on the
16 supply side of the meter, the entrance switch boxes may be sealed by the utility. The customer
17 may remove the seal from any fuse compartment to replace fuses if the utility is promptly
18 notified that such seal has been broken.

19 (3) Where a utility supplies different classes of service at different rates to the same
20 premises, such as lighting service and electric water heating service, the utility may seal the
21 service switches.

22 (4) Sealing and resealing shall be without charge to the customer.

23 (5) This rule shall not require modernization of old installations or the sealing of
24 installations which cannot practicably be sealed. Sealing shall not be such as to interfere with the
25 operation of any switch or protective equipment.

26
27 **History:** 1-2-56; am. (1), Register, February, 1978, No. 266, eff. 3-1-78.
28

PSC 113.0809 Installation of metering equipment. (1) The customer or the customer's

agent should confer with the utility as one of the first steps in planning an electrical installation.

The watt-hour meter should be located where it will be readily accessible for reading, testing and

repairs and where it will not be subjected to adverse operating conditions or cause

inconveniences to the customer. Normally, the utility shall determine the location and type of

metering equipment to be installed.

(2) The utility should have available for distribution to customers, architects, contractors

and electricians copies of rules, specifications and requirements that may be in force relative to

meter installations. Installations should conform to such specifications and to applicable codes

and safety requirements.

(3) Whether installed indoors or outdoors, meters should not be located where they will

be subject to vibration or mechanical damage and should be mounted without tilt.

(4) Meters and associated equipment used on outdoor installations shall be designed

specifically for such use or shall be suitably housed for outdoor service. Meters installed

outdoors should not be located where they may be damaged, such as on buildings where

unguarded meters will extend into alleys, walkways or driveways.

(5) Meters installed outdoors should not be more than 6 feet or less than 4 feet above

final ground level (measured from the center of the meter cover) except in the case of meters on

pedestals or padmounted transformers where they shall be placed as high as practicable, and

meters on underground services which may, when practicable, be placed as low as 2.5 feet above

final ground level (measured from the center of the meter cover). On individual installations

indoors, the meter should be not more than 6 feet or less than 4 feet above floor level (measured

from the center of the meter cover). On group installations of meters indoors, no meter should be

1 more than 6 feet or less than 2 feet above floor level (measured from the center of the meter
2 cover). When a number of meters are placed on the same meter panel the distance between
3 centers should be not less than 8.5 inches vertically or 7.5 inches horizontally. For meters
4 installed both indoors and outdoors there should be a minimum of 3 feet of unobstructed space in
5 front of the meter from the surface on which it is mounted.

6 (6) When there is more than one meter at a location, each shall be so tagged or marked as
7 to indicate the circuit metered. Where similar types of meters record different quantities (for
8 example, kilowatt-hours and reactive power) the meters shall be tagged to indicate what they are
9 recording.

10 (7) Test facilities shall be placed in enclosures of sufficient size and of such construction
11 as to make it possible for meter testers to perform the tests required by these rules with safety.

12
13 **History:** 1-2-56; am. (1) (c), Register, October, 1965, No. 118, eff. 11-1-65; r. and recr. Register, February,
14 1978, No. 266, eff. 3-1-78.

15
16 **PSC 113.0810 Rental charge for metering equipment.** The utility may charge a rental
17 for equipment installed to furnish additional metering information to a customer for his or her
18 use or because of governmental requirements.

19 **PSC 113.0811 Accuracy of wathour meters.** In this section, “meter” or “meters” may
20 refer to metering system(s).

21 (1) Wathour meters used for measuring electrical quantities supplied to customers shall:

22 (a) Be of proper design for the circuit on which they are used, be properly connected and
23 installed, be in good mechanical condition, have adequate insulation, correct internal
24 connections, and correct register.

25 (b) Not creep at “no load” a full revolution of the disk in 10 minutes or less when the load
26 wires are disconnected and potential is impressed or in a test in the shop where the load wires are

1 disconnected and the permissible voltage variation impressed. If the rate of creep can be
2 determined in a shorter interval, it is not necessary to wait the full 10-minute period.

3 (c) If the meters are designed for use on alternating current circuits, they shall be accurate
4 to within plus or minus 1% at two load tests: one equal to between 8% and 12% of full reference
5 test current at unity power factor and the other between 90% and 110% of full reference test
6 current at unity power factor; and for polyphase meters, shall be accurate to within plus or minus
7 2% at between 75% and 100% full reference test current and approximately 50% lagging power
8 factor. For self-contained meters the reference test current shall be the ampere or test ampere
9 rating of the meter, whichever is shown on the nameplate. For meters used with current
10 transformers the reference test current shall be the test-ampere rating of the meter or the
11 secondary rating of the current transformers.

12
13 **Note:** See s. PSC 113.0926(2) for accuracy requirements for meters operating in the reverse-registration
14 mode.

15
16 (2) Polyphase meters shall have their stators in balance within 2% at 100% load at unity
17 and at approximately 50% lagging power factor.

18 (3) Meters used with instrument transformers shall be adjusted, if necessary, so that the
19 overall accuracy of the metering installation will meet the requirements of this rule.

20 (4) Prepayment meters shall be maintained at the same accuracy and read at the same
21 periods as regular meters.

22
23 **History:** 1-2-56; am. (1) (a), (b), (c), (d) and (2), Register, October 1965, No. 118, eff. 11-1-65; am. (1) (c)
24 and (3), r. (1) (d), Register, February, 1978, No. 266, eff. 3-1-78.

25
26 **PSC 113.0812 Accuracy of demand meters.** In this section, “meter” or “meters” may
27 refer to metering system(s).

1 (1) A demand meter, demand register, or demand attachment used to measure customer's
2 service shall:

3 (a) Be in good mechanical and electrical condition.

4 (b) Have proper constants, indicating scale, contact device, and resetting device.

5 (c) Not register at no load.

6 (d) Be accurate to the following degrees:

7 1. Curve drawing meters which record quantity time curves, and integrated-demand
8 meters shall be accurate to within plus or minus 2.0% of full scale throughout their working
9 range. Timing elements measuring specific demand intervals shall be accurate to within plus or
10 minus 2.0% and the timing elements which serve to provide a record of the time of day when the
11 demand occurs shall be accurate to within plus or minus 4 minutes in 24 hours.

12 2. Lagged-demand meters shall be accurate to within plus or minus 4% of full scale at
13 final indication.

14 (2) The overall accuracy of demand metering installations utilizing pulse-initiator and
15 pulse-recorder equipment shall be acceptable when the monthly kilowatt-hours calculated from
16 the pulse count do not differ from the corresponding kilowatt-hour meter registrations by more
17 than the kilowatt-hour constant of the meter, or 2%, whichever is greater. The timing element
18 error shall not be more than plus or minus 4 minutes per day.

19 (3) When a timing element also serves to keep a record of the time of day at which the
20 demand occurs, it shall be corrected if it is found to be in error by more than plus or minus 4
21 minutes per day.

22 **History:** 1-2-56; cr. (2) and (3), Register, February, 1978, No. 266, eff. 3-1-78.
23
24

1 **PSC 113.0813 Requirements for instrument transformers.** (1) Instrument

2 transformers used in conjunction with metering equipment to measure customers' service shall:

3 (a) Be in proper mechanical condition and have electrical insulation satisfactory for the
4 service used.

5 (b) Be 0.3% accuracy-class units and otherwise have characteristics such that the
6 combined inaccuracies of all transformers supplying one or more meters in a given installation
7 will not exceed the total accuracies for the following conditions:

8 1. Power factor equals 1.0 and 10% load, accuracy equals 0.6%.

9 2. Power factor equals 1.0 and 100% load, accuracy equals 0.3%.

10 3. Power factor equals 0.5 and 100% load, accuracy equals 1.0%.

11 (2) (a) Meters used in conjunction with instrument transformers shall be adjusted so that
12 the overall accuracies will come within the limits specified ss. PSC 113.0811 and PSC 113.0812.

13 (b) Instrument transformers shall be tested with the meter with which they are associated
14 by making an overall test, or may be checked separately. If the transformers are tested separately,
15 the meters shall also be checked to see that the overall accuracy of the installation is within the
16 prescribed accuracy requirements.

17 (c) The results of tests of instrument transformers shall be kept on record and available
18 for use when transformers are installed. For other than 0.3% accuracy class instrument
19 transformers, the results of the most recent test for each instrument transformer shall be entered
20 on or attached to the test card form for each test of the associated meter prior to the test of that
21 meter.

22 (3) Phase shifting transformers shall have secondary voltages under balanced line-voltage
23 conditions within 1% plus or minus of the voltage impressed on the primary.

1 **History:** 1-2-56; r. and recr. (1) (b) and am. (2) (c), Register, February, 1978, No. 266, eff. 3-1-78.

2
3 **PSC 113.0814 Portable indicating instruments.** All portable indicating electrical
4 instruments used for determining quality of service to customers or for billing purposes, such as
5 voltmeters, ammeters, and watt meters, shall be checked against suitable secondary reference
6 standards at least once in each 6 months. If the portable indicating instrument is found
7 appreciably in error at zero or in error by more than 1% of indication at commonly used scale
8 deflections, it shall be adjusted. A history and calibration record shall be kept for each such
9 instrument.

10 **PSC 113.0815 Type of instruments.** All electric service of the same type rendered under
11 the same rate schedule shall be metered with instruments having like characteristics, except that
12 the commission may approve the use of instruments of different types if their use does not result
13 in unreasonable discrimination. Either all of the reactive meters which may run backwards or
14 none of the reactive meters used for measuring reactive power under one schedule shall be
15 ratcheted.

16 **PSC 113.0816 Servicing utilization control equipment.** (1) Utilities shall service and
17 maintain any equipment they use on customers' premises so as to provide service in accordance
18 with the rate provisions.

19 (2) Systems and devices used by the utility to control customer metering and loads shall
20 be tested or checked on installation and periodically thereafter, if necessary, to verify proper
21 operation.

22
23 **History:** 1-2-56; am.(2), r. and recr. (3) and cr.(4), Register, February, 1978, No. 266, eff. 3-1-78; am.
24 Register, December, 1987, No. 384, eff. 1-1-88.

25
26 **PSC 113.0817 Metering at point of interchange and for customers' operating**
27 **generating equipment.** (1) Metering facilities located at any point where energy may flow in

1 either direction and where the quantities measured are used for billing purposes shall consist of
2 meters equipped with ratchets or other devices to prevent reverse registration and be so
3 connected as to separately meter energy flow in each direction. Reverse meter registration is
4 permitted for installations with customer-owned generators served under a net billing energy rate
5 through one meter in accordance with s. PSC 113.0926.

6 (2) Reactive metering shall not be employed for determining average power factor where
7 energy may flow in either direction or where the customer may generate an appreciable amount
8 of his or her requirements at any time unless suitable directional relays and ratchets are installed
9 to obtain correct registration under all conditions of operation and unless the general plan of
10 installation is approved by the commission.

11
12 **History:** 1-2-56; am. (1), Register, September, 1982, No. 321, eff. 10-1-82.

13
14 **PSC 113.0818 Determination of average meter error.** Whenever a metering
15 installation is found upon any test to be in error by more than 2% at any test load, the average
16 error shall be determined in one of the following ways:

17 (1) If the metering installation is used to measure a load which has practically constant
18 characteristics, such as a street-lighting load, the meter shall be tested under similar conditions of
19 load and the accuracy of the meter "as found" shall be considered as the average accuracy.

20 (2) If a single-phase metering installation is used on a varying load, the average error
21 shall be the weighted algebraic average of the error at light load and the error at heavy load, the
22 latter being given a weighting of 4 times the former.

23 (3) If a polyphase metering installation is used on a varying load, the average error shall
24 be the weighted algebraic average of its error at light load given a weighting of 1, its error at

1 heavy load and 100% power factor given a weighting of 4, and at heavy load and 50% lagging
2 power factor given a weighting of 2.

3 (4) If a load, other than the light, heavy, and low power-factor load specified for routine
4 testing, is more representative of the customary use of the metering equipment, its error at that
5 load should also be determined. In this case the average error is to be computed by giving the
6 error at such load and power factor a weighting of 3 and each of the errors at the other loads
7 (light, heavy, and 50% lagging power factor) a weighting of 1. Each error shall be assigned its
8 proper sign.

9
10 **History:** 1-2-56; renum. from 113.48 and am. (2), Register, February, 1978, No. 266, eff. 3-1-78.

11
12
13 **SUBCHAPTER IX—ELECTRIC METER TESTING PROGRAMS**
14 **AND RECORD REQUIREMENTS**

15
16 **PSC 113.0901 Testing of metering installations-general requirements.** (1) The test of
17 any unit of metering equipment shall consist of a comparison of its accuracy with a standard of
18 known accuracy by a qualified person. Units not properly connected or not meeting the accuracy
19 or other requirements of ss. PSC 113.0811, PSC 113.0812, and PSC 113.0813 at the time of test
20 shall be reconnected and/or rebuilt to meet such requirements and adjusted to within the required
21 accuracy and as close to 100% accurate as practicable or their use discontinued.

22 (2) Each unit of metering equipment shall be inspected for mechanical and electrical
23 faults whenever the accuracy of the device is checked.

24 (3) Each meter tested shall have the register and the internal connections checked before
25 the meter is first placed in service and whenever the meter is repaired.

1 (4) Each meter shall have the connections to the customer's circuits, the disc rotation and
2 any multiplier checked when the meter is installed or removed or an instrument transformer is
3 changed.

4 (5) Polyphase meters shall be tested for accuracy at 50% power factor before first being
5 used for measuring customer's service either by a test of each meter or by a sample test plan
6 approved under s. PSC 113.0911(1) (a).

7 (6) The connections, phase sequence and multiplier of polyphase transformer-rated
8 metering installations shall be checked for error by qualified personnel within 60 days after the
9 meter is installed.

10 (7) Special control devices, switches, etc., for time-of-use service shall be checked for
11 proper operation whenever the associated meter is tested.

12 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

13 **PSC 113.0902 Testing equipment.** (1) Each utility shall maintain sufficient laboratories,
14
15 meter testing shops, secondary standards, instruments, and facilities to determine the accuracy of
16 all types of meters and measuring devices used by the utility. A utility may, however, with the
17 approval of the commission, have all or part of the required tests made or its portable testing
18 equipment checked by the original equipment manufacturers, another utility, or testing agency
19 having adequate and sufficient testing equipment to comply with these rules.
20

21 (2) Each utility shall have the following minimum testing equipment available:

22 (a) One or more portable standard watthour meters of capacity and voltage range
23 adequate to test all watthour meters used by the utility.

24 (b) Portable indicating instruments of such various types as are required to determine the
25 accuracy of all instruments used by the utility.

1 (c) One or more secondary standards to check each of the various types of portable
2 standard watthour meters used for testing watthour meters. Each secondary standard shall consist
3 of either an approved portable standard watthour meter kept permanently at one point and not
4 used for field work, or not less than three approved watthour meters connected with current coils
5 in series and voltage coils in parallel and kept running by connecting a 10-watt load. These
6 meters must be well compensated for both classes of temperature errors, practically free from
7 errors due to ordinary voltage variations, and free from erratic registration due to any cause.

8 (d) Suitable standards which are not used for field work to check portable instruments
9 used in testing.

10 (3) Any utility having more than 10,000 customers, or any other utility upon approval of
11 the commission, may provide and use primary standards consisting of precision instruments,
12 timing devices, potentiometers, standard cells, etc.

13 **History:** 1-2-56; am. (2) (a) and (c), Register, February, 1978, No. 266, eff. 3-1-78.

14 **PSC 113.0903 Accuracy and calibration of test standards.** (1) (a) Utilities maintaining
15 primary standards such as precision wattmeters, volt boxes, resistances, standard cells, and
16 timing devices shall have such standards certified at the time of purchase as to accuracy by a
17 recognized laboratory other than that of the manufacturer of the standard.

18 (b) Utilities having standard cells shall intercompare them regularly and shall have at
19 least one of them checked by a standardizing laboratory at intervals of not more than 2 years.
20 Reference standards of resistance, potentiometers, and volt boxes shall be checked at intervals of
21 not more than 3 years.

22 (2) (a) Secondary watthour-meter standards shall not be in error by more than plus or
23 minus 0.3% at loads and voltages at which they are to be used, and shall not be used to check or
24
25

1 calibrate working standards unless the secondary standard has been checked and adjusted, if
2 necessary, to such accuracy within the preceding 12 months. Each secondary standard wathour
3 meter shall have a calibration curve available and a history card.

4 (b) Any 2 or more of at least 3 wathour meters may be used as a secondary standard to
5 check portable rotating standards provided there is no discrepancy in accuracy between any 2 of
6 the wathour meters used of more than 0.2% at standard test loads. Calibration and history
7 records shall be maintained for each of the meters used as secondary standards.

8 (3) Secondary standards indicating instruments shall not be in error by more than plus or
9 minus 0.5% of indication at commonly used scale deflection and shall not be used to check or
10 calibrate portable indicating instruments unless the secondary standard has been checked, and
11 adjusted, if necessary, within the preceding 12 months. A calibration record shall be maintained
12 for each standard.

13 (4) All working portable standard wathour meters shall be calibrated annually (see ss.
14 PSC 113.0706 and PSC 113.0904) and shall be adjusted, if necessary, so that their accuracy will
15 be within 99.7% and 100.3% at 100% power factor and for polyphase applications, within 99.5%
16 and 100.5% at 50% lagging power factor at all voltages and loads at which the standard may be
17 used. A history and calibration record shall be kept for each working portable standard wathour
18 meter.

19 (5) The meter accuracies herein required as to all primary, secondary, and portable
20 standards and service measuring equipment shall be referred to 100%.

21
22 **History:** 1-2-56; am. (4) (b) and (5), Register, October, 1965, No. 118, eff. 11-1-65; am. (4), Register,
23 February, 1978, NO. 266, eff. 3-1-78; am. (4) (a), Register, December, 1987, No. 384, eff. 1-1-88.

24
25 **PSC 113.0904 Wathour calibration.** Each utility which normally checks its own
26 working portable standard wathour meters or instruments against primary or secondary

1 standards shall calibrate these standards or instruments before they are submitted to a
2 commission-approved test facility annually and attach to them a record of such calibration.

3
4 **Note:** Previously s. PSC 113.46 (2), with changes.

5
6 **PSC 113.0905 Methods of testing watt-hour meters.** (1) In all tests of watt-hour meters
7 where comparison of revolutions is made, at least 2 revolutions of the meter under test shall be
8 taken at light load and at least 9 revolutions at heavy load. At least 2 checks shall be made at
9 each load. The accuracy of the meter under test at each load shall be the average accuracy
10 determined from 2 checks taken at the same load which must agree within 0.2 of 1%. However,
11 if an electro-optical testing device is used, the test procedure may be modified, provided equal
12 accuracy of the method is maintained.

13 (2) If the watt-hour meter has a contact device which operates a demand mechanism, the
14 disk revolutions when testing should be multiples of the number of revolutions per contact in
15 order to take account of the varying friction which may be present during the movement of the
16 contact cam from one contact to the next.

17 (3) Polyphase meters shall be tested by one of the following 4 methods:

18 (a) Single-phase test with the potential circuits connected in parallel and all current
19 circuits connected in series. Three-stator, 4-wire delta meters must have correct values of current
20 and potential applied to the differently rated circuits. The normal test loads apply. (See s. PSC
21 113.0811(1) (c).)

22 (b) Individual stator test with the potential circuits connected in parallel and each current
23 circuit tested separately. (For 2-stator, 4-wire delta meters, the current circuits of the 3-wire
24 stator should be connected in series and treated as a single circuit. Three-stator, 4-wire delta
25 meters must have correct values of potential applied to the differently rated circuits.) The light

1 load test current shall be one-tenth N times the reference test current and the heavy load test
2 current shall be between one-half and one N times the reference test current but not more than
3 twice the test ampere rating of the meter. (N equals the number of stators in the meter except for
4 2-stator, 3-phase, 4-wire wye meters. For the latter, N shall be 4 for the current circuits which are
5 not common to both stators and N shall be 2 for the current circuit common to both stators.)

6 (c) Individual stator test with the potential circuits connected to the polyphase circuit in
7 the same manner as in service. (For 2-stator, 4-wire delta meters the current circuits of the 3-wire
8 stator shall be connected in series and treated as a single circuit.) The light load test current shall
9 be one-tenth N times the reference test current and the heavy load test current shall be between
10 one-half and one N times the reference test current but not more than twice the test ampere rating
11 of the meter. (N equals the number of stators in the meter except for 2-stator, 3-phase, 4-wire
12 meters. For the latter N shall be 3 for each current circuit.)

13 (d) Polyphase test with the meter connected to a polyphase circuit in the same manner as
14 in service, with balanced polyphase currents on the current circuits. This requires the use of a
15 polyphase standard watt-hour meter or as many single-phase standards as there are current
16 circuits under test.

17 (4) Instrument transformers shall be tested with a burden equivalent to that with which
18 they are to be used or with burdens from which curves showing the accuracy of the transformer
19 can be derived. Any approved method may be used for testing instrument transformers. Also see
20 s. PSC 113.0916.

21
22 **History:** 1-2-56; r. and recr. (3), Register, October, 1965, No. 118, eff. 11-1-65; renum. from 113.47 and
23 am. (3) (a), Register, February, 1978, No. 266, eff. 3-1-78.

24
25 **PSC 113.0906 Methods of testing block-interval demand registers.** (1) For meters
26 with block-interval demand registers, demand interval timing check shall be performed and a

1 determination made that the pointer pusher or test dial pointer has reset to zero at the end of the
2 billing period demand interval.

3 (2) Demand registers used with instrument transformer rated watthour meters shall be
4 tested with the demand register mounted in a normal operating position on the watthour meter.
5 The demand registered on the demand meter during the test shall be at least 30% of full scale
6 with the demand test interval varying from a fraction of an interval up to a full interval.

7 (3) Demand registers used with self contained watthour meters shall be tested with the
8 demand register mounted in a normal operating position on the watthour meter. The demand
9 registered on the demand meter during the test shall be equivalent to the test ampere rating of the
10 watthour meter with the demand test interval varying from a fraction of an interval up to a full
11 interval.

12
13 **History:** Cr. Register, February, 1978, NO. 266, eff. 3-1-78; r. and recr. Register, December, 1987, No.
14 384, eff. 1-1-88.

15
16 **PSC 113.0907 Methods of testing block-interval pulse-operated demand meters and**
17 **pulse recorders.** (1) The test of block-interval pulse-operated demand meters and pulse
18 recorders shall include a check of the electrical and mechanical operation of the demand register
19 or pulse recorder, an inspection of the pulse initiator and a check to determine that the demand
20 meter resets properly.

21 (2) A demand meter or pulse recorder, its associated pulse initiators, relay and circuitry
22 may be considered to be operating properly when a kilowatthour check indicates that the demand
23 meter kilowatthours are within the required accuracy limits of the watthour meter kilowatthours.

24
25 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-
26 1-88.
27

1 **PSC 113.0908 Methods of testing electronic (solid state) meters.** (1) Each

2 measurement circuit of an electronic meter shall be tested in accordance with the requirements of
3 s. PSC 113.0905. Internally calculated quantities, such as in a multifunctional meter, are not
4 normally subject to test.

5 (2) Electronic meters designed to operate over an extended voltage range may be tested at
6 a single test voltage point to determine meter accuracy.

7 **PSC 113.0909 Methods of testing electronic registers.** Necessary tests or checks shall

8 be made to determine that the correct program is in the meter, that the correct register is active as
9 determined from the program, that the meter is displaying the correct date and time, and that the
10 meter's battery mode is working and will retain register programs and recorded data during loss
11 of power.

12 **PSC 113.0910 Methods of testing electronic demand registers.** Electronic demand

13 registers shall be tested or checked for accuracy. The operation and accuracy of the timing circuit
14 shall be verified. The accuracy must meet manufacturer's published specifications. The register
15 shall also be checked to verify that the program resets the demand period at the end of the testing
16 demand interval.

17 **PSC 113.0911 Testing of self-contained single-phase meters and 3-wire network**

18 **meters at fixed periodic intervals.** In this section, "meter" or "meters" may refer to metering
19 system(s).

20 (1) Self-contained single-phase meters and 3-wire network meters, together with
21 associated equipment such as demand devices, control devices, etc., shall be tested for accuracy
22 at unity power factor at the point where they are installed or at a central testing point or in a
23 mobile testing laboratory under any of the following circumstances:

1 (a) Before being placed in service. For new meters given a prior test by the manufacturer,
2 a sample test program meeting the requirements of s. PSC 113.0920 or use of the manufacturer's
3 certified test results for all meters tested under the provisions of s. PSC 113.0921, may be
4 substituted for this requirement.

5 (b) When they are suspected of being inaccurate or damaged.

6 (c) When the accuracy is questioned by a customer. See s. PSC 113.0922.

7 (d) When they are removed from service.

8 (e) Within a period of 6 months before to 6 months after 5 years of service for non-
9 magnetic-bearing meters and 20 years of service for magnetic-bearing surge-proof meters or in
10 accordance with the plan outlined in s. PSC 113.0921.

11
12 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-
13 1-88.

14
15 **PSC 113.0912 Testing of self-contained polyphase meters.** In this section, "meter" or
16 "meters" may refer to metering system(s).

17 (1) Self-contained polyphase meters together with associated equipment such as demand
18 equipment, control devices, etc., shall be tested on the customer's premises, a central testing
19 facility or in a mobile test facility, except (a) and (d), for accuracy at unity and 50% power
20 factor.

21 (a) Before being placed in service. For new meters given a prior test by the manufacturer,
22 the manufacturer's certified test results may be substituted for this requirement for all meters
23 tested under the provisions of s. PSC 113.0921.

24 (b) When they are suspected of being inaccurate or damaged.

25 (c) When the accuracy is questioned by a customer. (See s. PSC 113.0922.)

26 (d) Within 60 days after they are removed from service.

1 (e) Within a period of 6 months before or 6 months after 8 years of service for non-surge-
2 proof and 12 years for surge-proof meters. Exception: Thermal and mechanical lagged-demand
3 meters shall be tested every 8 years. Electronic (solid state) meters may be tested instead in
4 accordance with the plan outlined in s. PSC 113.0921.

5 (2) A stator balance test shall be performed on all new meters before being placed in
6 service.

7 (3) Meters with electronic programmable registers may be shop tested on a periodic basis.

8
9 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-
10 1-88.

11
12 **PSC 113.0913 Testing of meters used with instrument transformers on single-phase**
13 **service.** In this section, “meter” or “meters” may refer to metering system(s).

14 (1) Meters used with instrument transformers on single-phase service, together with
15 associated equipment such as demand equipment, control devices, etc., shall be tested on the
16 customer’s premises, a central testing facility or in a mobile test facility, except (a) and (d), for
17 accuracy at unity power factor.

18 (a) Before being placed in service. For new meters given a prior test by the manufacturer,
19 the manufacturer’s certified test results may be substituted for this requirement for all meters
20 tested under the provisions of s. PSC 113.0921.

21 (b) When they are suspected of being inaccurate or damaged.

22 (c) When the accuracy is questioned by a customer. (See s. PSC 113.0922.)

23 (d) When they are removed from service.

24 (e) Within a period of 6 months before or 6 months after 8 years of service for non-surge-
25 proof and 12 years for surge-proof meters. Exception: Lagged-demand meters shall be tested

1 every 8 years. Electronic (solid state) meters may be tested instead in accordance with the plan
2 outlined in s. PSC 113.0921.

3 (2) Meters equipped with electronic programmable registers may be shop tested on a
4 periodic basis.

5
6 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-
7 1-88.

8
9 **PSC 113.0914 Testing of polyphase electromechanical and completely solid state**

10 **electronic meters used with instrument transformers at fixed periodic intervals.** In this
11 section, “meter” or “meters” may refer to metering system(s).

12 (1) Polyphase meters used with instrument transformers, together with associated
13 equipment such as demand equipment, pulsing devices, phase-shifting transformers, control
14 devices, etc., shall be tested on the customer’s premises, a central testing facility or in a mobile
15 test facility, except for (a) and (d), for accuracy at unity and 50% power factor.

16 (a) Before being placed in service. For new meters given a prior test by the manufacturer,
17 the manufacturer’s certified test results may be substituted for this requirement for all meters
18 tested under the provisions of s. PSC 113.0921.

19 (b) When they are suspected of being inaccurate or damaged.

20 (c) When the accuracy is questioned by a customer. (See s. PSC 113.0922.)

21 (d) When they are removed from service.

22 (e) Within a period of 4 months before or 4 months after 2 years of service for non-
23 magnetic-bearing electromechanical meters, 4 years of service for electromechanical magnetic-
24 bearing surge-proof meters and 6 years of service for completely solid state electronic meters
25 with electronic registers capable of down-loading voltage and current monitoring readings from
26 the instrument transformers to digital meter reading devices at meter reading intervals.

1 Exception: Electronic (solid state) meters may be tested instead in accordance with the plan
2 outlined in s. PSC 113.0921.

3 (2) A stator balance test shall be performed on all new meters before being placed in
4 service.

5 (3) Meters with electronic programmable registers may be shop tested on a periodic basis.

6
7 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-
8 1-88.

9
10 **PSC 113.0915 Testing of metering installations utilizing pulse devices.** (1) Metering
11 installations utilizing pulse initiators and pulse recorders shall be checked for accuracy each
12 billing period by comparing the recorded pulse count against the registration of the
13 corresponding meter. When the results are not in agreement within the accuracy limits of s. PSC
14 113.0812(2) the pulse devices shall be promptly tested and adjusted to required accuracy or
15 replaced.

16 (2) Pulse devices shall be tested before use and as part of the complete metering
17 installation whenever the associated watthour meter is tested.

18
19 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

20
21 **PSC 113.0916 Testing of instrument transformers.** (1) No instrument transformer shall
22 be placed in service, or allowed to remain in service, if it shows evidence of physical damage,
23 discolored terminals due to overload, change in texture or resiliency of insulation, or arc tracking
24 on the insulation or bushings.

25 (2) Instrument transformers of all utilities shall be tested for voltage withstand by the
26 manufacturer, the utility, or a laboratory approved for such test by the commission before being
27 placed in service. Each instrument transformer that has been removed from service shall be

1 tested for voltage withstand prior to reinstallation if the reason for removal or physical
2 appearance, gives cause to doubt its reliability. The utility shall maintain a record of all such
3 tests.

4 (3) Instrument transformers of class A privately-owned utilities shall be tested at the
5 utility meter shop or the manufacturers' certified test reports may be used to determine accuracy
6 (ratio correction factor and phase angle):

7 (a) Before being initially placed in service.

8 (b) When removed from service.

9 (c) When there is evidence from outward appearance or performance to suspect
10 inaccuracy.

11 (d) *Exception.* The manufacturer's calibration results may be acceptable on all new
12 voltage transformers rated above 15,000 volts. Removal tests of these transformers may also be
13 omitted except in those cases where there is reason to suspect that a transformer malfunction has
14 occurred.

15 (4) Instrument transformers of other than class A private-owned utilities shall be tested at
16 the utilities meter shop, the manufacturer's laboratory or a laboratory approved by the
17 commission for accuracy (ratio correction factor and phase angle):

18 (a) Before being initially placed in service.

19 (b) When there is evidence from outward appearance or performance to suspect
20 inaccuracy.

21 (5) Instrument transformers in service shall be given an approved check (such as the
22 variable burden method in the case of current transformers or a field check of the secondary
23 voltage with a good quality voltmeter in the case of voltage transformers) made in conjunction


1 with each field test of the associated watt-hour meter. When such check provides evidence that
2 the instrument transformer may be inaccurate, that instrument transformer shall be tested for
3 accuracy.

4
5 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78; am. (2), (3) (intro.) and (4), Register, December,
6 1987, No. 384, eff. 1-1-88.

7
8 **PSC 113.0917 Phase-shifting transformers and loss compensators.** (1) For phase-
9 shifting transformers in service, all terminal connections shall be in such condition as to provide
10 good electrical contact and the terminal designations shall be clearly visible. Where there is
11 evidence of physical damage or evidence of thermal overload the unit shall be replaced.

12 (2) Phase-shifting transformers shall be tested on the same schedule and at the same time
13 as the meters with which they are associated. The test shall consist of a single-phase test to be
14 performed as follows: With the approximate rated voltage applied to the input terminals and no
15 burdens connected to the tap terminals all tap voltages, converted to percentage of input voltage,
16 shall agree within plus or minus 2.0% of the theoretical values given in the manufacturer's
17 published data.

18 (3) In addition, all units shall be tested before use and when returned to the utility's meter
19 laboratory. For these tests the output-voltage values in terms of percentage of input voltage and
20 under the conditions of sub. (2) immediately above shall agree within plus or minus 1.0%.

21
22 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78. 

23
24 (4) For transformer-loss compensators in service all terminal connections shall be in such
25 condition as to provide good electrical contact and the terminal designations shall be clearly
26 visible. Where there is evidence of physical damage to the component parts, their adjustments, or

1 to the internal wiring or evidence of thermal overload on the insulation, resistors, terminals, etc.,
2 the affected parts shall be replaced or the entire transformer-loss compensator replaced.

3 (5) Transformer-loss compensators shall be tested on the same schedule and at the same
4 time as the meters with which they are associated.

5 (6) The tests shall be made at the normal service test points of the meter. Performance
6 deviations from desired performance shall not exceed plus or minus 0.3%.

7
8 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

9
10 **PSC 113.0918 Adoption of standard by reference.** (1) ADOPTION OF STANDARD.

11 Military Standard 414 (Mil-STD-414) dated June 11, 1957, is hereby incorporated by reference
12 into ch. PSC 113 in part consisting of the cover page and pages 1, 2, 3, 4, 41, 42, 43, 45, 47, 48,
13 49, 50, 51, and 110. This published standard is entitled "Sampling Procedures and Tables for
14 Inspection by Variables for Percent Defective" and is referenced in ss. PSC 113.0920 and PSC
15 113.0921 herein for application of these rules on maintenance of electric meter accuracy by
16 statistical sample testing methods. Interim amendments to MIL-STD-414 will not be effective in
17 this state until such time as this chapter is revised to reflect such changes.

18 (2) CONSENT TO INCORPORATE. Pursuant to s. 227.21, Stats., the attorney general and the
19 revisor of statutes have consented to the incorporation by reference of MIL-STD-414 in part as
20 designated in sub. (1). Copies are on file in the offices of the commission, the secretary of state
21 and the revisor of statutes.

22 (3) AVAILABILITY OF STANDARD. Copies of that part of MIL-STD-414 adopted herein
23 may be obtained from the commission. Copies of the entire MIL-STD-414 may be ordered from
24 the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

25
26 **History:** Cr. Register, December, 1987, No. 384, eff. 1-1-88.

1 **PSC 113.0919 Metering equipment records.** (1) A test record shall be made whenever
2 a unit of metering equipment is tested but only the record of the last test date need be retained
3 after the equipment is again tested. This record shall show information to identify the unit and its
4 location; equipment with which the device is associated; the date of test; reason for the test;
5 readings before and after the test; a statement as to whether or not the meter “creeps” and in case
6 of creeping, the rate; a statement of “as found” and “as left” accuracies sufficiently complete to
7 permit checking of the calculations employed; indications showing that all required checks have
8 been made; a statement of repairs made, if any, and identification of the testing standard and the
9 person making the test. Test results from automatic testing equipment need not show the detail of
10 the calculations employed.

11 (2) Each utility shall keep a history record for each unit of metering equipment showing
12 when the unit was purchased; its cost; utility’s identification; associated equipment; essential
13 name-plate data; dates of the last 2 tests; results of the last “as found” and “as left” tests unless
14 separate records are kept of each test for each unit; and locations where installed with dates of
15 installation and removal. If this information is kept in combination with the meter test record
16 required by sub. (1), a separate history record is not required.

17 (3) Each utility authorized to test meters under the statistical sample testing plan of s.
18 PSC 113.0921 shall submit to the commission, by April 15 of the following year, a summary of
19 the statistical sample testing results for the prior calendar year. The summary shall include group
20 and lot numbers; a description of meters in each lot; the number or meters in each lot; the
21 number of meters sample tested in each lot; full load sample mean accuracy (\bar{x}), estimated
22 standard deviation (s) and total estimated percent defective (P); light load sample mean accuracy
23 \bar{x} , estimated standard deviation (s) and total estimated percent defective (P); projected annual

1 rates of change for \bar{x} , s and P at both full and light load analysis points; lots requiring testing and
2 actual \bar{x} , s and P data from meters where entire lot tests were required under the program; group
3 and lot numbers; a description of meters in each lot and the number of meters in each lot for the
4 succeeding test year.

5 (4) Utilities with more than 5,000 metered customers shall acquire or develop a
6 computerized meter records system and use it for maintaining all required meter equipment
7 records, scheduling and implementing all required meter testing, and analyzing meter accuracy
8 performance. The reporting system and software must be acceptable to the commission.

9
10 **History:** 1-2-56; am. (3), Register, December, 1957, No. 24, eff. 101058; am. (3), Register, February,
11 1978, No. 266, eff. 3-1-78; am. (2) to (3), cr. (4), Register, December, 1987, No. 384, eff. 1-1-88.

12
13 **PSC 113.0920 Statistical sample testing plan for new self-contained single phase and**
14 **3-wire network meters.** The new meter sample testing plan described in subs. (1)-(5) may be
15 used for testing new self-contained, single phase and 3-wire network meters without mechanical
16 demand registers or mechanical pulsing devices instead of the new meter test requirements of s.
17 PSC 113.0911 (1) (a), if the commission authorizes the adoption of the plan by a utility.

18 (1) Meters, as received from the manufacturer, shall be divided into homogeneous lots by
19 manufacturers and type. The maximum number of meters in any lot may not exceed 1,000 or be
20 less than 96. From each such lot assembled, there shall be drawn a coded sample size specified in
21 Military Standard 414, (MIL-STD-414) dated 11 June 1957, as shown for the various group sizes
22 using Inspection Level IV of Table A-2 on page 4 and a corresponding actual sample size as
23 shown in Table B-3 on page 45. The sample shall be drawn by a random method that ensures
24 that each meter in the lot has an equal chance of being selected.

25 (2) The test criterion for acceptance or rejection of each lot shall be based on a separate
26 analysis conducted at both the full load and light load test points at unity power factor, as

1 specified in s. PSC 113.0811 (1) (c), by means of the Standard Deviation Method, Double
2 Specification Limit and with an Acceptable Quality Level (AQL) of 0.25 for the full load
3 accuracy analysis and an AQL of 0.40 for the light load accuracy analysis as shown in Table B-
4 3, MIL-STD-414, page 45. The statistical analysis calculations shall be made following the
5 example outlined on page 43 of MIL-STD-414 with the upper and lower specification limits U
6 and L designated at 101% and 99% respectively.

7 (3) One non-registering meter may be removed from the sample lot for analysis purposes
8 and replaced with another randomly selected meter. If more than one meter in a sample lot is
9 found not to be registering, the entire lot shall be rejected.

10 (4) A lot shall be deemed acceptable for installation if the total estimated percent
11 defective (P) is less than the appropriate maximum allowable percent defective (M) as
12 determined from Table B-3 under the procedures of sub. (2). All meters in an acceptable lot shall
13 be deemed to have met the accuracy requirements of s. PSC 113.0811 for placement in service
14 without further testing.

15 (5) A lot shall be considered rejected (not acceptable for installation) if the total estimated
16 percent defective (P) is greater than or equal to the appropriate maximum allowable percent
17 defective (M) as determined from Table B-3 under the procedures of sub. (2). All meters in a
18 rejected lot shall be tested and adjusted in accordance with the procedures of s. PSC 113.0811 or
19 replaced with meters meeting these requirements.

20
21 **History:** Cr. Register, December, 1987, No. 384, eff. 1-1-88.

22
23 **PSC 113.0921 Statistical sample testing plan for in-service, electronic (solid state)**
24 **meters, and electromechanical, self-contained, single phase and 3-wire network meters. (1)**

25 The statistical sample testing plan described in pars. (a)-(e) may be used for testing electronic

1 (solid state) meters, and self-contained, single phase and 3-wire network meters without
2 mechanical demand registers or mechanical pulsing devices in place of the periodic testing
3 requirements of s. PSC 113.0911 if the commission authorizes the adoption of the plan by a
4 utility.

5 (a) All extended range, surge proof designed meters shall be divided into homogeneous
6 groups based on meter design features and age. The groups shall be further divided into lot sizes
7 categorized by manufacturer, type, serial number, group size or load duty cycle with lot sizes
8 containing a minimum of 26 meters and a maximum of 110,000 meters. The number of lots or
9 lot composition and size may be changed at the end of the sample testing year to allow for
10 increasing or decreasing analysis of accuracy testing requirements on any segment of meters in
11 any lot.

12 (b) Annually, from each of the assembled lots, a coded sample size specified in Table A-
13 2, Inspection Level IV, page 4 of Military Standard 414, (MIL-STD-414) dated 11 June 1957
14 and a corresponding actual sample size as shown on Table B-3 page 45, (MIL-STD-414), shall
15 be randomly selected for testing and analysis purposes. Each meter in the lot sample shall be
16 provided with a full load and light load test for accuracy at unity power factor, as specified under
17 s. PSC 113.0811 (1) (c). A separate statistical analysis shall be performed on each lot sample at
18 each of these 2 load ranges. All meters not registering at either full or light load test points shall
19 be removed from the lot sample and replaced with a different randomly selected meter and not
20 more than two lot sample meters operating outside of the accuracy bandwidth of 95% to 105% at
21 either test load point shall be removed and replaced from the lot sample.

22 (c) The statistical analysis calculations for both the full and light load accuracy results
23 from the sample lot tests shall be made following the example outlined on page 43 of MIL-STD-

1 414 with the upper and lower specification limits, U and L designated at 102% and 98%
2 respectively. The test criterion for acceptance or rejection of each lot shall be by the Standard
3 Deviation Method, Double Specification Limit with an Acceptable Quality Level (AQL) of 1.00
4 for the full load analysis and 4.00 for the light load analysis (both normal inspection) as shown
5 on Table B-3, page 45 of MIL-STD-414.

6 (d) A lot shall be deemed acceptable for continued use if the total estimated percent
7 defective (P) is less than the appropriate maximum allowable percent defective (M) as
8 determined from Table B-3, page 45 of MIL-STD-414, following the procedure of par. (c) for
9 both the full load and light load analysis test points at the respective designated Acceptable
10 Quality Levels. All of the meters in the accepted lot may be retained in use without further
11 accuracy adjustments and will be concluded to have the accuracy characteristics specified in s.
12 PSC 113.0811 (1) (c). Meters in the sample lot may be adjusted for acceptable accuracy as
13 required or maintained as necessary and returned to the lot.

14 (e) A lot shall be deemed unacceptable and rejected for continued use if the total
15 estimated percent defective (P) is greater than or equal to the appropriate maximum allowable
16 percent defective (M) as determined from Table B-3, page 45 MIL-STD-414, following the
17 procedure of par. (c) for both the full load and light load analysis test points at the respective
18 designated Acceptable Quality Levels on any 2 annual sample testing analysis years within a
19 five-year period for the lot or any meters in the lot. All meters in a rejected lot shall be provided
20 with an appropriate test within a period of 48 months from the date of completion of the sample
21 analysis and all the meters tested in the rejected lot shall be adjusted to the accuracies specified
22 in s. PSC 113.0811 (1) (c). All meters in a rejected lot that will not be returned to service shall be
23 removed within 48 months from the date of completion of the sample analysis. These meters

1 may be retired without a test. Annual statistical sample testing shall be terminated during the
2 period when all of the meters in a rejected lot are being provided with a test and accuracy
3 adjustment.

4 (f) All meters in any lot may be tested and adjusted for proper accuracy over a 48-month
5 period at the discretion of the utility without a sample analysis determination specifying the lot
6 test is necessary.

7 (g) Any meter that is included in this plan, which is removed from service for retirement,
8 may be retired without a test.

9
10 **History:** Cr. Register, December, 1987, No. 384, eff. 1-1-88.

11
12 **PSC 113.0922 Customer request test.** Each utility shall promptly make a test of any
13 metering installation upon request of the customer if 24 months or more have elapsed since the
14 last requested test of the meter in the same location. The test shall consist of an inspection of the
15 meter connections and a test for accuracy either at the utility testing shop or on the customer's
16 premises. The commission staff may order a meter test if it deems necessary. At the customer's
17 request and expense the installation shall be checked for accidental grounds. The customer shall
18 be furnished a report of the result of the test. (See s. PSC 113.0924 for adjustment of bills for
19 inaccurate meters.)

20
21 **History:** Cr. Register, February, 1978, No. 266, eff. 3-1-78.

22
23 **PSC 113.0923 Commission referee test.** Upon written application to the commission by
24 any electric utility customer, the commission will referee a test covering the accuracy and
25 integrity of the customer's power meter installation, including an inspection and verification of
26 the connections, and any other check or test which appears desirable. The test will be performed
27 in accordance with ss. PSC 113.0905 through PSC 113.0915 as applicable and shall be made in

1 accordance with s. PSC 113.0811(1) (c). The commission may limit the availability, number or
2 frequency of such referee tests for the same customer at the same location where, in its judgment,
3 the requests are too frequent, burdensome, abusive, or otherwise unwarranted by the available
4 information or evidence.

5
6 **History:** Register, February, 1978, No. 266, eff. 3-1-78; am. Register, December, 1987, No. 384, eff. 1-1-
7 88.

8
9 **PSC 113.0924 Adjustment of bills for metering inaccuracies.** In this section, “meter”
10 or “meters” may refer to metering system(s).

11 (1) Whenever a meter creeps or whenever a varhour meter or wathour meter installation,
12 with or without pulsing devices and recording equipment, is found upon test to have an average
13 error of more than 2% from 100%, or a demand metering installation more than 1.5% plus the
14 errors allowed in s. PSC 113.0812 from 100%, a recalculation of bills for service shall be made
15 for the period of inaccuracy. The recalculation shall be made on the basis that the service meter
16 should be 100% accurate with respect to the working test standard.

17
18 **Note:** See s. PSC 113.0818 Determination of average meter error.

19
20 (2) (a) If the period of inaccuracy cannot be determined, it shall be assumed that the
21 metering equipment has become inaccurate at a uniform rate since it was installed or last tested
22 except as otherwise provided in (b) and (c) below.

23 (b) Recalculation of bills shall be on the basis of actual bills except that if the monthly
24 consumption has been reasonably uniform, averaged less than 500 kW hrs. per month and
25 involves no billings other than for kW hrs., the recalculation of bills may be based on the average
26 monthly consumption and the inaccuracy may be assumed to have existed for a period equal to

1 one-half the time elapsed since the meter was installed or since the last previous test, whichever
2 is later, up to a limit of 10 years.

3 (c) The error in registration due to "creep" shall be calculated by timing the rate of
4 "creeping" and assuming that this creeping affected the registration of the meter for 25% of the
5 time since the last test or since the meter was installed.

6 (d) When the average error cannot be determined by test because of failure of part or all
7 of the metering equipment, it shall be permissible to use the registration of check-metering
8 installations, if any, or to estimate the quantity of energy consumed based on available data.

9 (3) If the recalculated bills indicate that more than \$1 is due an existing customer or \$2 is
10 due a person no longer a customer of the utility, the full amount of the calculated difference
11 between the amount paid and the recalculated amount shall be refunded to the customer. The
12 refund to an existing customer may be in cash or as credit on a bill. If a refund is due a person no
13 longer a customer of the utility, a notice shall be mailed to the last known address and the utility
14 shall upon demand made within 3 months thereafter refund the amount due.

15 (4) If the recalculated bills indicate that more than \$10 is due the utility, the utility may
16 bill the customer for the amount due. For all customers, the period of backbilling may not exceed
17 24 months unless there is evidence of fraud or deception.

18
19 **Note:** Section 196.635, Stats., reads as follows:

20 **196.635 Unbilled utility service.** *All service supplied by a public utility must be billed within 2 years of*
21 *such service. No customer shall be liable for unbilled service 2 years after the date of the service unless:*

22 *(1) The utility made a reasonable effort to measure the service, but the customer did not allow the utility*
23 *access to any device, including but not limited to a meter, necessary to measure service.*

24 *(2) The customer obtained the service by fraud or deception, including but not limited to theft or tampering*
25 *with any device, including but not limited to a meter, necessary to measure service.*

26
27 (5) A classified record shall be kept of the number and amount of refunds and charges
28 made because of inaccurate meters, stopped or broken meters, faulty or incorrect metering
29 installations, failure to apply appropriate multipliers or application of incorrect multipliers,

1 misapplication of rates, fraud or theft of service, and other erroneous billing. A report from this
2 record for the calendar year shall be submitted to the commission by April 1 of the following
3 year. The report shall show the number and amount of refunds or charges under each of the
4 categories listed above. A record shall also be kept of the complaint or customer requested tests
5 made and the total number for the year included in this report.

6
7 **History:** 1-2-56; am. (5), Register, October, 1965, No. 118, eff. 11-1-65; am. Register, February, 1978, No.
8 266, eff. 3-1-78; am. (2) (b), (4) and (5), Register, December, 1987, No. 384, eff. 1-1-88.

9
10 **PSC 113.0925 Billings for grounds.** Subject to the utility's rules setting forth the
11 method of determining a reduced rate herein authorized, if an accidental ground is found on a
12 customer's wiring or equipment, the utility may estimate the kilowatt-hours lost and bill for them
13 at a reduced rate not less than the generated or purchase cost of the energy, but no such
14 adjustment shall be made for energy supplied after the customer has been notified and has had an
15 opportunity to correct the condition. Any demand (kilowatt) caused by an accidental ground may
16 be billed at a rate lower than that filed for the class of service involved. The utility shall notify
17 the customer of the ground whenever it is found or suspected.

18 **PSC 113.0926 Metering with one meter for net energy billing.** (1) A single watthour
19 meter may be used for net energy billing where reverse meter registration is intended to occur
20 during reverse power flow through the meter and where the service is rendered under an
21 authorized net-energy billing tariff.

22 (2) When the meter is operating in the reverse registration mode it shall be accurate
23 within plus or minus 2.0% at 2 unity power factor loads, one equal to 10% and the other 100% of
24 the test ampere rating of the meter. A test to determine compliance with this accuracy
25 requirement shall be made by the utility either before or at the time the customer-owned
26 generator is placed in operation in accordance with utility rules. Subsequent tests for accuracy in

1 the reverse registration mode are required only when requested by the customer and shall be at
2 customer cost.

3 (3) Each utility shall maintain a record of the reverse-registration tests required in sub. (2)
4 but for such tests the utility is not required to comply with ss. PSC 113.0901, PSC 113.0911, and
5 PSC 113.0919 with respect to meter testing or meter records.

6
7 **History:** Cr. Register, September, 1982, No. 321, eff. 10-1-82.

8
9
10 **SUBCHAPTER X—ELECTRIC SERVICE EXTENSION STANDARDS**

11
12 **PSC 113.1001 Purpose.** The purpose of subchapter X of this chapter is to establish
13 standards for electric utility service extension rules. These standards shall not apply to the inter-
14 connection of customer-owned generation facilities. The primary objective of these standards
15 shall be to provide for an equitable cost relationship between new customers and existing
16 customers. The determination of an equitable relationship shall consider the effect of the
17 extension rule on the environment, the utility's revenue requirement, and the efficient use of
18 electricity.

19
20 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85.

21
22 **PSC 113.1002 Principles of facilities development.** The utility shall provide safe,
23 reliable service with extensions that conform, to the extent possible, to each of the following
24 standards:

25 (1) **ROUTE.** The utility shall make the extension over the most direct route which is the
26 least expensive and least environmentally degrading. The customer shall provide or shall be
27 responsible for the cost of all right-of-way easements, and permits necessary for the utility to
28 install, maintain, or replace distribution facilities. The customer shall either clear and grade such

1 property or pay the utility to clear and grade such property. The customer is responsible for the
2 cost of restoration of the property after the utility has completed installation and backfilling
3 where applicable.

4 (2) DESIGN. The utility shall design and install facilities to deliver service to the customer
5 and the area at the lowest reasonable cost. The facilities shall comply with accepted engineering
6 and planning practices. The design shall consider reasonable needs for probable growth in the
7 area and local land use planning. Unwarranted excess capacity which would result in
8 unnecessary cost increases to the utility and its customers shall be avoided. The utility shall be
9 responsible for the incremental cost of distribution facilities which are in excess of standard
10 design for the customer and normal area growth.

11 (3) EFFICIENT USE. The utility's extension rules shall discouraged the inefficient use of
12 electricity by appropriately relating costs to the charges made for extensions.

13 (4) COST ESTIMATES. The utility shall engineer and estimate the cost of each extension
14 based on reasonable current costs. Current costs may be estimated using job specific costs,
15 average costs per foot or unit, or other costing method as appropriate.

16
17 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85.

18
19 **PSC 113.1003 Definitions.** In. ss. PSC 113.1004 to PSC 113.1010:

20 (1) "Contributed extension" means an extension toward which a customer has made a
21 contribution in aid of construction.

22 (2) "Distribution facilities: includes all primary and secondary voltage wire or cable and
23 its supports, trenches, connection equipment, and enclosures, and control equipment which are
24 used to extend the distribution system from existing facilities to a point of connection with the

1 service facilities. The cost of right-of-way preparation and restoration to the original condition
2 where appropriate shall be included in the cost of distribution facilities.

3 (3) "Embedded cost" means the original cost of the installed utility plant less both the
4 accumulated depreciation of the plant and associated contributions in aid of construction as
5 recorded in the utility's books.

6 (4) "Embedded cost allowance" means a construction credit given a customer requesting
7 an extension which reflects the average embedded cost of existing facilities.

8 (5) "Excess facilities" means an extension costing more than five times the average
9 embedded cost allowance for a given customer classification.

10 (6) "Extension" means the addition of transmission, distribution, or service facilities to
11 the existing electric service facilities.

12 (7) "Full cost" of an extension includes the cost of removal of existing facilities if
13 present.

14 (8) "Noncontributed extension" means an extension which costs less than the embedded
15 cost allowance: the customer requesting the extension makes no contribution in aid of
16 construction.

17 (9) "Nonstandard route or design" means facilities which meet one or more of the
18 following criteria:

19 (a) are different from the standard design developed pursuant to s. PSC 113.1002 (2).

20 (b) follow a route different from the route determined in s. PSC 113.1002 (1), or

21 (c) are not in accordance with the general principles of s. PSC 113.1002.

1 (10) "Service drop" means the overhead secondary voltage conductors from the
2 transformer or closest pole or support on the distribution system to the customer's electric
3 service entrance equipment.

4 (11) "Service facilities" means the transformer, service drop or service lateral and meter.

5 (12) "Service lateral" means the underground secondary voltage conductors from the
6 transformer or closest underground pedestal on the distribution system to the customer's electric
7 service entrance equipment.

8 (13) "Transmission facilities" means a line providing electric service at 40 kilovolts or
9 more as defined in s. PSC 112.02 (8) (c) and the associated supports, connection equipment and
10 enclosures and control equipment. Transmission facilities also includes the preparation cost of
11 right-of-way and restoration of the property to its original condition where appropriate.

12 (14) "Upgrade" means a modification of existing electric facilities.

13
14 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85.

15
16 **PSC 113.1004 Customer contribution for service facilities. (1) METERING FACILITIES.**

17 The utility shall provide the necessary standard metering facilities at no charge to the customer.

18 (2) SERVICE DROPS AND LATERALS. The utility shall provide standard overhead service
19 drops and standard underground service laterals at not charge to the customer.

20 (3) TRANSFORMERS. The utility shall provide standard design transformers necessary to
21 service the customer's load at no charge.

22 (4) NONSTANDARD SERVICE FACILITIES. If the facilities design developed pursuant to s.
23 PSC 113.1002 require nonstandard service facilities or if the customer requests nonstandard
24 facilities, the utility may require the customer to pay a contribution in advance of construction
25 for the portion of the facilities in excess of the standard design.

1 History: Cr. Register, December, 1984, No. 348, eff. 1-1-85.
2

3 **PSC 113.1005 Customer contributions for distribution extensions. (1) STANDARD**

4 DESIGNS. The customer shall pay, as a minimum and refundable contribution, the estimated cost
5 of distribution facilities to be installed which is greater than the appropriate average embedded
6 cost allowance for existing distribution facilities.

7 (2) SUBDIVISIONS. Developers and subdividers shall pay, as a minimum and refundable
8 contribution, the estimated cost of distribution facilities, to be installed for the area being
9 developed. The contribution is refundable as structures are built and connected to the electric
10 utility facilities.

11 (3) NONSTANDARD ROUTE OR DESIGN. If a customer requests a route or design which is
12 different from the design proposed by the utility in compliance with the requirements of s. PSC
13 113.1002, the utility shall require that the customer pay any additional costs as a refundable
14 contribution.

15 (4) CONSTRUCTION CHARGES. The utility shall require that the customer make a
16 contribution in aid of construction if construction requires trenching in rocky soil, frozen ground,
17 or other similar conditions.

18 (5) REQUEST FOR EXCESS FACILITIES. The utility may require a contract from a customer
19 requesting the installation of excess facilities, as defined in s. PSC 113.1003 (5), requiring the
20 customer to pay recurring operation and maintenance expenses on the portion of the extension
21 which is greater than five times the embedded cost allowance. The utility shall provide the
22 commission with the reasons and supporting analysis for each such contract.

23 (6) PAYMENT PLANS. The utility may require that the contribution in aid of construction
24 be paid in advance of construction or may, at the utility's option, offer customers an installment
25 payment plan.

1 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85.
2

3 **PSC 113.1006 Embedded cost allowances.** The average embedded cost of existing
4 facilities shall be determined annually on a customer classification basis as follows:

5 (1) **ENERGY ONLY CUSTOMERS.** For customer classifications billed on an energy usage
6 only basis, the embedded cost of the distribution facilities allocated to those classifications shall
7 be divided by the number of customers in the classification to specify an average embedded cost
8 allowance per customer. The utility may create subclassifications of energy-only commercial
9 classification based on customer service entrance capacity or other electrical load criteria to
10 specify average embedded cost allowances.

11 (2) **DEMAND AND ENERGY CUSTOMERS.** For customer classifications billed on a demand
12 and energy usage basis, the embedded cost for distribution facilities allocated to those
13 classifications shall be divided by the total billed demand of those customers to specify an
14 average embedded cost allowance per kilowatt of demand.

15 (3) **STREET LIGHTING.** For street lighting facilities, the embedded cost of distribution
16 facilities allocated to those classifications shall be divided by the number of lighting fixtures to
17 specify an average embedded cost allowance either by type of lighting fixture or by type and size
18 of lighting fixture.

19 (4) **SEASONAL CUSTOMERS.** Seasonal customers shall receive one-half the average
20 embedded cost allowance of a year-round customer for the same customer classification.

21 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85.
22

23 **PSC 113.1007 Refunds.** (1) **INDIVIDUAL CUSTOMERS.** (a) *Procedure.* The utility shall
24
25 make refunds to a customer who made a contribution for an extension (a contributed extension)
26 when the utility makes an extension from the contributed extension to a second customer which

1 does not require a contribution from the second customer (a noncontributed extension). The
2 refund shall be equal to the greater of the embedded cost allowance in effect at the time the
3 contributed extension was installed or the current embedded cost allowance. This refund, in
4 either case, shall be reduced by the costs incurred by the utility to design and install the
5 distribution facilities for the second customer. The utility shall not refund more than the total
6 contribution made by any customer. The utility shall make the refund to the customer who made
7 the original contribution or the current property owner of record unless it has a written record
8 from that customer assigning the refund rights to another customer.

9 (b) *Period.* The utility shall make refunds for the first 5 years after the installation of a
10 contributed extension.

11 (2) SUBDIVISIONS. (a) *Procedure.* As structures are built and connected to the electric
12 utility facilities, the utility shall refund to the developer or subdivider an amount equal to the
13 greater of the embedded cost allowance in effect at the time the contributed extension was
14 installed or the current embedded cost allowance for each customer. This refund shall be reduced
15 by the cost of any additional distribution facilities, if necessary, to serve the new customer.

16 (b) *Period.* The utility shall make refunds for structures which are built and connected to
17 the utility system within 5 years from the installation of the contributed extension.

18 (3) EXTENDED REFUND PERIOD. A 5-year refund period is required for extensions made
19 after July 1, 1982, if the extension rules in effect at that time provided for a refund and a refund
20 period of less than 5 years.

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22 **History:** Cr. Register, December, 1984, No. 348, eff. 1-1-85; cr. (3), Register, December, 1985, No. 360,
23 eff. 1-1-86.

24
25 **PSC 113.1008 Modifications to existing distribution and service facilities. (1)**

26 **RELOCATION AND REBUILDING OF EXISTING DISTRIBUTION FACILITIES.** Where responsibility can

1 be determined by the utility, the customer responsible for relocation, rebuilding, or other
2 modifications of existing distribution facilities shall pay a contribution equal to the full estimated
3 cost of construction including the cost of removal of existing distribution facilities and less the
4 accumulated depreciation and the salvage value of facilities removed. The costs and credits shall
5 be determined from the available records of the utility. The utility shall endeavor to maintain
6 records that permit a reasonable calculation of these costs and credits. The contribution shall be
7 refundable as additional customers attach to the facilities for which the customer made a
8 contribution unless the additional customers require a new extension under s. PSC 113.1003 (1).
9 (See s. PSC 113.1007 (1).)

10 (2) REPLACEMENT OF OVERHEAD DISTRIBUTION FACILITIES WITH UNDERGROUND

11 DISTRIBUTION FACILITIES. A customer requesting the utility to replace existing overhead
12 distribution facilities with underground distribution facilities shall pay the full estimated cost of
13 construction including the cost of removal of existing distribution facilities less the accumulated
14 depreciation and the salvage value of the existing overhead facilities which are removed. This
15 contribution shall be refundable as additional customers attach to facilities for which the
16 customer made a contribution if the cost of the required distribution facilities to serve the new
17 customer is less than the appropriate embedded cost allowance.

18 (3) UPGRADE OF DISTRIBUTION FACILITIES. (a) *Due to change in load.* Customers who

19 request an upgrading of the utility distribution facilities due to a change in the character of their
20 load shall pay for the construction costs incurred by the utility to provide the requested additional
21 facilities.

22 (b) *Demand schedule.* Customers who are served under a demand rate schedule shall

23 receive an embedded cost allowance. The kilowatts of demand to be used in determining the

1 allowance shall be the customer's average billed demand after the upgrade less the customer's
2 average billed demand before the upgrade.

3 (c) *Customers transferring to a different energy-only classification.* If a customer served
4 under an energy-only subclassification prior to the upgrade qualifies for a different energy-only
5 subclassification after the upgrade, the customer shall receive a cost allowance equal to the
6 difference between the embedded cost allowances.

7 (d) *Customers transferring to a demand classification.* If a customer is served under an
8 energy-only classification prior to the upgrade, the customer shall receive an embedded cost
9 allowance. The kilowatts of demand to be used in determining the allowance shall be the
10 customer's average billed demand after the upgrade less an estimate of the customer's prior
11 average demand.

12 (4) UPGRADE OF SERVICE FACILITIES. (a) *Overhead service drop.* The utility shall not
13 charge the customer to upgrade an overhead service drop with a larger size overhead service
14 drop.

15 (b) *Underground service lateral.* The utility shall not charge the customer to upgrade an
16 underground service lateral with a larger size underground service lateral.

17 (c) *Overhead service drop to underground service lateral.* The utility shall require a
18 contribution from a customer requesting to have an overhead service drop upgraded to an
19 underground service lateral. The contribution shall be equal to the cost of the underground
20 service lateral less the cost of an equivalent overhead service drop.

21 (5) PAYMENT PLANS. The utility may require that the required contribution in aid of
22 construction be paid in advance of construction or may, at the utility's option, offer customers an
23 installment payment plan.

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