State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER ● 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: August 21, 2014

TO: Office of Commission Clerk (Stauffer)

FROM: Office of the General Counsel (Cowdery)
Division of Economics (Rome)
Division of Engineering (Moses, Velazquez)

RE: Docket No. 140131-EU – Proposed Amendment of Rule 25-6.058, F.A.C., Determination of Average Meter Registration Error.

AGENDA: 09/04/14 – Regular Agenda – Rule Proposal - Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Brown

RULE STATUS: Proposal may be deferred

SPECIAL INSTRUCTIONS: None

Case Background

Pursuant to Section 366.05(1), Florida Statutes (F.S.), the Commission has jurisdiction to prescribe standards of quality and measurements for public utilities and to adopt rules to implement and enforce the provisions of Chapter 366, F.S. Section 366.05(3), F.S., specifically states that the Commission must provide for the examination and testing of all meters used for measuring any product or service of a public utility. Rule 25-6.058, Florida Administrative Code (F.A.C.), Determination of Average Meter Registration Error, describes how average meter registration error for watthour and demand registers is to be determined. This recommendation addresses whether Rule 25-6.058, F.A.C., should be amended to correct an error in the description of the average registration error calculation in subparagraph (1)(c)1.

Notice of the rule development appeared in the May 29, 2014 edition of the Florida Administrative Register. There was no request for a workshop and no workshop was held. The Commission has jurisdiction pursuant to Chapter 366.05, F.S.

<u>Discussion of Issues</u>

<u>Issue 1</u>: Should the Commission propose the amendment of Rule 25-6.058, F.A.C., Determination of Average Meter Registration Error?

<u>Recommendation</u>: Yes, the Commission should propose the amendment of Rule 25-6.058, F.A.C., as set forth in Attachment A. (Cowdery, Moses, Rome)

<u>Staff Analysis</u>: Rule 25-6.058, F.A.C., which describes how utilities must determine average meter registration error, applies to the five investor-owned electric utilities. The current language in subparagraph (1)(c)1., describes one of two methods a utility may use to determine the average registration error if a polyphase metering installation is used on a varying load. The subparagraph states:

> The weighted algebraic average of its error at light load (approximately 10 percent rates test amperes) given a weight of **one,** its error at heavy load (approximately 100 percent rated test amperes) and 100 percent factor given a weight of four, and at heavy load (approximately 100 percent rated test amperes) and 50 percent lagging power factor given a weight of **two**; ...

(emphasis added). As written, the current rule language expressed as an equation is (4FL +LL + 2PF)/7 rather than correct equation, (4FL + 2LL + PF)/7, as contained in the current ANSI Standard. This is because the words "one" and "two," as shown in bold font in the paragraph above, were inadvertently switched. Staff recommends that this error be corrected, as shown in Attachment A.

<u>Statement of Estimated Regulatory Costs</u>

   Pursuant to Section 120.54, F.S., agencies are encouraged to prepare a statement of estimated regulatory costs (SERC) before the adoption, amendment, or repeal of any rule. The SERC is appended as Attachment B. The SERC analyzes whether the rule repeal is likely to have an adverse impact on growth, private sector job creation or employment, or private sector investment in excess of $1 million in the aggregate within 5 years after implementation. The SERC concludes that the amendment of Rule 25-6.058, F.A.C., will likely not directly or indirectly increase regulatory costs in excess of $200,000 in aggregate in Florida within 1 year after implementation. Further, the SERC concludes that the rule amendment will not likely have an adverse impact on business competitiveness, productivity, or innovation in excess of $1 million in the aggregate within 5 years of implementation. Thus, the rule amendment does not require legislative ratification, pursuant to Section 120.541(3), Florida Statutes.   In addition, the SERC states that amendment of Rule 25-6.058, F.A.C., would not have an adverse impact on small businesses, and would have no impact on small cities or small counties. The SERC addresses additional statutory requirements.

   Staff recommends that the Commission should propose the amendment of Rule 25-6.058, F.A.C.

Issue 2: Should this docket be closed?

Recommendation: Yes. If no requests for hearing or comments are filed, the rule should be filed with the Department of State, and the docket should be closed. (Cowdery)

Staff Analysis: If no requests for hearing or comments are filed, the rule should be filed with the Department of State, and the docket should be closed.

1 **25-6.058 Determination of Average Meter Registration Error.**

2 (1) Average Meter Registration Error for Watthour Registers.

3 (a) If the metering installation is used to measure a load which has practically constant

4 characteristics, such as a street-lighting load, the meter shall be tested under similar conditions

5 of load and the registration error of the meter "as found" shall be considered as the average

6 meter error.

7 (b) If a single-phase metering installation is used on a varying load, the average registration

8 error shall be determined by one of the following methods. The utility shall select the method

9 that best fits the customer's usage pattern.

10 1. The weighted algebraic average of the error at approximately 10 percent and at 100 percent

11 of the rated test amperes for the meter, the latter being given a weight of four times the former;

12 2. The simple average of the error at approximately 10 percent and at approximately 100

13 percent of the rated test amperes of the meter, each being given an equal weight; or

14 3. A single point, when calculating the error of an electronic meter, and the single point is an

15 accurate representation of the error over the load range of the meter.

16 (c) If a polyphase metering installation is used on a varying load, the average registration error

17 shall be determined by one of the following methods. The utility shall select the method that

18 best fits the customer's usage pattern.

19 1. The weighted algebraic average of its error at light load (approximately 10 percent rated test

20 amperes) given a weight of <u>two</u> ~~one~~, its error at heavy load (approximately 100 percent rated

21 test amperes) and 100 percent power factor given a weight of four, and at heavy load

22 (approximately 100 percent rated test amperes) and 50 percent lagging power factor given a

23 weight of <u>one</u> ~~two~~; or

24 2. A single point, when calculating the error of an electronic meter, and the single point is an

25 accurate representation of the error over the load range of the meter.

CODING: Words <u>underlined</u> are additions; words in ~~struck through~~ type are deletions from existing law.

1   (2) Average Meter Registration Error for Demand Registers.

2   (a) For mechanical or lagged demand meters, registration error shall be determined by testing

3   the meter at both 40 percent and 80 percent of its full-scale value, as read on the reference or

4   standard meter, or as near to these two points as practicable. The following two formulas shall

5   be used to estimate the kilowatt error of the meter at 25 percent of full scale and at 100 percent

6   of full scale:

7   $E_{25} = [E_{80} - E_{40}]/[R_{80} - R_{40}]*[R_{25} - R_{40}] + E_{40}$

8   $E_{100} = [E_{80} - E_{40}]/[R_{80} - R_{40}]*[R_{100} - R_{40}] + E_{40}$

9   where:

10   R_{25} and R_{100} denote the kilowatt readings on the reference meter at 25 percent and 100 percent

11   of the full scale value of the meter being tested, respectively;

12   R_{40} and R_{80} denote the kilowatt readings on the reference meter at 40 percent and 80 percent

13   of the full scale value of the meter being tested, respectively;

14   E_{40} is the difference in kilowatts between the reference reading (R_{40}) and the reading on the

15   meter being tested;

16   E_{80} is the difference in kilowatts between the reference reading (R_{80}) and the reading on the

17   meter being tested;

18   E_{25} is the estimated kilowatt error corresponding to R_{25}; and

19   E_{100} is the estimated kilowatt error corresponding to R_{100}.

20   The greater of these two estimated kilowatt errors, E_{25} or E_{100}, shall be expressed as a

21   percentage of the full-scale value of the meter being tested to determine if the meter meets the

22   accuracy requirement of paragraph 25-6.052(3)(a), F.A.C.

23   (b) For electronic demand meters, demand registration need not be separately tested provided

24   the meter has been inspected to contain the correct demand algorithm whenever watthour

25   registration is tested.

CODING: Words underlined are additions; words in struck through type are deletions from existing law.

1   *Specific Authority 366.05(1) FS. Law Implemented 366.05(3) FS. History–New 7-29-69,*

2   *Formerly 25-6.58, Amended 5-19-97, 7-3-06, _____.*

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-M-E-M-O-R-A-N-D-U-M-

DATE:	June 18, 2014
TO:	Kathryn G.W. Cowdery, Senior Attorney, Office of the General Counsel
FROM:	C. Donald Rome, Jr., Public Utility Analyst II, Division of Economics
RE:	Statement of Estimated Regulatory Costs for Proposed Amendments to Rule 25-6.058, Florida Administrative Code (F.A.C.)

The recommended revisions to Rule 25-6.058, F.A.C., Determination of Average Meter Registration Error, are intended to correct an inadvertent misstatement of an equation contained in an American National Standards Institute (ANSI) standard from which the rule is derived. Subsection (1), Paragraph (c) of the rule is derived from the following ANSI C12.1 standard:

> <u>5.1.5.4 Method 4</u>
> Average percentage registration for polyphase meters is the weighted average of the percentage registration at light load (LL), full load (FL), and power factor (PF), giving the full load registration a weight of four, and the light load registration a weight of two. By this method: Average percentage registration = (4FL + 2LL + PF)/7.

When Rule 25-6.058 was created, the above equation was described using words which, when written, inadvertently expressed the equation incorrectly. As written, the current rule language expressed as an equation is (4FL + LL + 2PF)/7 rather than (4FL + 2LL + PF)/7 as contained in the ANSI standard. The recommended revisions would correct the rule language to reflect the proper equation. As noted in the attached Statement of Estimated Regulatory Costs (SERC), the recommended revisions would be applicable to five investor-owned electric utilities.

It is anticipated that the affected entities potentially may benefit from the recommended modifications to the rule language. No workshop was requested in conjunction with the recommended rule revisions. No regulatory alternatives were submitted pursuant to Paragraph 120.541(1)(a), F.S. None of the impact/cost criteria established in Paragraph 120.541(2)(a), F.S., will be exceeded as a result of the recommended revisions.

cc: (Draper, Daniel, Dean, Velazquez, Cibula, SERC file)

FLORIDA PUBLIC SERVICE COMMISSION
STATEMENT OF ESTIMATED REGULATORY COSTS
Rule 25-6.058, F.A.C.

1. Will the proposed rule have an adverse impact on small business? [120.541(1)(b), F.S.] (See Section E., below, for definition of small business.)

    Yes ☐   No ☒

If the answer to Question 1 is "yes", see comments in Section E.

2. Is the proposed rule likely to directly or indirectly increase regulatory costs in excess of $200,000 in aggregate in this state within 1 year after implementation of the rule? [120.541(1)(b), F.S.]

    Yes ☐   No ☒

If the answer to either question above is "yes", a Statement of Estimated Regulatory Costs (SERC) must be prepared. The SERC shall include an economic analysis showing:

A. Whether the rule directly or indirectly:

(1) Is likely to have an adverse impact on any of the following in excess of $1 million in the aggregate within 5 years after implementation of the rule? [120.541(2)(a)1, F.S.]

Economic growth	Yes ☐	No ☒
Private-sector job creation or employment	Yes ☐	No ☒
Private-sector investment	Yes ☐	No ☒

(2) Is likely to have an adverse impact on any of the following in excess of $1 million in the aggregate within 5 years after implementation of the rule? [120.541(2)(a)2, F.S.]

Business competitiveness (including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets)	Yes ☐	No ☒
Productivity	Yes ☐	No ☒
Innovation	Yes ☐	No ☒

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(3) Is likely to increase regulatory costs, including any transactional costs, in excess of $1 million in the aggregate within 5 years after the implementation of the rule? [120.541(2)(a)3, F.S.]

Yes ☐   No ☒

Economic Analysis: The affected entities may benefit from the recommended rule changes. A summary of the recommended rule revisions is included in the attached memorandum to Counsel.

B. A good faith estimate of: [120.541(2)(b), F.S.]

(1) The number of individuals and entities likely to be required to comply with the rule.

Five.

(2) A general description of the types of individuals likely to be affected by the rule.

The affected entities are investor-owned electric utilities operating in Florida.

C. A good faith estimate of: [120.541(2)(c), F.S.]

(1) The cost to the Commission to implement and enforce the rule.

☒ None. To be done with the current workload and existing staff.

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

(2) The cost to any other state and local government entity to implement and enforce the rule.

☒ None. The rule will only affect the Commission.

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

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(3) Any anticipated effect on state or local revenues.

☒ None

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

D. A good faith estimate of the transactional costs likely to be incurred by individuals and entities (including local government entities) required to comply with the requirements of the rule. "Transactional costs" include filing fees, the cost of obtaining a license, the cost of equipment required to be installed or used, procedures required to be employed in complying with the rule, additional operating costs incurred, the cost of monitoring or reporting, and any other costs necessary to comply with the rule. [120.541(2)(d), F.S.]

☒ None. The rule will only affect the Commission

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

If the recommended rule revisions are adopted, affected entities may benefit from having consistency between the rule and the applicable mathematical equation.

E. An analysis of the impact on small businesses, and small counties and small cities: [120.541(2)(e), F.S.]

(1) "Small business" is defined by Section 288.703, F.S., as an independently owned and operated business concern that employs 200 or fewer permanent full-time employees and that, together with its affiliates, has a net worth of not more than $5 million or any firm based in this state which has a Small Business Administration 8(a) certification. As to sole proprietorships, the $5 million net worth requirement shall include both personal and business investments.

☒ No adverse impact on small business.

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

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(2) A "Small City" is defined by Section 120.52, F.S., as any municipality that has an unincarcerated population of 10,000 or less according to the most recent decennial census. A "small county" is defined by Section 120.52, F.S., as any county that has an unincarcerated population of 75,000 or less according to the most recent decennial census.

☒ No impact on small cities or small counties

☐ Minimal. Provide a brief explanation.

☐ Other. Provide an explanation for estimate and methodology used.

F. Any additional information that the Commission determines may be useful. [120.541(2)(f), F.S.]

☒ None.

Additional Information:

G. A description of any regulatory alternatives submitted and a statement adopting the alternative or a statement of the reasons for rejecting the alternative in favor of the proposed rule. [120.541(2)(g), F.S.]

☒ No regulatory alternatives were submitted.

☐ A regulatory alternative was received from

☐ Adopted in its entirety.

☐ Rejected. Describe what alternative was rejected and provide a statement of the reason for rejecting that alternative.

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