

**Readopt with amendment Puc 300, effective 10-18-05 (Document # 8448), to read as follows:**

CHAPTER Puc 300 RULES FOR ELECTRIC SERVICE

PART Puc 301 APPLICATION OF RULES

Puc 301.01 Application of Rules.

(a) This chapter shall apply to any utility as defined by Puc 302.22 except as provided in (b) below.

(b) This chapter, except for the sections below, shall not apply to any rural electric cooperative for which a certificate of deregulation is on file pursuant to RSA 301:57:

(1) Puc 303.01, filing of tariffs;

(2) Puc 306.09, emergency response standards and electrical outage restoration;

(23) Puc 307.01, records;

(34) Puc 307.02, preservation of records; and

(45) Puc 307.04, uniform system of accounts; and.

(5) Puc 309.01 and 309.02, filing requirements for long range plans for bulk power supply.

Puc 301.02 Notice of Intent to Produce Electricity. Any facility located within New Hampshire proposing to generate electricity over one megawatt ultimately sold to the public shall notify the commission in writing of its intent to produce electrical energy at least 6 months prior to the date energy is first proposed to be produced.

PART Puc 302 DEFINITIONS

Puc 302.01 "Commission" means the New Hampshire public utilities commission.

Puc 302.02. "Competitive electric power supplier (CEPS)" means any person or entity that sells or offers to sell electricity to retail customers in this state pursuant to RSA 374-F:7. The term does not include any utility or any municipal or county corporation operating with its corporate limits or submetering at campgrounds as described in RSA 362-a.

**Comment [PSNH1]:** Should this definition be expanded, or another definition added, to address the recent rise of solar system companies that own solar systems installed at customer locations, but which sell the power to customers by PPAs? Customers do not take ownership of these systems, and pay the solar company a cents/kwh fee for a fixed term length.

Puc 302.~~02-03~~ "Creep" means a condition where the rotor of a mechanical meter rotates continuously when rated voltage is applied and the load terminals are open circuited.

Puc 302.~~03~~ 04 "Customer" means any person, firm, corporation, cooperative marketing association, utility, governmental unit, or subdivision of a municipality or of the state or nation, supplied with electric service by any utility.

Puc 302.~~04-05~~ "Demand" means the average power measured over a specified interval of time.

Puc 302.~~05~~ 06 "Electronic indicating demand device" means an indicating device that determines demand values based on electronic pulse inputs from an auxiliary device to a solid state circuit designed to

calculate and display demand quantities in conjunction with a timing signal derived from the line frequency or a crystal oscillator timing circuit.

Puc 302.~~06-07~~ "Electronic meter" means a meter that has measurement circuitry built primarily of solid state electrical components.

Puc 302.~~07-08~~ "Energy conservation" means energy use activities that cost less to implement than the value of the resources saved.

Puc 302.~~08-09~~ "Electric service" means the delivery of electricity to a customer in this state by a utility.

Puc 302.~~09-10~~ "Full load" means the meter accuracy test point at rated test voltage, rated test current and 1.0 power factor.

Puc 302.~~10-11~~ "Indicating demand device" means a type of metering equipment used to measure and display demand values.

Puc 302.~~11-12~~ "Light load" means the meter accuracy test point at rated test voltage, 10% of rated test current and 1.0 power factor.

Puc 302.~~12-13~~ "Master metering" means the use of a single meter to supply electric service at a building that contains two or more residential premises.

Puc 302.~~13-14~~ "Mechanical indicating demand device" means a device which uses either mechanical thermal elements or mechanical gearing in conjunction with a demand interval timing motor to determine demand values.

Puc 302.~~14-15~~ "Mechanical meter" means a watt-hour meter built with a stator and rotor assembly that operates via electromagnetic induction principles.

Puc 302.~~15-16~~ "Meter" means a device installed for the measurement of electrical quantities to be used as a basis for determining charges for electric service.

Puc 302.~~16-17~~ "Power factor" means "power factor" as defined in the Institute of Electrical and Electronic Engineers (IEEE), standard 141-1993, section 8.2.1.

Puc 302.~~17-18~~ "Power factor load" means the meter accuracy test point at rated test voltage, rated test current and 0.5 lagging power factor.

Puc 302.~~18-19~~ "Recording demand device" means separate equipment used to record electronic pulse inputs from an auxiliary device in measured time intervals where the timekeeping signal is derived from the line frequency or a crystal oscillator timing unit.

Puc 302.~~19-20~~ "Regional Transmission Operator ~~for~~ New England" (~~RTO~~ISO-NE) means the administrator or operator for New England's bulk power system or any successor system as named by the Federal Energy Regulatory Commission (FERC).

Puc 302.~~20-21~~ "Register multiplier" means the multiplier used to convert the displayed register readings in kilowatt hours or other units taking into consideration the watt-hour constant, gear ratios, electronic register programming constants and instrument transformer ratios as necessary. This term includes "register constant."

Puc 302.~~24~~ 22 "Root mean square (RMS)" means the measure of steady-state voltage or current as calculated from the square root of the mean of the squares from the voltage or current waveform.

Puc 302.~~22-23~~ "Utility" means any public utility as defined in RSA 362:2 owning, operating or managing any plant or equipment or any part of the same for the transmission, distribution or generation of electricity ultimately sold to the public within New Hampshire except:

- (a) Municipal corporations, to the extent exempt pursuant to RSA 362:4-a;
- (b) Entities specifically exempted from the definition of "public utility" pursuant to RSA 362:4-c; and
- (c) Competitive energy suppliers that have not requested public utility status pursuant to RSA 374-F:7,I.

302.24 "Wide Scale Emergency" is an event either man made or natural during which:

- (a) More than 9 percent or 40,000, whichever is less, of the electric utility's New Hampshire customers experience a sustained interruption of electric service and restoration to any of these customers takes more than 24 hours; or
- (b) The federal, State or local government declares an official state of emergency in the utility's service territory and the emergency involves interruption of electric service.

#### PART Puc 303 SERVICE PROVISIONS

Puc 303.01 Filing of Tariffs. No utility shall provide electric service until it has published and filed a complete tariff with the commission in accordance with Puc 1600.

#### Puc 303.02 Master Metering.

~~(b)~~ No utility shall install master metering at a multi-tenant building in a building with multiple dwelling units. The energy in each dwelling unit in such a building shall be separately metered, containing any residences if the occupants of any unit receiving electric service through the master meter have temperature control over any portion of the electric space heating, electric air conditioning or electric water heating service for the unit.

~~(a)~~ A utility shall only install master metering ~~of electric service consistent with its tariffs if the installation is in commercial buildings and as~~ consistent with the International Energy Conservation Code ~~2000/2009 as adopted in pursuant to RSA 155-A:1,IV, except as set forth in (b) below.~~

~~(c) Hotels, motels, dormitories, boarding houses and Section (b) above shall not apply to hotels, motels, dormitories and time-sharing interests in condominiums as defined in RSA 356-B:3 shall not be considered a dwelling unit within the meaning of Puc 303.02(a) above.~~

#### Puc 303.03 Meter Reading.

(a) The customer shall be provided metering equipment for each service location which measures or provides information to determine the following:

- (1) The number of kilowatt-hours (kWh) registered; and
- (2) If applicable, the following:
  - a. Kilowatt (kW) demand;

**Comment [PSNH2]:** Added by PUC Staff at Nov 6 tech session

**Comment [PSNH3]:** Where the definition is so similar, PSNH proposes utilizing the existing Major Storm definition for Wide Scale Emergency. For PSNH, a Major Storm is 50k customers out (10%) plus 200 concurrent trouble spots or 300 concurrent trouble spots. Adding criteria adds complexity to reporting and there are very few events which would qualify as Wide Scale that would not also qualify as a Major Storm.

**Comment [PSNH4]:** PSNH proposes deleting part b. A local government may declare a "State of Emergency" (Not defined in these rules) for many different issues, unrelated and possibly unknown to the electric utility. With one or more customers impacted by an outage associated with a state of emergency, PSNH believes that the associated crew reporting (307.08) would be burdensome and not cost effective for a localized event. Similar manual effort will also be required for reporting reliability indices as required in 307.09.

**Comment [PSNH5]:** PSNH supports the proposed amendments to this section.

- b. Kilovolt amperes (kVA) demand; and
- c. Kilovolt-ampere reactive (kVAr) demand.

(b) A utility shall plainly mark the meter constants on a visible surface or base of all its meters which show the watt-hours per revolution of the meter disk or the electronic equivalent applicable to an electronic meter.

(c) A utility shall plainly mark on a visible surface or base of all its meters the register constant if the register constant is not one.

Puc 303.04 Change in Character of Service.

(a) "For purposes of this section, change in the character of service" means any change in voltage, location of facilities or direction of feed implemented by the utility which results in new equipment requirements for an affected customer.

(b) If a utility makes a change in the character of a customer's service for the convenience or benefit of the utility, the utility shall pay such part of the cost of changing the equipment of the customers affected as determined by agreement between the customer and the utility or, in the absence of such an agreement, by the commission.

(c) If called upon to determine the cost which the utility shall bear for a change in the character of service for the benefit of the utility, the commission shall order payment by the utility to the customer of:

- (1) The cost of the customer's electrical utilization equipment from the point of delivery back to the source which is made obsolete by the change, less proper allowance for depreciation;
- (2) The cost of installing the new equipment and removing the old equipment, less the salvage value of such equipment which the customer elects to retain; and
- (3) The cost of making the necessary change in the customer's wiring.

PART Puc 304 QUALITY OF ELECTRIC SERVICE

Puc 304.01 Frequency. A utility shall provide alternating current distribution systems which shall have a design and operating frequency of 60 cycles per second under normal system conditions which shall vary only within a narrow range according to operations criteria established by the RTISO-NE.

Puc 304.02 Voltage Variation.

(a) For purposes of this section, "Y" means the 4 wire connection type used for a particular 3 phase electric system component.

(b) Each utility furnishing electric service shall adopt a standard nominal average RMS voltage or voltages which are consistent with the design of the distribution system for its entire service area and for each of the districts or zones into which the distribution system or systems are divided from one of the following systems:

- (1) For secondary voltages of 120 and 120/240 volts, single phase 2-wire or 3-wire systems; or
- (2) For secondary voltages of 120/208Y, 240, 277/480Y, 480 and 600 volts, 3-phase, 3-wire or 4-wire systems.

(c) A utility shall maintain the nominal secondary voltage at the utility's service terminals or at the street lamp in the case of multiple street lighting, as installed for each customer, within plus or minus 5% average RMS.

(d) When a customer receives service from primary distribution voltage and is responsible for supplying its own voltage regulation, the utility shall maintain the nominal secondary voltage at the utility's service terminals as installed for each customer, within plus or minus 10% RMS, except as provided in (e) below.

(e) When a customer is not responsible for its own voltage regulation, the utility shall maintain the nominal average RMS voltage at the utility's service terminals, as installed for each customer, within plus or minus 5%.

(f) The requirements of (d) and (e) above shall not apply to transactions between utilities provided that primary customer voltage requirements are maintained.

(g) Each utility shall submit a compliance plan for (c) above for commission approval by June 1, 2006.

(h) Voltage variations outside of the limits in (c), (d) and (e) shall be allowed in accordance with American National Standards Institute (ANSI) C84.1-1995.

**Comment [PSNH6]:** PSNH has no concerns updating the reference to ANSI C84.1-2011.

(i) A utility may vary from the voltage requirements provided by this section in a special contract provided that:

(1) The permissible variation in voltage for service shall be specifically mentioned in the contract; or

(2) A statement is included in the contract to indicate that the contracting parties are in agreement concerning the allowable variation.

(j) When voltage measurements for detecting variations are required, a utility shall make the measurements at the utility's service terminals, or at the street lamp in the case of multiple street lighting, unless otherwise agreed to by the customer and the utility.

(k) If voltage measurements are taken at places other than at the utility's service terminals or at the street lamp in the case of multiple street lighting, those measurements shall be corrected to the utility's service terminal or street lamp in the case of multiple street lighting.

(l) The utility shall maintain the voltage and frequency delivered at the utility's service terminals or at the street lamp in the case of multiple street lighting, pursuant to Puc 304.01 and Puc 304.02(b), (c), (h) and (i).

(m) Voltage outside the limits specified in this section shall not be considered a violation of this section when such variations:

(1) Arise from adverse weather conditions;

(2) Arise from operation of the affected customer's equipment at low power factor;

(3) Arise from unbalanced operation of the affected customer's equipment;

- (4) Arise from failure of, or emergency maintenance on, equipment;
  - (5) Are transient events on a system designed to good utility practice, as defined in Puc 306.01(b), arising from operation of system equipment during system protection, control, and switching activities;
  - (6) Are caused by emergency system operating conditions or order of the independent system operator; or
  - (7) Arise from actions of others.
- (n) A voltage variation shall not be considered a violation of this section if:
- (1) The variation does not occur more than once per day; and
  - (2) Does not exceed 2 minutes in duration.

Puc 304.03 Interruptions of Service.

(a) Each utility shall use all reasonable means within industry practices to avoid interruptions to service, including:

- (1) Maintaining appropriate levels of maintenance;
- (2) Planning for unexpected events; and
- (3) Considering in decisions affecting potential interruptions to service:
  - a. The potential safety, reliability, cost and delay issues; and
  - b. The manner that best accommodates the public.

(b) If an interruption to service occurs, the utility shall restore service within the shortest time reasonable, consistent with safety, and provide service on a 24-hour basis.

(c) Each utility shall maintain a record, as required in (d) below, when an interruption to service of more than a 5 minute duration occurs affecting:

- (1) An entire substation; or
  - (2) The entire distribution circuit of a substation.
- (d) When an interruption to service occurs as described in (c) above, a utility shall:
- (1) Keep a record of the circumstances of the interruption; and
  - (2) Report the interruption to the commission on form E-2, pursuant to Puc 308.02.

(e) When service is interrupted to perform work on lines or equipment, the utility shall conduct such work at a time causing minimum inconvenience to customers consistent with the circumstances.

(f) When a customer requests that required service be interrupted at a time other than normal business hours, the utility shall consider the request if practical to do so, however the utility may require that additional costs associated with performing the job during a time other than normal business hours be borne by the requesting customer.

**Comment [PSNH7]:** PSNH proposes that this sub-part be added.

(f) A utility shall attempt to notify all affected customers in advance of all planned interruptions to service.

(g) When a utility has actual notice of customers known by the utility who would encounter a potentially life-threatening situation as a result of a planned service interruption, the utility shall provide actual notice to those customers of planned service interruptions.

(h) A potentially life-threatening situation, for purposes of (g) above, shall mean a situation where:

- (1) A customer relies upon life support equipment; or
- (2) Any other potentially life-threatening medical condition exists.

(i) A utility shall be permitted to require the customer to document the potentially life-threatening situation and to request such documentation be updated on an annual basis.

(j) A utility shall interrupt or curtail electric service or vary the characteristics thereof under the following circumstances:

- (1) When necessary to prevent injury to persons or damage to property;
- (2) When directed or requested to do so by police, fire, or other public safety officials;
- (3) When required by conditions occurring in the interconnected transmission grid connected to its facilities, to effect temporary load reduction for the common good; or
- (4) With notice to the customers or group of customers and the commission pursuant to Puc 1203.11, to prevent a single customer or group of customers from causing continuing adverse effects to the electricity supply of another customer or group of customers.

#### Puc 304.04 Voltage Complaints.

(a) Upon receipt of a customer voltage complaint, a utility shall investigate to determine whether the complaint was founded or unfounded.

(b) For the purposes of this section:

- (1) "Founded" means the utility's determination that the voltage complaint was based on a voltage variation in violation of Puc 304.02;
- (2) "Unfounded" means the utility's determination that the voltage measures were within the limits established in Puc 304.02; and
- (3) "Voltage complaint" means written notice to the company or oral communication with the utility's customer service representatives by the customer of conditions or circumstances that suggest or evidence voltage variations outside of the limits established in Puc 304.02.

(c) When a utility determines that a voltage complaint is founded, it shall take appropriate steps to correct the condition and bring voltage into the limits established in Puc 304.02.



(d) When a utility determines that a voltage complaint is founded or unfounded, it shall provide written notification to the customer within 10 calendar days of such determination.

(e) Each utility shall report voltage complaints on a monthly basis to the commission pursuant to Puc 308.01.

(f) Each utility shall maintain all records of voltage complaints investigated pursuant to (a) above for a period of 5 years from the date of the complaint.

#### PART Puc 305 METER ACCURACY AND TESTING

##### Puc 305.01 Inspection of Meters.

(a) A utility shall inspect all meters for correctness of register constant before installing the meter on a customer's premises.

(b) No new watt-hour meter shall be placed into service unless specific test results indicate a registration within the tolerances of Puc 305.02(a) below.

(c) Section (b) above shall not apply to electronic indicating demand devices such as electronic recorders and internal electronic registers which shall be subject to examination by utilities to assure that the devices have not been modified in a way that affects performance.

(d) A utility shall test each new watt-hour meter prior to installation.

(e) A utility shall use one of the following tests to comply with (d) above:

- (1) Test all meters received from the manufacturer;
- (2) Conduct sample testing after commission approval of the sample testing methods; or
- (3) Accept manufacturer testing data with specific test results consistent with Puc 305.03(a) below.

(f) Before returning a meter to service which has been removed from service for any reason, a utility shall inspect and, if necessary:

- (1) Repair the meter; or
- (2) Recalibrate the accuracy of the meter.

(g) A utility shall inspect all watt-hour meters and demand devices for correctness of operation when installed, perform an electrical test of all instrument transformer connections, and correct or repair such meters and devices as necessary.

(h) Prior to or at the time of installation of all ~~watt-hour meters and demand devices~~ instrument transformers, a utility shall also conduct the following activities:

(1) Review and ~~file~~ manufacturer's test data for instrument transformers purchased;

**Comment [PSNH8]:** Language proposal - "all instrument transformers" as the addition of (h) is specific to transformers only, not meters.

**Comment [PSNH9]:** Language proposal - "maintain" rather than file.

~~(2) Verify the current transformer ratio and voltage transformer ratio via electrical testing prior to or at the time of installation;~~

~~(3) Verify wiring by performing a visual inspection of instrument transformer secondary circuit connections;~~

~~(3a) Verify polarity by using one of the following methods:~~

~~ai. Electrical testing where sufficient load current exists; or~~

~~bii. Visual inspection of control cable wiring between the instrument transformer secondary terminals and the meter terminals;~~

~~(4b) Verify that the current transformer input signal phase matches the corresponding voltage or voltage transformer input signal phase to the meter; and~~

~~(5c) Verify phasing is appropriate where multiple primary conductors exist for one or more phases that serve as the primary windings for a window type current transformer;~~

~~(64) Confirm that the secondary voltage magnitude matches expected voltage based on nameplate voltage transformer ratio and connected primary voltage; and~~

~~(75) Confirm that the effective current transformer ratio based on the nominal nameplate ratio for the connected secondary terminals along with proper consideration for multiple primary conductor loops in window type current transformer installations.~~

**Comment [PSNH10]:** This requirement appears to be redundant to the one in 305.01(h)(2). Recommend deleting this requirement.

#### Puc 305.02 Test and Calibration of Meters.

(a) A utility shall test all watt-hour meters at loads and adjust to tolerances as follows:

- (1) At full load, the meter shall register within plus or minus 1%;
- (2) At light load, the meter shall register within plus or minus 1%; and
- (3) At power factor load, the meter shall register within plus or minus 2%.

(b) A utility shall test mechanical meters for creep by visual inspection of the meter's rotor or utilizing electronic test methods.

(c) If the rotor does not move with rated voltage and no load current applied to the meter, it shall be considered to have passed the test required by (b) above.

(d) If movement is detected in the rotor when rated voltage and no load currents are applied to the meter, the movement shall be timed and if the results comply with the creep test guidelines of section 4.7.2.1. of ANSI C12.1-2001, it shall be considered to have passed the test required by (b) above.

(e) Meters which fail the creep test shall not be placed into service.

(f) A utility shall test and adjust all indicating and recording demand devices as follows:

**Comment [PSNH11]:** PSNH has no concerns with updating the reference to ANSI C12.1-2008 here or in sub-sections 305.02(d)(4) and 305.03(a) below.

(1) The utility shall verify that any indicating demand device shall reset properly to zero when placed in service or allowed to remain in service without adjustment;

(2) The utility shall, in order to determine the accuracy of each mechanical indicating demand device, conduct an up-scale test, meaning a test on the upper end or at the higher values of the scale of the meter, as follows:

a. According to the meter manufacturer's specifications; or

b. If the meter manufacturer does not provide specifications as to conducting an up-scale test, with a test conducted at a minimum of 1 demand interval cycle, at a point near 1/2 scale;

(3) A utility shall not place in service or allow to remain in service after inspection any mechanical indicating demand device which has an error in indication of more than plus or minus 2% in full scale registration without adjustment; and

(4) Recording demand devices shall conform to the in service requirements of ANSI C12.1-2001.

(g) To determine the accuracy of electronic indicating demand devices, each utility shall conduct a test at a load and time interval that will result in a demand reading with resolution sufficient to determine that the reading is within plus or minus 2% of the average load applied to the meter during the test.

~~(h1) For shipments of new self-contained single phase or network demand meter purchases, the utility shall only be required to test a sample of meters, consistent with 305.01 (e) (2), to verify the demand related programming values are correct and that demand calculations are performed correctly. For new self contained single phase or network demand meter purchases, the utility shall test a sample of meters consisting of no less than 5% of the meters from each pallet of new meters received in a shipment to verify that the demand related programming values are correct and that the demand calculations perform correctly.~~

**Comment [PSNH12]:** PSNH recommends this section be a subpart to section (g).

~~(h) A utility shall test all motors used to maintain a timing cycle in a mechanical indicating demand device to insure they are running at the proper speed, where such timing cycle directly affects meter registration.~~

~~(hi) Where it is practical and safe to do so, the utility shall verify the proper operation of instrument transformers at an interval not to exceed the associated test schedule for the connected meter as set forth in Puc 305.03. For purposes of this subpart, verification of proper operation includes verification of polarity, phasing or ratio provided that sufficient load current exists to perform such testing.~~

**Comment [PSNH13]:** PSNH recommends deleting this section. Given the impractical nature of a rule relying (necessarily) on the judgment of field personnel, this section should be omitted. Rules related to instrument transformer testing and inspection are adequately covered in the new section 305.01 (h).

#### Puc 305.03 Test Schedules for Watt-hour Meters and Demand Devices.

(a) A utility may accept as a first test and record as a test a manufacturer's test on new meters if the meter is certified by the manufacturer as built to comply with ANSI C12.1-2001 of the American National Standard Code for Electricity Metering or ANSI C12.20-2002.

(b) A utility shall test and calibrate all new meters not certified by the manufacturer as provided in (a) above before placing any such meter into service.

**Comment [PSNH14]:** PSNH recommends removing the "and Demand Devices" since 305.03 really applies to all watt-hour meters, whether or not they have a demand register or other functionality.

(c) A utility shall each year test and, as necessary, repair and recalibrate or retire all watt-hour meters ~~and demand devices~~ in service on a test schedule as follows:

**Comment [PSNH15]:** PSNH has no concerns with updating the reference to ANSI C12.20-2010.

(1) All self-contained single-phase watt-hour meters:

- a. On a periodic basis resulting in each meter being tested at least once every 12 years; or
- b. By each year selecting, testing and, as necessary, retiring meters under a plan as follows:
  - 1. A sample test group, selected at random and representing a cross-section of the utility's meters, comprised of at least 1% of meters in use but not fewer than 500 meters; and
  - 2. An additional number of meters, determined pursuant to (d) below, selected from those meters which appear to be most adversely affecting meter accuracy;

- (2) Self-contained polyphase meters, each meter no less than once every 12 years;
- (3) Single-phase transformer-rated meters, each meter no less than once every 8 years; and
- (4) Polyphase transformer-rated meters, each meter no less than once every 4 years.

(d) Each utility which tests self-contained single-phase watt-hour meters pursuant to (c)(1)b. above, shall test and repair and recalibrate or retire each year a minimum number of meters, pursuant to (c)(1)b.2. above, in addition to sample meter tests required to be conducted pursuant to (c)(1)b.1. above, according to the formula as follows:

- (1) The utility shall create a test curve ratio in which:
  - a. "X" means the percentage of meters in the cumulative sample test group which tested outside of the weighted accuracy limits of between 98% and 102% for mechanical meters and between 98% and 101% for electronic meters; and
  - b. "R" means the percentage of the total number of meters subject to sample testing which it shall test and repair and recalibrate or retire in addition to those meters tested pursuant to (c)(1)b.1. above; and
- (2) Each utility shall determine the number of additional meters it shall test pursuant to this paragraph by calculating "R" as described below and applying this percentage to the total number of in-service meters subject to sample testing, as follows:
  - a. When "X" is between 0% and 3%, by multiplying 12.5 by "X" divided by 3, squared, as in the formula below:
 
$$R = 12.5 (X/3)^2 \text{ percent}$$
  - b. When "X" is greater than 3% and less than 6% by subtracting from 25, 12.5 multiplied by 2 minus "X", divided by 3, squared, as in the formula below:
 
$$R = 25 - 12.5(2 - X/3)^2 \text{ percent;}$$
  - c. When "X" is greater than 6%, R shall equal 25%; and
  - d. If X is 0.0% to 0.5%, the number of the additional meters to be tested shall be multiplied by 1.0; and

e. If  $X$  is greater than 0.5%, the number of additional meters to be tested shall be multiplied by  $1.0 + ((X - 0.5) / 2)$ .

(e) A utility shall include in the cumulative sample required by (d)1.a. above:

(1) The sample test group of the current year; and

(2) To the extent available, the sample test groups of the immediately preceding 3 years.

(f) In determining the minimum number of additional meters which it shall be required to test pursuant to (c) above, a utility shall not include any meter returned to the shop for maintenance.

(g) A utility shall notify the commission in writing before changing any meter testing schedule which the utility has adopted pursuant to this section.

(h) A utility shall test and recalibrate as necessary all polyphase meters removed from service before returning the meter to service.

Puc 305.04 Request Tests and Reports and Records of Meter Tests.

(a) When a customer requests that a utility test the customer's meter, the utility shall test the accuracy of the customer's meter within 15 calendar days from the time this request is made.

(b) A utility may require the deposit of a fee of not more than \$20.00 for such a test and shall, in cases where a customer presents evidence of financial hardship as defined in Puc 1202.10, either waive the fee or offer the customer the opportunity to enter into a payment plan for such fee.

(c) A utility shall conduct any test on a meter requested by the customer with the meter in its service location.

(d) If, on testing, as described in (a) above, the meter is found to have an average error greater than 2%, the utility shall promptly refund the deposit to the customer.

(e) If the meter, upon testing as described in (a) above, is not found to have an average error greater than 2%, the utility may retain the amount deposited for the test.

(f) A utility shall allow a customer to be present or to be represented by an agent who the utility shall permit to be present when the utility conducts the test on that customer's meter.

(g) The utility shall report the results of the meter test to the customer within 15 calendar days of the test.

(h) In the report required by (g) above, the utility shall provide:

(1) The name of the customer requesting the test;

(2) The date of the request;

(3) The location;

- (4) The type, make, and the serial number of the meter;
- (5) The date tested;
- (6) The numeric result of the weighted-average test;
- (7) The numeric range of weighted-average test results permitted by the commission; and
- (8) A statement indicating whether the customer's test result was within or outside the range permitted by the commission.

(i) When a utility has received a request for a meter test, the utility shall not remove the meter from the customer's premises or interfere with or adjust the meter to be tested unless it has first obtained:

- (1) The written consent of the customer; or
- (2) A waiver of the consent requirement pursuant to Puc 201.05.

(j) When a customer requests that the commission verify the accuracy of the customer's meter, the commission shall, by a representative, monitor the conducting of a meter test conducted by the utility.

(k) Each utility shall submit to the commission reports of periodic and sample tests of meters on form E-3 and form E-3A once a year pursuant to Puc 308.03 and Puc 308.04.

(l) Each utility shall submit to the commission quarterly reports containing monthly data of customer requests for meter tests on form E-4 pursuant to Puc 308.05.

(m) A utility shall retain in its files a complete record of the last test made on each meter.

Puc 305.05 Customer's Bill Adjustments.

(a) In meter tests made by the utility pursuant to Puc 305.04, the utility and the commission shall judge the correctness of registration of the meter and its performance in service by its average error.

(b) A utility and the commission shall determine average error for purposes of meter tests as follows:

- (1) If the meter is used to measure a load which is constant, such as a street lighting load or a display sign load, the meter shall be tested at the constant load;
- (2) The error of a meter used to measure a constant load shall be accepted as the average meter error;
- (3) If the meter is used on a varying load, the average error shall be:
  - a. The weighted average of its error at light load with a weighting of 1.0; and
  - b. The weighted average of its error at full load with a weighting of 4.0; and
- (4) Any adjustment of charges which is made in accordance with this section shall be based on the average error as determined by this paragraph.

**Comment [PSNH16]:** Proposed grammatical update – Customers'

(c) Whenever, as the result of a test made by the utility, a watt-hour meter is found to have an average error greater than 2%, the company shall, except to the extent provided in (d) below, refund to the customer an amount equal to the charge for the excess kilowatt-hours billed for a period:

- (1) Equal to 1/2 the time elapsed since the last test; or
- (2) The time when the error first developed or occurred can be definitely fixed, from that point.

(d) The calculation for a bill adjustment in (c) above shall not consider any period during which

- (1) The customer did not receive service at that location; or
- (2) The customer was purposefully diverting electricity or tampering with the metering installation.

(e) Whenever, as the result of a test made by the utility, a watt-hour meter is found to have an average error greater than 2%, the company may bill the customer for the unbilled kilowatt-hours supplied for the shorter of the following periods:

- (1) The previous 6 months of active usage; or
- (2) The period since the last test.

(f) When a customer is charged pursuant to (e) above, the utility shall allow the customer to request a payment plan, regardless of the customer's financial circumstances, such payment plan shall not exceed the period of time over which the unbilled kilowatt-hours accrued unless agreed to by the utility and the customer.

(g) If a meter is either not registering or partially registering the electricity delivered to the customer, the utility shall base the bill for the period of non-registration or partial registration upon:

- (1) Information recorded by a meter properly registering usage at that location prior or subsequent to the period of non-registration or partial registration; and
- (2) Any other pertinent information supplied by the customer or known to the utility.

(h) When calculating the difference between the billed and estimated amounts resulting from the non-registration or partial registration, the utility shall not bill the customer for more than 6 months of partial or non-registration unless the customer was purposely diverting electricity or tampering with the metering installation.

(i) The utility shall provide each customer receiving a refund pursuant to (c) above or being charged pursuant to (e) above with a clear explanation of how such refund or charges were calculated.

(j) If a meter is determined to have been assigned to the wrong customer and a customer has been billed based on usage recorded on a meter connected to residential or commercial space not occupied by that customer, the utility shall correct the billing to affected customers as follows:

- (1) For customers who have been under billed, invoices for the billing difference shall cover the customer's period of occupancy or 6 months, whichever is shorter; and

- (2) For customers who have been overbilled, refunds of the billing difference shall cover the period of occupancy or 24 months, whichever is shorter.

Puc 305.06 Testing Facilities and Equipment, Watt-Hour Standards.

- (a) Every utility shall have available one or more reference standards for the sole purpose of checking working standards.
- (b) Each utility shall have all reference standards and all working standards certified at least once each year in a laboratory meeting specifications recommended by the watt-hour standard manufacturer.
- (c) Each utility shall have each working standard which it maintains accompanied by a calibration card noting the corrections at various working loads.
- (d) Each utility shall keep on file in its office for 2 years any calibration cards which have been superseded.
- (e) Each utility shall maintain an adequate number of working standards for testing customer meters.
- (f) Each utility shall check the mechanical field working standards used in the direct calibration of customer meters every 3 months to determine whether there has been a change in the performance of a standard unless the mechanical field working standard is certified at intervals recommended by the manufacturer not to exceed one year.
- (g) Each utility shall check the mechanical meter shop working standards used in the direct calibration of customer meters once a week to determine whether there has been a change in the performance of the standard, and must certify the mechanical meter shop working standard at intervals recommended by the manufacturer not to exceed one year.
- (h) Each utility shall compare its electronic working standards for testing customer meters to reference standards at least once every year.
- (i) Any working standard found to be in error by more than 1% shall be removed from service.
- (j) A utility shall certify its watt-hour standards as follows:
  - (1) In an independent standards laboratory; or
  - (2) In a laboratory maintained by the utility provided that the commission accepts the instruments and methods pursuant to Puc 201.05.

Puc 305.07 Testing Facilities and Equipment, Portable Indicating Standards.

- (a) Every utility shall have available reference indicating electrical instruments of suitable range for checking working instruments.
- (b) Each utility shall check reference indicating instruments required by (a) above at least once each year in an independent standards laboratory approved by the commission.
- (c) Each utility shall not use the reference indicating instruments required by (a) above in the field as working instruments.



(d) Each utility shall have calibration cards accompany each instrument required by (a) above which note the corrections to be applied at the various parts of the working scale.

(e) Each utility shall have available the types and quantities of working instruments necessary to determine compliance with these rules for:

(1) Recording and indicating customer voltage; and

(2) Testing any other electrical quantities which may be necessary to comply with the measurement and reporting requirements of this chapter.

(f) Each utility shall check the working instruments required by (e) with the reference instruments at least once each year.

(g) If reference instruments are not available within the utility, the utility shall have field instruments checked in an independent standards laboratory meeting specifications recommended by the meter manufacturer in intervals not to exceed one year.

(h) A utility may certify its indicating standards in a standards laboratory which it maintains provided that the instruments and methods meet specifications recommended by the meter manufacturer.

(i) Pursuant to RSA 365:6, each utility shall, upon request, provide the commission access to its meter testing facilities and any and all meter test results.

#### PART Puc 306 EQUIPMENT AND FACILITIES

##### Puc 306.01 Standard Practice in Construction, Operation and Maintenance.

(a) Each utility shall construct, install, operate and maintain its plant, structures and equipment and lines, as follows:

(1) In accordance with good utility practice;

(2) After weighing all factors, including potential delay, cost and safety issues, in such a manner to best accommodate the public; and

(3) To prevent interference with other underground and above ground facilities, including facilities furnishing communications, gas, water, sewer or steam service.

(b) For purposes of this section, "good utility practice" means in accordance with the standards established by:

(1) The National Electrical Safety Code ~~C2-2002~~;

(2) When applicable, the International Energy Conservation Code 200~~9~~<sup>90</sup> as adopted ~~in-pursuant to~~ RSA 155-A:1,IV; and

(3) The ~~RTO~~ISO-NE.

**Comment [PSNH17]:** PSNH has no concerns with updating the reference to NESC C2-2012.

Puc 306.02 Joint Pole Construction. Each utility involved in any installation which makes use of poles either for single or joint occupancy shall conform its construction, installation, operation and maintenance to the requirements of Puc 306.01.

Puc 306.03 Electrical Interference.

(a) Each utility shall make a full and prompt investigation of complaints made by the utility's customers or by the general public involving electrical interference with reception by communications equipment in the proximity of the utility's transmission and service areas, including but not limited to interference with television and radio reception.

(b) Each utility shall maintain a record of complaints which it receives pursuant to (a) above.

(c) Each utility shall report to the commission all complaints, as described in (a) above, that it receives that are not resolved to the satisfaction of the complaining party within 30 days of receipt or notification of the complaint.

(d) The report referred to in (c) above shall include the location of the complaint, the circuit number of the line, and a brief description of the interference.

Puc 306.04 Safety Instructions.

(a) Each utility, in the operation, construction or maintenance of its plant and facilities, shall:

(1) Develop and implement a safety and health program to ensure that its employees have been:

- a. Properly informed of safety practices and procedures; and
- b. Protected from hazards associated with the work environment;

(2) Adopt comprehensive written instructions for the safety of its employees; and

(3) Distribute a copy of the written instructions required by (2) above to each of its employees before assignment to duty in any assignment which requires handling any energized electrical plant.

Puc 306.05 Resuscitation.

(a) Each utility shall periodically instruct all employees engaged in work on electrical plant in accepted safety procedures for resuscitation from electric shock.

(b) Each utility shall adopt written safety procedures for resuscitation from electric shock.

(c) Each utility shall distribute copies of the written safety procedures required by this section to each employee who works on any energized plant.

Puc 306.06 Notification of Accidents and Property Damage.

**Comment [PSNH18]:** Language proposal – Notification of “Events, Accidents and Property Damage.” Include the word “events” in the title.

Additionally, PSNH suggests that the section address outages and “events” separately from accidents or property damage.

(a) A utility shall notify the commission in the event of accidents or events that cause interruption of service. The notification deadlines and reporting requirements will vary according to the severity of the accident or event being reported as described in (b)-(d) of this subpart.

(b) A utility shall notify the commission by telephone as soon as possible, but no later than one hour after any accident or event that:

(1) Involves serious injury or fatality;

(2) Interrupts service to more than 200 customers;

(3) Interrupts service for more than 5 minutes;

(4) Interrupts service to a substation for more than 5 minutes;

(5) Interrupts service to a state, federal, or municipal facility;

(6) Interrupts service to a hospital, school or other facility in which the public at large could be affected;

(7) Involves a breach of security or threat against the utility's facilities;

(8) Involves aircraft, trains or boats;

(9) Results in closure of a state highway;

(10) Is likely to result in media coverage; or

(11) Is likely to have consequences comparable to the severity of 1 through (10) above.

(c) A utility shall notify the commission by telephone, within one business day, of any accident or event that involves damage to property, facilities or service that does not meet the criteria of (b).

(d) A utility required to report pursuant to (b) or (c) shall also submit a written report within 10 business days, using Form E-5E.

~~(a) Each utility shall notify the commission immediately by telephone, pursuant to (c) below, when it becomes aware that an accident or event has occurred in connection with its property, facilities or service in which:~~

~~(1) A human fatality has occurred;~~

~~(2) An electrical contact has occurred in which a human has received a shock, flash injury or other injury resulting from contact with the utility's facilities;~~

~~(3) Damage to the utility's facilities has occurred which interrupts service of an electrical substation for more than 5 minutes; or (4) A significant breach of security or threat against any of the utility's facilities has occurred.~~

(be) The commission shall issue a protocol roster which shall be provided to the utilities and which shall:

**Comment [PSNH19]:** Language addition – "or electronic means."

**Comment [PSNH20]:** Strike this as the rules below define the timeframe that events, accidents and property damage will be reported.

**Comment [PSNH21]:** Language proposal - "Damage to the utility's facilities has occurred that is anticipated to interrupt service for 5000 customer or more for a period of 8 hours or greater due to a single trouble spot."

**Comment [PSNH22]:** Strike these items. They are not workable, burdensome, and will result in onerous notifications.

**Comment [PSNH23]:** See PSNH's comments on proposed rule 306.10 for concerns about notifications required here.

**Comment [PSNH24]:** Language proposal – "A significant incident affecting electric system infrastructure occurs that is anticipated to be reported publicly via major commercial news outlets."

**Comment [PSNH25]:** Strike these items. They are not workable, burdensome, and will result in onerous notifications.

**Comment [PSNH26]:** Language proposal – should read "(b)" as the reporting requirements are not workable, burdensome and will result in onerous reporting.

Also, strike (c) here since subsection (c) should be deleted.

(1) List commission representatives together with their after work-hours telephone contact numbers;

(2) List the general commission telephone number;

(3) Be updated by the commission when any change occurs; and

(4) Be provided by the commission to the utilities when the roster is developed and when any change occurs.

(ef) When an accident or event occurs as described in (a) above, the utility shall notify the commission as follows:

(1) Attempt to contact the appropriate commission representative listed on the protocol roster, described in (be) above, either at the commission telephone number during regular commission hours or at their after-hours number outside of regular commission hours;

(2) Except as provided in (5) below, proceed sequentially through the roster attempting to contact a commission representative as described in (1) above;

(3) Except as provided in (5) below, notify the commission as follows:

a. Call the commission general telephone listing, provided in the protocol roster, and leave a voice mail message:

1. Identifying the utility and the name and return telephone number of the individual attempting to report; and
2. Stating that an accident or event requiring notification has occurred and will be reported when the commission next opens; and

b. As soon as possible during regular commission hours, contact the appropriate commission representative listed on the protocol roster, described in (be) above, and proceed sequentially through the roster;

(4) When the utility is first able to speak to a commission representative listed on the protocol roster as required by this section, the utility shall notify the representative of the following:

- a. The name of the utility;
- b. The name of the person making the report and the telephone number at which they can be called back;
- c. A brief description of the accident or event and location;

d. Number of customers affected;

f.e Estimated duration of outage or service restoration time;

d.g.f. A description of any known fatalities, personal injuries and damages;

**Comment [PSNH27]:** This appears inconsistent with 2. Language proposal - "If no commission representative may be contacted following the process set out in (1) and (2) above."

**Comment [PSNH28]:** Appears to be a duplicative requirement-- needing to contact the Commission twice concerning the same event

~~ehg.~~ Any other known information relevant to the cause of the accident or event and the extent of the damages; and

~~fih.~~ The time at which:

1. The accident or event occurred; and
2. The utility was first notified of the accident or event;

(5) A utility shall not be required to conduct any further notification action required pursuant to (1), (2) and (3) above once a utility representative:

- a. Speaks to a commission representative listed on the protocol roster; and
- b. Communicates to the commission representative the information required by (4) above; and

(6) If the utility calls the commission during regular commission hours and the commission representative listed on the protocol roster is not available, the utility shall:

- a. Call the work number of the commission chief engineer as listed on the protocol roster; and
- b. Leave a voice mail message relaying the information described in (be)(4) above.

**Comment [PSNH29]:** Language proposal - to replace "chief engineer" with "representative."

**Comment [PSNH30]:** As on 3(b) above, this requirement appears duplicative.

~~(d) Each utility shall notify the commission by telephone, as provided in (f) and (g) below, when it becomes aware that an accident, as described in (e) below, has occurred in connection with its property, facilities or service.~~

~~(e) For purposes of (d) above, an accident means an accident or event which:~~

- ~~(1) Involves power line contacts other than in (a) above;~~
- ~~(2) Involves aircraft, trains or boats;~~
- ~~(3) Results in closure of a state highway;~~
- ~~(4) Is one that the utility is aware of, or one that is likely to be, or has been, reported in the news media; or~~
- ~~(5) Involves consequences of a magnitude or severity comparable to those described in (1) through (3) above.~~

~~(f) Each utility shall report an accident pursuant to (d) above, providing the information required by (e)(3) above, by telephone to a commission representative, starting from the beginning of the protocol roster described in (b)(1) above and proceeding sequentially through the roster, or if a protocol roster contact is not available, according to the procedure described in (e)(6) above, until a commission representative is notified or a voice mail message is left according to (e)(6) above.~~

~~(e) Each utility shall report an accident pursuant to (d) above to the commission during regular commission hours:~~

~~a. On the day of the accident or event, if possible; or~~

~~b. During the next business day.~~

(hg) Each utility shall report in writing any accident or event requiring notification pursuant to (ab) or (dc) above, by completing and submitting to the commission:

(1) Form E-5E, within 10 business days of notification of the accident or event; and

(2) A detailed written report, referencing the original E-5E report number, containing any applicable supportive documentation not provided in the original E-5E report, within 60 days of notification of the accident or event.

(ih) Whenever an accident or event involves a utility's pole or anchors located within the public way, the utility shall include in its report pursuant to (hg) above whether the poles or anchors were licensed and whether the poles or anchors were properly located according to that license.

(ji) Each utility shall provide the commission, pursuant to (ih) above, within 10 business days following the conclusion of each calendar quarter on form E-5E, together with all applicable supportive documentation, a report of the accident.

Puc 306.07 Commission Inspection. The commission shall, from time to time, inspect the works and system of each utility and the manner in which each utility has conformed and presently conforms to commission rules.

Puc 306.08 Uniform Utility Damage Prevention Program. All utilities shall comply with Puc 800, the underground utility damage prevention program rules.

#### Puc 306.09 Emergency Response Standards and Electrical Outage Restoration

(a) On an annual basis, each utility shall file with the commission one original and one electronic copy of an emergency response plan (ERP).

(b) ERPs shall incorporate the Incident Command System and follow the framework established in the National Incident Management System.

(c) Utilities shall review and update plans at least once every calendar year.

(d) Each ERP shall include a clear description of the responsibilities and policies of senior management during an emergency.

(e) Each ERP shall provide that readiness drills be conducted twice a year and that the utility shall invite municipal officials, applicable state agencies and commission staff to participate in such drills.

(f) At least annually, the utility shall have direct communication with each municipality it serves to assure accurate emergency response contact information is shared between the two parties, and to validate/revise the municipalities Critical Infrastructure listing

(g) Each utility ERP shall include pre-storm restoration prediction models that have the following functionalities:

**Comment [PSNH31]:** As a result of the above, for every event identified in section Puc 306.06, it appears the utility must: 1. Call within a specific time; 2. File form E-5E in 10 days; 3. File a report in 60 days referencing the original E-5E; and 4. File a for E-5E to days after the end of a quarter.

Does the Commission intend to require that level of reporting for every event?

**Comment [PSNH32]:** Language proposal – "Each ERP shall provide that readiness drills be conducted once a year. For Company Wide drills, the utility shall invite applicable state agencies and commission staff to participate in such drills."

**Comment [PSNH33]:** This is an addition to the language. PSNH conducts meetings with the municipalities that they serve to discuss emergency plans. PSNH sees this as a "second drill," as it is in depth and one-on-one, which the utilities believe is a better use of time and resources. It also allows each municipality to ask questions and be engaged in the emergency preparedness process.

**Comment [PSNH34]:** Language proposal – "Each utility emergency response plan shall include definition of its pre-storm damage forecast approach that has the following considerations:"

(1) Utility-specific weather forecasts of levels of wet snow, ice accretion and thickness, wind speeds and wind gusts and confidence level for such forecasts;

(2) Time of year; and

(e3) Estimated system impacts based on utility history and industry experience.

(g)(h) Each ERP shall incorporate projected event levels consistent with Table 306-1.

<b>Table 306-1</b>			
<b>Utility</b>	<b>ERP Event Level</b>	<b>% Customers Out</b>	<b>Outage Duration (Hrs.)</b>
	5	≤2	<12
	4	>2≤5	0-24
	3	>5≤10	24-48
	2	>10≤20	48-144
	1	>20	48-240

**Comment [PSNH35]:** PSNH suggests the addition of a column for "concurrent trouble spots" between customers out and outage duration.

**Comment [PSNH36]:** New section 306.10 on Physical and Cyber Security to be included here. In that it was provided separately PSNH offers specific comments on that proposed rule at the end of this document.

## PART Puc 307 RECORDS AND REPORTS

### Puc 307.01 Records.

(a) Each utility shall keep records of the operation and performance of its generating units and distribution circuits.

(b) Unless complete information as required by the ~~RTO-ISO~~-NE is furnished by the utility transmitting the energy at each interconnection point, each utility receiving electric energy shall maintain adequate instruments and meters to obtain such complete information as to each delivery.

### Puc 307.02 Preservation of Records.

(a) Each utility shall preserve all records pursuant to the requirements set forth in the "Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to Provisions of the Federal Power Act", as referred to in Puc 307.04 and adopted by the commission pursuant to RSA 374:8.

(b) If the "Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to Provisions of the Federal Power Act" does not specify a requirement for preservation of a record required to be kept pursuant to Puc 300, the utility shall preserve any such record for a period of not less than 2 years.

(c) If any section of this chapter requires a utility to preserve certain records for more than 2 years, utilities shall comply with the terms of this chapter.

(d) A utility shall:

- (1) Keep or make available such records within New Hampshire at the office or offices of the utility; and
- (2) Provide access to such records to the commission or its representative during normal business hours for examination.

Puc 307.03 Reports to Commission.

(a) Each utility shall file periodic reports with the commission as required by Puc 308 on forms available on the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms). The utility shall file one paper original and an electronic copy with the commission, which forms shall be furnished by the commission.

(b) Pursuant to Puc ~~202-08~~202.05(b), each utility shall electronically file each ~~document~~report, to the extent technologically feasible, in a format compatible with the computer system of the commission.

(c) The commission shall notify utilities no less frequently than on an annual basis of the types of electronic formats compatible with its computer system by posting the list of such formats on its website.

Puc 307.04 Uniform System of Accounts. Pursuant to RSA 374:8, each utility shall maintain and preserve its accounts and records in conformity with the "Uniform System of Accounts Prescribed for Public Utilities and Licensees Subject to Provisions of the Federal Power Act" issued by the United States Federal Energy Regulatory Commission, Department of Energy.

**Comment [PSNH37]:** Current rule 302.20 defining RTO-NE references and abbreviates FERC.

Puc 307.05 Short Term Debt. No utility shall issue or renew any notes, bonds or other evidences of indebtedness payable less than 12 months after the date thereof if such short term debt exceeds 10% of the utility's net fixed plant without prior commission approval pursuant to Puc 201.05.

Puc 307.06 Interconnection Agreements.

(a) "Interconnection agreement" means an agreement that sets forth the contractual terms necessary for any person or entity that generates electricity to connect to the utility's system.

(b) Each utility shall file with the commission a copy of each interconnection agreement entered into by the utility.

Puc 307.07 Reliability Reporting.

(a) When quarterly circuit or system reliability indices are furnished to the commission, the utility shall include the total number of operations by device which resulted in an interruption of greater than 5 minutes duration and the information required by (c) below.

(b) For purposes of this section, "device" means any equipment designed and used to automatically operate to remove faulted system elements from the system.

(c) Any utility submitting quarterly circuit or system reliability indices shall also report:

(1) The year and calendar quarter of the report;

(2) The circuit number;

(3) The device identification number;

~~(4)~~ The type of device operated;

~~(4)~~ The number of actual operations of the device in the current reporting quarter, if 2 or more; and



(56) The number of actual device operations in the current and previous 3 quarters, if 3 or more.

(d) A utility calculating the number of device operations pursuant to (c) (45) and (56) above shall exclude:

- (1) Operations of devices upstream of the device being reported; and
- (2) Device identification changes due to circuit reconfigurations.

(e) Utilities shall not be required to report the information as required in (a) above for service interruptions that result from major storms.

Puc 307.08 Reporting during Wide Scale Emergencies

(a) Distribution crew reports shall be submitted electronically 4 times per day at 6 am, 10 am, 2 pm and 8 pm using Form E-33 pursuant to Puc 308.15.

(b) Transmission crew reports shall be submitted electronically 4 times per day at 6 am, 10 am, 2 pm and 8 pm using Form E-34 pursuant to Puc 308.16.

(c) Crew reports shall also be submitted prior to the onset of designated expected wide scale emergency when requested by the commission staff. Event names shall be determined by the commission and made known to each of the utilities required to report.

(d) Crew reporting shall consist of only those crews which are physically located within the state boundaries regardless of what their work status is (sleeping, resting, eating, restoration of circuits) and should reflect the crews which are available for restoration at the time of the report.

(e) Crew reporting shall be completed for front line, field assessment and public safety functions and as described in Forms E-33 and E-34.

(f) Electric utility outage reports shall be submitted to the commission using applicable Forms E-36a, E-36 b, E-36 c and E-36 d any time outage information is not publicly available on utility websites during wide scale emergencies pursuant to Puc 308.17.

(g) Electric utility outage reports as described (f) above shall be submitted at the same times as required in (a) and (b) above or upon request of the commission.

Puc 307.09 Reporting of Reliability Measures

(a) For purposes of this section, the following definitions shall apply:

(1) "CAIDI", or the customer average interruption duration index, means the average interruption duration or average time to restore service per interrupted customer and shall be presented as the following ratio:

(A) Total sum of customer interruption durations/total number of customer interruptions;

(2) "SAIFI", or the system average interruption frequency index, means the average number of interruptions per customer and shall be presented in the following ratio:

**Comment [PSNH38]:** See PSNH's proposed modifications to definition of Wide Scale Emergency.

**Comment [PSNH39]:** Should be numbered as 308.16.

**Comment [PSNH40]:** A provision should be added stating that regular reporting pursuant to Puc 306.06 shall be suspended during a wide scale emergency.

(A) Total number of customer interruptions/average number of customers served;

(3) "SAIDI" or the system average interruption duration index means the average duration of customer interruptions and shall be presented as the following calculation;

(A) SAIDI = CAIDI x SAIFI; and

(4) "CIIF" means the average number of customers without power per interruption as determined by dividing the number of customers interrupted by the number of interruptions.

(b) Within 45 days of the end of each calendar quarter, each utility shall file quarterly reports of reliability measures defined in (a) (1) – (4) above, and shall separately report the reliability measures by area work center and as aggregated for the whole company.

(c) The report shall depict the reliability measure information by distribution and transmission systems as applicable.

#### Puc 307.10 Tree-Trimming Standards

(a) Utilities shall trim all three-phase sub-transmission and distribution circuits to the following clearances on no more than a 48 month cycle: 10 feet below the conductors, 8 feet to the side of the nearest conductor and 15 feet above the conductors. All utilities should consider ground-to-sky clearing on circuits or sections of circuits that are significantly and continuously contributing to poor circuit reliability.

(b) Utilities shall trim all single-phase distribution circuits to 10 feet below the conductors, 8 feet to the side of the nearest conductor and 15 feet above the conductors on no less than a 60 month cycle.

**Comment [PSNH41]:** Extensive comments on this section have been provided by other companies and PSNH is generally in agreement with those recommendations, including: 1. The use of years rather than months; 2. Keeping the standards for all circuits the same; 3. To prune in accordance with ANSI standards; 4. Exemptions for when a landowner or municipality refuses to permit pruning; and 5. The ability to promptly recover any incremental costs of compliance.

#### **PART Puc 308 FORMS REQUIRED BY ALL UTILITIES**

##### **Puc 308.01 E-1 Monthly Report on Voltage Complaints.**

(a) Each utility shall on a monthly basis complete a report of voltage complaints on Form E-1 dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.

a) Each utility shall file monthly with the commission a report on form E-1 showing data regarding voltage complaints as set forth in (b) below.

(b) Each utility shall include on form E-1:

(1) A caption identifying the report;

(2) The name of the utility filing the report;

(3) For founded voltage complaints:

a. The date on which the complaint was received;

**Comment [PSNH42]:** 3 questions regarding the form. (1) What voltage is requested – the voltage of the circuit or the service? (2) What is the purpose/intent for time of day? (3) What is the intent of general remarks? It will likely never be used.

**Comment [PSNH43]:** To whom should the electronic copies of the forms in Puc 308 be sent, and should that address be incorporated into the rule?

- ~~b. The nominal voltage;~~
- ~~c. The circuit identification number and town;~~
- ~~d. A statement of the cause for the irregular voltage; and~~
- ~~e. The measures taken by the utility to resolve the irregular voltage;~~
- ~~(4) The total number of voltage complaints, with subtotals for founded and unfounded complaints;~~
- ~~(5) For voltage complaints where the utility has conducted a voltage test:~~
  - ~~a. The date on which the complaint was received;~~
  - ~~b. The date the voltage test was conducted;~~
  - ~~c. The length of the test;~~
  - ~~d. The number of minutes below or above the voltage specified in Puc 304.02(d) and (e);~~
  - ~~e. The voltage recorded; and~~
  - ~~f. The present regulation in percent;~~
- ~~(6) For pending voltage complaints, the date each complaint was made;~~
- ~~(7) For unfounded voltage complaints, the date each was reported;~~
- ~~(8) The calendar month represented by the report; and~~
- ~~(9) The full name, title and signature of the utility employee who supervised the preparation of the report~~

Puc 308.02 E-2 Quarterly Report on Interruptions of Service Over 5 Minutes Duration.

(a) Each utility shall on a quarterly basis complete a report of service interruptions of more than 5 minutes on the Form E-2 dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.

~~(a) Each utility shall file quarterly with the commission a report on form E-2 showing data for each month in the quarter, on service interruptions of more than 5 minutes duration as set forth in (b) below, if any occur.~~

~~(b) Each utility shall include on form E-2:~~

- ~~(1) A caption identifying the report;~~
- ~~(2) The name of the utility filing the report;~~
- ~~(3) The calendar quarter represented by the report;~~

- ~~(4) The date and time of interruption;~~
- ~~(5) The location of the interruption;~~
- ~~(6) The number of its own customers affected;~~
- ~~(7) If the customer is a utility, a municipal customer, or electric cooperative, the number of customers affected, if supplied by the affected customer;~~
- ~~(8) The cause of interruption;~~
- ~~(9) The operating division of the company affected; and~~
- ~~(10) The full name, title and signature of the utility employee who supervised the preparation of the report~~

Puc 308.03 E-3 Annual Report of Total Electric Meter Tests.

~~(a) Each utility shall on an annual basis complete a report of total electric meter tests on Form E-3 dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.~~

~~(a) Each utility shall file annually with the commission on form E-3 a report of electric meter tests by meter category as set forth in (b) below:~~

~~(b) Each utility shall include on form E-3:~~

- ~~(1) A caption identifying the report;~~
- ~~(2) The name of the utility filing the report;~~
- ~~(3) The calendar year represented by the report;~~
- ~~(4) The number of meters tested at light load;~~
- ~~(5) Number of meters tested at full load;~~
- ~~(6) Weighted average accuracies of meters tested;~~
- ~~(7) Totals for the period; and~~
- ~~(8) The full name, title and signature of the utility employee who supervised the preparation of the report.~~

~~(c) Utilities shall not report tests of new meters on form E-3.~~

Puc 308.04 E-3A Report on Selective Sample Tests of Weighted Average Accuracy on Self-Contained Single-Phase Meters and Network Meters.

~~(a) Each utility shall on an annual basis complete a report on selected sample tests of weighted average accuracy on self-contained single-phase meters and network meters on Form E-3A dated 8/2013 and~~

**Comment [PSNH44]:** Please refer to modifications and revisions to proposed Forms E-3 and E-3A provided by PSNH to Staff on November 7, 2013 following the public hearing.

PSNH believes it important to incorporate those proposed modifications and revisions into Forms E-3 and E-3A and is open to discussing further changes as may be appropriate.

**Comment [PSNH45]:** Same comments as Form E-3 above.

available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.

~~(a) Each utility shall file annually with the commission form E-3A to report the electric meter tests and network meter tests performed in accordance with Puc 305.03 as set forth in (b) below.~~

~~(b) Each utility shall include on form E-3A:~~

- ~~(1) A caption identifying the report;~~
- ~~(2) The name of the utility filing the report;~~
- ~~(3) The calendar year represented by the report;~~
- ~~(4) Meter accuracies on a yearly and cumulative basis;~~
- ~~(5) Test totals for all meters tested; and~~
- ~~(6) The full name, title and signature of the utility employee who supervised the preparation of the report.~~

Puc 308.05 E-4 Monthly Report on Electric Meter Complaint Tests.

~~(a) Each utility shall on a monthly basis complete a report of electric meter complaint tests on Form E-4 dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.~~

~~(a) Each utility shall file each month with the commission a report on form E-4 on electric meter complaint tests in accordance with Puc 305.04 as set forth in (b) below.~~

~~(b) Each utility shall include on form E-4:~~

- ~~(1) A caption identifying the report;~~
- ~~(2) The name of the utility filing the report;~~
- ~~(3) The month represented by the report;~~
- ~~(4) The name of the town where the meter is located;~~
- ~~(5) Meter manufacturer, manufacturer number, circuit identification number, and meter type;~~
- ~~(6) Percent of registration fast or slow;~~
- ~~(7) Bill adjustment; and~~
- ~~(8) The full name, title and signature of the utility employee who supervised the preparation of the report.~~

Puc 308.06 E-5E Accident Reports.

**Comment [PSNH46]:** PSNH proposes replacing "Manufacturer No." with "Meter No." on the E-4 Monthly Report on Electric Meter Complaint Test form. There isn't a column for company meter number, only manufacturer's number. It would be helpful for us to have this column renamed or add "Company Meter No." on the form.

(a) Each utility shall report any accident or event to the commission by ~~submitting preparing~~ completing an accident report on ~~form Form~~ an E-5E accident reporting form pursuant to Puc 306.06(h), (i) and (j), dated 8/2013 and available at the commission's website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.

~~(b) Each utility shall include on form E-5:~~

~~(1) A caption identifying the report;~~

~~(2) The name of the utility filing the report;~~

~~(3) A designation as to whether the report is a 10-day report or a quarterly report;~~

~~(4) The date of the report;~~

~~(5) The name of the reporting utility;~~

~~(6) The date and location of the accident or event;~~

~~(7) An indication of whether the accident or event resulted in loss of service for an entire electrical substation;~~

~~(8) A description of the cause of the accident or event;~~

~~(9) A description of the extent of any property damage;~~

~~(10) The name of the injured person;~~

~~(11) The injured person's relationship to the utility, if any;~~

~~(12) A description of the nature of injuries, to the extent known;~~

~~(13) An indication of whether the accident or event involved electric contact;~~

~~(14) An indication of whether any injury was fatal;~~

~~(15) The date of death of any person, if applicable;~~

~~(16) A previous report number, if applicable;~~

~~(17) An indication, if known, of whether any pole located in the public right of way or any anchor(s) located in the public right of way supporting any pole involved in the accident or event were:~~

~~a. Licensed; and~~

~~b. Located according to the license;~~

~~(18) If the location of any pole located in the public right of way or anchor(s) supporting any pole located in the public right of way and involved in the accident or event are other than as licensed, diagrams of the locations of the pole or anchor(s);~~

- ~~a. As they are licensed; and~~
- ~~b. As they were actually located at the time of the accident or event;~~
- ~~(19) A diagram of the accident or event, if necessary;~~
- ~~(20) A police report of the accident or event, if available; and~~
- ~~(21) The full name, signature and title of the utility official filing the report.~~

Puc 308.07 E-22E Report of Proposed Distribution Expenditures for Additions, Extensions and Capital Improvements to Fixed Capital and Operation and Maintenance (O&M) Expenses.

(a) ~~Each utility shall report to the commission when~~ When the probable costs of any addition, extension or capital improvement to its distribution utility plant or O&M distribution account will equal or exceed \$100,000, a utility shall complete a report on Form E-22E dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission.

**Comment [PSNH47]:** The referenced form is designed for capital expenses but does not effectively support O&M expenses.  
 - no start/finish for O&M  
 - there is no guidance for reporting O&M and it is being deleted for Capital  
 - assume this report applies to Distribution only

~~(b) The reporting limits in (a) above shall include contributions in aid of construction.~~

~~(c) The reporting limits in (a) above shall not include the cost of removal.~~

~~(d) For the purpose of this section, an "O&M distribution account" means:~~

- ~~(1) The aggregate of vegetation management O&M accounts;~~
- ~~(2) The aggregate of substation maintenance O&M accounts;~~
- ~~(3) The aggregate of overhead line maintenance O&M accounts;~~
- ~~(4) The aggregate of under ground maintenance O&M accounts;~~
- ~~(5) The aggregate of substation inspection O&M accounts; and~~
- ~~(6) The aggregate of overhead line and under ground inspection O&M accounts.~~

~~(e) The reporting limits in (a) as modified by (b) and (c) above shall apply to:~~

- ~~(1) Total project capital cost; and~~
- ~~(2) Operations and maintenance.~~

~~(f) A utility may comply with (a) above by filing:~~

- ~~(1) A completed form E-22; or~~
- ~~(2) A construction budget and an O&M budget in the level of detail required, reviewed, and approved by the utility's executive management.~~

~~(g) The commission shall accept construction and O&M budgets if the budgets:~~

**Comment [PSNH48]:** Is it the Commission's intention to remove the guidance associated with (b) through (g) ?

~~(1) Include highlights of all projects or O&M distribution accounts in excess of \$100,000;~~

~~(2) Contain a level of detail sufficient to allow the commission to assess and understand all costs involved with the proposed project or O&M distribution accounts; and~~

~~(3) Cover a period of no longer than one year.~~

~~(h) A utility shall file an original and duplicate copy with the commission as follows:~~

~~(1) An individual form E-22 no fewer than 30 calendar days before starting actual construction or expenditure of funds; or~~

~~(2) A construction budget and an O&M budget no later than 60 calendar days following the end of its fiscal year.~~

~~(i) Each utility shall include on form E-22 the following:~~

~~(1) A caption identifying the form;~~

~~(2) The name of the utility filing the report;~~

~~(3) The full name and title of the utility employee who supervised the preparation of the report;~~

~~(4) The signature of the person identified in (3) above; and~~

~~(5) The information described in (a) and (e) above.~~

~~(j) A utility may provide an additional copy of its filing and request that it be date-stamped and returned by the commission to confirm the filing.~~

~~(k) If a project highlighted in (g)(1) above is cancelled or postponed beyond the construction budget year, the utility shall immediately file form E-22 at the time it becomes apparent that the project will be cancelled or postponed.~~

~~(l) Except for projects highlighted in accordance with (g)(1) above, if the cost of a project is anticipated to fall below \$100,000 but later exceeds it, the utility shall immediately file form E-22 at the time or phase of the project it becomes apparent the limit will be exceeded.~~

~~(m) If a change in any O&M distribution account exceeds the approved expenditure levels by more than \$100,000, the utility shall immediately file form E-22 at the time the change becomes apparent to the utility.~~

~~(n) If a project not included in an approved construction budget arises which will equal or exceed \$50,000, the utility shall file form E-22.~~

~~(o) A utility shall also file an electronic copy of the report pursuant to Pue 307.03.~~

(b) Investigation or comment on a construction budget, an O&M budget or other ~~form~~ Form E-22 content by the commission or failure of the staff to identify prudence review issues shall not constitute a final



prudence review and the commission is not precluded from analyzing the merits of any expenditure in a future rate case pursuant to the commission's authority under RSA 378.

Puc 308.08 E-25E Report of Proposed Changes in Depreciation Rates.

(a) ~~When it proposes any change in depreciation rates, a utility shall compete. Each utility shall file form Form E-25E dated 8/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file on signed original and one electronic copy with the commission.~~

~~when it proposes any change in depreciation rates.~~

~~(b) Each utility shall include on form E-25:~~

~~(1) A caption identifying the report;~~

~~(2) The name of the utility filing the report;~~

~~(3) Date;~~

~~(4) Account number and title;~~

~~(5) Estimated life, both present and proposed, in years;~~

~~(6) Net salvage, both present and proposed, by percentage;~~

~~(7) Depreciation rate, both present and proposed, by percentage;~~

~~(8) Net annual change in dollars;~~

~~(9) Justification and supportive documentation; and~~

~~(10) The full name, title and signature of the utility employee who supervised the preparation of the report.~~

(c) A utility shall not implement any change in depreciation rates until the proposed change has been approved by the commission pursuant to a proceeding conducted according to Puc 200.

Puc 308.09 Quarterly Financial Report, FERC Form 3-Q.

(a) Each utility shall file with the commission, at the same time it files such report with the Federal Energy Regulatory Commission (FERC), one signed original and one electronic copy of its completed FERC form 3-Q "Quarterly Financial Report of Electric Utilities, Licensees, and Natural Gas Companies" as described in 18 C.F.R. § 141.400.

(b) The quarterly reports in (a) above shall be required for the calendar quarters ending March 31, June 30 and September 30 of each year.

(c) Consistent with FERC reporting requirements, the quarterly report in (a) above shall not be required for the calendar quarter ended December 31 of each year as such report is supplanted by the annual report required pursuant to Puc 308.10.

(d) Each utility shall, at the time it files the quarterly report required by (a) above, file a copy of the

quarterly report with the New Hampshire office of the consumer advocate.

Puc 308. 10 Annual Report, FERC Form No. 1.

(a) Each utility shall file with the commission one signed original and one electronic copy of its completed FERC form No. 1 "Annual Report of Major Electric Utilities, Licensees and Others," as described in 18 C.F. R. § 141.1, at the same time it files such report with the FERC.

(b) Each utility shall, at the time it files the annual report required by (a) above, file a copy of the annual report with the New Hampshire office of the consumer advocate.

Puc 308.11 F-1 Supplemental Quarterly Financial and Sales Information

(a) In addition to the reports required in Puc 308.09 and Puc 308.10, each utility shall, for each calendar quarter, simultaneously file the following supplemental information with the commission:

- (1) Schedule 1 - "Calculation of Per Books Rate of Return";
- (2) Schedule 2 - "Current Cost of Capital"; and
- (3) Schedule 3 - "Sales by Customer Class".

(b) Schedule 1 – "Calculation of Per Books Rate of Return" shall include:

- (1) Operating revenues for 12 months;
- (2) Operating expenses for 12 months, including:
  - a. Production expenses; b.
  - Distribution expenses; c.
  - Transmission expenses; d.
  - Customer accounting;
  - e. General and administrative;
  - f. Depreciation;
  - g. Amortization;
  - h. Federal and state income taxes;
  - i. Property taxes; and
  - j. Other taxes; and
- (3) Rate base components, computed using a 13-month or 5-quarter average, for:
  - a. Utility plant in service;

- b. Accumulated depreciation;
- c. Material and supplies;
- d. Cash working capital requirement;
- e. Prepayments;
- f. Customer deposits;
- g. Customer advances; and
- h. Any other item properly includible in the utility's rate base.

(c) Schedule 1 - "Calculation of Per Books Rate of Return" shall, in addition to having a company total column, have separate columns to report the amounts of each of the items in (b) above attributable to the distribution, transmission and generation segments of the utility's operations, respectively.

(d) Schedule 2 - "Current Cost of Capital" shall include weighted cost of capital components for:

- (1) Common stock equity;
- (2) Preferred stock;
- (3) Long term debt; and
- (4) Short term debt.

(e) In computing the weighted cost of capital in (d) above, the utility shall include the source of the information and calculations or an explanation supporting its determination of:

- (1) The return on common equity;
- (2) The cost of preferred stock;
- (3) The embedded cost of long term debt, by issue; and
- (4) The cost rate applicable to short term debt.

(f) The utility shall include supporting calculations and documentation for any of the items required by (b) through (e) above that are not directly traceable to the quarterly and annual reports required by Puc 308.09 and Puc 308.10.

(g) **Schedule 3** - "Sales by Customer Class" shall include:

- (1) A breakdown of total revenue, including revenue associated with distribution service, transmission service, stranded cost recovery, transition service, default service, and any other item which a utility bills that it classifies as revenue for financial reporting purposes, earned by class of customer, as follows:

**Comment [PSNH49]:** Regarding Schedule 3 (Sales by Customer Class), there are no changes in the data being requested. However, the proposed form doesn't seem to recognize all the "dimensions" of the data. Staff is asking for revenue by class and rate component for each quarter of the current and previous year, and for the year to date. They also request delivery sales and customer numbers by class for each quarter of the current and previous year, and for the year to date. It is unclear how to fit that into the proposed form and still be useful. (Refer to PSNH's existing Schedule 3 submittals.)

- a. Residential;
  - b. Small commercial and industrial;
  - c. Large commercial and industrial;
  - d. Public street and highway lighting;
  - e. Other sales to public authorities; and
  - f. Sales for resale;
- (2) A breakdown of kilowatt-hours delivered by class of customer listed in (1) above; and
- (3) The average number of customers for each of the classes listed in (1) above for the current quarter and the same quarter of the prior year; and
- (4) For (1)b. and (1)c. above, the definition used for customer classes and threshold demand.
- (h) A utility shall provide figures on each of the items in (g)(1) and (g)(2) above for the following:
- (1) Totals for the current quarter;
  - (2) Cumulative for the current year;
  - (3) Totals for the same quarter of the prior year; and
  - (4) Cumulative for the prior year.
- (i) Each utility shall, at the time it files the supplemental quarterly information required by (a) above, file a copy of the supplemental quarterly report with the New Hampshire office of the consumer advocate.

Puc 308.12 F-4 Authority to Issue Securities.

(a) ~~When a utility seeks authority to issue securities, a utility shall complete a~~ ~~Each utility shall~~ file ~~form~~ Form F-4 dated 8/2013 and available at the commission's website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file on signed original and one electronic copy with the commission.  
~~with the commission when it seeks authority to issue securities.~~

~~(b) Each utility shall include on form F-4;~~

~~\_\_\_\_ (1) The name of the utility filing the report; and~~

~~\_\_\_\_ (2) A petition which shall include:~~

~~\_\_\_\_\_ a. A caption;~~

~~\_\_\_\_\_ b. Description of authorized and outstanding long term debt and capital stock;~~

~~\_\_\_\_\_ c. Amount of short term notes outstanding;~~

~~d. Description of new securities;~~

~~e. Description of what the proceeds will be used for;~~

~~f. List of exhibits attached;~~

~~g. Certification statement as contained in (d) below; and~~

~~h. Petitioner's prayer asking for the relief requested.~~

(c) Each utility shall file with ~~form~~ Form F-4:

- (1) An application for leave to issue securities pursuant to RSA 369:3 including a statement in reasonable detail of the purpose of the security, any proposed additions, construction or working capital requirements together with, if applicable, any proposed construction budget;
- (2) "Estimated Cost of Financing" showing entries for all items which contribute to the estimated cost of financing including, but not limited to, legal costs, printing, documentary tax, trustee services, financial services;
- (3) "Balance Sheet" showing the current balance sheet adjusted for financing with amounts for actual, adjustments and as adjusted;
- (4) "Income Statement" showing current income statement adjusted for financing including new interest, depreciation and taxes with amounts for actual, adjustments and as adjusted;
- (5) "Source and Application of Funds and Capitalization" showing a statement of capitalization ratios after giving effect to the proposed financing, including 3 years of history and 3 years of forecast data;
- (6) Resolution of the petitioner's stockholders, board of directors, partners or other governing body of petitioner, as appropriate, authorizing the proposed financing;
- (7) Copy of the private placement memorandum for long term financing including any letter of commitment from a lender stating details of financing;
- (8) Copy of the proposed promissory note and mortgage;
- (9) Copy of terms of new common or preferred stock;
- (10) An original and 5 copies of the petition and exhibits; and
- (11) The full name, title and signature of the utility employee who supervised the preparation of the report.

(~~dh~~) By submitting or signing a form F-4 petition, the persons submitting the form shall agree to comply with the certification requirement as set forth in (e) below.

(~~ec~~) Each utility shall provide in connection with a petition for authority to issue securities a signed certification which shall provide as follows:

"The petitioner utility company believes and, therefore, alleges that the securities to be issued will be consistent with the public good and that it is entitled to issue said securities under RSA 369 for the purposes set forth in its petition."

Puc 308.13 F-22 Information Sheet.

(a) Each utility shall file form F-22 with the commission:

- (1) Annually; and
- (2) Whenever any changes occur to the information included in the form F-22 filing.

(b) Each utility shall include on form F-22:

- (1) A caption identifying the report;
- (2) Name of utility filing the report;
- (3) Person's name and address to receive annual report form;
- (4) Person's name and address to receive the utility assessment fee notice;
- (5) The names and titles of the principal officers of the company; and
- (6) The full name, title and signature of the employee who supervised the preparation of the report.

Puc 308.14 E-33 Distribution Crew Reports during Wide Scale Emergencies

(a) During wide scale emergencies, a utility shall prepare and shall file Form E-33 dated 8/2013 and available at the commission's website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file on signed original and one electronic copy with the commission

Puc 308.15 E-34 Transmission Crew Reports during Wide Scale Emergencies

(a) During wide scale emergencies, a utility shall prepare and shall file Form E-34 dated 8/2013 and available at the commission's website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file on signed original and one electronic copy with the commission

Puc 308.16 E-36A, E-36B, E-36C and E-36D Electric Utility Outage Reports during Wide Scale Emergencies

(a) During wide scale emergencies, each utility shall prepare and shall file the applicable form E-36 dated 8/2013 and available at the commission's website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission as follows: [Granite State Electric Company d/b/a/ Liberty, E-36A](#); [New Hampshire Electric Cooperative, E-36B](#); [Public Service of New Hampshire, E-36C](#); or [Unitil Energy Systems, Inc., E-36D](#).

Puc 308.17 E-37 Quarterly Reports of Equipment Theft, Sabotage, and Breaches of Security

**Comment [PSNH50]:** Propose inclusion of a phrase that any successor company shall use the same reports as the prior company.

**Comment [PSNH51]:** Please see PSNH's comments on the separately provided proposal for Puc 306.10.

~~PART Puc 309 FILING REQUIREMENTS FOR LONG RANGE PLANS FOR BULK POWER SUPPLY FACILITIES~~

~~Puc 309.01 Filing Requirements for Bulk Power Supply Facilities.~~

~~(a) Each utility shall submit to the commission each year by April 30, long range plans for bulk power supply facilities, as defined in RSA 162-H:2, II.~~

~~(b) Each utility shall prepare and submit long range plans for bulk power supply facilities:~~

~~(1) Pursuant to the requirements of RSA 162-H:17;~~

~~(2) By completing and submitting to the commission the form titled "Filing Guidelines for Bulk Power Supply Facilities Data"; and~~

~~(3) Which shall cover a period of at least 10 years but not more than 15 years.~~

~~(c) Each bulk power supply facility shall provide on the "Filing Guidelines for Bulk Power Supply Facilities Data" the following completed forms and attachments:~~

~~(1) Form A, describing load forecast projections in megawatts, for each year in the plan;~~

~~(2) Form B which shall detail long range plans for bulk power supply of transmission lines of 100 kilovolts or more as follows and contain the following information:~~

~~a. City or town in which the line starts;~~

~~b. City or town in which the line ends;~~

~~c. Voltage which the line carries;~~

~~d. Length of the line in miles;~~

~~e. New route of the line in miles;~~

~~f. Length along the existing route in miles;~~

~~g. Proposed start date of construction;~~

~~h. Proposed completion date of construction; and~~

~~i. Signature of official of the utility submitting the form;~~

~~(3) Attachment 1 to form B which shall show the general location of the transmission line on the United States Geological Survey sheet;~~

~~(4) Attachment 2 to form B which shall contain a statement indicating the relationship of the planned site on route and facilities thereon to environmental values and describing generally how potential adverse effects on such values shall be lessened;~~

~~(5) Attachment 3 to form B which shall provide a statement describing the utility's efforts to involve environmental protection and land use planning agencies in their planning process so as to identify environmental problems at the earliest stage in the planning process; and~~

~~(6) Form C, titled "Application for Certificate of Site and Facility for Transmission Lines (100 Kilovolts or More)", including:~~

- ~~a. The date of application;~~
- ~~b. The name of the city or town where the transmission line will start;~~
- ~~c. The name of the city or town where the transmission line will end;~~
- ~~d. The voltage of the line;~~
- ~~e. The length of the line in miles for:~~
  - ~~1. Total length;~~
  - ~~2. Distance along new route; and~~
  - ~~3. Distance along an existing route;~~
- ~~f. Description of whether this is associated with a new or existing generating unit;~~
- ~~g. Description of water crossings;~~
- ~~h. The names of cities or towns through which the proposed line will run which are not in the utility's franchise area; and~~
- ~~i. The signature and title of the official submitting the form on behalf of the utility.~~

~~(d) Each utility shall submit to the commission not less than 2 years before construction on the project shall start the form C application for construction certificate required by (c) (6) above, and a site plan showing boundary line locations and the location of the unit.~~

~~(e) As to the application for construction certificate required by form C described in (c)(6) above, the utility shall provide with its application a United States Geological Survey sheet or sheets showing the proposed route of the transmission line.~~

~~(f) Each utility shall provide on form A, form B and form C as required by this section:~~

- ~~(1) The name of the utility;~~
- ~~(2) A caption identifying the form;~~
- ~~(3) The signature of a utility official authorized to submit the respective form on behalf of the utility;~~
- ~~(4) The title of the person signing the form; and~~



~~(5) The date the form was completed.~~

~~(g) Each utility shall submit to the commission an original and 5 copies of each document required pursuant to this section.~~

## PART Puc 310 RULES RELATIVE TO UTILITY ADVERTISING

### Puc 310.01 Definitions.

(a) "Advertising" means the use by a utility of any media in order to transmit a message to the general public, or to such utility's consumers.

(b) "Controversial issue of public importance" means a case or controversy in which a utility is involved before a court, legislative body, or government agency, including the commission.

(c) "Institutional activity" means any act or practice conducted for the purpose of promoting the corporate image or goodwill of a particular utility or the utility industry in general.

(d) "Institutional advertising" means any advertising conducted for the purpose of promoting the corporate image or goodwill of a particular utility or the utility industry in general.

(e) "Least cost integrated resource plan (LCIP)" means, in the case of an electric utility, those standards set forth in RSA 378:38 and a planning and selection process for new energy resources that evaluates the full range of alternatives, including new generating capacity, power purchases, energy conservation and efficiency, cogeneration and district heating and cooling applications, and renewable energy resources, in order to provide adequate and reliable service to its customers at the lowest system cost.

(f) "Political activity" means any act or practice conducted for the purpose of influencing public opinion with respect to legislative, administrative or electoral matters or with respect to any controversial issue of public importance.

(g) "Political advertising" means any advertising conducted for the purpose of influencing public opinion with respect to legislative, administrative, or electoral matters, or with respect to any controversial issue of public importance.

(h) "Promotional activity" means any act or practice conducted for the purpose of encouraging any person to select or use a service or increase usage of the service of a utility, to select, purchase, install or use any appliance or equipment designed to use such utility's service, or to use any other particular service of the utility.

(i) "Promotional advertising" means any advertising conducted for the purpose of encouraging any person to select or use a service or increase usage of the service of a utility, to select, purchase, install, or use any appliance or equipment designed to use such utility's service or to use any other particular service of the utility.

Puc 310.02 Recovery of Certain Expenses Prohibited. No utility shall recover, in any manner, from any person other than the shareholders or other owners of such utility any direct or indirect expenditure by such utility for promotional, political or institutional advertising, or promotional, political or institutional activities except as provided for in Puc 310.03.

### Puc 310.03 Expenditures Subject to Recovery by A Utility.

(a) For the purpose of this part, the terms political advertising, promotional advertising, institutional advertising, political activity, promotional activity, and institutional activity shall not include advertising or activities which:

- (1) Inform electric consumers of or provide electric consumers with information or materials intended to result in energy conservation;
- (2) Are required by law, federal regulation or state rule, including advertising required under part 1 of Title II of the National Energy Conservation Policy Act;
- (3) Inform electric customers how they can improve efficiency in utilizing the utility's service;
- (4) Involve or relate to service interruptions, safety measures or emergency conditions;
- (5) Concern employment opportunities with such utility;
- (6) Provide any explanation of existing or proposed rate schedules or notifications of hearings thereon;
- (7) Are consistent with the utility's approved least cost integrated resource plan; or
- (8) Inform customers of the availability and sources of financial assistance.

Puc 310.04 Prudence Review of Expenses. This part shall not restrict or limit the commission's power to disallow any expense as a charge to ratepayers which the commission finds to be unjust, unreasonable, excessive, unwarranted or imprudent pursuant to RSA 378: 5 and RSA 378:7.

Puc 310.05 Reports Required. Each utility shall keep copies of all its advertising on file for inspection by the commission.

Puc 310.06 Accounting.

(a) If a utility combines an expense prohibited from recovery with an expense eligible for recovery, and ancillary costs are associated with the combined expense, the utility shall allocate a portion of the ancillary cost to the expense prohibited from recovery and shall be prohibited from recovering costs ancillary to the prohibited expense.

(b) Each utility shall keep a record with respect to any advertising or activity, incurred directly or indirectly, prohibited from recovery pursuant to Puc 310.02, of:

- (1) Any expenditure incurred; and
- (2) Any allocation methodology.

**PART Puc 311 TRANSFER OF SERVICE BY UTILITY OF CUSTOMERS RETURNING TO UTILITY ENERGY SUPPLY.**

**Puc 311.01 Requirements**

(a) Utilities may submit a change on behalf of a customer from the customer's selection of a CEPS to the utility's default energy service upon the request of a customer.

(b) A customer may request the change of supply service described in (a) above verbally or in writing.

(c) Each utility shall maintain records of verification of customer authorization for a minimum period of 2 years after obtaining the verification.

(d) All requests to change supply service to the utility's default energy service shall be initiated by the customer.

(e) Verification of verbal authorization shall be documented via the utility recording of the conversation between the call center representative and the customer.

(f) Verification of written authorization shall be documented by a letter, e-mail or other form of written communication from the customer to the utility.

(g) A utility shall provide the commission with proof of valid customer authorization whenever requested by the commission.

(h) A utility who fails to obtain customer authorization in accordance with this section and initiates a customer change in service to the utility shall:

(1) Be liable for all charges billed to the customer as a result of the change in service;

(2) Be liable for all charges for electricity it billed to the customer; and

(3) Be subject to the penalty and other enforcement provisions pursuant to RSA 374:28-a.

Puc 311.02 Obligations. When a utility is notified by ISO-NE that it must assume the load obligation of a CEPS, customer authorization to transfer service pursuant to 311.01 is not required.

**Comment [PSNH52]:** Strike rule as it's not workable. PSNH would need to ignore any EDI transactions received from suppliers.

## APPENDIX

Rule	Statute
Puc 301.01-301.02	RSA 365:8, XII; 362:2,II
Puc 302.01-302.23	RSA 365:8, XII
Puc 303.01	RSA 374:15
Puc 303.02	RSA 365:8, XII
Puc 303.03	RSA 365:8, XII; 370:1
Puc 303.04	RSA 365:8, XII; 374:1, 374-F:3,I
Puc 304.01-304.04	RSA 365:8, XII; 374:1, 374-F:3,I
Puc 305.01-305.07	RSA 365:8, XII; 370:1-9, 374:1, 374-F:3,I
Puc 306.01-306.05	RSA 365:8, XII
Puc 306.06	RSA 365:8, XII; 365:6; 374:39
Puc 306.07	RSA 365:8, XII; 374:49
Puc 306.08	RSA 365:8, XII; 374:1, 374-F:3,I
Puc 306.09	RSA 365:8,XII, 374:50
Puc 307.01-307.04	RSA 365:8, XII; 374:8
Puc 307.05-307.10	RSA 365:8, XII
Puc 308.01-308.13	RSA 365:8, XII; 374:15
Puc 308.03	RSA 365:8, XII,RSA 370:1-9
Puc 308.06	RSA 365:8, XII, RSA 374:39
Puc 308.07	RSA 365:8, XII,RSA 374:5
Puc 308.14	RSA 365:8,XII, 374:4
Puc 308.15-308.16	RSA 365:8,XII, 374:1, 374-F:3,I
Puc 309 (Deleted)	RSA 162-H:17 & 18
Puc 310.01-310.06	RSA 365:8, XII
Puc 311.01-311.02	RSA 365:8, XII, 374:28-a

## Proposed Language Security Issues for 300 Rules

Note: 306.06 b(7) will require subject to any notification requirements of the North American Electric Reliability Corporation (NERC) applicable to the utility, notification within **24 hours** of the utility's confirmation of an event that involves a breach of security or threat against the utility's critical infrastructure or cyber facilities.

**Comment [PSNH1]:** PSNH believes this rule should be limited to critical systems and narrowed to incidents of material impact to customers or utility's operations. Otherwise this reporting relating to all breaches at all facilities will be administratively burdensome for both the Commission and the utility.

(New Section) Puc 306.10 Physical and Cyber Security Plans, Procedures and Reporting

(a) Each utility shall develop, maintain and follow a written security plan outlining measures in place actions necessary to protect the utility's critical infrastructure facilities and to mitigate the impact of from breaches of security or sabotage events to such critical infrastructure facilities and outlining actions to be taken for prevention and mitigation as required by Homeland Security Presidential Directive 3 and any subsequent modification pursuant to Public Law 107-56 October 26, 2001.

**Comment [PSNH2]:** It is not clear what requirements these laws and orders have on private businesses generally, or utilities specifically. PSNH does not believe that these references support any particular requirements for a security plan.

(b) The written security plan shall include preventive and mitigation one measures that, at a minimum, address critical cyber security systems such as supervisory control and data acquisition (SCADA) systems, control centers and systems, and any critical infrastructure locations that impact a significant number of customers.

(e) The written security plan shall include physical security threats as well as cyber security considerations that may affect work centers, control centers, substations, switching stations, protective devices, metering locations and other locations of electrical equipment.

**Comment [PSNH3]:** This requirement is confusing and over broad. For example, it includes physical security at "other locations of electrical equipment" which would seem to include every item on the entire system no matter its location, function or potential impact to the system. It also covers "metering locations" which may include customer premises over which the utility has no control.

(d) The written security plan shall describe at a minimum:

- (1) Types of events;
- (2) Threshold of events; and

(3) Procedures for notification and required reporting to the commission of breaches of security.

**Comment [PSNH4]:** It is not clear what is meant in this requirement.

(ed) For utilities subject to the mandatory standards of the North American Electric Reliability Corporation ("NERC") that have developed a Critical Infrastructure Protection ("CIP") program that complies with the NERC CIP standards, such NERC CIP program shall be deemed sufficient to satisfy the requirements of (a) – (c) above.

(e) With the exception of utilities having a NERC CIP program, Each utility shall permit the commission representative with appropriate security clearances to review the written security plan on utility premises.

(f) With the exception of utilities having a NERC CIP program that restrict circulation of the program, At the request of any commissioner, a utility shall provide a confidential copy of the security plan.

(g) For those utilities with the NERC CIP program, such utilities shall permit only authorized commission representatives who have obtained appropriate CIP security clearance to access and review the utility's NERC CIP program on utility premises.

(gh) In addition to the notifications required under Puc 306.06 (b), excluding any event reported pursuant to a utility's NERC CIP program, each utility shall file within ten days of a security related event a confidential report per Puc 308.17 of all breaches of security or sabotage events to a utility's critical infrastructure or cyber facilities or incidents of equipment theft that have a material impact to the utility. ~~that have an estimated impact or estimated value of \$5,000 or more.~~

(i) For utilities with a NERC CIP program, instead of filing the report required by (h) above, the utility shall comply with the notification requirements of the NERC CIP program.

(hj) On the 15<sup>th</sup> day of the month following the last day of each quarter, each utility shall file form E-37 pursuant to Puc 308.17 reporting any material theft of equipment, or breach of security or threat against the utility's critical infrastructure or cyber facilities~~suspected acts of vandalism, sabotage, equipment theft (including those less than \$5,000), loss of control of any portion of a distribution or transmission system, loss of control of components that control a distribution system or transmission system, or loss of control of utility owned generating equipment that directly effects a distribution system or transmission system.~~ For utilities with e NERC CIP program, the E-37 report shall not include any events reported pursuant to (i) above.

Puc 308.17 E-37 Quarterly Reports of Equipment Theft, Sabotage, and Breaches of Security

(a) Pursuant to Puc 306.10, excluding any event reported pursuant to a utility's NERC CIP program, each utility shall provide the commission with material relevant to a material theft of equipment or sabotage event, breach of security or threat against the utility's critical infrastructure or cyber facilities using the Form E-37 report dated 10/2013 and available at the commission website at [www.puc.nh.gov/forms](http://www.puc.nh.gov/forms), and file one signed original and one electronic copy with the commission. The commission shall treat such reports as confidential information exempt from public disclosure pursuant to RSA 91-A:5.

Not to be included in the rules but information contained in the form shall include:

- The name of the utility filing the report,
- The full name, title and signature of the utility employee who supervised the preparation of the report
- The date of report

- *Date of Event (if known)*
- *Date of Discovery of Event*
- *Location of Event (description of facility and facility location)*
- *Primary Voltage at Location, Secondary Voltage at Location*
- *Equipment Description that was Sabotaged, Stolen or Altered*
- *Security Fencing on Premises (Y/N), Type of Fencing*
- *Was Fence Cut? (Y/N)*
- *Materials Stolen (Size and Type of Conductor or Electrical Equipment)*
- *Estimated Value of Materials Stolen*
- *Repair Cost to Date*
- *Repair Labor (Man Hours)*
- *Estimated Repair Completion Date*
- *Any Associated Outages (Y/N), Outage Amounts, Number of Customers Affected*
- *Identification of any distribution circuit involved*
- *Name and Date of Notification of Law Enforcement Authorities*
- *Type of alarm system at facility (video, security monitoring, infrared etc...)*

**Comment [PSNH5]:** Some items may be difficult to administer or report. PSNH suggests removing, at a minimum, the Estimated Value of Materials, Repair Cost to Date, and Repair Labor (Man Hours).